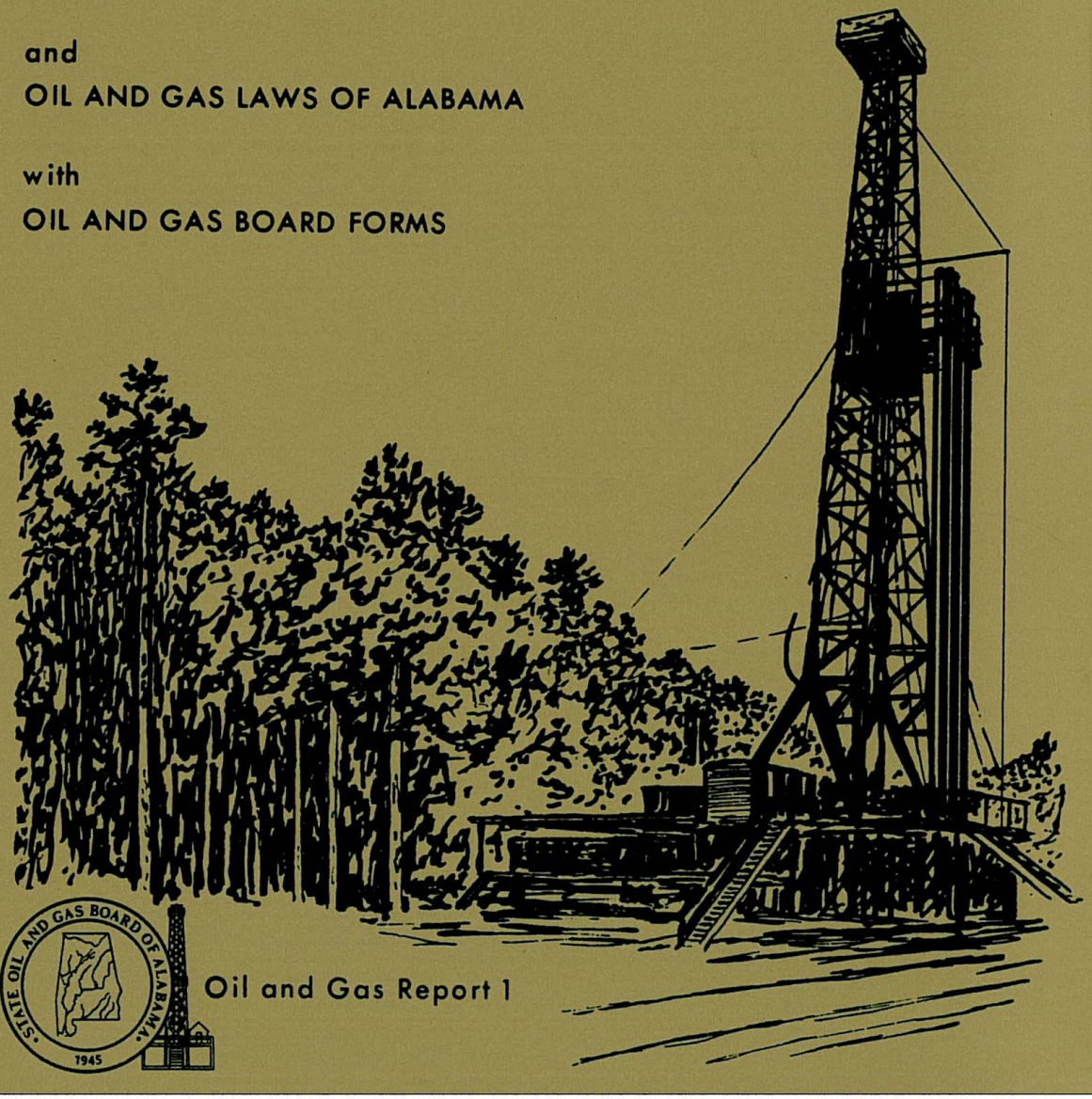
State Oil and Gas Board of Alabama
Administrative Code

GENERAL ORDER PRESCRIBING RULES AND REGULATIONS
GOVERNING THE CONSERVATION OF
OIL AND GAS IN ALABAMA

and
OIL AND GAS LAWS OF ALABAMA

with
OIL AND GAS BOARD FORMS



Oil and Gas Report 1

STATE OIL AND GAS BOARD OF ALABAMA

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STATE OIL AND GAS BOARD OF ALABAMA ADMINISTRATIVE CODE

OIL AND GAS REPORT 1

RULES AND REGULATIONS GOVERNING THE CONSERVATION OF OIL AND GAS IN ALABAMA

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OIL AND GAS LAWS OF ALABAMA

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OIL AND GAS BOARD FORMS

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CONTENTS

CONTENTS–continued

CONTENTS–continued

CONTENTS–continued

CONTENTS–continued

CONTENTS–continued

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INTRODUCTION

The Alabama Legislature enacted the first oil and gas statute for the state in 1911. The Legislature, in Act No. 1 of the 1945 *Acts of Alabama,* established the Oil and Gas Board. The position of State Geologist had been established in 1848, and in the 1945 act the Legislature provided that the State Geologist would serve as the State Oil and Gas Supervisor. Since 1945, the Alabama Legislature has periodically revised and amended the State's oil and gas statutes. The current Alabama statutory law concerning oil and gas is set forth in this publication.

Initial orders promulgated under the 1945 oil and gas statutes were adopted on September 3, 1946, and published as "Order No. 1, General Order Prescribing Rules and Regulations Governing the Conservation of Oil and Gas in Alabama," effective October 1, 1946. In Order No. 73-1, effective January 26,1973, the Board promulgated Alabama's first rules and regulations governing the drilling, producing, and pipeline operations in submerged offshore lands. In Order No. 76-100, issued on August 13, 1976, effective October 1, 1976, the Board promulgated new rules and regulations. In that Order, the Board repealed Order No. 1 and all amendment thereto, and adopted new rules and regulations. That Order further provided that Order No. 73-1, relating to rules and regulations governing drilling, producing, and pipeline operations in submerged offshore lands of Alabama, remain in effect except for amendments to Rule OS-7.

Since the issuance of Order No. 76-100, the Board has adopted various amendments to the rules and regulations. A significant amendment to Order No. 76-100 occurred on February 3, 1984, when the Board issued Order No. 84-31, effective May 29, 1984, promulgating the nation's first rules and regulations governing the permitting, drilling, and production of coalbed methane gas.

In Order No. 2000-80 issued on January 27, 2000, effective May 16, 2000, the Board repealed all prior rules and regulations and promulgated new rules and regulations subject to adoption of the rules under Alabama Administrative Procedure Act. After the issuance of said Order, the rules were published pursuant to the requirements of said Act and were adopted by the Board on April 7, 2000, in Order No. 2000-104. These new rules and regulations became effective May 16, 2000. Since May 16, 2000, the rules and regulations have been further amended. The edition of the rules and regulations set forth herein was amended August 10, 2010. Also, a complete set of sample forms is included herein.

By Act No. 81-855, the Alabama Legislature established the Alabama Administrative Procedure Act, Ala. Code 1975 § 41-22-1 et seq., which provides, among other things, the manner in which an agency's Publication of Rules (Administrative Code) should be compiled, maintained, and distributed and specified that Administrative Codes of all State agencies would follow a uniform numbering system for rules, which would be devised by the Alabama Legislative Reference Service. Therefore, in 1983 the *State Oil and Gas Board of Alabama Administrative Code* was revised according to the new guidelines and standards following a new uniform numbering system for rules and regulations.

The following table provides a chronological list of rules and regulations promulgated by the Board.

CHRONOLOGICAL LIST OF RULES AND REGULATIONS
PROMULGATED BY THE STATE OIL AND GAS BOARD

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
10/1/46	9/3/46	1		General order prescribing rules & regulations governing conservation of oil & gas in Alabama:
			A-1 - A-3	General
			B-1 - B-33	Drilling - production
			C-1 - C-6	Oil
			D-1 - D-6	Gas
			E-1	Transportation
			F-1	Processing
			G-1	Reports
			H-1	Supervisor & agents
4/17/53	4/17/53	10	No rule number designated	Permissible tolerance in production volumes allowed for oil wells
5/18/56	5/18/56	47	A-2	Advertisement, newspaper
7/19/57	7/19/57	69	B-3	Spacing of wells
8/16/57	8/16/57	70	B-3	Spacing of wells
11/20/59	11/20/59	132	No rule number designated	Location of heater treater: safety
6/22/62	6/22/62	194	A-2	Advertisement, newspaper
1/18/63	1/18/63	207	B-5	Well record: log
4/16/65	4/16/65	65-12	C-3	Oil measurements
7/28/72	7/28/72	72-38	B-3	Spacing of wells
9/26/72	9/26/72	72-45	B-26	Deviation tests
12/19/72	12/19/72	72-61	B-22	Tubing
1/26/73	1/26/73	73-1	OS-1 - OS-8	Rules & regulations governing drilling, producing & pipeline operations in submerged offshore lands
2/22/73	2/22/73	73-8	B-2	Slush pits
2/22/73	2/22/73	73-9	No rule No. designated	Storage transportation & disposal of salt water
2/22/73	2/22/73	73-10	A-3	Definitions: completion & abandonment
5/31/73	5/31/73	73-18	B-27	Notification of fire, breaks, leaks or blow-outs
10/23/73	10/23/73	73-50	B-26	Drilling of Wells: deviation tests, inclination survey, directional drilling, & directional survey
5/28/74	5/28/74	74-21	B-3	Spacing of wells
6/25/74	6/25/74	74-28	B-27	Notification of fire, breaks, leaks or blowouts

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
7/30/74	7/30/74	74-30	A-2	Advertisement, proration of costs
8/27/74	8/27/74	74-40	No rule No. designated	Supervisor's right to call pre-hearing conference
10/1/76	8/13/76	76-100		Repealed Order No. 1 & adopted new rules & regulations & provided that Order No. 73-1 will remain in effect except for amendments to Rule OS-7:
			A-1 - A-8	General
			B -1 - B-5	Well permit
			C-1 - C-17	Drilling
			D-1 - D-12	Producing
			E-1 - E-5	Safety & environment
			F-1 - F-8	Oil
			G-1 - G-7	Gas
			H-1 - H-3	Transportation
			I-1 - I-2	Processing
			J-1	Reports
			K-1 - K-3	Supervisor & agents
			L-1 - L-23	Rules of practice & procedure
			OS-7	Applications of other rules & orders of the Board
11/4/77	11/4/77	77-235	A-3	Definitions: nonconsenting owner, consenting owner, force integrated unit & force pooled unit
			M-1	Forced integration or forced pooling
12/21/77	12/21/77	E-77-261	A-3	Definitions: rescinded definition orally amended on an emergency basis on 12/21/77
9/29/78	9/29/78	78-170	B-1	Permitting of wells
			B-2	Spacing of wells
			B-4	Organization reports
			C-2	Notice of activities
			C-10	Well record
			C-13	Deviation tests
			D-10	Location of heater treater: safety
			D-11	Notice of recompletion and/or rework
			E-1	Notification of fire, breaks, leaks or blow-outs
			E-3	Pits, emergency reserve pits, dikes & firewalls
			E-4	Disposal of saltwater & other waste fluids
			E-6	Restoration of drilling location

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
			G-8	Permissible tolerance & production volumes allowed for gas wells
			J-1	Reports
			L-17	Affidavits
11/7/78	11/7/78	E-78-184	C-12	Drilling fluid
11/30/78	11/30/78	E-78-197	N-1 - N-9	Natural Gas Policy Act of 1978 well status determination rules & procedures
			A-4	Forms
5/11/79	5/11/79	79-50	B-2	Spacing of wells
5/11/79	5/11/79	79-51	B-2	Spacing of wells
9/7/79	9/7/79	79-125	L-17	Affidavits
9/7/79	9/7/79	79-126	L-3	Emergency orders
9/12/79	9/12/79	79-115	B-2	Spacing of wells
6/11/80	6/11/80	80-112	B-2	Spacing of wells
10/3/80	10/3/80	80-193	L-4	Commencement of proceedings
10/3/80	10/3/80	80-194	L-17	Affidavits
1/16/81	1/16/81	81-16	E-4	Underground injection control
1/16/81	1/16/81	81-17	B-2	Spacing of wells
11/13/81	11/13/81	81-246	E-4	Underground injection control
1/29/82	1/29/82	82-28	E-3	Pits, emergency reserve pits, dikes & firewalls
5/14/82	5/14/82	82-96	E-4	Underground injection control
9/28/82	9/28/82	82-188	A-3	Definitions: shut-in & spud
			A-4	Forms
			A-6	Agents to have access
			B-1	Permitting of wells
			B-3	Bond
			B-4	Organization reports
			C-2	Notice of activities
			C-3	Casing requirements
			C-5	Plugging methods & procedures
			C-6	Notice of intention to plug & abandon
			C-9	Wells used for fresh water
			C-10	Well record
			C-13	Deviation tests
			D-2	Dual completions
			D-6	Identification of tank or tank batteries
			D-8	Location of fired vessels
			D-10	Permit to clean tank bottoms

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
			E-3	Pits, emergency reserve pits, dikes & firewalls
			E-5	Abandonment of radioactive logging sources
			E-6	Radioactive surveys
			E-7	Restoration of drilling location
			F-1	Oil production tests
			F-2	Oil allowable
			F-4	Oil to be measured
			F-7	Permissible tolerance in production volumes allowed for oil wells
			G-1	Gas production test & capacity test
			G-2	Gas allowable
			H-1	Certificate of compliance, authorization to transport
			L-10	Notice
			L-17	Affidavits
			OS-2	Control of Wells: conductor & surface casing setting depths
9/28/82	9/28/82	82-189	L-4	Commencement of proceedings
9/28/82	9/28/82	82-190	L-12	Preparation of notice
9/28/82	9/28/82	82-191	L-13	Continuance of hearing without new notice
10/7/83	10/7/83	83-245	400-1-3-.10	Well record
5/29/84	2/3/84	84-31	400-4	Rules & regulations governing the permitting, drilling, & production of coalbed methane gas
5/29/84	2/3/84	84-32	400-1-1-.03	Definitions: gas, pool, pressure maintenance & waste
5/29/84	2/3/84	84-33	400-1-5-.02	Operations involving hydrogen sulfide
9/11/84	5/22/84	84-203	400-3	Rules & regulations governing permitting, drilling, & producing operations in submerged offshore lands of Alabama
9/11/84	5/22/84	84-204	400-1-2-.05	Change of operator
9/11/84	5/22/84	84-205	400-1-2-.01	Permitting of wells
12/4/84	9/20/84	84-377	400-1-3-.03	Casing requirements
12/4/84	9/20/84	84-378	400-1-3-.10	Well record
12/4/84	9/20/84	84-379	400-1-2-.02	Spacing of wells
12/4/84	9/20/84	84-380	400-1-14	Appointment of a Hearing Officer
5/7/85	1/23/85	85-29	400-1-5-.04	Underground injection control
7/10/85	4/17/85	85-88	400-1-12-.04	Commencement of proceedings

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
7/10/85	4/17/85	85-89	400-1-12-.12	Preparation of notice
7/10/85	4/17/85	85-90	400-1-13	Orders providing for forced integration or forced pooling
10/11/85	6/26/85	85-183	400-1-2-.01	Permitting of wells
			400-1-3-.02	Notice of activities
			400-4-3-.01	Notice of activities
4/16/86	12/19/85	85-362	400-3-3-.02	Well casing & cementing
4/16/86	12/19/85	85-363	400-1-3-.06	Notice of intention to plug & abandon, or request to classify wells temporarily abandoned or shut-in
			400-3-1-.02	Applications of other rules & orders of the Board
4/16/86	12/19/85	85-364	400-1-4-.02	Multiple completions
10/4/86	4/18/86	86-104	400-1-12-.10	Notice
11/24/86	1/13/86	85-367	400-1-2-.04	Organization reports
11/24/86	1/13/86	85-368	400-1-5-.08	Transportation of waste liquids
11/24/86	6/27/86	86-194	400-3-5-.02	Safety & environment: oil spill contingency plan & contingency spill monitoring plan
2/11//87	10/10/86	86-262	400-1-3-.10	Well record
2/9/88	11/13/87	87-192	400-1-12-.04	Commencement of proceedings
2/9/88	11/13/87	87-193	400-1-1-.04	Forms
2/9/88	11/13/87	87-194	400-1-2-.02	Spacing of wells
2/9/88	11/13/87	87-195	400-1-5-.03	Pits, emergency reserve pits, dikes & firewalls
2/9/88	11/13/87	87-196	400-1-2-.01	Permitting of wells
2/9/99	11/13/87	87-197	400-1-3-.02	Notice of activities
2/9/88	11/13/87	87-198	400-1-5-.07	Restoration of drilling location
2/9/88	11/13/87	87-199	400-1-3-.05	Plugging methods & procedures
2/9/88	11/13/87	87-200	400-1-3-.16	Daylight hours
2/9/88	11/13/87	87-201	400-4-3-.01	Notice of activities
2/9/88	11/13/87	87-202	400-1-9-.02	Plant project hearing required
2/20/89	6/24/88	88-142	400-1-2-.01	Permitting of wells
2/20/89	6/24/88	88-143	400-1-12-.04	Commencement of proceedings
2/20/89	6/24/88	88-144	400-1-12-.05	Form & content of pleadings
2/20/89	6/24/88	88-145	400-2-X-.03	Application & filing procedure
2/20/89	8/5/88	88-183	400-1-8-.04	Gathering lines
2/20/89	9/16/88	88-217	400-1-5-.02	Operations involving hydrogen sulfide
4/28/89	12/16/88	88-256	400-1-3-.10	Well record

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
4/28/89	12/16/88	88-257	400-1-1-.03	Definitions: abandoned well & temporarily abandoned well
4/28/89	12/16/88	88-258	400-1-3-.06	Notice of intention to plug & abandon, or request to classify wells as temporarily abandoned or shut-in
11/16/89	8/9/89	89-117	400-1-3-.02	Notice of activities
11/16/89	8/9/89	89-122	400-4-3-.01	Notice of activities
11/16/89	8/9/89	89-123	400-1-1-.04	Forms
11/16/89	8/9/89	89-124	400-1-5-.05	Abandonment of radioactive logging sources
6/7/90	3/2/90	90-75	400-3-4-.05	Platforms & fixed structures
6/7/90	3/2/90	90-76	400-4-1-.03	Application of other rules & orders of the Board
6/7/90	3/2/90	90-77	400-4-5-.02	Pits
6/7/90	3/2/90	90-78	400-4-5-.01	Produced water
6/7/90	3/2/90	90-82	400-3-6-.01	Pipelines & gathering lines in or over submerged offshore lands
8/20/90	5/18/90	90-139	400-4-3-.02	Casing requirements
8/20/90	5/18/90	90-140	400-4-1-.03	Application of other rules & orders of the Board
8/20/90	5/18/90	90-142	400-1-2-.05	Change of operator
11/6/90	7/27/90	90-256	400-1-5-.01	Notification of fire, breaks, leaks & blow outs
11/6/90	7/27/90	90-257	400-1-1-.04	Forms
11/6/90	7/27/90	90-258	400-1-2-.02	Spacing of wells
11/6/90	7/27/90	90-259	400-4-2-.02	Spacing of wells
1/14/91	9/14/90	90-365	400-4-2-.01	Permitting of wells
1/14/91	9/14/90	90-366	400-1-2-.01	Permitting of wells
5/10/91	1/30/91	91-164	400-2-1-.06	Forms
10/18/91	4/25/91	91-271	400-1-12-.10	Notice
10/18/91	5/31/91	91-328	400-1-4-.01	Protection of oil & gas
2/12/92	8/23/91	91-401	400-3-6	Transportation: rescinded
2/12/92	11/1/91	91-470	400-1-9	Processing
2/12/92	11/1/91	91-471	400-1-8-.04	Gathering lines
9/3/92	7/10/92	92-127	400-1-2-.02	Spacing of wells
9/3/92	7/10/92	92-128	400-4-2-.02	Spacing of wells
6/8/93	3/5/93	93-55	400-1-3-.03	Casing requirements
7/28/93	4/16/93	93-82	400-1-12-.17	Affidavits
8/19/93	5/21/93	93-110	400-3-5-.01	Survey of shallow hazards
2/10/98	10/3/97	97-124	400-1-12-.14	Conduct of hearing

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
9/11/98	5/15/98	98-64	400-1-12-.10	Notice
8/13/99	3/5/99 7/1/99	99-21 99-46	400-4-5-.04	Protection of drinking water sources during the hydraulic fracturing of a coalbed methane gas well
12/14/99	8/20/99 11/5/99	99-56 99-81	400-4-5-.04	Protection of underground sources of drinking water during the hydraulic fracturing of coal beds
			400-4-1-.02	Definitions: underground source of drinking water
5/16/00	1/27/00 4/7/00	2000-80 2000-104		Repealed prior rules and regulations and adopted new rules and regulations for:
			400-1	Rules and regulations governing onshore lands operations
			400-1-1	General
			400-1-2	Permitting of wells
			400-1-3	Notification and approval of activities
			400-1-4	Drilling
			400-1-5	Testing and Allowable
			400-1-6	Production
			400-1-7	Processing
			400-1-8	Transportation
			400-1-9	Safety and Environment
			400-1-10	Reports
			400-2	Rules and regulations governing submerged offshore lands operations
			400-2-1	General
			400-2-2	Permitting of wells
			400-2-3	Notification and approval of activities
			400-2-4	Drilling
			400-2-5	Testing and allowable
			400-2-6	Production
			400-2-7	Transportation
			400-2-8	Safety and Environment
			400-2-9	Reports
			400-3	Rules and regulations governing coalbed methane gas operations
			400-3-1	General
			400-3-2	Permitting of wells
			400-3-3	Notification and approval of activities
			400-3-4	Drilling

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
			400-3-5	Testing and allowable
			400-3-6	Production
			400-3-7	Transportation
			400-3-8	Safety and Environment
			400-3-9	Reports
			400-4	Rules and regulations governing Class II underground injection control
			400-4-1	General
			400-4-2	Class II underground injection control operations
			400-5	Rules and regulations governing the underground storage of gas in reservoirs
			400-5-1	General
			400-5-2	Permitting of wells
			400-5-3	Underground storage facility design and development
			400-5-4	Underground storage operating pressures
			400-5-5	Volume verification
			400-5-6	Casing requirements
			400-5-7	Storage well mechanical integrity test
			400-5-8	Wellhead components, valves, and fittings
			400-5-9	Recompletion or reworking
			400-5-10	Gas measurement and analysis
			400-5-11	Wells drilled through a storage area
			400-5-12	Safety and Environment
			400-6	Rules and regulations governing the underground storage of gas in solution-mined cavities
			400-6-1	General
			400-6-2	Permitting of wells
			400-6-3	Bond
			400-6-4	Underground storage facility design and development
			400-6-5	Underground storage operating pressures
			400-6-6	Volume verification
			400-6-7	Casing requirements
			400-6-8	Storage well and storage cavity mechanical integrity test

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
			400-6-9	Wellhead components, valves, and fittings
			400-6-10	Plugging and abandonment of storage wells
			400-6-11	Requests to classify a storage well and storage cavity as temporarily abandoned or shut in
			400-6-12	Recompletion or reworking
			400-6-13	Gas measurement and analysis
			400-6-14	Safety and Environment
			400-7	Rules and regulations governing practice and procedure and forced integration or forced pooling
			400-7-1	Rules and regulations governing practice and procedure
			400-7-2	Rules and regulations governing forced integration and forced pooling
11/21/00	6/16/00 10/6/00	2000-127 2000-185	400-2-4-.05	Abandonment of radioactive logging sources
			400-6-1-.05	Definitions: underground storage
3/12/01	10/6/00 1/31/01	2000-183 2001-21	400-1-7-.01	Production facilities, processing facilities, and plants
3/12/01	10/6/00 1/31/01	2000-184 2001-22	400-2-8-.03	Pollution prevention and control
9/4/01	5/10/01 7/27/01	2001-67 2001-126	400-7-1-.05 400-7-1-.11 400-7-1-.12 400-7-1-.13 400-7-1-.14 400-7-1-.15 400-7-1-.16 400-7-1-.17 400-7-1-.18 400-7-1-.19 400-7-1-.20 400-7-1-.21 400-7-1-.22 400-7-1-.23 400-7-1-.24	Commencement of proceedings Notice Preparation of notice Prehearing conference Continuances of hearing Conduct of hearing Power of Board to require attendance of witness and production of evidence Rules of evidence Affidavits Copies Order of docket of hearing Place of hearings Preparation of proposed orders Determination of rulings upon evidence Entry of rules, regulations, and orders
9/4/01	5/10/01 7/27/01	2001-68 2001-127	400-3-8-.03	Protection of underground sources of drinking water during the hydraulic fracturing of coal beds

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
1/17/02	9/28/01 12/7/01	2001-154 2001-191	400-1-2-.05	Change of operator
1/17/02	9/28/01 12/7/01	2001-155 2001-192	400-2-2-.05	Change of operator
1/17/02	9/28/01 12/7/01	2001-156 2001-193	400-3-2-.05	Change of operator
1/17/02	9/28/01 12/7/01	2001-157 2001-194	400-1-8-.01	Certificate of compliance, authorization to transport
1/17/02	9/28/01 12/7/01	2001-158 2001-195	400-2-7-.01	Certificate of compliance, authorization to transport
1/17/02	9/28/01 12/7/01	2001-159 2001-196	400-3-7-.01	Certificate of compliance, authorization to transport
4/23/02	12/7/01 2/15/02	2001-189 2002-16	400-7-2-.01	Forced integration or forced pooling
4/14/03	10/18/02 2/14/03	2002-481 2003-16	400-3-8-.03	Protection of underground sources of drinking water during the hydraulic fracturing of coal beds
12/22/03	6/13/03 10/10/03	2003-69 2003-135	400-2-6-.09	Platforms and fixed structures
9/9/05	4/22/05 7/13/05	2005-44 2005-75	400-1-4-.03 400-2-4-.03 400-3-4-.03 400-1-4-.04 400-2-4-.04 400-3-4-.04 400-1-6-.06 400-2-6-.06 400-3-6-.05	Well record Well record Well record Directional surveys Directional surveys Directional surveys Recompletion or reworking Recompletion or reworking Recompletion or reworking
9/9/05	4/22/05 7/13/05	2005-45 2005-76	400-1-2-.05 400-2-2-.05 400-3-2-.05	Change of operator Change of operator Change of operator
9/9/05	4/22/05 7/13/05	2005-46 2005-77	400-1-4-.13	Blow-out prevention
3/13/06	2/2/06	2006-26	400-7-1-.11	Notice
3/13/06	2/2/06	2006-27	400-7-2-.01	Forced integration or forced pooling
10/16/07	9/7/07	2007-133	400-3-8-.03	Hydraulic Fracturing of Coal Beds
7/17/09	3/26/09	2009-33	400-7-1-.05 400-7-1-.11 400-7-1-.17 400-7-2-.01	Commencement of Proceedings Notice Affidavits Forced Integration or Forced Pooling

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
10/27/09	9/10/09	2009-68	400-1-4-.17	Request to Classify Wells as Temporarily Abandoned or Shut-in
			400-2-4-.14	Request to Classify Wells as Temporarily Abandoned or Shut-in
			400-3-4-.17	Request to Classify Wells as Temporarily Abandoned or Shut-in
8/10/10	6/18/10	2010-67	400-1-1-.01	Applicability
			400-1-1-.05	Definitions
			400-1-2-.01	Well Permit
			400-1-2-.02	Spacing of Wells
			400-1-5-.09	Permissible Tolerance in Production Volumes Allowed for Oil Wells
			400-1-5-.10	Permissible Tolerance in Production Volumes Allowed for Gas Wells
			400-2-1-.01	Applicability
			400-2-1-.05	Definitions
			400-2-2-.01	Well Permit
			400-2-2-.02	Spacing of Wells
			400-2-5-.09	Permissible Tolerance in Production Volumes Allowed for Oil Wells
			400-2-5-.10	Permissible Tolerance in Production Volumes Allowed for Gas Wells
			400-3-1-.05	Definitions
			400-3-2-.01	Well Permit
			400-3-2-.02	Spacing of Wells
			400-7-1-.11	Notice
			400-7-2-.01	Forced Integration or Forced Pooling
1/25/11	12/9/10	2010-107	400-1-2-.05	Change of Operator
			400-2-2-.05	Change of Operator
			400-3-2-.05	Change of Operator
5/16/11	3/31/11	2011-35	400-1-9-.03(3)	Wastes Manifest
			400-2-8-.05(3)	Wastes Manifest
			400-3-8-.02(3)	Wastes Manifest
8/3/11	6/22/11	2011-62	400-2-6-.10	Production Facilities
9/10/13	8/1/13	2013-71	400-1-9-.04	Hydraulic Fracturing
			400-3-8-.03(2), (4), & (10)	Hydraulic Fracturing of Coalbeds
12/30/16	11/3/16	2016-54	400-1-2-.02	Exceptional Well Location
01/14/21	07/23/20	2020-25	400-7-1-.06(4)	Forced Pooling
			400-7-1-11(4)(e)	
			400-7-2-.01(8)	
12/15/22	03/21/22	2022-22	400-1-2-.03(2)	Bond; Processing Plant
			400-2-2-.03 (2)	
			400-3-2-.03 (2)	

EFFECTIVE DATE OF RULE	DATE APPROVED BY BOARD	ORDER NO.	RULE NO.	RULE DESCRIPTION
08/12/24	08/03/23	2023-25	400-1-2-.05 (10) 400-2-2-.05 (11) 400-3-2-.05 (11)	Change of Operator
10/14/24	05/09/24	2024-20	400-1-1-.06 (1) 400-2-1-.06 (1) 400-3-1-.06 (1)	Electronic Filing of Forms
01/11/25	08/15/24	2024-27	400-8	Geologic Storage of Carbon Dioxide

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400-1. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING ONSHORE LANDS OPERATIONS

400-1-1. General

400-1-1-.01. Applicability.

The following rules and regulations shall govern onshore lands operations. These rules apply to all lands within the territorial jurisdiction of the State, except those lands in Mobile Bay and coastal areas of Baldwin and Mobile Counties overlain by water. However, the rules governing onshore lands operations do not apply to coalbed methane gas operations. Wells drilled from surface locations in submerged offshore lands to onshore bottom hole locations shall be permitted, drilled, completed, and plugged pursuant to offshore rules and regulations, but shall be spaced on a spacing unit in accordance with onshore rules and regulations. Wells drilled from onshore surface locations to bottom hole locations in submerged offshore lands shall be permitted, drilled, completed, and plugged pursuant to onshore rules, but shall be spaced in accordance with the offshore rules. The Supervisor may require notice and hearing on any permit application in which the operator requests approval to drill a well from a surface location in submerged offshore lands to an onshore bottom hole location or from an onshore surface location to a bottom hole location underlying submerged offshore lands.

400-1-1-.02. Application of Other Rules.

In addition to the rules and regulations governing onshore lands operations set forth in Rule 400-1-1-.01, et seq., the following rules and regulations shall apply to onshore lands operations:

(1) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Class II Underground Injection Control Operations, Rule 400-4-1-.01, et seq., and

(2) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Practice and Procedure and Forced Integration or Forced Pooling, Rule 400-7-1-.01, et seq.

400-1-1-.03. Repealed Rules, Special Field Rules, and Orders.

All rules and regulations governing the conservation of oil and gas in Alabama which have been heretofore promulgated by the Board under the authority of Act No. 1, approved May 22, 1945, General Act of Alabama, Regular Session 1945, are hereby repealed, rescinded, and superseded by these rules and regulations; provided, however, no special field rules or other orders of the Board are so repealed, rescinded, or superseded. Special field rules and orders will be issued when required and shall prevail over these rules and regulations, where in conflict therewith.

400-1-1-.04. Authority.

Rules, regulations, special field rules, orders, changes, renewals, or extensions thereof, shall be adopted in accordance with the requirements of Section 9-17-1 et seq. of the *Code of Alabama* (1975).

400-1-1-.05. Definitions.

The words defined hereafter shall have the following meaning when used within these rules:

(1) **Abandoned well** shall mean, for purposes only of compliance with requirements herein, that a well is to be considered abandoned when it has not been used for six (6) consecutive months and cannot be operated, whether because it was drilled as a dry hole or has ceased to produce, or operations have not been conducted thereon, or for some other reason.

(2) **Area of exposure** shall mean the area within a circle constructed with the point of escape as its center and the radius of exposure as its radius.

(3) **Barrel** shall mean forty-two (42) U.S. gallons, and when used for liquid hydrocarbon volumes it shall be at a temperature of sixty degrees Fahrenheit (60°F), with deductions for the full percent of any basic sediment, water, and other impurities present, ascertained by centrifugal or other recognized and customary tests.

(4) **Blow out** shall mean any uncontrolled escape of fluids, hydrocarbons, or any other materials from a well.

(5) **Blow-out preventer** shall mean a heavy casinghead device or devices that helps control or prevent a blow out by closing around the drill string, or work string, or that completely closes the top of the casing if the drill string, tubing, or other pipe is withdrawn.

(6) **Board** shall mean the State Oil and Gas Board of Alabama.

(7) **Bottom-hole pressure** shall mean the pressure per square inch (psi) at or near the face of the producing horizon obtained by means of a pressure-recording instrument or other method approved by the Board, with readings corrected to a predetermined plane or datum.

(8) **Casing pressure** shall mean the pressure at the surface of a well between the casing and tubing or between two (2) strings of casing.

(9) **Casinghead gas** shall mean any gas or vapor or both, indigenous to an oil pool and produced from such pool with the oil.

(10) **Christmas tree** (wellhead connection) shall mean an assembly of valves and fittings attached to the head of the casing of a well to control the flow.

(11) **Class II injection well** shall mean an injection well which is used (1) to inject brine or other fluids which are brought to the surface in connection with natural gas storage operations or oil or natural gas production and which may be commingled with waste waters from plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection; (2) for enhanced recovery of oil or natural gas; or (3) for storage of hydrocarbons which are liquid at standard temperature and pressure.

(12) **Cleansing** shall mean the removal or neutralization of any impurities found in produced oil or natural gas.

(13) **Completion** shall mean, for purposes only of compliance with requirements herein, that a well is considered completed when drilling operations have ceased or at such other times as the Supervisor may determine.

(14) **Compressor station** shall mean an installation in a pipeline in which the pressure of gas is raised for transmission through pipelines.

(15) **Condensate** shall mean the liquid produced by the condensation of gas or vapor, either after it leaves the reservoir or while still in the reservoir.

(16) **Consenting owner** shall mean an owner having a working interest in an oil and gas lease or an unleased oil and gas interest in an established or proposed spacing unit, who has reached an agreement in writing with the Board-appointed operator of the unit relative to the terms and conditions which will govern the manner in which his interest shall be developed and operated.

(17) **Conservation** shall mean the conserving, preserving, guarding, or protecting of oil and gas resources of the State by obtaining the maximum efficiency with minimum waste in the production, transportation, processing, treating, and marketing of the nonrenewable oil and gas resources of the State.

(18) **Contingency plan** shall mean a written document that shall provide an organized plan of action for alerting and protecting the public within an area of exposure following the accidental release of a potentially hazardous volume of hydrogen sulfide.

(19) **Cubic foot of gas** shall mean a volume of gas expressed in cubic feet and computed at a base pressure of 14.65 pounds per square inch absolute (psia), and flowing temperature of sixty degrees Fahrenheit (60°F); correction to be made for pressure deviation and for specific gravity according to tests made by the Balance Method, or other methods customary to the industry if approved by the Supervisor.

(20) **Day** shall mean a period of twenty-four (24) consecutive hours from 7:00 a.m. one day to 7:00 a.m. the following day.

(21) **Developed area or developed unit** shall mean a drainage or production unit having a well completed thereon which is capable of producing oil or gas in paying quantities; however, in the event it is shown, and the Board finds, that a part of any unit is nonproductive, then the developed part of the unit shall include only that part found to be productive.

(22) **Disposer** shall mean any person or company who receives wastes for disposal in a disposal facility that is in compliance with existing state and federal regulations.

(23) **Drainage or production unit** shall mean the area in a pool, which may be drained efficiently and economically by one well. For simplicity, the term “production unit” is used hereinafter from time to time in place of the term “drainage or production unit.”

(24) **Drilling unit** shall mean an administrative unit established by the Board to provide and allow for the drilling of a well.

(25) **Enhanced recovery** shall mean the increased recovery from a pool achieved by flooding, pressuring, cycling, or pressure maintenance and which may include the injection into the pool of a substance or a form of energy extrinsic to the pool.

(26) **Facility modification** shall mean any change in the operation, such as an increase in throughput, in excess of the currently permitted capacity, or any change that would increase the radius of exposure.

(27) **Field** shall mean the general area which is underlain or appears to be underlain by at least one pool, and field shall include the underground reservoir or reservoirs containing oil or natural gas, or both. The words field and pool mean the same thing when only one underground reservoir is involved; however, field, unlike pool, may relate to two or more pools.

(28) **Flowline** shall mean a pipeline that transports full well stream production from a well site to the production equipment where produced hydrocarbons are first separated, dehydrated, commingled with other production, or otherwise processed or to the point of custody transfer.

(29) **Forced integrated unit or forced pooled unit** shall mean a spacing unit in which all nonconsenting owners have been ordered by the Board to integrate or pool their tracts and interests and develop them in accordance with law and the rules and regulations of the Board.

(30) **Gas** shall mean all natural gas, including casinghead gas and occluded natural gas found in coalbeds, and all other liquid or gaseous hydrocarbons not defined as oil.

(31) **Gas well** shall mean a well capable of producing gas from a gas pool or gas pools.

(32) **Gathering line** shall mean all pipelines, equipment, facilities, or buildings downstream of production equipment and used in the transportation of hydrocarbons to a treatment or storage facility or to a transmission line.

(33) **Illegal oil** shall mean oil which has been produced within the State of Alabama from any well or wells in excess of the amount allowed by any rule, regulation, or order of the Board, as distinguished from oil produced within the State of Alabama not in excess of the amount so allowed, which is legal oil.

(34) **Illegal gas** shall mean gas which has been produced within the State of Alabama from any well or wells in excess of the amount allowed by any rule, regulation, or order of the Board, as distinguished from gas produced within the State of Alabama not in excess of the amount so allowed, which is legal gas.

(35) **Illegal product** shall mean any product of oil or gas, any part of which was processed or derived, in whole or part, from illegal oil or illegal gas or from any product thereof, as distinguished from legal product, which is a product processed or derived to no extent from illegal oil or illegal gas.

(36) **Location** or **site** shall mean the area surrounding a well, production facility, processing facility, injection facility, storage facility, plant, or other facility that has been developed for oil and gas operations.

(37) **Mode of transportation** shall mean any waste transportation method including trucks, rail cars, barges, maritime vessels, aircraft, or any other means of transportation acceptable to the Supervisor.

(38) **Month and calendar month** shall mean the period or interval of time from 7:00 a.m. on the first (1st) day of any month of the calendar to 7:00 a.m. of the first (1st) day of the next succeeding month of the calendar.

(39) **Nonconsenting owner** shall mean an owner having a working interest in an oil and gas lease or an unleased oil and gas interest in an established or proposed spacing unit, who has reached no agreement in writing with the Board-appointed operator of the unit relative to the terms and conditions which will govern the manner in which his interest shall be developed and operated.

(40) **Oil** shall mean crude petroleum oil and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves the pool.

(41) **Oil well** shall mean a well capable of producing oil from an oil pool or oil pools.

(42) **Onshore lands** shall mean all lands within the territorial jurisdiction of the State, except those lands in Mobile Bay and coastal areas of Baldwin and Mobile Counties overlain by water.

(43) **Operator** shall mean any person who is authorized by the Board to operate an oil, gas, or Class II injection well, or production or processing facility, or engages in the transportation of hydrocarbons by pipeline, including the handling and disposal of wastes that may be generated during operation of a well, or production or processing facility. The person named as operator according to the most current records

of the Board is charged with complying with the oil and gas statutes and the rules and regulations of the Board.

(44) **Owner** shall mean the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another, or others.

(45) **Person** shall mean any natural person, firm, corporation, association, partnership, joint venture, receiver, trustee, guardian, executor, administrator, fiduciary, representative of any kind, or any other group acting as a unit, and the plural as well as the singular number.

(46) **Pipe** shall mean any pipe or tubing used in the transportation of hydrocarbons or produced waters.

(47) **Pipeline** shall mean all parts of those physical facilities through which hydrocarbons or produced waters move in transportation, including pipes, valves, and other appurtenances attached to pipes, compressor units, or metering stations.

(48) **Plant** shall mean any combination of a production facility, or a processing facility operated as a unit.

(49) **Pool** shall mean an underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both and each zone of a general structure, which is completely separated from any other zone in the structure. The classification of such pool, as to oil or gas, is determined after notice and hearing and is based on the type of hydrocarbons in such pool.

(50) **Pressure base** shall mean an absolute pressure agreed upon or set as a base for converting the volume of gas metered to a correct volume.

(51) **Pressure maintenance** shall mean the injection of gas, water, or other fluid into an oil or gas pool to maintain pressure or retard pressure decline in the pool for the purpose of enhanced recovery.

(52) **Processing facility** shall mean either a cleansing facility or an extraction facility.

(a) **Cleansing facility** shall mean a facility designed to remove or neutralize any impurities, such as hydrogen sulfide and carbon dioxide, found in produced oil or natural gas.

(b) **Extraction facility** shall mean a facility designed to separate or remove substances from the produced hydrocarbons by chemical reactions or physical actions and converting the substances to new products such as natural gas liquids, gas, and elemental sulfur.

(53) **Product** shall mean any commodity made from oil or gas, and shall include refined crude oil, crude tops, topped crude, processed crude petroleum residue from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casinghead gasoline, natural gas gasoline, naphtha, distillate, gasoline, kerosene, benzene, wash oil, waste oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or by-products derived or separated from oil or gas, and blends or mixtures of two or more liquid products or by-products derived or separated from oil, gas, or sulfur whether hereinabove enumerated or not.

(54) **Production equipment** shall mean piping and vessels used in the production, extraction, recovery, lifting, stabilization, separation, initial treating, and storage of produced hydrocarbons.

(55) **Production facility** shall mean either a separation facility or a treatment facility.

(a) **Separation facility** shall mean a facility that uses a pressure vessel(s) for the purpose of separating well fluids into gaseous and liquid components.

(b) **Treatment facility** shall mean a facility that separates well fluids into gaseous and liquid components, with the addition of treatment such as stabilization of liquids from the gaseous phase and the dehydration of the gaseous phase or hydrocarbon liquid knockout.

(56) **Production unit** is used hereinafter from time to time in place of the term “drainage or production unit.”

(57) **Public area** shall include but not be limited to a dwelling, place of business, church, school, hospital, school bus stop, government building, a public road, all or any portion of a park, city, town, village, or other similar area that can expect to be populated.

(58) **Public infringement** shall mean a public area or a public road that has been established within an area of exposure to the degree that such infringement would change the applicable requirements of Rule 400-1-9-.02 to those operations responsible for creating the area of exposure.

(59) **Public meeting** shall mean a meeting held by the Supervisor to provide general information and receive comments concerning operations in a specific area.

(60) **Public road** shall mean any federal, state, county, or municipal street or road owned or maintained for public access or use.

(61) **Purchaser** shall mean any person that acquires title to oil, gas or condensate by purchase from an operator or other person.

(62) **Radius of exposure** shall mean that radius constructed with the point of escape as its starting point and its length calculated as provided for in Rule 400-1-9-.02(9)(b).

(63) **Recompletion or reworking** shall mean any operation that requires a change in the physical construction of a well after its initial completion to secure production when there has been none, or to restore production that has ceased, or to increase production. Such operations include, but are not limited to, any changes in the depths of perforations, method of lift, tubing depths, packer depths, restoring pressure integrity to casing or tubing, etc.

(64) **Rural locations** shall mean those locations that lie outside the limits of any incorporated or unincorporated city, town, village, or any other designated residential or commercial area such as a subdivision, a business or shopping center, or a community development.

(65) **Separator** shall mean an apparatus for separating oil, gas, condensate, water, etc., as it is produced.

(66) **Shut-in pressure** shall mean the pressure in pounds per square inch (psi) at the well head when the well is completely shut in.

(67) **Shut-in well** shall mean, for purposes only of compliance with requirements herein, a well that is capable of producing hydrocarbons but must remain shut-in until connected to a gathering system, pipeline or processing facility, or for some other reason.

(68) **Site.** See Location.

(69) **Sour flowline** shall mean a pipeline that transports full well stream production containing hydrogen sulfide from a well site to equipment at a production facility where produced hydrocarbons are first separated, dehydrated, commingled with other production, or otherwise processed.

(70) **Sour gathering line** shall mean all pipelines, equipment, facilities, or buildings downstream of a production facility and used in the transportation of hydrocarbons containing hydrogen sulfide to a treatment or storage facility.

(71) **Sour gas operations** shall mean a facility that handles hydrogen sulfide concentrations in the system equal to one hundred (100) parts per million (ppm) or more.

(72) **Spacing unit** shall mean a unit established by the Board for each well. A spacing unit may either be (a) a drilling unit or (b) a drainage or production unit.

(73) **Special field rules** shall mean those rules promulgated for, and which are limited in their application to, individual pools and fields within the State of Alabama.

(74) **Spud** shall mean the commencement of the continuous physical operation of drilling a well in which the land surface is penetrated by a drill bit.

(75) **State** shall mean the State of Alabama.

(76) **Storage operator** shall mean any company, person, corporation, partnership, limited partnership, association of persons, municipality, association of municipalities, public utility, gas district, or other entity, authorized by the Board pursuant to Section 9-17-152 of the Code to operate any storage facility.

(77) **Storage well** shall mean any well drilled or converted for use in an Underground Storage Facility.

(78) **Sulfide stress cracking** shall mean the cracking phenomenon which is the result of corrosive action of hydrogen sulfide on susceptible metals under stress.

(79) **Supervisor** shall mean the State Oil and Gas Supervisor.

(80) **Tank** shall mean the receptacle into which the oil, condensate, or produced water is produced either directly from a well or from a well through a separator, gun barrel, or similar equipment.

(81) **Temporarily abandoned well** shall mean, for purposes only of compliance with the requirements herein, a well that is currently not producing hydrocarbons but that has been approved for future utility by the Supervisor or Board.

(82) **Tender** shall mean a permit or certificate of clearance, approved and issued or registered under the authority of the Board, for the transportation of oil, gas condensate, or products.

(83) **Transmission line** shall mean a pipeline operated for the purpose of transporting gas from a gathering line, sales outlet of a gas processing plant or gas storage facility to another transmission line, gas storage facility or an end-user distribution system.

(84) **Transporter** shall mean and include any person engaged in the transportation of any petroleum hydrocarbons or products thereof within the contemplation of these rules or the laws of the State of Alabama, and in addition shall mean any person or company who transports wastes by any method other than pipeline.

(85) **Turnaround** shall mean a scheduled time when an operation is shut down for routine maintenance, inspections, or installation of new equipment.

(86) **Underground storage** shall mean the storage of gas in an underground reservoir, stratum or formation of the earth.

(87) **Underground storage facility** shall mean an underground reservoir or an underground solution-mined cavity, the wellbore tubular goods, the wellhead, and related equipment to the last positive shut-off valve before the gathering line that is used or to be used for the underground storage of gas and all surface and subsurface rights and appurtenances necessary or useful in the operation of the facility for the underground storage of gas, including any necessary or reasonable buffer zone as recommended by the storage operator and approved by the Board for the purpose of insuring the safe operation of the storage of gas and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, together with any and all subsequent extensions thereof.

(88) **Waste**, in addition to its ordinary meaning, shall mean “physical waste” as that term is generally understood in the oil and gas industry. Waste shall include:

(a) The inefficient, excessive, or improper use or dissipation of reservoir energy, and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner which results or tends to result in reducing the quantity of petroleum hydrocarbons ultimately to be recovered from any pool in this State;

(b) The inefficient storing of oil or condensate and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of oil, condensate, or gas;

(c) Abuse of the correlative rights and opportunities of each owner of oil and gas in a common reservoir due to non-uniform, disproportionate, and unratable withdrawals, causing undue drainage between tracts of land;

(d) Producing oil or gas in such a manner as to cause unnecessary water channeling or coning;

(e) The operation of any oil well or wells with an inefficient gas-oil ratio;

(f) The drowning with water of any stratum, or part thereof, capable of producing oil or gas, not including the methods necessary for enhanced recovery after approval of the Board;

(g) Underground waste, however caused and whether or not defined;

(h) The creation of fire hazards;

(i) The escape into the open air, from a well producing both oil and gas, of gas in excess of the amount which is necessary in the efficient drilling or operation of the well;

(j) The use of gas, except sour gas, for the manufacture of carbon black;

(k) The escape of gas into the open air, from a well producing gas, in excess of the amount which is necessary for safety reasons or for the efficient drilling, testing, and operation of the well; and

(l) Production of oil, condensate, and gas in excess of reasonable market demand.

(89) **Wastes** are materials to be disposed of or reclaimed that were generated by drilling, completion, workover, production, storage, treatment, processing, or injection operations associated with oil and gas wells, Class II injection wells, production facilities, processing facilities, plants, or underground storage facilities.

(90) **Well** shall mean any oil or gas well, any well drilled or being drilled in search of oil and gas, any well defined as a Class II injection well or any well utilized for underground storage.

All other words used herein shall be given their usual, customary, and accepted meaning. All words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted within the oil and gas industry.

400-1-1-.06. Forms.

(1) The Supervisor may prescribe and require such forms within the rules and regulations of the Board as he reasonably deems advisable. The content of such forms and instructions for their completion may be such as the Supervisor may deem advisable, including the changes of such from time to time. The Supervisor may provide for the electronic filing of forms. Such forms applicable to onshore lands operations shall be known and designated as:

(a)	OGB-1	Application for Permit to Drill, Deepen, Convert, or Amend;
(b)	OGB-1A	Application to Reenter;
(c)	OGB-1B	Application for Permit to Directionally Drill;
(d)	OGB-1C	Application for Permit to Inject Fluids;
(e)	OGB-1D	Application for Permit to Inject Storage Gas;
(f)	OGB-1E	Application for Change of Operator;
(g)	OGB-2	Affidavit of Ownership or Control;
(h)	OGB-2C	Affidavit of Ownership or Control, Underground Injection Control;
(i)	OGB-2D	Affidavit of Ownership or Control, Natural Gas Storage Operations;
(j)	OGB-3	Bond (Single Well);
(k)	OGB 3D	Bond for an Underground Storage Facility for a Solution-mined Cavity and Storage Well;
(l)	OGB-4	Bond (Blanket);
(m)	OGB-5	Organization Report;
(n)	OGB-6	Report of Well Treatment;
(o)	OGB-7	Well Record and Completion or Recompletion Report;
(p)	OGB-8	Electric Log, Sample, and Core Record;
(q)	OGB-9	First Production or Retest Report;
(r)	OGB-10	Multipoint Back-Pressure Test Report for Gas Wells;
(s)	OGB-10A	One-Point Back-Pressure Test Report for Gas Wells;
(t)	OGB-11	Report of Well Plugging;
(u)	OGB-12	Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well;
(v)	OGB-13	Operator's Certificate of Compliance and Authorization to Transport Products from Plant;
(w)	OGB-14	Operator's Monthly Report from Oil Wells;
(x)	OGB-15	Operator's Monthly Report from Gas Wells;
(y)	OGB-16	Transporter’s and Storer’s Monthly Report;
(z)	OGB-17	Monthly Report of Fluids Injected;
(aa)	OGB-17D	Monthly Report of Gas Injected/Withdrawn for Natural Gas Storage Facilities;
(bb)	OGB-18	Monthly Report for Products from Processing, Cleansing, or Extraction Facilities;
(cc)	OGB-19	No Form;
(dd)	OGB-20	No Form;
(ee)	OGB-21	Authorization to Clean Tank;
(ff)	OGB-22	Well Capacity Test;
(gg)	OGB-23	Unit Reserve Calculation (required only if specified by special field rules);
(hh)	OGB-24	Operator’s Certificate of Compliance for Operations Involving Hydrogen Sulfide;
(ii)	OGB-25	Transporter’s Certificate of Eligibility to Transport Wastes;
(jj)	OGB-26	Wastes Manifest;
(kk)	OGB-27	Notification of Fire, Spill, Leak, or Blow out Incident Report; and
(ll)	OGB-28	Master Electronic Filing Certification;

(2) Further, such forms, as applicable, shall be filed in a timely manner by the operator and such other person as required by these rules, and such forms shall be properly and fully completed. All forms shall contain true, correct, and accurate information. The Supervisor may allow the filing of certain data electronically in lieu of forms set forth hereinabove, provided Form OGB-28, Master Electronic Filing Certification, has been filed and approved by the Supervisor. The type data, the method of filing, and the format of filing electronic data must have the prior approval of the Supervisor. An operator shall refile a Master Electronic Filing Certification, Form OGB-28, on an annual basis or when the name or address of an operator changes.

400-1-1-.07. Determining and Naming Fields and Pools.

When discoveries of oil and gas are made and sufficient geologic, geophysical, engineering, and other data become available, then a petition shall be filed with the Board in accordance with its rules of practice and procedure for establishment of fields and pools. In naming fields, preference shall be given to common usage and geographic names. Each pool within the same field shall preferably be named according to the producing horizon.

400-1-1-.08. Authority of Supervisor.

The Supervisor may appoint an agent or agents under such names as he may desire and may delegate to such agent or agents the authority to perform any acts authorized by these rules and regulations to be performed by the Supervisor. The Supervisor may grant verbal approval for actions requiring Supervisor's approval if in his opinion it is necessary and justified to do so. Verbal approval so granted does not preclude the necessity of the operator filing all required forms and reports to obtain written approval as soon as possible.

400-1-1-.09. Appeal from Decision of Supervisor.

Any person aggrieved and affected by a decision of the Supervisor, as provided herein by these rules and regulations, may, within thirty (30) days after such decision by the Supervisor, petition the Board for a hearing *de novo* requesting the Board to consider and rule upon such decision by the Supervisor *de novo* and the Board shall make a decision upon the same, in the same manner as upon other petitions, and such petition shall set forth such decision by the Supervisor, the pertinent rule or rules and laws, the date of such decision by the Supervisor and the reasons petitioner alleges that such decision was wrongful and such petition shall be in compliance with the Rules and Regulations Governing Practice and Procedure as set forth in Rule 400-7-1-.01, et seq.

400-1-1-.10. Agents to Have Access.

All operators of oil and gas wells, Class II injection wells, drilling or workover rigs, processing facilities, injection facilities, storage facilities, gathering lines, and underground storage facilities are required to allow and assist the agents of the Board in making any and all inspections that may be required by the Board. The agents of the Board shall have access to all well, production, injection and transport records and shall be permitted to come upon any property to inspect well records and to inspect and gauge any and all wells, drilling or workover rigs, processing facilities, injection facilities, storage facilities, and gathering lines referred to herein at all times.

400-1-1-.11. Order Closing Down Operations.

In addition to the penalties and provisions provided for herein, the Board may order the closing of all or any part of the drilling, production, injection or other operations of any person in this State for the failure of such person, or the agents of such person, to comply with any rule, regulation, or order of the Board or with the laws of the State of Alabama and such operations shall not begin again until authorized by further order of the Board.

400-1-1-.12. Supervisor's Order Closing Down Operations.

In addition to the provisions provided for herein, the Supervisor, or any duly authorized agent may order the closing of all or any part of the drilling, production, injection or other operations of any person in this State for the failure of such person to comply with any rule, regulation or order of the Board or with the laws of the State of Alabama where the continuance of such failure to comply shall be dangerous to the public

or where substantial pollution is occurring or is in imminent danger of occurring. Such operations shall not begin again until authorized by subsequent order of the Board or by further order of the Supervisor.

400-1-1-.13. Exceptions to Rules.

The Supervisor may approve exceptions such as the use of new or alternative techniques, procedures, equipment, or activities other than those prescribed in the regulations, if such exceptions afford a degree of protection, safety, or performance either equal to or exceeding that intended to be achieved by the regulations, or when such exceptions are necessary for the proper control of a well, the efficient development and conservation of natural resources, or the protection of life (including fish and other aquatic life), property, or the marine, coastal, or human environment.

400-1-2. Permitting of Wells

400-1-2-.01. Well Permit.

(1) **Activities Requiring Permits.** The following activities require permits:

(a) Drilling of any well in search of oil or gas;

(b) Drilling a Class II injection well or converting any well to a Class II injection well for enhanced recovery or for the disposal of salt water and other wastes produced in association with oil or gas operations;

(c) Drilling or converting any well for the development of reservoirs or solution-mined cavities for the underground storage of liquid or gaseous hydrocarbons; or

(d) Reentry of a plugged and abandoned well.

(2) **Permit Requirements.** Prior to initiating any of the activities identified in section (1) above, an application on either Form OGB-1, OGB-1A, or OGB-1B, whichever is appropriate, shall be filed with and approval obtained from the Supervisor or the Board. If applicable, applicants should also refer to Rule 400-4-1-.01, et seq. relating to Rules and Regulations Governing Class II Underground Injection Control Operations, Rule 400-5-1-.01, et seq. relating to Rules and Regulations Governing Underground Storage of Gas in Reservoirs, or Rule 400-6-1-.01, et seq. relating to Rules and Regulations Governing Underground Storage of Gas in Solution-Mined Cavities. Such applications shall be accompanied by:

(a) A check or bank draft in the sum of three hundred dollars ($300.00) payable to the State Treasurer, State of Alabama, which sum is fixed as the fee for the approval of a permit to drill. No permit fee is required if the application is submitted for the purpose of obtaining approval to convert or deepen a well;

(b) A plat, in triplicate, prepared by a licensed land surveyor showing the entire section and the surface and bottom-hole locations of the proposed well within said section. The plat shall be drawn to the scale of one (1) inch equals one thousand (1,000) feet, unless otherwise stipulated by the Supervisor. The plat shall show the direction of north, and the latitude and longitude in decimal degrees to five (5) significant digits and state plane coordinates of the proposed well. The plat shall show the distances of the proposed well to the nearest unit boundaries and section lines and from the nearest well in the same section completed in or drilling to the same reservoir. The plat shall also show the location and status of all other wells that have been drilled in said section. For the purpose of designating the spacing unit in which the proposed well is to be drilled, the boundaries of such unit shall be shown. If an alternate unit is designated on the permit application, then said unit shall be shown on the plat;

(c) An Affidavit of Ownership or Control on Form OGB-2, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the drilling rights with respect to the oil and gas in and under the land comprising the spacing unit, or an Affidavit of Ownership or Control, Underground Injection Control on Form OGB-2C, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the interests having rights to conduct Class II well operations in and under the land on which the well is located, or an Affidavit of Ownership or Control, Natural Gas Storage Operations on Form OGB-2D, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the interests having rights to conduct Natural Gas Storage Operations, whichever is applicable;

(d) A bond on Form OGB-3 (single Well) or OGB-4 (blanket), required by Rule 400-1-2-.03 relating to Bond, unless such requirement has been previously satisfied. If two or more persons are designated

on the application as operators then each such person shall file a separate or joint bond if an appropriate bond is not already on file;

(e) An organization report on Form OGB-5, as prescribed in Rule 400-1-2-.04, unless such requirement has been previously satisfied. If two or more persons are shown as operator on the application, then each person shall file a separate organization report or have an organization report on file;

(f) Illustrations or narrative material that may be necessary for the Supervisor to clearly understand all details of the proposed operation; and

(g) Additional information as deemed necessary may be requested by the Supervisor.

(3) **Deepening.** Prior to deepening a well below its permitted depth, an operator shall obtain approval of the Supervisor and, thereafter, such person shall immediately file Form OGB-1, OGB-1A or OGB-1B, whichever is appropriate. There is no fee required for a permit to deepen a well previously drilled or being drilled under a permit issued by the Supervisor.

(4) **Directional Drilling.**

(a) All wells must be drilled with due diligence to maintain a reasonably vertical wellbore; however, upon application by an operator to drill a well that is to be intentionally deviated and directionally controlled, a permit may be issued by the Supervisor, provided that the proposed location of the bottom hole in the deviated well at the depth of the proposed producing zone is in compliance with the applicable spacing rules. The application for a permit to directionally drill shall be made in the manner prescribed above using Form OGB-1B, and the survey plat must show the proposed bottom hole location in addition to the surface location of the well.

(b) If an operator desires to directionally drill or sidetrack a permitted well, such operator, prior to initiating, any activities shall file with the Supervisor Form OGB-1B and a plat showing the surface location and the proposed bottom hole location of the directionally drilled or sidetracked well.

(c) In the event an operator, in good faith, proceeds with the drilling of a well and thereafter, decides to directionally drill or sidetrack the well, such operator shall obtain prior approval of the Supervisor and, thereafter, shall immediately file with the Supervisor Form OGB-1B and a plat showing the surface location and the proposed bottom hole location of the directionally drilled or sidetracked well.

(d) If an operator desires to deviate a well so as to straighten the wellbore or to drill around an obstruction in the wellbore, such operator shall first obtain approval of the Supervisor and shall file a written report to the Supervisor within thirty (30) days from the completion of said deviation setting forth the facts of the operation.

(5) **Permit Approval Procedures.** Applications for permits to drill, deepen, convert, or reenter that do not comply with onshore rules or applicable special field rules shall be approved or rejected by the Board, after due notice and hearing. Applications in compliance with onshore rules or applicable special field rules may be approved by the Supervisor. Drilling, deepening, converting or reentering shall not begin until such permit is issued.

(6) **Expiration of a Permit.** A permit shall expire six (6) months from the date of issuance if the permitted well has not been spudded.

400-1-2-.02. Spacing of Wells.

(1) Each well drilled in search of oil or gas shall be spaced on either (a) a drilling unit or (b) a drainage or production unit. A drilling unit is an administrative unit established by the Board to provide and allow for the drilling of a well. A drainage or production unit is the area in a pool that may be drained efficiently and economically by one well. The term “production unit” is hereinafter used from time to time in place of the term “drainage or production unit.” Prior to the establishment of a field and the establishment of production units within the field, an operator may drill a well on a drilling unit. When the Board, after notice and hearing, establishes a field for a pool, the Board establishes special field rules for the field. The special field rules designate, among other things, the drainage or production units for the field. Thereafter, wells are drilled on the production units designated in the special field rules. The term “spacing unit” is used from time to time in these regulations. A spacing unit is either (a) a drilling unit or (b) a drainage or production unit. A spacing unit shall not include any part of another unit established for the same pool. Subject to the approval of the Supervisor, the drilling of additional wells to a pool may continue prior to the establishment of special field rules for the pool.

(2) The spacing for a well to be drilled to a pool or pools in an established field shall be governed by special field rules for that particular field. With respect to a well to be drilled to a pool or pools that are not governed by special field rules, the following spacing provisions shall be applicable for determining the drilling unit for a well.

(a) A well may be drilled on a drilling unit consisting of a governmental quarter-quarter section (approximately 40 acres). Such well shall be located at least three hundred thirty (330) feet from every exterior boundary of the drilling unit.

(b) A well may be drilled on a drilling unit consisting of a governmental quarter section (approximately 160 acres). The Supervisor may require written justification for the drilling unit. Such well shall be located at least six hundred sixty (660) feet from every exterior boundary of the drilling unit.

(c) A well to be drilled in search of gas in the Counties of Fayette, Lamar, Pickens, or Tuscaloosa may be drilled on a drilling unit consisting of a governmental half section (approximately 320 acres). Such well shall be located at least six hundred sixty (660) feet from every exterior boundary of the drilling unit. The operator shall designate on the permit application an alternate forty (40) acre drilling unit, and the well shall be located at least three hundred thirty (330) feet from every exterior boundary of the alternate unit. In the event that the well location on the alternate unit is less than three hundred thirty (330) feet from every exterior boundary of the alternate unit, and is, therefore, an exceptional location, the Supervisor may allow the exceptional well location. If said Well is completed as an oil well, then the spacing for the well shall automatically revert to the designated alternate forty (40) acre drilling unit until the proper spacing for said Well is determined by the Board after notice and hearing.

(d) A well to be drilled in search of gas in the Counties of Baldwin, Escambia, Mobile, or Washington may be drilled on a drilling unit consisting of a governmental section (approximately 640 acres). The Supervisor may require written justification for the drilling unit. Such well shall be located at least one thousand three hundred twenty (1,320) feet from every exterior boundary of the drilling unit. The operator shall designate on the permit application an alternate one hundred sixty (160) acre drilling unit, and the well shall be located at least six hundred sixty (660) feet from every exterior boundary of the alternate unit. In the event that the well location on the alternate unit is less than six hundred sixty (660) feet from every exterior boundary of the alternate unit, and is, therefore, an exceptional location, the Supervisor may allow the exceptional well location. If said Well is completed as an oil well, then the spacing for the well shall automatically revert to the designated alternate one hundred sixty (160) acre drilling unit until the proper spacing for said Well is determined by the Board after notice and hearing.

(e) The Supervisor, upon receipt of written justification from an operator, may approve a permit application under sections (2)(a) through (2)(d) above for a well to be drilled on a drilling unit consisting of approximately 40, 160, 320, or 640 contiguous surface acres other than a governmental section or division thereof as set forth herein.

(f) The Supervisor may require that a well to be drilled on a drilling unit contiguous with an existing field be drilled and completed as an extension of the field, in accordance with spacing provisions in the special field rules thereof. If, however, an operator provides written justification that such proposed well will likely be completed in a pool or pools not defined in the special field rules for said field, the Supervisor may approve the drilling and completion of such well in compliance with the spacing provisions as set forth herein.

(g) Pursuant to Section 9-17-12(c) of the *Code of Alabama* (1975), the Board may grant an exception to the spacing rules as may be reasonably necessary where it is shown, after notice and hearing, and the Board finds, that the spacing unit is partly outside the pool, or for some other reason, that a well located in accordance with applicable rules would be nonproductive, would not be at the optimum position in such spacing unit for the most efficient and economic drainage of the spacing unit, or where topographical conditions are such as to make the drilling at an authorized location on the spacing unit unduly burdensome or where an exception is necessary to prevent confiscation of property. Provided, however, that an exceptional location order issued by the Board for a well shall expire one (1) year from the date of issuance of the order unless a well has been spudded at said exceptional location.

(h) No well shall be drilled within two hundred (200) feet of any permanent residence, unless otherwise approved by the Board.

400-1-2-.03. Bond.

(1) Before any person(s) shall commence drilling, completing, converting, operating, or producing any oil, gas, or Class II injection well, including production facilities, processing facilities, injection facilities, underground storage facilities in reservoirs, plants, pipelines, and other equipment associated with such well, said person(s) shall file with the Board a single well bond on Form OGB-3. Such bond shall be payable to the State of Alabama, executed by said person(s) as principal(s), and by a surety approved by the Supervisor or Board; conditioned that such person(s) shall, in connection with the drilling, completing, converting, operating, or producing of such well, including production facilities, processing facilities, injection facilities, underground storage facilities in reservoirs, plants, pipelines, and other equipment associated with such well, prevent the escape of oil or gas out of one stratum to another, prevent the intrusion of water into any oil or gas stratum from a separate stratum, prevent the pollution of the sea, prevent pollution of all surface and ground water; conditioned also that such person(s) shall file all reports required by the Board, including drilling records and all logs of such well, if taken, and shall file drill cuttings and cores or core chips, if cores are taken, within six (6) months from the time of completion of such well, and in the event such well does not produce oil or gas in commercially profitable quantities or ceases to produce oil or gas in commercially profitable quantities or if the operations of such well shall cease for a period of six (6) months or if such well should become dangerous to the public, such person(s) shall plug and abandon such well in compliance with Rule 400-1-4-.14, dispose of all pit fluids and close the pit in compliance with Rule 400-1-4-.11, restore the location in compliance with Rule 400-1-4-.16, and maintain the site in compliance with Rule 400-1-6-.10; and conditioned further that such person(s) shall drill, operate, produce, and plug and abandon, such well, and that such person(s) shall dispose of pit fluids, close the pit, restore the location, and maintain the site in compliance with all lawful rules, regulations, and orders of the Board now existing or hereafter promulgated, and with the laws of the State of Alabama now existing or hereafter enacted. The amount of such bond shall be in accordance with the following relationship to measured depth:

Measured Depth (ft)	Amount of bond required
0 - 5,000	$5,000
5,001 - 10,000	$10,000
10,001 - 15,000	$15,000
15,001 - 20,000	$30,000
Greater than 20,000	$50,000

(2) The Board may, however, accept a blanket bond on Form OGB-4 in the amount of one hundred thousand dollars ($100,000.00). Such blanket bond shall be conditioned upon the same requirements as set forth for single well bonds, except that a blanket bond may apply to more than one well. Furthermore, the Board may require a separate Bond of one hundred thousand dollars ($100,000.00) for an operator of a processing plant and associated facilities and pipelines where such plant operator does not operate any oil and gas wells.

(3) Any such bond filed with the Board, including any amendment or addendum thereto, must set forth the correct legal name and address of the principal and the surety thereto and must be countersigned by an Alabama agent of such surety, setting forth the correct legal name of such agent and such agent's company affiliation and correct business address. If more than one person is to be designated as operator, then each such person shall file a separate bond or a joint bond, whichever is appropriate.

(4) Provided, further, the Board, in its reasonable discretion for good cause, after notice and hearing, may require a different amount of bond because of environmentally sensitive conditions at the site or for other justifiable reasons for good cause and may deem and determine any existing bond to be inadequate and may require the filing of a new bond, that shall be approved by the Board or Supervisor, upon the Board's own motion or upon petition by any party allowed to file a petition by these rules and regulations, and the amount of such bond required may be more or less than hereinabove set forth.

400-1-2-.04. Organization Reports.

Every person acting as principal or agent for another or independently engaged in the drilling, production, injection, storage, transportation, reclaiming, treating, or processing of oil, condensate, gas, or wastes associated with oil and gas operations shall file with the Board a report on Form OGB-5,

Organization Report, reflecting the exact legal name under which such person or business is being operated or conducted, the exact corporate name, if such is incorporated, and the place of incorporation of such corporation, the name and post office address of such person, the business in which such person is engaged, and, in the case of a corporation, the state in which such corporation is incorporated, and the names and post office addresses of any persons acting as trustees, together with the names of the manager, agent, or executive thereof, and the names and post office addresses of any officers thereof. Prior to submitting the aforesaid report, all foreign corporations shall obtain a certificate of authority from the Secretary of State for the State of Alabama to transact business in the state. In the case where such business is conducted under an assumed name, or as a partnership or sole proprietorship, such report shall reflect the names and post office addresses of all owners or general partners in addition to the other information herein required. The aforesaid report shall be resubmitted every two (2) years or immediately after any change occurs as to facts previously submitted.

400-1-2-.05. Change of Operator.

(1) The operator of record shall immediately notify the Supervisor in writing of any agreement or other transaction, by which a new operator is to be designated for a well or wells, including all associated production, processing, injection, plant, and gathering line and pipeline facilities, and all other equipment associated with such well or wells. Such notification shall include, but not be limited to, identification of the proposed new operator and a list of wells and all associated facilities and equipment.

(2) Within sixty (60) days of the effective date of any agreement or other transaction causing a change of operator, any person or persons desiring to become the new operator of a well or wells must submit for approval to the Supervisor Form OGB-1E, Application for Change of Operator. A single Application for Change of Operator, Form OGB-1E, may be filed requesting a change of operator for multiple wells, facilities, and equipment. Form OGB-1E shall be signed by both the operator of record or present operator and the proposed new operator, with both parties applying to change the operator for the well or wells, including all associated production, processing, injection, plant, and gathering line and pipeline facilities, and all other equipment associated with such well or wells.

(3) In the Application for Change of Operator, Form OGB-1E, the new operator shall acknowledge that it has ownership or control of one hundred percent (100%) of the rights to drill and produce with respect to oil and gas underlying the lands comprising the unit assigned to the well or wells for which a change of operator is requested. Further, the Application for Change of Operator, Form OGB-1E, shall be accompanied by a bond on Form OGB-3 or OGB-4, whichever is appropriate, if such requirement has not been fulfilled as prescribed in Rule 400-1-2-.03, relating to Bond; an Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well on Form OGB-12 if required by Rule 400-1-8-.01; an Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-24 and other sour gas filing requirements prescribed in Rule 400-1-9-.02 if required by Rule 400-1-9-.02; and an Organization Report on Form OGB-5, if not already on file with the Board and current.

(4) In the event that the new operator is uncertain whether it owns or controls one hundred percent (100%) of the rights to drill or produce, then the new operator may petition the Board to delay filing of the Application for Change of Operator, Form OGB-1E. The Board may, after notice and hearing for good cause, delay the filing of the Application for Change of Operator, Form OGB-1E, for a period of up to 120 days thereby allowing the new operator time to ensure that the operator owns one hundred percent (100%) of the ownership rights or to force pool and integrate the interests in the unit or units assigned to the well or wells for which a change of operator is requested. The Board, on the petition by the new operator after notice and hearing for good cause, may delay for an additional period beyond 120 days the filing of the Application of Change of Operator, Form OGB-1E.

(5) In addition to the filing of an Application for Change of Operator on Form OGB-1E as required in section (2) and the additional filing requirements in section (3), filing requirements for Class II injection wells shall include, an Application for Permit to Inject Fluids on Form OGB-1C, an Affidavit of Ownership or Control, Underground Injection Control on Form OGB-2C, an affidavit of source, and a current analysis of fluids being injected.

(6) In addition to the filing of an Application for Change of Operator on Form OGB-1E as required in section (2) and the additional filing requirements in section (3), filing requirements for change of operator for a natural gas storage operation shall include an Application for Permit to Inject Storage Gas on Form OGB-1D, and an Affidavit of Ownership or Control, Natural Gas Storage Operations on Form OGB-2D.

(7) Prior to the Supervisor's approval of an Application for Change of Operator on Form OGB-1E, the current operator of record must be in compliance with the Board's submission requirements for forms and geologic data, such as logs, cuttings and cores for the subject well(s).

(8) The Supervisor may waive any filing requirements, or request additional information, associated with an application for change of operator.

(9) The Application for Change of Operator, Form OGB-1E, shall become effective upon approval by the Supervisor. Until such approval, the current operator of record shall be responsible for ensuring continued compliance with all applicable laws, and all rules, regulations, and orders, including special field rules, promulgated by the Board.

(10) When the operator is a corporation, limited liability company, limited partnership, or general partnership that is not publicly traded and when the majority of the ownership of the entity designated by the Board as operator changes, as a result of one or more transactions within a six-month period then the operator shall immediately notify the Supervisor in writing that the majority of the ownership has changed. Within sixty (60) days of the effective date of such change in ownership, the operator shall file a new Organization Report on Form OGB-5 showing the new ownership.

400-1-3. Notification and Approval of Activities

400-1-3-.01. Well Status Report.

A status or progress report of operations being performed in association with well activities requiring permits in Rule 400-1-2-.01 shall be reported orally or in writing to the appropriate Board office by 10:00 a.m. on the first working day of each week.

400-1-3-.02. Notification of Activities.

(1) **Notification Prior to Performance of Activity.** An operator shall notify the Supervisor prior to performing any of the following activities:

(a) Setting surface casing, see Rule 400-1-4-.03(1);

(b) Running intermediate or production casing, see Rule 400-1-4-.03(1);

(c) Perforating, see Rule 400-1-4-.03(1);

(d) Drillstem testing, see Rule 400-1-4-.03(1);

(e) Wireline logging or surveying, see Rule 400-1-4-.03(1);

(f) Coring, see Rule 400-1-4-.03(1);

(g) Pressure testing, see Rule 400-1-4-.09(4) or Rule 400-4-2-.01(2)(d);

(h) Cleaning tanks, see Rule 400-1-6-.12;

(i) Turnaround operations for processing facilities, see Rule 400-1-7-.01(2)(c);

(j) Turnaround operations for plants, see Rule 400-1-7-.01(3)(d); and

(k)Initiating a gathering line construction operation, see Rule 400-1-8-.03(5)(a).

(2) **Witness of Activities.** The Supervisor may send a duly authorized representative to the location to witness activities in section (1) above.

(3) **Notification Subsequent to Occurrence of Activity.** An operator shall notify the Supervisor when the following occurs:

(a) Sale, assignment, or acquisition of any well and associated facilities, see Rule 400-1-2-.05;

(b) Loss of a radioactive logging source, see Rule 400-1-4-.05(1);

(c) Encountering unexpected wellbore conditions during recompletion or reworking, see Rule 400-1-6-.06(2);

(d) Repairing or replacing damaged gathering lines, see Rule 400-1-8-.03(5)(a);

(e) Fire, spill, leak, or blow out, see Rule 400-1-9-.01; and

(f) Hydrogen sulfide concentration reaches fifty (50) parts per million in air, see Rule 400-1-9-.02(4)(d)3.

400-1-3-.03. Approval of Activities.

(1) An operator shall obtain approval of the Supervisor for:

(a) Initiating drilling, converting, or reentering a well, see Rule 400-1-2-.01(2);

(b) Deepening, see Rule 400-1-2-.01(3);

(c) Directionally drilling or sidetracking, see Rule 400-1-2-.01(4);

(d) Change of operator, see Rule 400-1-2-.05;

(e) Plan of abandonment of a radioactive logging source, see Rule 400-1-4-.05(3);

(f) Plan of operation for reentering, converting, recompleting, or reworking a well containing a radioactive logging source, see Rule 400-1-4-.05(7);

(g) Radioactive surveys, see Rule 400-1-4-.06;

(h) Chemical treatment or fracturing, see Rule 400-1-4-.07;

(i) Construction of any pit, see Rule 400-1-4-.10;

(j) Disposal of pit fluids, see Rule 400-1-4-.11;

(k) Plugging and abandonment, see Rule 400-1-4-.14;

(l) Restoration of location, see Rule 400-1-4-.16;

(m) Initial request for temporary abandoned or shut-in status, see Rule 400-1-4-.17;

(n) Production testing, see Rule 400-1-5-.03;

(o) Temporary test allowables, see Rule 400-1-5-.04;

(p) Multiple completions, see Rule 400-1-5-.05;

(q) Recompletion or reworking, see Rule 400-1-6-.06(1);

(r) Construction and operation of a sour gas production facility, see Rule 400-1-7-.01(1);

(s) Design, construction, and operation of a processing facility, see Rule 400-1-7-.01(2);

(t) Design, construction, and operation of a plant and placing a plant into service, see Rule 400-1-7-.01(3);

(u) Modifications to sour gas production facilities, processing facilities, and plants, see Rule 400-1-7-.01(4);

(v) Transportation of oil, gas, condensate, or plant products, see Rule 400-1-8-.01;

(w) Construction and operation of gathering lines, see Rule 400-1-8-.03(2);

(x) Modifications to gathering lines, see Rule 400-1-8-.03(2)(b)4;

(y) Operations involving hydrogen sulfide, see Rule 400-1-9-.02(8)(c);

(z) Modification of existing hydrogen sulfide operations or facilities, see Rule 400-1-9-.02(8)(e);

(aa) Hydrogen sulfide monitoring system and test equipment prior to initial test production, see Rule 400-1-9-.02(f);

(bb) Construction and maintenance of sour flowlines and sour gathering lines, see Rule 400-1-9-.02(11)(a);

(cc) Modifications to sour flowlines and sour gathering lines, see Rule 400-1-9-.02(11)(b)1;

(dd) Repairing or replacing damaged sour flowlines or sour gathering lines, see Rule 400-1-9-.02(11)(b)2;

(ee) Transportation of wastes, see Rule 400-1-9-.03(1)(a); and

(ff) Modification of transportation of wastes procedures, see Rule 400-1-9-.03(1)(b).

(2) **Witness of Activities**. The Supervisor may send a duly authorized representative to the location to witness activities in section (1) above.

400-1-4. Drilling

400-1-4-.01. Identification of Wells.

A sign shall be posted and maintained in a legible state in a conspicuous place near the well. Such sign shall be posted before spudding or reentry and shall remain posted until the well is plugged and abandoned and the location restored. The sign shall include the name of the operator, the permit number, the well name and number, and the section, township, range, and county in which the well is located.

400-1-4-.02. Protection of Freshwater Resources.

An operator shall conduct all oil and gas operations in a manner so as to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic,

municipal, commercial, stock, or agricultural purposes shall be confined to their respective strata and shall be adequately protected. Special precautions shall be taken to guard against any loss of artesian water from the strata in which it occurs, and the contamination of fresh water by objectionable water, oil, condensate, gas, or other deleterious substance to such fresh water.

400-1-4-.03. Well Record.

(1) During drilling, completing, and workover operations on every permitted well, the owner, operator, contractor, driller, or other person responsible for the conduct of drilling operations, shall notify the Supervisor prior to performing the following activities: setting surface casing, running intermediate or production casing, perforating, drillstem testing (see Rule 400-1-5-.01), wireline logging or surveying, and coring. Such persons shall keep a detailed and accurate record of the well, reduced to writing from day to day, which shall be accessible to the Board and its agents at all times. Pertinent information from such records shall be furnished to the Board within thirty (30) days after completion, or at such time as prescribed by the Supervisor. Said information shall include but not be limited to: drilling contractor; spud date; ground level, derrick floor, and kelly bushing elevations surveyed by a licensed land surveyor; total depth; kick-off point depths and directions of any sidetracks; bottom-hole location; casing and liner record; cement record; squeeze cement record; perforation record; tubing record; the depth and type of any plugs or packers set; well stimulation and treatment record; drillstem test record; and a record of all wireline logging, sampling, and coring operations for said well. This information shall be submitted on the appropriate Form OGB-6, OGB-7, and OGB-8.

(2) One (1) copy of all electrical, mechanical, radioactive, and dipmeter logs or such other surveys performed as a part of drilling, completing, or workover operations shall be submitted to the Board within thirty (30) days after completion. In addition to filing either blue or black line log copies, all available digital log data in a Log ASCII Standard (LAS) format shall be filed with the Board. One (1) copy of all drillstem test results shall be submitted along with Form OGB-7 within thirty (30) days after completion. A complete set of washed (mud-logger) cuttings, if available, correctly labeled and identified as to depth, shall be filed with the Board within thirty (30) days from the time of completion of any well unless otherwise approved by the Supervisor. If cores are taken, a complete set of cores, either whole or at least quarter slabs, correctly labeled and identified as to depth, shall be filed with the Board within three (3) months from the time of completion of any well unless otherwise approved by the Supervisor; provided, however, that an operator may obtain an exception to this requirement upon submission of an affidavit certifying that the operator:

(a) will store and maintain core from the well at a specified location or facility and provide the name, address and telephone number of the facility where the cores are stored;

(b) will provide the Board access to the core upon request and provide the name, address and telephone number of the person to handle such request;

(c) will provide the core to the Board if the operator should cease maintaining and storing said core; and

(d) will submit the core to the Board within one (1) year from the time of completion of the well. Additionally, the Supervisor may allow the filing of materials representative of the cored interval in lieu of filing whole or slab core if the Supervisor determines there is adequate core coverage in an area or for some other reason.

(3) If the operator so requests in writing, all logs, cuttings, cores, core analyses, cored intervals, and formation depths from a well shall be kept confidential for a period of six (6) months from the completion of such well.

400-1-4-.04. Directional Surveys.

If required by this rule, a directional survey, which may include logging while drilling (LWD) or measurement while drilling (MWD) logs, shall be run and one (1) copy thereof filed by the operator with the Supervisor within thirty (30) days after completion of a well. Directional surveys shall be run from total depth to base of surface casing or the kickoff point, whichever is shallowest, unless otherwise approved by the Supervisor. However, directional surveys to total depth shall be unnecessary in cases where the interval below the survey is less than five hundred (500) feet. In such an instance, a projection of the latest survey shall satisfy Board requirements. In the event the proposed or final location of the producing interval of the directionally controlled well is not in accordance with spacing or other rules of the Board applicable to the reservoir, proper applications shall be made to obtain approval of exceptions to such rules. Such approval

shall be granted, or denied, at the discretion of the Board, after notice and hearing. Directional surveys shall be run when:

(1) The well is directionally controlled and is thereby intentionally deflected from the vertical; or

(2) The well is drilled to a measured depth of six thousand (6,000) feet or greater; or

(3) A well is expected to penetrate pore pressure gradients greater than sixty-seven (67) pounds per square inch (psi) per one hundred (100) feet (ft) in depth or 0.67 psi/ft; or

(4) A well penetrates or is expected to penetrate intervals containing hydrogen sulfide, such surveys to be run within five hundred (500) feet of entering such hydrogen sulfide bearing formation; or

(5) The well is drilled as an exceptional location and such directional survey is ordered by the Board

400-1-4-.05. Abandonment of Radioactive Logging Sources.

(1) The Supervisor shall be notified immediately of the loss of any radioactive logging source in a well.

(2) No radioactive source used for logging may be left in a well without written consent of the Supervisor.

(3) When it is determined by the operator that it may be necessary to leave a radioactive source in a well, the Supervisor must be notified in writing of such and a plan of the abandonment procedure submitted to the Supervisor for approval. This plan must be approved by the Alabama Department of Public Health (Division of Radiation Control) and any other agency that has jurisdiction.

(4) Wells in which radioactive sources are abandoned shall be mechanically equipped so as to prevent the accidental or intentional mechanical disintegration of the radioactive source.

(a) Such sources being abandoned in the bottom of a well shall be covered with a substantial standard color-dyed cement plug on top of which a whipstock or other mechanical device approved by the Supervisor shall be set. Such dye shall be so as to alert a re-entry operator prior to encountering such source.

(b) In wells where a logging source has been cemented in place behind a casing string and above total depth, upon abandonment, a standard color-dyed cement plug shall be placed opposite the abandoned source and a whipstock or other mechanical device approved by the Supervisor placed on top of the plug.

(c) In the event the operator finds that, after expending a reasonable effort, because of hole conditions, it is not possible to abandon the sources as prescribed in (a) or (b) above, prior to ceasing efforts to so abandon, he must obtain Board approval to cease such efforts and obtain approval for an alternate abandonment procedure.

(d) When a logging source must be abandoned in a producing zone, a standard color-dyed cement plug shall be set and a whipstock or other mechanical device approved by the Supervisor placed above to direct the sidetrack at least fifteen (15) feet away from the source.

(5) Any well in which a radioactive source is left in the hole, shall have a visual warning sign posted and maintained in a legible state, in a conspicuous place near the well. The sign shall depict the trefoil radiation symbol with a radioactive warning.

(6) Upon permanent abandonment, any well in which a radioactive source is left in the hole shall have a permanent plaque attached to the top of the casing left in the hole in such a manner that re-entry cannot be accomplished without disturbing the plaque. This plaque shall serve as a visual warning to any person reentering the hole that a radioactive source has been abandoned in-place in the well. The plaque shall depict the trefoil radiation symbol with a radioactive warning and shall be constructed of a long lasting material such as monel, stainless steel, or brass. This marker shall bear the following information: well name, permit number, surface location, name of the operator, the source of material abandoned in the well, the total well depth, depth at which the source is abandoned, plug-back depth, the date of the abandonment of the source, the activity of the source, and a warning not to drill below the plug-back depth.

(7) If an operator desires to reenter, convert, recomplete, or rework a well in which a radioactive source used for logging is present, the applicant operator must have his plan of operation approved by the Supervisor and any other agency that has jurisdiction before such reentry, conversion, recompletion, and reworking application is granted.

400-1-4-.06. Operations Involving Radioactive Material.

An operator shall obtain approval from the Supervisor, the Alabama Department of Public Health (Division of Radiation Control) and any other agency that has jurisdiction before introducing any radioactive

material, exclusive of radioactive logging devices, into the substrata for the purpose of conducting a tracer survey or for any other reason.

400-1-4-.07. Chemically Treating or Fracturing a Well.

Wells shall not be chemically treated or fractured until the approval of the Supervisor is obtained. Each well shall be treated or fractured in such manner as will not cause damage to the formation, result in water encroachment into the oil- or gas-bearing formation, or endanger freshwater-bearing strata. Necessary precautions shall be taken to prevent damage to the casing. Routine chemical treatments for corrosion control shall be excluded from this notice requirement. If chemical treating or fracturing results in irreparable damage to the well, the oil or gas-bearing formation or freshwater-bearing strata, then the well shall be properly plugged and abandoned.

400-1-4-.08. Report of Well Treatment.

Within thirty (30) days after the chemical treating or fracturing of a well, a report shall be filed with the Board in triplicate by the operator on Form OGB-6 setting forth in detail the method used in treating the well.

400-1-4-.09. Casing, Cementing, and Test Pressure Requirements.

(1) The operator shall case and cement all wells with a sufficient number of strings in a manner necessary to:

(a) prevent communication between separate hydrocarbon-bearing strata (except such strata approved for commingling) and between hydrocarbon and water-bearing strata;

(b) prevent contamination of freshwater-bearing strata;

(c) support unconsolidated sediments; and

(d) otherwise provide a means of controlling formation pressures and fluids.

(2) The operator shall install casing that meets American Petroleum Institute (API) standards. Cement shall meet API standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Safety factors in casing program design shall be of sufficient magnitude to provide optimum well control while drilling and to assure safe operations for the life of the well.

(a) **Surface Casing.** The minimum amount of surface or first intermediate casing to be set below ground level, the cement requirements, and the test pressure requirements shall be determined from Table 1. However, if the operator does not set surface or first intermediate casing below the base of the underground source of drinking water (USDW) containing fluids of less than ten thousand (10,000) milligrams per liter total dissolved solids, the operator may not be allowed to dispose of pit fluids in the well. See Rule 400-1-4-.11(1), relating to Disposal of Pit Fluids.

TABLE 1

Proposed true vertical depth (TVD) (ft)	Minimum casing required (ft)	CEMENT REQUIRED	Surface test-pressure (psi)
0 - 4,000	300	Circulate to surface	600
4,001 - 5,000	400	Circulate to surface	600
5,001 - 6,000	600	Circulate to surface	800
6,001 - 7,000	800	Circulate to surface	1,000
7,001 - 8,000	1,000	Circulate to surface	1,000
8,001 - 9,000	1,400	Circulate to surface	1,000
Greater than 9,000	1,800	Circulate to surface	1,500

The Supervisor may specify surface or first intermediate casing requirements other than those set forth in Table 1 if such requirements are needed to provide for increased protection of freshwater resources.

(b) **Intermediate Casing.** Intermediate or protective casing shall be set when required by abnormal pressure, mud weights, sediments, and other well conditions. A quantity of cement sufficient to cover and isolate all hydrocarbon zones and to isolate abnormal pressure intervals from normal pressure

intervals shall be used. If a liner is used as an intermediate string, the cement shall be tested by a fluid entry or pressure test to determine whether a seal between the liner top and next larger casing string has been achieved. The test shall be recorded in the driller's log. When such liner is used as production casing, it shall be extended to the surface and cemented to avoid surface casing being used as production casing.

(c) **Production Casing.** Production casing shall be set before completing the well for production. It shall be cemented in a manner necessary to cover or isolate all zones which contain hydrocarbons. A calculated volume of cement sufficient to fill the annular space at least five hundred (500) feet above the top of the uppermost hydrocarbon zone shall be used. When a liner is used as production casing, the testing of the seal between the liner top and next larger string shall be conducted as in the case of intermediate liners.

(d) The Supervisor may approve an alternative casing program upon written justification by the operator.

(3) If there are indications of inadequate primary cementing (such as lost returns, cement channeling, or mechanical failure of equipment) of the surface, intermediate, or production casing strings, the operator shall evaluate the adequacy of the cementing operations by pressure testing the casing shoe, running a cement bond log or a cement evaluation tool log, running a temperature survey, or a combination thereof before continuing operations. If the evaluation indicates inadequate cementing, the operator shall re-cement or take other actions as approved by the Supervisor. The operator shall verify the adequacy of the remedial cementing operations as described above.

(4) **Pressure Testing.** An operator shall give notice to the Supervisor prior to pressure testing.

(a) After primary cementing of surface casing and intermediate or protective casing, drilling shall not be resumed until a time lapse of twelve (12) hours under pressure. Cement is considered under pressure when one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used. After cementing and prior to drilling the plug, surface casing and intermediate or protective casing shall be pressure tested as set forth in Table 1 above. All pressure tests are to be held for thirty (30) minutes. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure, then such corrective measures shall be taken to insure that the casing string is so set and cemented that it will hold the test pressure for thirty (30) minutes without a drop of more than ten percent (10%).

(b) Upon conclusion of the drilling of the well, or prior to the setting of either intermediate or protective, or production casing strings, the surface casing shall be re-tested in accordance with Rule 400-1-4-.09(2)(a) in order to verify the integrity of the casing string. This requirement will not apply if the well is permitted to be drilled to a total depth of less than six thousand (6,000) feet and no problems are encountered during the drilling of such well that would require a retest to verify the mechanical integrity of its surface casing string.

(c) After primary cementing of production casing, drilling shall not resume until a time lapse of twelve (12) hours under pressure. Cement is considered under pressure when one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used. After cementing and prior to drilling the plug, production casing shall be pressure tested at a pressure in pounds per square inch (psi) calculated by multiplying the vertical depth of the producing string by two-tenths (2/10) or any other pressure required by the Board or Supervisor. All pressure tests are to be held for thirty (30) minutes and the maximum test pressure required shall not exceed fifteen hundred (1,500) psi. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure, then corrective measures shall be taken to insure that the casing string is so set and cemented that it will hold the test pressure for thirty (30) minutes without a drop of more than ten percent (10%).

(d) In the event of prolonged drill-pipe rotation within a casing string run to surface or of extended operations such as milling, fishing, jarring, washing over, working over, or other operations which could damage the casing, such casing string shall be pressure tested, and if required by the Supervisor, evaluated by a logging technique such as a caliper or casing inspection log every thirty (30) days. The evaluation results shall be submitted to the Supervisor with a determination of the integrity of casing for continued service during both drilling and workover operations, and over the producing life of the well.

If the integrity of the casing in the well is deteriorated to a potentially unsafe level, remedial operations shall be conducted with a plan approved by the Supervisor prior to continuing operations.

(5) **Recording Test Pressures.**

(a) Proper documentation of pressure tests, including beginning and ending pressures and the duration of each test, shall be recorded in a daily drilling report.

(b) Unless witnessed by an agent of the Board, all pressure tests and re-tests shall be documented with a properly calibrated continuous pressure recorder or other pressure recording device acceptable to the Supervisor. A representative of the operator shall sign the pressure test record(s) following completion of each pressure test.

(c) The operator shall maintain all pressure test records at the well site during drilling operations. Such records shall be made available for inspection upon request.

(d) The operator shall maintain all pressure test records for a minimum of three (3) years from the date such pressure tests were conducted.

(6) **Reporting Test Pressures.** The operator shall report pressure tests on Form OGB-7.

400-1-4-.10. Pit Construction and Maintenance.

(1) An operator shall obtain approval of the Supervisor prior to the construction of any pit to be used in conjunction with drilling, completion, and workover operations.

(2) All pits utilized to contain fluids during drilling, completion, and workover operations shall be constructed and maintained so as to prevent pollution of surface and ground water.

(3) Pits shall be constructed and maintained so as to contain fluids within the pit. No fluids shall be discharged from the pit except as allowed by appropriate permit(s) and regulation(s). The fluid level in such pits shall be kept at least two (2) feet below the top of the pit wall or dike.

(4) Pits shall be constructed and maintained so that no surface water or runoff will enter the pit.

(5) Operators should construct pits so that the bottom of the pit is above the seasonal high water table. If the pit cannot be constructed in such a manner, then the Supervisor shall require that the pit be lined with a material that is capable of retaining pit fluids or that other action be taken to insure the protection of ground water.

(6) Operators shall prevent materials that are not exempt under the Resource Conservation and Recovery Act from entering the pit during drilling, completion, or workover operations.

(7) Prior to utilizing such pit, the pit shall be inspected by the operator who shall make a determination that said pit is constructed in a manner that will prevent the pollution of surface and ground water. The operator shall keep a record of the determination and shall provide a copy of said determination to the Board, upon request by the Supervisor. If requested by the Supervisor, an operator may be required to be available at the well location for a review of the determination as to whether or not the pit is in compliance with this rule.

400-1-4-.11. Recycling or Disposal of Pit Fluids and Pit Closure.

(1) **Recycling or Disposal of Pit Fluids.**

(a) After a well is drilled, completed, or worked over, all fluids and recoverable slurry that remain in pits shall be recycled or disposed of in accordance with this rule within thirty (30) days of completion, unless otherwise approved by the Supervisor. The Supervisor may require that a pit be agitated in order to remove recoverable slurry. Prior to the subsurface disposal of pit fluids down the surface casing or first intermediate casing/production casing annulus, any oil that is present in the pit must be skimmed immediately after drilling operations cease and recycled or disposed of in accordance with appropriate permit(s) and regulations. If pit fluids and recoverable slurry are transported off location, except for disposal in an approved well, then these materials should be disposed of in a lawfully approved disposal facility, or recycled or disposed of in accordance with appropriate permit(s) and regulation(s).

(b) The following procedures shall be implemented regarding the subsurface disposal of pit fluids down the surface casing or first intermediate casing/production casing annulus. These procedures are applicable for subsurface disposal into the well on location or to an approved well.

1. Approval must be obtained from the Supervisor prior to implementing subsurface disposal operations.

2. Pressure testing for subsurface disposal of pit fluids shall be conducted and recorded in accordance with applicable requirements of Rule 400-1-4-.09(4), relating to Pressure Testing, and Rule 400-1-4-.10(5), relating to Recording Test Pressures.

3. During disposal operations the injection pressure shall not exceed ninety percent (90%) of the mechanical integrity test pressure of the casing. A pressure relief valve, set to the authorized maximum disposal pressure, shall be installed. Verification of the pressure setting of the relief valve may be requested by the Supervisor.

4. If surface or first intermediate casing is not set below the base of the underground source of drinking water (USDW) containing fluids of less than ten thousand (10,000) milligrams per liter total dissolved solids in the well to be used for subsurface disposal of pit fluids, then in addition to section (1)(b)1, (1)(b)2, (1)(b)3, and (1)(b)4. the following may apply:

(i) The operator shall submit a schematic showing the downhole construction of such well and the approximate location and construction of all known water wells, core holes and oil and gas wells within a one-quarter (1/4) mile radius; and

(ii) The operator shall submit an affidavit certifying that the disposal fluids contain only materials that are exempt under the Resource Conservation and Recovery Act, that the chloride concentration of the disposal fluids does not exceed two thousand (2,000) parts per million (ppm), and that the pH of the disposal fluids ranges between 6.0 and 9.0 standard units.

(c) Alternative methods may be used, if approved by the Supervisor.

(2) **Pit Closure.** Within ninety (90) days after a well is drilled, completed, or worked over all pits shall be properly filled and compacted unless otherwise approved by the Supervisor. Pits shall be backfilled with earth and compacted to the satisfaction of the Supervisor. After all fluids and recoverable slurry in such pits have been disposed of, the Supervisor may permit the operator to leave such pit for use by the landowner, if the surface owner requests in a written statement to the Board that the pit be left open. The written statement should include the intended use for the pit.

400-1-4-.12. Drilling Mud.

In drilling operations in which mud is used, the operator shall continuously maintain drilling fluid in the hole, from top to bottom, of sufficient weight to control any pressure which may be encountered. Provided, however, an operator may use other appropriate methods to control any pressure which may be encountered, without the use of drilling fluids, upon the approval of the Supervisor.

400-1-4-.13. Blow-Out Prevention.

Adequate blow-out preventers and high pressure fittings for keeping the well under control shall be attached to properly anchored and cemented casing strings. The blow-out preventers must be installed and tested in accordance with this rule. The results of such tests shall be recorded in the daily operations report maintained at the well site. Upon request, such test records must be made available to the Supervisor.

(1) After setting and cementing surface casing, ram-type blow-out preventers (one equipped with blind rams and one with pipe rams), annular blow-out preventer, valves, and manifolds for circulating drilling fluid shall be installed and tested prior to resuming drilling operations.

(2) All workover operations shall include the installation and testing of ram-type blow-out preventers (one equipped with blind rams and one with pipe rams), valves and manifolds for circulating fluids.

(3) At the time of installation and following any repair or modification to the blow-out preventer system, annular-type blow-out preventers shall be tested to one thousand (1,000) pounds per square inch (psi). Ram-type blow-out preventers, valves, and manifolds shall be tested to two hundred fifty (250) psi, and then to ninety percent (90%) of the rated working pressure of either the wellhead or blow-out preventer stack, whichever is less.

(4) During drilling and completion operations, the ram-type blow-out preventer shall be function tested by closing on the drill pipe once every seven (7) days. Independently powered accumulators or accumulators and pumps shall maintain a pressure capacity reserve at all times to provide for repeated operation of hydraulic preventers.

(5) A full test shall be conducted five hundred (500) feet prior to drilling into the anticipated production zone or a zone that could reasonably be expected to contain hydrogen sulfide or abnormal pressure.

(6) All tests may be conducted using a test plug. Tests shall be recorded by charts, if required by the Supervisor.

(7) An agent of the Board may request that the blow-out preventers be tested at any time during operations.

(8) The Supervisor may approve modifications to blow-out prevention equipment, upon request and justification by the operator.

(9) The Supervisor may require the operator to monitor mud returns and to use a trip tank or other device during tripping operations for the prevention of gas kicks.

400-1-4-.14. Plugging and Abandonment of Wells.

Any nonproductive well shall be plugged within thirty (30) days of completion unless said Well has been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17. Any productive well that has not produced in six (6) months or any Class II injection well or underground reservoir storage well that has ceased operation for six (6) months shall be plugged within thirty (30) days unless said Well has been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17. Before any work is commenced to plug and abandon any well drilled in search of oil and gas or utilized as a Class II injection well or utilized as an underground reservoir storage well the operator shall provide the Supervisor with the proposed method and procedure to plug and abandon such well. Such method and procedure may be required in writing by the Supervisor. Also, the Supervisor may require that well records, including logs, be made available to determine if the proposed depths and lengths of plugs are adequate. Operations to plug and abandon a well shall not begin until approval of procedures has been obtained from the Supervisor. Unless otherwise allowed by the Supervisor, the operator shall notify the Supervisor at least twenty-four (24) hours prior to the commencement of plugging operations so that said operation may be witnessed by an agent of the Board. The cement in all plugs shall meet American Petroleum Institute (API) standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Unless specified otherwise by the Supervisor, the operator shall comply with the following requirements which apply to all wells drilled in search of oil and gas or utilized as Class II injection wells or underground reservoir storage wells.

(1) A cement plug shall be placed across each hydrocarbon-bearing, abnormally pressured, or injection zone or a permanent-type bridge plug shall be placed at the top of each hydrocarbon-bearing zone or injection zone, but in either event a cement plug at least two hundred (200) feet in length shall be placed immediately above the uppermost hydrocarbon-bearing or injection zone.

(2) When the base of fresh water is penetrated, a cement plug at least two hundred (200) feet in length shall be placed at least fifty (50) feet below and shall extend to at least one hundred fifty (150) feet above the base of fresh water. A cement plug may be required in the casing-borehole annulus if fresh water is not adequately protected by casing and cement.

(3) A cement plug at least two hundred (200) feet in length shall be placed at least fifty (50) feet below and shall extend to at least one hundred fifty (150) feet above the surface casing shoe. A cement plug may be required in the annular space adjacent to the base of surface casing if needed to provide for increased protection of fresh water.

(4) A cement plug at least twenty-five (25) feet in length shall be placed inside the smallest string of casing and in all annular spaces near the surface of the ground in each hole plugged, and casing(s) cut in such a manner so as not to interfere with soil cultivation, and a steel plate at least one-quarter (1/4) inch in thickness shall be welded to the casing stub(s).

(5) The Supervisor may require verification of plugs by tagging and pressure testing.

(6) The interval between plugs shall be filled with an approved fluid.

(7) Other plugging methods and procedures may be required by the Supervisor.

(8) Restoration of location shall be done in accordance with Rule 400-1-4-.16.

400-1-4-.15. Report of Well Plugging.

Within thirty (30) days after the plugging of any well, an operator shall file Form OGB-11, Report of Well Plugging, with the Supervisor setting forth in detail the method used in plugging such well. A schematic showing the down-hole construction of the well, including the depths and lengths of plugs, shall accompany Form OGB-11.

400-1-4-.16. Restoration of Location.

When a location is abandoned, all material, debris and equipment, such as drill pipe, casing, tubing, treaters, separators, tanks, and other production, processing, injection, plant, and above-ground pipeline equipment and materials shall be removed from the location. All wastes and other material including petroleum contaminated soil shall be removed from the location and disposed of in a lawfully approved facility, or recycled or disposed of in accordance with appropriate permit(s) or regulation(s); provided, however, that petroleum contaminated soil may be approved by the Supervisor for on-site remediation. All wastes being removed from location shall comply with the requirements of Rule 400-1-9-.03, Transportation of Wastes Associated with Oil and Gas Operations. Adequate measures shall be taken to stabilize the location and silt fences or other erosion preventative measures shall be used to minimize erosion, unless otherwise approved by the Supervisor. In any event, the location shall be restored within ninety (90) days in a manner approved by the Supervisor. All water supply wells drilled in connection with the operation shall be properly plugged and abandoned unless future utilization of such well is desired by the landowner, in which case the operator must obtain written consent from the landowner to leave the well open. A copy of such request must be filed with the Supervisor.

400-1-4-.17. Request to Classify Wells as Temporarily Abandoned or Shut-in.

(1) **Temporary Abandonment Status.** An operator may request that a well be placed in a temporarily abandoned status by submitting a written request to the Supervisor describing its future utility. A well may be classified as a temporarily abandoned well upon a showing that the well has future utility. Upon approval of a request by the Supervisor, the well will be placed in a temporarily abandoned status for a period of not more than one (1) year. The operator must submit a subsequent request to the Supervisor prior to the end of such period in order to extend the temporarily abandoned status for an additional period of time of not more than one (1) year. Such request for an extension must be justified in writing and include a statement when the well is scheduled to be utilized. Upon approval of the request by the Supervisor, the temporarily abandoned status will be extended for a period of not more than one (1) year. Thereafter, the Board may, after notice and hearing, extend further the temporarily abandoned status for a well. The Supervisor or Board may require the operator to temporarily or partially plug the well, to verify the mechanical integrity of the casing in the well, and to implement a monitoring program before approving a request to classify a well as temporarily abandoned. The well location shall be maintained in accordance with Rule 400-1-4-.01, relating to Identification of Wells, and Rule 400-1-6-.10, relating to Site Maintenance. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.

(2) **Shut-in Status.** An operator may request that a well be placed in a shut-in status by submitting a written statement to the Supervisor stating that the well is capable of producing hydrocarbons but must remain shut in until connected to a gathering system, pipeline or processing facility, or for some other reason. A request to classify a well as shut-in will not be considered until the official test results have been received by the Board on Form OGB-9, First Production or Retest Report. Such request must be submitted in writing to the Supervisor stating why the well is shut in and the date when production is expected to commence. Upon approval by the Supervisor, the well will be placed in a shut-in status for a period of not more than one (1) year. The operator must submit a subsequent request to the Supervisor prior to the end of such period in order to extend the shut-in status for an additional period of time of not more than one (1) year. Such request for an extension must describe the progress that has been made toward placing the well on production and when production is expected to commence. Upon approval of the request by the Supervisor, the shut-in status will be extended for a period of not more than one (1) year. Thereafter, the Board may, after notice and hearing, extend further the shut-in status for a well. The Supervisor or Board may require the operator to temporarily or partially plug the well, to verify the mechanical integrity of the casing in the well, and to implement a monitoring system before approving a request to classify a well as shut-in. The well location shall be maintained in accordance with Rule 400-1-4-.01, relating to Identification of Wells, and Rule 400-1-6-.10, relating to Site Maintenance. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.

400-1-4-.18. Abandoned Wells.

A well is considered abandoned when it has not been used for six (6) consecutive months, and has not been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17, and cannot be operated, whether because it was drilled as a dry hole or has ceased to produce, or operations have not been conducted thereon, or for some other reason.

400-1-4-.19. Wells Used for Freshwater.

When a well to be plugged may safely be used as a freshwater well and such utilization is desired by the surface owner, the well need not be filled above the required sealing plug set below freshwater; provided, the surface owner demonstrates to the Supervisor that the well is being utilized as a freshwater well or agrees to take full responsibility for the well and acquires a two thousand dollar ($2,000.00) surety bond acceptable to the Board and files such bond with the Board on Form OGB-3. The Supervisor may later release the bond upon proper demonstration that the well is being utilized as a freshwater well.

400-1-4-.20. Seismic, Core, and Other Exploratory Holes to be Plugged.

Before any hole is abandoned which is drilled for seismic, core, or other exploratory purposes, it shall be the duty of the owner or driller of any such hole to plug the same in such manner as to properly protect all freshwater-bearing strata.

400-1-5. Testing and Allowable

400-1-5-.01. Daylight Hours.

All open hole drillstem tests shall be completed in daylight hours before sunset and shall not be considered as a production test. Copies of all drillstem test results shall be submitted to the Board pursuant to Rule 400-1-4-.03(2). For purposes of this rule, the word completed shall mean the closing of the drillstem test tool valve. No well shall be swabbed into production except during daylight hours before sunset. No well which contains or which is reasonably expected to contain hydrogen sulfide shall be brought into production except during daylight hours before sunset, unless otherwise approved by the Supervisor.

400-1-5-.02. Swabbing and Cleaning Wells.

Flow tests of less than four (4) hours, including swabbing and cleaning a well, shall not be considered as a production test. A record of the daily operation of well cleaning shall be reported on the reverse side of Form OGB-9, First Production or Retest Report, giving pressure data and the volumes of water, fracture fluid, oil or condensate, and gas recovered. Unless otherwise approved by the Supervisor, all wells shall be cleaned into a tank prior to production. The tank shall be of sufficient size to contain all fluids.

400-1-5-.03. Production Tests.

(1) All production tests shall be made only after approval by the Supervisor. An operator completing a new well or recompleting an old well shall test the well to determine if the well is capable of producing and the amount it can produce up to and including any allowable if assigned. Such test shall be at stabilized rates for a minimum of four (4) hours' duration, shall not exceed seventy two (72) hours, and shall be taken in a manner prescribed by the Board in its rules and regulations. An operator shall submit a request in writing to, and receive approval from, the Supervisor or Board pursuant to Rule 400-1-5-.04 for extended testing beyond seventy-two (72) hours. The results thereof shall be verbally reported to the Supervisor immediately and filed with the Board on Form OGB-9, First Production or Retest Report, within fifteen (15) days after such test is completed. When more than one test is made, the reverse side of Form OGB-9 may be used to give complete test data. The test shown on the front side shall be considered the official test results for such well.

(2) **Gas Well Capacity Tests.** The capacity of a producing gas well shall be determined at the time the well goes on production and on an annual basis thereafter, as follows:

(a) **Initial Capacity Test.** Capacity flow shall be determined by the stabilized multipoint back-pressure method in accordance with the procedures set out in the Interstate Oil and Gas Compact Commission (IOGCC) "Manual of back-pressure testing of gas wells." The capacity shall be the calculated bottom-hole absolute open-flow potential of the well and shall indicate the capacity of the well to produce against zero pounds per square inch absolute (psia) at the formation. The results of capacity tests shall be reported to the Board on Form OGB-10 within fifteen (15) days after such tests have been completed. All field data, calculation, and a plot of the backpressure curve shall be submitted with this form.

(b) **Annual Capacity Tests.** Capacity flow shall be determined by the stabilized one-point back-pressure method in accordance with the procedure set out in the Interstate Oil and Gas Compact Commission (IOGCC) "Manual of back-pressure testing of gas wells." The most recently determined exponent "n" established by a stabilized multipoint-back pressure test shall be used with this stabilized

one-point test to determine the absolute open flow. The results of this capacity test shall be reported to the Board within fifteen (15) days of its completion on Form OGB-10A. All field data calculations and a plot of the backpressure curve shall be submitted with this form. The Board may approve some other method of testing, but under no circumstances shall the open-flow method be used.

(3) Measurements shall be taken under the following requirements:

(a) All pressures used in test calculations shall be corrected to pounds per square inch absolute (psia), using 14.65 psia as the average barometric pressure.

(b) Basic orifice coefficients used in the calculation of gas flow shall be those contained in the American Gas Association's Gas Measurement Committee Report No. 3, or some other basic orifice coefficients generally accepted in the industry and approved by the Board.

(c) Gas measurements with pitot tubes shall be based on Reid's formula and shall follow recommendations similar to those set forth in Appendix 4 of the U.S. Bureau of Mines Monograph 7. Corrections for base pressure and base temperature shall be made as in orifice measurements.

(d) Gas measurements with orifice well testers shall follow recommendations similar to that set forth in Bulletin No. E-7 of the American Meter Company. Corrections for base pressure and base temperature and gravity shall be made as in orifice measurements.

400-1-5-.04. Production Allowable.

Until special field rules are adopted, an operator shall submit a request in writing to, and receive approval from, the Supervisor for extended testing under a temporary test allowable. This request shall be accompanied by Form OGB-9, First Production and Retest Report and Form OGB-12, Operator's Certificate of Compliance and Authorization to Transport Oil, Gas or Condensate from Well. The duration of such temporary test allowable shall be as specified by the Supervisor. Permanent production allowables shall be established by the Board after notice and hearing.

400-1-5-.05. Oil Measurements.

(1) Quantities of oil shall be computed from tank tables correctly compiled in accordance with American Petroleum Institute (API) standard 2501, "Crude oil tank measurement and calibration," second edition, July 1961 or subsequent revisions thereof.

(2) The American Petroleum Institute (API) gravity of crude oil shall be determined in accordance with API standard 2500, "Measuring, sampling, and testing crude oil," second edition, March 1961 and subsequent revisions thereof. API standard 2500 restates the standards of the American Society for Testing Materials (ASTM), viz., ASTM designation D287-39; "Standard method of test for gravity of petroleum and petroleum products by means of the hydrometer," *Observed gravity* at the *observed temperature* be corrected to (API) gravity and volume at sixty degrees Fahrenheit (60°F) by the use of tables of the American Society for Testing Materials and the Institute of Petroleum, "ASTM-IP petroleum measurement tables" (ASTM designation No. 1250; IP designation 200).

(3) Correction for Basic Sediment and Water (BS & W) shall be made in accordance with the methods specified in the joint ASTM-API method, "Standard method of test for water and sediment in crude oils," ASTM designation: D96-63, API standard: 2542.

(4) The standards cited above shall be superseded by future revisions of such standards. However, the Board shall, if a characteristic of crude oil makes it necessary, after notice and hearing, issue field rules, special rules or regulations and orders prescribing a specific method of measuring, sampling, and testing crude oil.

400-1-5-.06. Oil and Condensate to be Measured.

All oil produced shall be accurately measured and reported to the Board by the operator on Form OGB-14, Operator's Monthly Report from Oil Wells. All condensate produced shall be accurately measured and reported to the Board by the operator on Form OGB-15, Operator's Monthly Report from Gas Wells. Sufficient capacity shall be provided by the operator to take accurate measurements of all oil and condensate produced, provided exceptions may be granted by the Supervisor or the Board when physical conditions make an exception necessary.

400-1-5-.07. Gas to be Metered.

All gas produced shall be accurately metered in accordance with standards set by the American Gas Association (AGA) and reported to the Board by the operator on Form OGB-15, Operator's Monthly Report from Gas Wells.

400-1-5-.08. Gas-Oil Ratio.

Any oil well producing with a gas-oil ratio in excess of two thousand (2,000) cubic feet of gas per barrel of oil produced shall be allowed to produce daily only that volume of gas obtained by multiplying its daily oil allowable by two thousand (2,000) cubic feet. The gas volume thus obtained shall be known as the daily gas allowable of such well. The daily oil allowable of such well in barrels shall then be determined by dividing its daily gas allowable, obtained as herein provided, by its producing gas-oil ratio in cubic feet per barrel of oil produced. A well producing from the gas cap of an oil reservoir in which an oil well or wells are completed and producing shall, to the extent that it can produce without waste, be allowed to produce daily only that volume of gas and other hydrocarbons that under conditions of pressure and temperature existing in the reservoir from which produced is the equivalent in volume, under like pressure and temperature, to the oil and gas that would be produced daily from that oil well in the same reservoir producing the highest daily oil allowable if its gas-oil ratio were two thousand (2,000) cubic feet of gas per barrel of oil.

400-1-5-.09. Permissible Tolerance in Production Volumes Allowed for Oil Wells.

(1) **Daily Tolerance.** It is recognized that oil wells located on units capable of producing their daily allowable may overproduce one day and underproduce another. No unit, except for the purpose of testing in the process of completing or recompleting a well and for tests made for the purpose of obtaining scientific data, shall produce during any day more than one hundred twenty-five percent (125%) of the daily allowable assigned the unit, or ten (10) barrels above the daily unit allowable, whichever is greater. Subject to the foregoing, any underproduction may be made up by production from the same unit within the same month and overproduction shall be adjusted by underproduction.

(2) **Monthly Tolerance.** No unit shall produce in any one (1) month more than its monthly allowable plus a tolerance equal to three (3) days' allowable production. The allowed monthly tolerance of overproduction shall be adjusted during the following month by underproduction. Overproduction within the permitted tolerance shall be considered as oil produced against the allowable assigned to the unit for the following month.

(3) **Production in Excess of Monthly Allowable Plus Tolerance.** In instances where production in excess of the monthly allowable plus tolerance occurs from error, mechanical failure, testing, or other cause reasonably beyond the control of the operator, a report of such excess production shall be filed in writing with the Board and the transporter within fifteen (15) days after occurrence. Such report shall contain the number of barrels of excess production and the plan of adjustment. Such excess production shall be considered as oil produced against the allowable assigned to the unit for the following month and such may be transported from the tanks only as the unit accrues daily allowable to offset such excess production.

(4) **General.** The tolerance permitted on a daily or monthly basis shall not be construed to increase the allowable of a unit or to grant authority to any operator to market or to any transporter to transport any quantity of oil in excess of the units allowable. The possession of a quantity of oil in storage at the end of any month in excess of three (3) days' allowable plus any untransported allowable oil shall be construed as a violation of this rule unless reported as provided in (3) above.

400-1-5-.10. Permissible Tolerance in Production Volumes Allowed for Gas Wells.

(1) **Daily tolerance.** Although gas wells may overproduce their daily allowable one day and underproduce another, no unit, other than for the purpose of testing in the process of completing or recompleting a well and for the purpose of testing to obtain scientific data, shall produce, during any one day, more than two hundred percent (200%) of the daily allowable assigned for the unit. Subject to the foregoing, any underproduction may be made up by production from the same unit within the same month and overproduction shall be adjusted by underproduction.

(2) **Monthly tolerance.** No unit shall be allowed to produce, in any one (1) month, more than the monthly allowable for such unit plus a tolerance equal to five (5) days' allowable production. The allowed monthly tolerance of overproduction shall be adjusted during the following month by underproduction. Overproduction within the permitted tolerance shall be considered as gas produced against the allowable assigned to the unit for the following month.

(3) **Production in Excess of Monthly Allowable Plus Tolerance.** In instances where production in excess of the monthly allowable plus tolerance occurs from error, mechanical failure, testing, or other cause reasonably beyond the control of the operator, a report of such excess production shall be filed in writing with the Board and the transporter within fifteen (15) days after occurrence. Such report shall contain the number of cubic feet of excess production and the plan of adjustment. Such excess production shall be considered as gas produced against the allowable assigned to the unit for the following month.

(4) **General.** The tolerance permitted on a daily or monthly basis shall not be construed to increase the allowable of a unit or to grant authority to any operator to market or to any transporter to transport any quantity of gas in excess of the units allowable.

400-1-6. Production

400-1-6-.01. General.

The design and construction of all wells and production facilities shall be based on sound engineering principles and must take into account the composition of the well stream, maximum pressures, and other pertinent engineering data and information. All flowing wells shall be produced through tubing anchored by a packer and shall be equipped with a master valve and adequate chokes or beans to properly control the flow thereof. The Supervisor may approve alternative procedures for properly controlling well flow, upon request by the operator.

400-1-6-.02. Protection of Oil and Gas.

Before any oil or gas well is completed as a producer, the producing horizons shall be sealed or separated in order to prevent their contents from passing into another stratum. Except for test purposes approved by the Supervisor, no well shall be permitted to produce oil or gas simultaneously from different strata through the same string of casing, without the permission of the Board after notice and hearing.

400-1-6-.03. Initial Bottom Hole Pressure Survey.

Unless otherwise specified by the Supervisor, an operator completing a well in a new oil or gas pool shall perform an initial bottom hole pressure survey on said pool prior to receiving a temporary allowable from the Supervisor. The bottom hole pressure survey shall be performed with a bottom hole pressure gauge and results of the survey shall be reported to the Supervisor. The bottom hole pressure survey shall be conducted for at least twenty-four (24) hours and in accordance with industry standards.

400-1-6-.04. Pressure-Volume-Temperature Analysis.

Unless otherwise specified by the Supervisor, an operator completing a well in a new oil or gas-condensate pool at a measured depth of six thousand (6,000) feet or greater shall perform a pressure-volume-temperature (PVT) analysis on a subsurface sample or recombined surface sample of hydrocarbon fluids from said Well prior to receiving a temporary allowable from the Supervisor. The analysis shall be performed in accordance with industry standards and the results shall be reported to the Supervisor.

400-1-6-.05. Procedures for Multiple Completions.

(1) Information shall be submitted to the Supervisor for approval showing the top and bottom of all zones proposed for completion, including a partial electrical log and a diagrammatic sketch showing such zones and equipment to be used.

(2) If zones approved for multiple completion become intercommunicated, the operator shall, after obtaining approval from the Supervisor, immediately repair the well so as to separate such zones.

400-1-6-.06. Recompletion or Reworking.

(1) Prior to commencing recompletion or reworking operations, approval shall be obtained from the Supervisor. The Supervisor may require that the workover or recompletion procedure be submitted in writing. Unless an exception is granted by the Supervisor, an operator shall submit with such procedure statements addressing the following: the reason for the workover, calculated bottom hole pressure in the well, method of controlling pressure, expected hydrogen sulfide concentrations of the well stream, blow-out preventer arrangements, and the testing requirements for blow-out preventers to be used during the operations. If the workover or recompletion is being performed on a well which contains hydrogen sulfide and the work being performed requires that the wellhead be removed, then Form OGB-24, Operator’s Certificate of Compliance for Operations Involving Hydrogen Sulfide, shall accompany the workover or

recompletion procedure. If the workover or recompletion is being performed on a well which contains hydrogen sulfide, then the hydrogen sulfide gas shall not be vented.

(2) If, after recompletion or reworking operations have begun, unexpected wellbore conditions are encountered the operator may, at his own risk, proceed with appropriate remedial action. As soon as practical, the Supervisor must be notified of such remedial action. Within thirty (30) days of recompletion or reworking operations, the operator shall submit a revised Form OGB-6, OGB-7, OGB-8, and OGB-9 where applicable, and one (1) copy of any additional logs.

400-1-6-.07. Tanks or Tank Batteries.

A sign shall be posted and maintained in a legible state, in a conspicuous place near a tank or tank battery. Such sign shall be posted when the tank or tank battery is installed and shall remain posted until the tank or tank battery is removed and the location restored. The sign shall include the name of the operator, the name or number designation of the battery, a listing of the permit number(s) from well(s) with fluids flowing into the battery, and the section, township, range, and county in which the tank or tank battery is located.

400-1-6-.08. Dikes.

All permanent tanks, tank outlets, treaters, or other facilities used to store oil, condensate, or salt water, must be surrounded by a dike which is constructed and maintained in a manner that is capable of retaining fluids. The containment area surrounded by the dike shall be lined with a material that is capable of retaining fluids. The containment area shall have a capacity of at least one-and-one-half (1 1/2) times that of the tank or other vessel containing fluids and in any event the dike shall be at least two (2) feet high on the inside wall unless otherwise approved by the Supervisor. The Supervisor may require dikes around other facilities that contain oil, condensate, salt water, or other fluids. In the case of tank batteries, the dike must have the capacity to contain a volume equal to one-and-one-half (1 1/2) times that of the largest tank in the battery and in any event the dike shall be at least two (2) feet high on the inside wall unless otherwise approved by the Supervisor. The top of the dike must be at least two (2) feet higher than the bottom of the lowest tank or other vessel containing fluids. The tanks or other vessels containing fluids must be elevated to provide enough gradient to allow drainage away from the tanks toward the dike. No oil, condensate, salt water, or other deleterious substances shall be allowed to remain within containment areas. Drainage of fluids from containment areas shall be authorized by appropriate permit(s) or regulations.

400-1-6-.09. Berms.

The Supervisor may require that a containment berm at least two (2) feet high on the inside wall be constructed on the downslope side of a well location or other location used to store oil, condensate, or salt water.

400-1-6-.10. Site Maintenance.

(1) Access roads shall be maintained to allow motor vehicle access to all sites, such as well sites, production facility sites, Class II injection facility sites and underground storage facility sites.

(2) All unusable materials or equipment shall be removed from sites.

(3) Any rubbish, debris, or vegetation that might constitute a fire hazard shall be removed to a distance of at least fifty (50) feet from the wellhead, production facilities, such as separators, heater treaters, and tanks, plants, pump stations, and meter run, or to the boundary of the well site, whichever is less.

(4) All wastes and other material including petroleum contaminated soil shall be removed from the location and disposed of in a lawfully approved facility, or recycled or disposed of in accordance with appropriate permit(s) or regulation(s); provided, however, that petroleum contaminated soil may be approved by the Supervisor for on-site remediation. All wastes being removed from location shall comply with the requirements of Rule 400-1-9-.03, Transportation of Wastes Associated with Oil and Gas Operations.

(5) All site conditions must meet the approval of the Supervisor.

400-1-6-.11. Location of Fired Vessels.

All heaters, treaters, and other fired vessels placed in operation shall be located at least one hundred (100) feet from any well or liquid hydrocarbon storage tank. Provided, however, the Supervisor may grant an exception to this requirement upon submission of written justification by the operator.

400-1-6-.12. Authorization to Clean Tanks.

Any operator wishing to clean a tank must notify the Supervisor and submit Form OGB-21. Operations may begin after notification. The contents of a tank shall be manifested in accordance with Rule 400-1-9-.03, relating to Transportation of Wastes, and shall be disposed of as allowed by appropriate permit(s) or regulation(s).

400-1-7. Processing

400-1-7-.01. Production Facilities, Processing Facilities, and Plants.

All production facilities, **processing** facilities, and plants shall be designed, installed, and maintained in a manner which provides for efficiency, safety of operation, and protection of the environment.

(1) **Production Facilities.**

(a) All production equipment shall be designed, installed, and maintained in accordance with generally accepted industry practices or standards.

(b) A generalized process schematic flow diagram showing all equipment with size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels shall be submitted to the Supervisor.

(c) For operations within designated field boundaries where well sites and equipment are the same, a typical schematic may be submitted by the operator for that field. Any deviation from the typical schematic should be submitted to the Supervisor.

(d) Prior to construction and operation of a sour gas production facility, approval must be obtained from the Supervisor. Application for permission to construct and operate a sour gas production facility shall be considered a two-step process.

1. **Step 1.** An operator seeking the Supervisor's approval for the construction and operation of a sour gas production facility shall submit in duplicate the information listed below:

(i) A generalized schematic flow diagram showing all equipment on location with size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels.

(ii) A description and schematic diagram showing hydrogen sulfide safety and monitoring equipment specified in Rule 400-1-9-.02, relating to Operations Involving Hydrogen Sulfide.

2. **Step 2.** Prior to placing equipment in service, the following information shall be submitted:

(i) The following certification signed and dated with the title of the company representative: "(Operator) certifies that the (Production Facility) has been designed, installed and will be operated in accordance with generally accepted industry practices or standards for such facilities."

(ii) In accordance with Rule 400-1-9-.02, relating to Operations Involving Hydrogen Sulfide, an Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-24 for the facility, associated wells, and gathering lines shall be submitted to the Supervisor.

(e) Additional information when required by the Supervisor.

(2) **Processing Facilities.**

(a) Processing facilities shall be designed, installed, and maintained in accordance with generally accepted industry practices or standards.

(b) Prior to the construction and operation of a processing facility, approval must be obtained from the Supervisor. Application for permission to construct and operate a processing facility shall be considered as a two-step process.

1. **Step 1.** An operator seeking the Supervisor's approval for the design and construction of a processing facility shall submit in duplicate the information listed below:

(i) A plat of the site.

(ii) A generalized statement of processes and procedures used in the facility and the design capacity of the facility.

(iii) A generalized schematic flow diagram showing all equipment on location and a plat showing location, size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels.

(iv) Generalized schematic diagrams showing location of hydrogen sulfide and combustible gas detection equipment, sensors and alarms, personnel safety equipment, fire fighting equipment, and emergency shutdown devices.

(v) Construction plans and schedules shall be submitted to the Supervisor prior to initiating construction of the facility.

2. **Step 2.** Prior to placing the facility in service the operator shall submit information pertaining to operation and maintenance as listed below:

(i) The operator shall submit a schedule for initial testing and inspection of the safety systems at the facility. Such test shall be witnessed by the Board's representative prior to commencing the operation of the facility. Schedules for subsequent inspections and testing shall be submitted to the Supervisor.

(ii) Gas monitoring equipment, including equipment for hydrogen sulfide monitoring and combustible gas detection, shall be maintained in accordance with industry standards.

(iii) The operator shall maintain records showing the dates and results of inspection, testing, repairing, adjustment, and reinstallation of all shut-in devices, relief valves, and safety systems for a period of two (2) years, during which time they shall be available for review by an agent of the Board.

(iv) Prior to placing a processing facility into service, the following certification signed and dated with the title of the company representative shall be submitted: "(Operator) certifies that the (Processing Facility) has been designed, installed and will be operated to meet or exceed generally accepted industry standards or practices for such facilities."

(c) Notification shall be given to the Supervisor for turnaround operations.

(d) For sour gas operations, in addition to the above, the following information shall be submitted:

1. A description and schematic diagram showing hydrogen sulfide safety and monitoring equipment specified in Rule 400-1-9-.02, relating to Operations Involving Hydrogen Sulfide.

2. Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-24 for the facility, associated wells, and gathering lines shall be submitted to the Supervisor.

(e) Additional information when required by the Supervisor.

(3) **Plants.**

(a) Plants shall be designed, installed, and maintained in accordance with generally accepted industry practices or standards.

(b) Prior to the construction and operation of a plant, approval must be obtained from the Supervisor. Application for permission to construct and operate a plant shall be considered as a two-step process.

1. **Step 1.** An operator seeking the Supervisor's approval for the design and construction of a plant shall submit in duplicate the information listed below:

(i) A plat of the site.

(ii) A generalized statement of processes and procedures used in the facility and the design capacity of the facility.

(iii) A generalized schematic flow diagram showing all equipment on location and a plat showing location, size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels.

(iv) Generalized schematic diagrams showing location of hydrogen sulfide and combustible gas detection equipment, sensors and alarms, personnel safety equipment, fire fighting equipment, and emergency shutdown devices.

(v) Construction plans and schedules shall be submitted to the Supervisor prior to initiating construction of the facility.

2. **Step 2.** Prior to placing the plant in service the operator shall submit information pertaining to operation and maintenance as listed below:

(i) The operator shall submit a schedule for initial testing and inspection of the safety systems at the plant. Such test shall be witnessed by the Board's representative prior to commencing the operation of the plant. Schedules for subsequent inspections and testing shall be submitted to the Supervisor.

(ii) Gas monitoring equipment, including equipment for hydrogen sulfide monitoring and combustible gas detection, shall be maintained in accordance with industry standards.

(iii) The operator shall maintain records showing the dates and results of inspection, testing, repairing, adjustment, and reinstallation of all shut-in devices, relief valves, and safety systems for a period of two (2) years, during which time they shall be available for review by an agent of the Board.

(iv) Prior to placing a plant into service, the following certification signed and dated with the title of the company representative shall be submitted: "(Operator) certifies that the (Plant) has been designed, constructed and will be operated to meet or exceed generally accepted industry practices or standards for such facilities."

(c) Prior to placing a plant involving extraction, into service, approval must be obtained from the Board after notice and hearing.

(d) Notification shall be given to the Supervisor for turnaround operations.

(e) For sour gas operations, in addition to the above, the following information shall be submitted:

1. A description and schematic diagram showing hydrogen sulfide safety and monitoring equipment specified in Rule 400-1-9-.02, relating to Operations Involving Hydrogen Sulfide.

2. Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-24 for the facility, associated wells, and gathering lines shall be submitted to the Supervisor.

(f) Additional information when required by the Supervisor.

(4) **Modifications to Production Facilities, Processing Facilities, and Plants.** Modifications to production facilities, processing facilities, and plants shall be addressed in the following manner:

(a) If any production facility requires modifications or metering changes that revise the basic information pertaining to flow diagrams or treatment, revised schematics shall be submitted to the Supervisor for his approval prior to making such modifications.

(b) If any sour gas production facility, processing facility, or plant requires modifications or metering changes that revise the basic information pertaining to flow diagrams, processing, safety systems, or equipment size and locations, revised schematics shall be submitted to the Supervisor for approval prior to making such modifications.

(c) Additional information when required by the Supervisor.

400-1-8. Transportation

400-1-8-.01. Certificate of Compliance, Authorization to Transport.

No transporter shall transport oil, gas, or condensate from any production facility or plant products from any plant, until the operator thereof shall furnish to the transporter an approved Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12, and, if required, an approved Operator's Certificate of Compliance and Authorization to Transport Products from Plant, Form OGB-13. If oil, gas, or condensate is being transported from multiple wells, and there is a common transporter and a common purchaser for each of the wells, then an operator may submit a single Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12, listing the permit number, well name and number, and field name for each well. Such certificates shall certify that the conservation laws of the State have been complied with, and that such transporter is authorized by the operator to transport oil, gas, or condensate from such facility or plant products from any plant. Unless otherwise authorized by the Supervisor, Form OGB-12 or OGB-13 must be approved prior to transporting first production.

400-1-8-.02. Revocation of Certificate of Compliance.

Whenever the operator of any oil or gas production facility or plant shall have failed to comply with all applicable laws and applicable rules and regulations of the Board, with respect to such facility or plant, the applicable Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12, and, if required, the applicable Operator's Certificate of Compliance and Authorization to Transport Products from Plant, Form OGB-13, shall be revoked. The Supervisor or Board shall provide written notice to the operator and transporter of revocation, and the transporter moving oil, gas, condensate, or plant products from such facility or plant, shall immediately discontinue transporting oil, gas, condensate, or plant products until further notice from the Supervisor or Board.

400-1-8-.03. Gathering Lines.

(1) **Applicability.**

(a) All intrastate gathering lines, located in a rural location, must be designed, installed, constructed, and maintained in accordance with generally accepted industry standards.

(b) Any modification, replacement, relocation, or other change in an intrastate gathering line, located in a rural location shall be made in accordance with generally accepted industry standards. Repairs that do not alter the accuracy of the information previously submitted and approved under section (2) are not subject to this part.

(c) Flowlines and transmission lines, as defined in Rule 400-1-1-.05, relating to Definitions, shall not be subject to this rule.

(d) Exemptions to sections (2) through (4) may be obtained if operational conditions of the line satisfy the qualifications listed in section (6) of this rule.

(e) Variances to or waivers from the specifications of parts of this rule may be granted by the Supervisor as set forth in section.

(2) **Approval Procedures.** Prior to the construction and operation of a gathering line, approval must be obtained from the Supervisor. Application for permission to construct and operate a gathering line shall be considered as a two-step process. An operator seeking the Supervisor's approval for the construction and operation of a gathering line shall submit the following:

(a) **Step 1.** Prior to installing any gathering line, the operator shall submit to the Supervisor information pertaining to the design of the line including the following when applicable:

1. Location, route and length of line;
2. Line pipe specifications to include size, weight, grade, wall thickness, and coating;
3. Maximum allowable operating pressure of pipeline and calculations used in its determination;
4. Maximum throughput capacity of pipeline at design conditions;
5. Generalized construction drawings;
6. Types of corrosion protection;
7. Burial depths of line;
8. Pressure test procedures to which the line will be tested prior to operation;
9. Location and type of safety and pollution control equipment;
10. Line marking method and procedures; and
11. Additional information when required by the Supervisor.

(b) **Step 2.** Prior to initiating operation of said gathering line, the operator shall submit to the Supervisor for approval the following information:

1. Method, documentation, and results of pressure test;
2. Frequency, method of inspection, documentation, and record maintenance of a pipeline inspection program;
3. The following certification signed and dated with the title of the company representative:

"(Operator) certifies that the (Gathering Line) has been designed and installed in accordance with accepted industry standards and procedures and that future modifications will be performed by qualified personnel.";

4. Any modification to a gathering line shall be submitted to and approved by the Supervisor prior to making such modification. Such operations may include, but not be limited to, the addition

of a source or incoming side stream, increasing the pressure or capacity, or any modification that will alter the accuracy of the information previously submitted. Prior to placing the line back into service, the operator shall recertify the gathering line;

5. Additional information when required by the Supervisor.

(3) **Construction.** Each gathering line must be constructed in accordance with the written specifications submitted to and approved by the Supervisor as defined in section (2).

(4) **Compressor Stations.** A location map and generalized process and flow diagrams of each compressor station, including working pressure ranges, safety equipment, and ancillary equipment shall be submitted to the Supervisor prior to the installation of the facility.

(5) **Maintenance and Abandonment.**

(a) All gathering lines and right of ways shall be maintained and operated in safe manner and in accordance with this rule.

(b) Each gathering line abandoned in place must be disconnected from all sources and supplies of hydrocarbons and purged with water or inert materials.

(c) Plans to abandon sour gas gathering lines in place shall be submitted to the Supervisor for approval.

(6) **Notice of Activities.**

(a) The operator shall provide at least twenty-four-(24) hour notice to the Supervisor prior to initiation of any gathering line construction operation. The Supervisor may send a duly authorized representative to the location to witness the joining of pipe, covering of pipe, and the pressure testing of the gathering line.

(b) Remedial action to repair or replace damaged gathering lines may be performed as needed. The Supervisor should be notified as soon as possible.

(7) **Additional Requirements.** In addition to this rule, the design, construction, and operation of gathering lines transporting hydrocarbons that contain hydrogen sulfide concentrations equal to or greater than one hundred (100) parts per million (ppm) in the system must comply with the requirements as set forth in Rule 400-1-9-.02, relating to Operations Involving Hydrogen Sulfide.

(8) **Exemptions.** The following operations are exempted from submitting the information listed in section (2):

(a) Any gathering line classified as an interstate line or a line that is under the jurisdiction of the Alabama Public Service Commission.

(b) Other operations may be granted exemptions by the Supervisor upon written request and justification by the operator.

(9) **Variances.** Upon written request, variances may be granted by the Supervisor upon showing a good cause by the operator.

(a) The Supervisor may waive the requirements for submitting the information contained in Step 1, if the operator has prefiled said information as standard company policy.

(b) The Supervisor may waive the requirements for submitting the information contained in Step 1 and Step 2, except pressure test results, for unitized operations, provided the operator has prefiled said information as standard company policy.

400-1-9. Safety and Environment

400-1-9-.01. Notification of Fire, Spill, Leak, or Blow Out.

(1) The Supervisor shall be notified immediately of a fire, spill, leak, or blow out that occurs at or is related to the operation of any well, production, processing, storage, Class II injection facility, underground storage facility, plant, or gathering line or flowline, used in operations including but not limited to drilling, completing, testing, recompletion or reworking, producing, processing, storing, injecting, gathering, transporting or metering.

(2) Such notification shall include information pertaining to a description of the incident; location by County, section, township, and range; extent of damage to life and environment; and corrective action taken.

(3) If deemed necessary by the agent of the Board, Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days of the incident; however, when a spill or leak leaves the location Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days.

(4) The operator shall immediately take the appropriate action to clean up spills, repair leaks, extinguish fires, and bring blow outs under control. Additionally, the operator shall notify other appropriate governmental agencies of the incident.

400-1-9-.02. Operations Involving Hydrogen Sulfide.

This rule shall apply to all operations that encounter or could reasonably expect to encounter oil or gas containing hydrogen sulfide. Preventative measures shall be taken to control the effects of hydrogen sulfide (H_2S) at all operations where hydrogen sulfide concentrations in the system are equal to one hundred (100) parts per million (ppm) or more. Such operations shall include, but may not be limited to drilling, completion, recompletion or reworking, testing, producing, gathering, metering, cleansing, processing, storing, transporting, and injecting.

(1) **Operator Responsibility.**

(a) Each operator shall conduct operations in accordance with section (2) through (7), and (10) and (11) below. Section (8) requires each operator to file a Certificate of Compliance for each operation that encounters or could reasonably be expected to encounter oil or gas containing hydrogen sulfide.

(b) Any person or persons submitting an application for a change of operator pursuant to Rule 400-1-2-.05 for an existing sour gas well, plant, or gathering line shall comply with the requirements of this rule.

(c) Exemptions to section (2) through (7) may be obtained by filing a Certificate of Compliance with the Supervisor as directed under section (9) below.

(d) Variances to or waivers from the specifications of this rule may be granted by the Supervisor upon showing a good cause by the operator.

(2) **Safety Program.** A safety program shall be established and maintained to promote safety procedures. All personnel that are assigned, contracted, or employed shall be instructed as to hazards of hydrogen sulfide, including physiological responses and the application of first aid to victims of hydrogen sulfide exposure.

(3) **Equipment and Materials.** All equipment and materials that will be exposed, or can reasonably be expected to be exposed to hydrogen sulfide, shall be designed and maintained to resist damage caused by hydrogen sulfide stress cracking, embrittlement, or corrosion. The design shall be in accordance with applicable National Association of Corrosion Engineers (NACE) Standards.

(4) **Warning Systems**.

(a) Warning Signs and Security.

1. For aboveground and fixed surface facilities the operator shall post, where permitted by law, clearly visible warning signs on public streets or roads inside the radius of exposure.

2. In populated areas such as towns and cities where the use of signs is not considered to be acceptable, an alternate warning plan may be approved upon written request to the Supervisor.

3. Unless otherwise approved by the Supervisor, unattended surface facilities shall be fenced and locked as a deterrent to public access when the radius of exposure is greater than fifty (50) feet and includes a public area or when the radius of exposure is equal to or greater than one-half (1/2) mile.

4. Unless otherwise approved by the Supervisor, unattended surface facilities shall have access to the site limited by a locked gate when the radius of exposure is greater than fifty (50) feet and does not include a public area.

(b) Monitors and Alarms.

1. Unless otherwise approved by the Supervisor, each drilling, workover, testing, production or plant facility shall have a hydrogen sulfide monitoring system which activates visible alarms when the concentration of hydrogen sulfide exceeds ten (10) parts per million (ppm) in air and audible alarms when the concentration of hydrogen sulfide exceeds twenty (20) ppm in air. This system shall be capable of sensing a minimum of five (5) ppm in air.

(i) As a minimum, hydrogen sulfide sensors for onshore drilling and workover rigs shall be located at the rig floor, bell nipple, shale shaker, and mud pits.

(ii) For drilling operations, this monitor and alarm system shall be on site and operational prior to penetrating the hydrogen sulfide bearing zone in accordance with the time specified in the contingency plan. Said equipment shall be on site and operational prior to commencing all other operations involving hydrogen sulfide.

2. The operator of each production well or plant facility shall install and maintain a monitor and alarm system at the well or plant site designed to detect the continuing escape of hydrogen sulfide.

3. The operator of each unplugged inactive well shall establish safety procedures, as approved by the Supervisor, which are designed to prevent the undetected continuing escape of hydrogen sulfide.

4. The operator of each production well, injection well, processing facility, or plant facility shall install and maintain in operable condition safety devices to include automatic shutdown devices designed to prevent the undetected continuing escape of hydrogen sulfide. Safety devices shall be maintained within industry standards.

(c) **Wind Direction Equipment.** Wind direction equipment shall be installed at prominent locations on or near the drilling, workover, test, or plant facility to indicate the wind direction at all times and the safe upwind areas in the event hydrogen sulfide becomes present in the atmosphere.

(d) **Danger Signals.** Danger signals consisting of signs and flags shall be displayed in a manner visible to all traffic approaching the facility. All signals shall be illuminated under conditions of limited visibility when in use. If illumination is not feasible, signals must be constructed of reflective material or covered with reflective paint so they will be readily visible from other light sources such as automobiles. Danger signals shall be displayed to indicate the following operational conditions and requirements:

1. The color green shall indicate possible danger, when the concentration of hydrogen sulfide is less than ten (10) parts per million (ppm) in air;

2. The color yellow shall indicate moderate danger, when the concentration of hydrogen sulfide reaches ten (10) ppm in air. If the concentration of hydrogen sulfide reaches twenty (20) ppm in air, breathing apparatuses shall be worn by all personnel and all non-essential personnel shall proceed to the safe briefing areas;

3. The color red shall indicate extreme danger, when the concentration of hydrogen sulfide reaches fifty (50) ppm in air. All non-essential personnel shall be evacuated, immediate notification shall be given to local civil authorities, and traffic in the immediate vicinity of the facility shall be diverted. The State Oil and Gas Board and other appropriate governmental agencies shall be notified as soon as possible when conditions of extreme danger exist.

(5) **Training Requirements.**

(a) Each operator whose operations are subject to this rule shall provide training of personnel responsible for his operations. An attendance list of these training sessions shall be maintained by the operator.

(b) The training of personnel shall include the following elements:

1. Safety precautions;

2. Operation of safety equipment and life support systems;

3. Corrective action and shutdown procedures;

4. Effect on metal components of the system.

(6) **Personnel Safety Equipment.**

(a) Breathing apparatuses shall be provided and be readily accessible. A minimum requirement shall be to provide self-contained breathing equipment for all personnel that could be exposed to hydrogen sulfide concentrations in excess of ten (10) parts per million (ppm) in air.

(b) A system of breathing air manifolds, hoses, and masks shall be provided on the rig floor for all drilling or workover operations or when hydrogen sulfide concentrations reach twenty (20) parts per million (ppm) in the air in all other operations. A rechargeable cascade air bottle system shall be provided to refill individual bottles of breathing air. Additional equipment such as a first aid kit, ear plugs, spectacle kits, portable hydrogen sulfide detectors, retrieval ropes and harnesses, chalk boards, note pads, bull horns, flashing lights, resuscitators, and a litter shall also be available.

(c) For drilling operations, the equipment specified in sections (6)(a) and (6)(b) shall be on site and operational prior to penetrating the hydrogen sulfide bearing zone. Said equipment shall be on site and operational prior to commencing all other operations involving hydrogen sulfide.

(d) Explosion-proof ventilation devices shall be provided in critical work areas of the drilling, workover, test, or plant facility and be multidirectional and capable of dispersing hydrogen sulfide vapors.

(e) If hydrogen sulfide is detected, frequent inspections of all areas of poor ventilation shall be made with a hydrogen sulfide detector instrument, and personal hydrogen sulfide detectors shall be made available to personnel.

(7) **Contingency Plan.**

(a) Operations that handle gas containing one hundred (100) parts per million (ppm) hydrogen sulfide or more in the system must formulate a contingency plan unless exempted under section (9). The contingency plan must be in place, as specified on Form OGB-24, Operator's Certificate of Compliance for Operations involving Hydrogen Sulfide, prior to commencing the following operations:

1. Penetrating the hydrogen sulfide bearing zone during drilling operations;

2. Working over or recompleting a well in a hydrogen sulfide bearing zone;

3. Completing a temporarily abandoned well in a hydrogen sulfide bearing zone;

4. Testing or putting on permanent production a well that is completed in a hydrogen sulfide bearing zone;

5. Producing hydrocarbons bearing hydrogen sulfide into a sour flowline or sour gathering line;

6. Starting up a plant or facility that will remove hydrogen sulfide from production;

7. Implementing any modification to an existing operation or facility, which increases the radius of exposure in a public area or results in a change of the applicable requirements of this rule.

(b) A contingency plan shall include the following items:

1. A plat covering the area of exposure or an area having a radius of one (1) mile, whichever is greater. The plat shall include the location of the well, plant, or corridor showing all good roads, residences, public areas and places, areas of low elevation where hydrogen sulfide might accumulate, the direction of prevailing winds, oil and gas wells, separators, heaters, corridors of gathering or pipeline systems, pumping stations, plants, transformer stations, and other manmade structures or features that may be of importance.

2. An index list of houses and places of business with telephone numbers and names and numbers of residents and employees as well as the identification of residents needing assistance in evacuation shall accompany the plan. This index list shall be limited to those houses and places of business located within a radius of one (1) mile or the radius of exposure, whichever is greater.

3. Information about the safety program established in section (2), the training requirements in section (5), the personnel safety equipment required in section (6), the location of briefing areas, and responsibilities of personnel during different operational conditions;

4. A description of the warning systems required in section (4) to include number, location, and detection limits of all monitors as well as the schedules for calibrating and testing said systems;

5. For drilling operations, a specification of the time at which the warning systems required in section (4) and the personnel safety equipment required in section (6) will be on site and operational;

6. Procedures to evacuate residences, businesses, and public places;

7. Procedures to divert traffic in the immediate vicinity and to notify the local civil authorities, the State Oil and Gas Board, and other appropriate governmental agencies;

8. Procedures to evacuate non-essential personnel from the well or facility in the event attempts to control the well or facility are unsuccessful;

9. A list including names, addresses, and telephone numbers of the closest hospitals, ambulance services, medical personnel, and other individuals or facilities that could assist in the event of an emergency;

10. The name, address, and telephone number of the individual in charge of administering the plan;

11. Any other information that the operator deems appropriate;

12. Other information deemed necessary by the Supervisor.

(c) The contingency plan shall be amended when any significant change in public exposure caused by public infringement of an existing radius of exposure requires such changes to be made. Otherwise, the contingency plan for each facility shall be reviewed and updated on an annual basis.

(d) Copies of the contingency plan shall be available for inspection by the Supervisor at the location indicated on Form OGB-24, Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide and shall be provided to local civil authorities prior to commencing any one of the operations set forth in section (7)(a) and be readily available at the drilling, workover, test, or plant facility.

(8) **Certificate of Compliance.**

(a) An Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide, Form OGB-24, shall be filed in triplicate with the Supervisor for each facility or operation involving hydrogen sulfide subject to any requirement of this rule. A Certificate of Compliance may cover a single operation or multiple operations located within a field. The description of the type of operation indicated on Form OGB-24 must sufficiently define the facilities covered. Each operator shall maintain a current list of all operations covered by a Certificate of Compliance. Said list shall be available for inspection by the Supervisor upon request.

(b) The Certificate of Compliance shall certify that the operator has complied, or will comply, with the applicable requirements of this rule.

(c) For drilling operations, the Certificate of Compliance shall be filed with and approved by the Supervisor as a part of the application to drill. For facilities involving other types of hydrogen sulfide operation, as set forth in section (7)(a), the Certificate shall be filed with and approved by the Supervisor prior to commencing those operations.

(d) A new or amended Certificate of Compliance shall be required if there is a change in public exposure caused by public infringement of an existing radius of exposure resulting in a change in the applicable provisions of this rule, not described by the existing certificate. The operator shall file the new or amended certificate within thirty (30) days after an operator becomes aware of such infringement.

(e) A new or amended Certificate of Compliance shall be required if there is a modification of an existing operation or facility which increases the radius of exposure in a public area or results in a change in the applicable provisions of this rule not described by the existing Certificate. The operator shall file the new or amended Certificate at least thirty (30) days prior to initiating the operation or construction. Approval of the Certificate must be granted by the Supervisor prior to commencing that operation or construction.

(f) For drilling operations, the Certificate of Compliance submitted with the permit shall remain in effect through the completion, testing and well securing operations provided that the rig remains in place. If the rig is removed prior to these procedures, an amended Certificate accompanied by a schematic of the location showing the monitoring system and test equipment locations shall be submitted. The monitoring system and test equipment must be approved by the Supervisor prior to initiating test procedures.

(g) Each facility or operation for which a Certificate of Compliance has been approved shall be recertified by the operator on an annual basis. The recertification shall be filed with the Supervisor within thirty (30) days of the anniversary date of the most recently approved Certificate of Compliance for that facility or operation. Recertification is not required for operations containing less than one hundred (100) parts per million (ppm) hydrogen sulfide.

(9) **Rule Exemptions.** Exemptions from sections (2) through (7) may be obtained by filing the Certificate of Compliance as directed below:

(a) Each operator must determine the hydrogen sulfide concentration in the gaseous mixture in an operation or system.

1. Tests shall be made in accordance with standards as set by American Society for Testing and Methods (ASTM) Standard D-2385-66, or Gas Processors Association (GPA) Plant Operation Test Manual C-1, GPA Publication 2265-68, as revised, or other methods approved by the Supervisor.

2. Tests of vapor accumulation in storage tanks may be made with industry-accepted colorimetric tubes.

(b) To obtain an exemption from this rule, the radius of exposure must be determined, except in the cases of storage tanks, using the following Pasquill-Gifford equation, or by other methods satisfactory to the Supervisor:

For determining the radius of exposure:

$$X = ((1.589) (\text{mole fraction } H_2S) (Q))^{(.6258)}$$

Where: X = radius of exposure in feet for 100 ppm H_2S concentration

Q = maximum volume determined to be available for escape in standard cubic feet per day

H_2S = mole fraction of hydrogen sulfide in the gaseous mixture available for escape (i.e. for 1% H_2S (volume basis), mole fraction is 0.01)

(c) The volume used as the escape rate in determining the radius of exposure shall be that specified below, as applicable:

1. The maximum daily volume rate of gas containing hydrogen sulfide handled by that system for which the radius of exposure is calculated.

2. For existing gas wells, the estimated maximum open flow potential shall be used.

3. For new wells drilled in developed areas, the escape rate shall be determined by using the estimated maximum flow potential of adjacent wells in the field.

4. The escape rate used in determining the radius of exposure shall be corrected to standard conditions of 14.65 pounds per square inch absolute (psia) and 60°F.

(d) For drilling of a well in an area where insufficient data exist to calculate a radius of exposure but where hydrogen sulfide may be expected, then a radius of exposure equal to one-half (1/2) mile shall be assumed. A lesser-assumed radius may be considered upon written request setting out the justification.

(e) Storage tanks which are utilized as part of a production operation and which are operated at or near atmospheric pressure are exempt from sections (2) and (4) through (7); however, where the vapor accumulation has a hydrogen sulfide concentration in excess of five hundred (500) parts per million (ppm), the storage tanks shall be subject to the following:

1. Storage tanks are exempt from sections (4), (6b, c, d, and e), and (7) only;

2. A warning sign shall be posted on or within fifty (50) feet of the facility to alert the general public of the potential danger;

3. Fencing, as a security measure, is required when storage tanks are located inside the limits of a town site or city or where conditions cause the storage tanks to be exposed to the public.

(f) Operations with a radius of exposure less than fifty (50) feet are exempt from sections (2) through (7) upon filing the Certificate of Compliance.

(g) Provided no public area is included within one-half (1/2) mile, operations with a radius of exposure greater than fifty (50) feet and less than one-half (1/2) mile are exempt from sections (4)(b) through (7) upon filing the Certificate of Compliance.

(h) Operations with a radius of exposure that either is greater than fifty (50) feet and includes a public area or is equal to or greater than one-half (1/2) mile are not eligible for an exemption under this section.

(10) **Well Testing Procedures.** Well testing procedures for operations involving hydrogen sulfide shall be conducted in accordance with this section.

(a) Well testing shall be performed with a minimum number of personnel in the immediate vicinity of the location.

(b) During the test, the use of hydrogen sulfide detection equipment shall be intensified.

(c) All surface units and related equipment that will handle or be exposed to produced fluids containing hydrogen sulfide shall be designed for hydrogen sulfide service.

(d) All produced gases that are vented or flared shall be produced through a flare system that has been designed to gather and burn hydrogen sulfide gas safely. Flare lines shall be located at a distance

that is sufficient to compensate for wind changes. The flare system shall be equipped with a pilot and an automatic igniter. Backup ignition for each flare shall be provided.

(e) Gases from stored test fluids shall be vented into a flare system.

(f) Testing operations in which produced gases are flared shall comply with permit regulations of other state and federal agencies.

(11) **Sour Flowlines and Sour Gathering Lines.** In addition to the requirements set forth in Rule 400-1-8-.03 relating to Gathering Lines, the following applies to the operation of sour flowlines and sour gathering lines.

(a) **Approval Procedures.** The following information which applies to the design, construction, and maintenance of sour flowlines and sour gathering lines, shall be submitted for approval by the Supervisor:

1. Description of corrosion monitoring and inspection programs;

2. Description of safety systems, including associated shutdown procedures, designed to detect the continuing escape of hydrogen sulfide;

3. The following certification signed and dated with the title of the company representative:

"(Operator) certifies that the (Sour Flowline or Sour Gathering line) has been designed and will be installed and inspected to meet or exceed accepted industry standards for gas and liquid lines in hydrogen sulfide service." A certified plan of any future modification to a sour gathering line or sour flowline shall also be submitted to and approved by the Supervisor prior to making such modification;

4. Proof of public notification as set forth in section (c) below or evidence that the public has been or will be given notice and opportunity to comment on the proposed work through the public notification procedures of another agency having permit authority;

5. Additional information when required by the Supervisor.

(b) **Modifications and Repairs.**

1. Any modification to a sour flowline or sour gathering line shall be submitted to and approved by the Supervisor prior to making such modification. Such operations may include, but not be limited to, the addition of a source or incoming side stream, increasing the pressure or capacity, or any modification that will alter the accuracy of the information previously submitted. Prior to placing the line back into service, the operator shall recertify the gathering line.

2. Remedial action to repair or replace damaged sour flowlines or sour gathering lines may be performed after approval by the Supervisor. Repairs that do not alter the accuracy of information previously submitted are not subject to recertification.

(c) **Public Participation.** In order to afford the public an opportunity to participate in this matter, the operator shall comply with the following procedure:

1. The operator shall cause to be placed in a newspaper having general circulation in the county or counties in which the proposed line will be located, a notice setting forth a description of the proposed operation, and the operator shall provide the Supervisor proof of publication of such notice.

2. The notice shall state that during the fifteen (15) days following publication of the notice, interested parties may obtain additional information concerning the proposed operations from or submit comments to the State Oil and Gas Supervisor, P. O. Box 869999, Tuscaloosa, Alabama 35486-6999.

3. The notice shall state that a public meeting may be requested by any interested party at any time during the fifteen- (15-) day comment period.

4. If no public meeting is scheduled by the Supervisor at the expiration of the fifteen- (15-) day period, and if the application meets all of the requirements of the above rule, then the Supervisor may approve the application.

5. If deemed appropriate by the Supervisor, the Board will publish a notice for and conduct a public hearing in lieu of or in addition to any public meeting described in section (c)3. above. Such public hearing shall be in accordance with Rule 400-7-1-.01, et seq., relating to Rules and Regulations Governing Practice and Procedure. The application will be granted, denied, or modified by the Board after the hearing.

6. The Supervisor may waive the requirements of this section after reviewing the description of the proposed operations.

400-1-9-.03. Transportation of Wastes Associated with Oil and Gas Operations.

(1) **Certificate of Eligibility to Transport Wastes.**

(a) No transporter shall transport wastes from a site until a Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, has been approved by the Supervisor and an Organization Report, Form OGB-5, as prescribed in Rule 400-1-2-.04, has been filed with the Board. Said approval of a Transporter's Certificate shall be for a two- (2-) year period, but may be renewed every two (2) years by filing a new Organization Report, Form OGB-5.

(b) If any transportation procedures are modified, then an amended Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be submitted for approval by the Supervisor.

(2) **Revocation of Certificate of Eligibility to Transport Wastes.** Whenever the transporter of wastes shall have failed to comply with all applicable laws and applicable rules and regulations of the Board, the applicable Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be revoked. The Supervisor or Board shall provide written notice to the transporter of revocation and the transporter shall immediately discontinue transporting wastes until further notice from the Supervisor or Board.

(3) **Wastes Manifest.**

(a) Every shipment of wastes shall be accompanied by a Wastes Manifest, Form OGB-26.

(b) At the time of transport, the operator shall initiate the manifest by completing and signing Part I. After the transporter completes and signs Part II, the operator shall retain a copy of the manifest. All other copies shall accompany the waste shipment.

(c) Upon receipt of the wastes, the disposer shall complete and sign Part III of the manifest. The transporter shall then retain the transporter's copy.

(d) Upon completion of the manifest, the disposer shall retain the disposer's copy and mail the original copy to the operator within ten (10) days.

(e) The operator, transporter, and disposer shall maintain file copies of the completed manifest for a period of at least five (5) years. Said file copies shall be provided to the Board upon request by the Supervisor.

(f) Oil and gas operations from which wastes are transported out of state must comply with the manifest system requirements.

(4) **Unit or Field-Wide Operations.** In the case of unitized or field-wide operations where the transporting of wastes is confined to the geographical boundaries of the unit or field, the operator may be eligible for the following exemptions:

(a) When the operator also serves as the generator, transporter and disposer, the operator may request an exemption from the manifest system upon filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25.

(b) When the operator serves as the generator and disposer but contracts the transportation to another party, the operator may request an exemption from the manifest system upon the transporter filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25. The transporter shall be required to file a Transporter's and Storer's Monthly Report, Form OGB-16.

400-1-9-.04. Hydraulic Fracturing

(1) Each formation shall be hydraulically fractured so as not to cause irreparable damage to the oil and gas well, or to adversely impact any fresh water supply well or any fresh water resources.

(2) A proposal to fracture a formation shall be accompanied by a check or bank draft in the amount of two-hundred fifty dollars ($250) payable to the State Treasurer, State of Alabama, which sum is fixed as the fee for each proposal; however, in no case shall the fee paid for concurrent hydraulic fracturing operations in a single well exceed seven-hundred fifty dollars ($750) regardless how many formations are hydraulically fractured. Where the proposal to hydraulically fracture is associated with a horizontal well, then the fee shall be two-hundred fifty dollars ($250) for each segment or stage of the horizontal well in which a hydraulic fracturing operation is conducted; however, in no case shall the amount be over seven-hundred fifty dollars ($750) in connection with concurrent hydraulic fracturing operations in a single well.

The fee shall be deposited into the Alabama State Oil and Gas Board Special Fund pursuant to Section 9-17-24 of the *Code of Alabama* (1975).

(3) A formation shall not be hydraulically fractured until approval of the Supervisor is obtained. In order to receive approval from the Supervisor, a proposal to fracture shall include the following:

(a) a wellbore schematic showing the specifications of the casing and cementing program, including pressure tests and the depth interval(s) and name(s) of formation(s) to be fractured;

(b) geophysical and cement bond logs;

(c) a program describing the proposed fracturing operation. Information to be considered shall include, but not be limited to, the maximum length and orientation of the fracture(s) to be propagated and the type fluids and materials that are to be utilized. Programs to hydraulically fracture shall be prepared by a person, or entity, familiar with the technicalities of fracturing formations in the area in which fracturing operations are proposed. The program filed with the Board shall identify the person, or entity, that has prepared the fracturing program and be accompanied by a letter from the operator stating its intended application. Recurrent filing of a fracturing program will not be necessary if such program has previously been submitted to the Supervisor and is directly applicable to the fracturing proposal under consideration. Modification(s) to a fracturing program that would alter the maximum length and orientation of the fracture(s) to be propagated, or the type fluids and material to be utilized, shall be submitted to the Supervisor prior to its implementation in the field;

(d) an inventory prepared by the operator identifying all fresh water supply wells within a one quarter- (1/4-) mile radius of the well to be fractured. Records of fresh water supply wells shall be used by the operator in delineating the construction and completion depths of such supply wells. The records of the Geological Survey of Alabama (GSA) shall be the primary source of information used in this evaluation process. Additionally, the operator shall conduct a field reconnaissance within a one quarter-(1/4-) mile radius of the subject well to determine the location of any additional fresh water supply wells that may not be identified in the previously described documents. If possible, construction information for such additional fresh water supply wells must be obtained. Consideration shall be given to the records of all fresh water supply wells available and the operator shall report the results of his findings to the Supervisor. Fracturing operations shall not be conducted if it is determined that any fresh water resources or any fresh water supply well located within a one quarter- (1/4-) mile radius of the subject well could be adversely impacted as a result of the fracturing operation; and

(e) a statement by the operator affirming to the Supervisor, in writing, that the well construction and pressure tests results, and geophysical and cement bond logs, have been evaluated and that the results of this evaluation indicate that the proposed hydraulic fracturing operations can be conducted without adverse impact on any fresh water supply wells or any fresh water resources.

In reviewing a proposal for hydraulic fracturing, the Supervisor shall consider*:*

1. whether the proposed hydraulic fracturing operation ensures that the formation to be fractured lies beneath an impervious stratum;

2. whether the fracture fluid to be utilized will remain in the formation to be fractured; and

3. whether the casing is effectively cemented in place.

(4) Diesel oil or fuel is prohibited in any fluid mixture used in the hydraulic fracturing of a formation.

(5) The Supervisor may request the submittal of additional information in order to clarify a proposal to hydraulically fracture a formation.

(6) The operator shall maintain all records associated with each proposal approved by the Supervisor and implemented by the operator to hydraulically fracture formations until such time that the subject well has been plugged for permanent abandonment, but not less than three (3) years following completion of the fracturing operation. Upon request, copies of these records shall be made available to the Supervisor.

(7) In order to provide adequate disclosure of well stimulation fluids utilized in a hydraulic fracturing operation,

(a) The operator shall provide to the Board:

1. a description of the fracture fluid identified by additive, e.g., acid, proppant, surfactant, and

2. the name of the chemical compound and the Chemical Abstracts Service Registry number, if such registry number exists, as published by the Chemical Abstracts Service, a division of the American Chemical Society, for each constituent added to the base fluid, and

3. the operator is not required to disclose information that is deemed to be a trade secret. However, information deemed to be a trade secret shall be disclosed as necessary for proper medical diagnosis and treatment or for spill response.

(b) Within thirty (30) days after the fracturing of a well, the operator shall post the information to the Frac Focus website.

400-1-10. Reports

400-1-10-.01. Reports.

Operators of oil and gas, Class II injection wells, storage wells, plants, and transporters of oil, condensate, or gas or storage operators shall make reports of their operations. The following reports shall be filed with the Supervisor by the twenty-eighth (28th) day of the month subsequent to the period for which the report is made, or at such other time as prescribed by the Supervisor. Any person conducting operations that fall within the classification of operator, transporter, processor, or storage operator shall prepare and file the following reports applicable to his operations:

(1) Operator's Monthly Report from Oil Wells, Form OGB-14;

(2) Operator's Monthly Report from Gas Wells, Form OGB-15;

(3) Transporter’s and Storer’s Monthly Report, Form OGB-16;

(4) Monthly Report of Fluids Injected, Form OGB-17;

(5) Monthly Report of Gas Injected/Withdrawn for Natural Gas Storage Facilities, Form OGB-17-D; and

(6) Monthly Report for Products from Processing, Cleansing, or Extraction Facilities, Form OGB-18.

400-2. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING SUBMERGED OFFSHORE LANDS OPERATIONS

400-2-1. General

400-2-1-.01. Applicability.

The following Rules and Regulations shall govern submerged offshore lands operations. These rules apply to oil and gas operations conducted in submerged offshore lands, which include all lands within Baldwin and Mobile counties that are overlain by water and within the territorial jurisdiction of the State of Alabama. For the purpose of administering these rules the Board may classify lands as submerged offshore lands or onshore lands. Wells drilled from surface locations in submerged offshore lands to onshore bottom hole locations shall be permitted, drilled, completed, and plugged pursuant to offshore rules and regulations, but shall be spaced on a spacing unit in accordance with onshore rules and regulations, except for locations under barrier islands and peninsulas which are bounded on at least three (3) sides by offshore tracts, or other landed areas designated by the Board, which areas shall be spaced in accordance with offshore rules. Wells drilled from onshore surface locations to bottom hole locations in submerged offshore lands shall be permitted, drilled, completed, and plugged pursuant to onshore rules, but shall be spaced in accordance with the offshore rules. The Supervisor may require notice and hearing on any permit application in which the operator requests approval to drill a well from a surface location in submerged offshore lands to an onshore bottom hole location or from an onshore surface location to a bottom hole location underlying submerged offshore lands.

400-2-1-.02. Application of Other Rules.

In addition to the rules and regulations governing submerged offshore lands operations set forth in Rule 400-2-1-.01 et seq., the following rules shall apply to submerged offshore lands operations:

(1) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Class II Underground Injection Control Operations, Rule 400-4-1-.01, et seq., and

(2) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Practice and Procedure and Forced Integration or Forced Pooling, Rule 400-7-1-.01, et seq.

400-2-1-.03. Repealed Rules, Special Field Rules, and Orders.

All rules and regulations governing the conservation of oil and gas in Alabama which have been heretofore promulgated by the Board under the authority of Act No. 1, approved May 22, 1945, General Act of Alabama, Regular Session 1945, are hereby repealed, rescinded, and superseded by these rules and regulations; provided, however, no special field rules or other orders of the Board are so repealed, rescinded, or superseded. Special field rules and orders will be issued when required and shall prevail over these rules and regulations, where in conflict therewith.

400-2-1-.04. Authority.

Rules, regulations, special field rules, orders, changes, renewals, or extensions thereof, shall be adopted in accordance with the requirements of Section 9-17-1 et seq. of the *Code of Alabama* (1975).

400-2-1-.05. Definitions.

The words defined hereafter shall have the following meaning when used within these rules:

(1) **Abandoned well** shall mean, for purposes only of compliance with requirements herein, that a well is to be considered abandoned when it has not been used for six (6) consecutive months, and has not been classified as temporarily abandoned or shut in pursuant to Rule 400-2-4-.14, and cannot be operated, whether because it was drilled as a dry hole or has ceased to produce, or operations have not been conducted thereon, or for some other reason.

(2) **Area of exposure** shall mean the area within a circle constructed with the point of escape as its center and the radius of exposure as its radius.

(3) **Barrel** shall mean forty-two (42) U.S. gallons, and when used for liquid hydrocarbon volumes it shall be at a temperature of sixty degrees Fahrenheit (60°F), with deductions for the full percent of any basic sediment, water, and other impurities present, ascertained by centrifugal or other recognized and customary tests.

(4) **Blow out** shall mean any uncontrolled escape of fluids, hydrocarbons, or any other materials from a well.

(5) **Blow-out preventer** shall mean a heavy casinghead device or devices that helps control or prevent a blow out by closing around the drill string, or work string, or that completely closes the top of the casing if the drill string, tubing, or other pipe is withdrawn.

(6) **Board** shall mean the State Oil and Gas Board of Alabama.

(7) **Bottom-hole pressure** shall mean the pressure per square inch (psi) at or near the face of the producing horizon obtained by means of a pressure-recording instrument or other method approved by the Board, with readings corrected to a predetermined plane or datum.

(8) **Casing pressure** shall mean the pressure at the surface of a well between the casing and tubing or between two (2) strings of casing.

(9) **Casinghead gas** shall mean any gas or vapor or both, indigenous to an oil pool and produced from such pool with the oil.

(10) **Christmas tree** (wellhead connection) shall mean an assembly of valves and fittings attached to the head of the casing of a well to control the flow.

(11) **Class II injection well** shall mean an injection well which is used (1) to inject brine or other fluids which are brought to the surface in connection with natural gas storage operations or oil or natural gas production and which may be commingled with waste waters from plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection; (2) for enhanced recovery of oil or natural gas; or (3) for storage of hydrocarbons which are liquid at standard temperature and pressure.

(12) **Cleansing** shall mean the removal or neutralization of any impurities found in produced oil or natural gas.

(13) **Completion** shall mean, for purposes only of compliance with requirements herein, that a well is considered completed when drilling operations have ceased or at such other times as the Supervisor may determine.

(14) **Condensate** shall mean the liquid produced by the condensation of gas or vapor, either after it leaves the reservoir or while still in the reservoir.

(15) **Consenting owner** shall mean an owner having a working interest in an oil and gas lease or an unleased oil and gas interest in an established or proposed spacing unit, who has reached an agreement in writing with the Board-appointed operator of the unit relative to the terms and conditions which will govern the manner in which his interest shall be developed and operated.

(16) **Conservation** shall mean the conserving, preserving, guarding, or protecting of oil and gas resources of the State by obtaining the maximum efficiency with minimum waste in the production, transportation, processing, treating, and marketing of the nonrenewable oil and gas resources of the State.

(17) **Contingency plan** shall mean a written document that shall provide an organized plan of action for alerting and protecting the public within an area of exposure following the accidental release of a potentially hazardous volume of hydrogen sulfide.

(18) **Cubic foot of gas** shall mean a volume of gas expressed in cubic feet and computed at a base pressure of 14.65 pounds per square inch absolute (psia), and flowing temperature of sixty degrees Fahrenheit (60°F); correction to be made for pressure deviation and for specific gravity according to tests made by the Balance Method, or other methods customary to the industry if approved by the Supervisor.

(19) **Day** shall mean a period of twenty-four (24) consecutive hours from 7:00 a.m. one day to 7:00 a.m. the following day.

(20) **Developed area or developed unit** shall mean a drainage or production unit having a well completed thereon which is capable of producing oil or gas in paying quantities; however, in the event it is shown, and the Board finds, that a part of any unit is nonproductive, then the developed part of the unit shall include only that part found to be productive.

(21) **Disposer** shall mean any person or company who receives wastes for disposal in a disposal facility that is in compliance with existing state and federal regulations.

(22) **Drainage or production unit** shall mean the area in a pool, which may be drained efficiently and economically by one well. For simplicity, the term “production unit” is used hereinafter from time to time in place of the term “drainage or production unit.”

(23) **Drilling unit** shall mean the unit temporarily assigned a well for the purpose of exploring, evaluating, or delineating the oil and gas resources underlying an offshore tract or section in submerged offshore lands, or a portion thereof. A drilling unit may be designated as a drainage or production unit after notice and hearing.

(24) **Drilling and development unit** shall mean the unit temporarily assigned to one or more wells for the purpose of exploring, evaluating, or delineating the oil and gas resources underlying an offshore tract in submerged offshore lands, or a portion thereof. Production of oil and gas from a drilling and development unit is prohibited, except for test production until further action of the Board establishing a production unit or unit operations. Drilling and development units established in accordance with Rule 400-2-2-.02 may consist of an entire offshore tract, or a portion thereof as described below:

(a) **One-quarter (1/4) offshore tract unit:** a spacing unit comprising one-quarter (1/4) of a regular offshore tract, configured as a square, which has one corner in common with the offshore tract, and contains twelve hundred ninety (1,290) acres, more or less.

(b) **One-half (1/2) offshore tract unit:** a spacing unit comprising two (2) one-quarter (1/4) offshore tracts that have one offshore tract boundary in common, and containing two thousand five hundred eighty (2,580) acres, more or less.

(c) **Three-quarter (3/4) offshore tract unit:** a spacing unit comprising three (3) one-quarter (1/4) offshore tracts and containing three thousand eight hundred seventy (3,870) acres, more or less.

(25) **Enhanced recovery** shall mean the increased recovery from a pool achieved by flooding, pressuring, cycling, or pressure maintenance and which may include the injection into the pool of a substance or a form of energy extrinsic to the pool.

(26) **Facility modification** shall mean any change in the operation, such as an increase in throughput, in excess of the currently permitted capacity, or any change that would increase the radius of exposure.

(27) **Field** shall mean the general area which is underlain or appears to be underlain by at least one pool; and field shall include the underground reservoir or reservoirs containing crude oil or natural gas, or both. The words field and pool mean the same thing when only one underground reservoir is involved; however, field, unlike pool, may relate to two or more pools.

(28) **Forced integrated unit or forced pooled unit** shall mean a spacing unit in which all nonconsenting owners have been ordered by the Board to integrate or pool their tracts and interests and develop them in accordance with law and the rules and regulations of the Board.

(29) **Gas** shall mean all natural gas, including casinghead gas and all other liquid or gaseous hydrocarbons not defined as oil.

(30) **Gas well** shall mean a well capable of producing gas from a gas pool or gas pools.

(31) **Illegal oil** shall mean oil which has been produced within the State of Alabama from any well or wells in excess of the amount allowed by any rule, regulation, or order of the Board, as distinguished from oil produced within the State of Alabama not in excess of the amount so allowed, which is legal oil.

(32) **Illegal gas** shall mean gas which has been produced within the State of Alabama from any well or wells in excess of the amount allowed by any rule, regulation, or order of the Board, as distinguished from gas produced within the State of Alabama not in excess of the amount so allowed, which is legal gas.

(33) **Illegal product** shall mean any product of oil or gas, any part of which was processed or derived, in whole or part, from illegal oil or illegal gas or from any product thereof, as distinguished from legal product, which is a product processed or derived to no extent from illegal oil or illegal gas.

(34) **Location** or **site** shall mean the area surrounding a well, production facility, processing facility, injection facility, storage facility, plant, or other facility that has been developed for oil and gas operations.

(35) **Mode of transportation** shall mean any waste transportation method including trucks, rail cars, barges, maritime vessels, aircraft, or any other means of transportation acceptable to the Supervisor.

(36) **Month and calendar month** shall mean the period or interval of time from 7:00 a.m. on the first (1st) day of any month of the calendar to 7:00 a.m. of the first (1st) day of the next succeeding month of the calendar.

(37) **Nonconsenting owner** shall mean an owner having a working interest in an oil and gas lease or an unleased oil and gas interest in an established or proposed unit, who has reached no agreement in writing with the Board-appointed operator of the unit relative to the terms and conditions which will govern the manner in which his interest shall be developed and operated.

(38) **Offshore plant** shall mean any combination of a production facility or a processing facility operated as herein defined and located upon an offshore platform or fixed structure.

(39) **Offshore tract** shall mean those divisions of submerged offshore lands shown on Alabama Department of Conservation and Natural Resources (ADCNR) plats entitled "State of Alabama, Chart of Submerged State Lands, Oil and Gas Lease Tracts," dated May 1984, Project No. 2, 5-L-27, revised October 31, 1990, Mobile and Baldwin Counties, Alabama, and any subsequent revisions thereof.

(40) **Oil** shall mean crude petroleum oil and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves the pool.

(41) **Oil well** shall mean a well capable of producing oil from an oil pool or oil pools.

(42) **Onshore lands** shall mean all lands within the territorial jurisdiction of the State of Alabama except those lands in Baldwin and Mobile Counties that are overlain by water.

(43) **Operator** shall mean any person who, is authorized by the Board to operate an oil, gas, or Class II injection well, or production or processing facility, including the handling and disposal of wastes that may be generated during operation of a well, or production or processing facility. The person named as operator according to the most current records of the Board is charged with complying with the oil and gas statutes and the rules and regulations of the Board.

(44) **Owner** shall mean the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another, or others.

(45) **Person** shall mean any natural person, firm, corporation, association, partnership, joint venture, receiver, trustee, guardian, executor, administrator, fiduciary, representative of any kind, or any other group acting as a unit, and the plural as well as the singular number.

(46) **Pool** shall mean an underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both and each zone of a general structure, which is completely separated from any other zone in the structure. The classification of such pool, as to oil or gas, is determined after notice and hearing and is based on the type of hydrocarbons in such pool.

(47) **Pressure base** shall mean an absolute pressure agreed upon or set as a base for converting the volume of gas metered to a correct volume.

(48) **Pressure maintenance** shall mean the injection of gas, water, or other fluid into an oil or gas pool to maintain pressure or retard pressure decline in the pool for the purpose of enhanced recovery.

(49) **Processing facility** shall mean either a cleansing facility or an extraction facility.

(a) **Cleansing facility** shall mean a facility designed to remove or neutralize any impurities, such as hydrogen sulfide and carbon dioxide, found in produced oil or natural gas.

(b) **Extraction facility** shall mean a facility designed to separate or remove substances from the produced hydrocarbons by chemical reactions or physical actions and converting the substances to new products such as natural gas liquids and elemental sulfur.

(50) **Product** shall mean any commodity made from oil or gas, and shall include refined crude oil, crude tops, topped crude, processed crude petroleum residue from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casinghead gasoline, natural gas gasoline, naphtha, distillate, gasoline, kerosene, benzene, wash oil, waste oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or by-products derived or separated from oil or gas, and blends or mixtures of two or more liquid products or by-products derived or separated from oil, gas, or sulfur whether hereinabove enumerated or not.

(51) **Production equipment** shall mean piping and vessels used in the production, extraction, recovery, lifting, stabilization, separation, initial treating, and storage of produced hydrocarbons.

(52) **Production facility** shall mean either a separation facility or a treatment facility.

(a) **Separation facility** shall mean a facility that uses a pressure vessel(s) for the purpose of separating well fluids into gaseous and liquid components.

(b) **Treatment facility** shall mean a facility that separates well fluids into gaseous and liquid components, with the addition of treatment such as stabilization of liquids from the gaseous phase and the dehydration of the gaseous phase or hydrocarbon liquid knockout.

(53) **Production unit** is used hereinafter from time to time in place of the term “drainage or production unit.”

(54) **Public area** shall include but not be limited to a dwelling, place of business, church, school, hospital, school bus stop, government building, a public road, all or any portion of a park, city, town, village, or other similar area that can expect to be populated.

(55) **Public infringement** shall mean a public area or a public road that has been established within an area of exposure to the degree that such infringement would change the applicable requirements of Rule 400-2-8-.04 to those operations responsible for creating the area of exposure.

(56) **Public meeting** shall mean a meeting held by the Supervisor to provide general information and receive comments concerning operations in a specific area.

(57) **Public road** shall mean any federal, state, county, or municipal street or road owned or maintained for public access or use.

(58) **Purchaser** shall mean any person who acquires title to oil, gas or condensate by purchase from an operator or other person.

(59) **Radius of exposure** shall mean that radius constructed with the point of escape as its starting point and its length calculated as provided for in Rule 400-2-8-.04.

(60) **Recompletion or reworking** shall mean any operation that requires a change in the physical construction of a well after its initial completion to secure production when there has been none, or to restore production that has ceased, or to increase production. Such operations include, but are not limited to, any changes in the depths of perforations, method of lift, tubing depths, packer depths, restoring pressure integrity to casing or tubing, etc.

(61) **Separator** shall mean an apparatus for separating oil, gas, condensate, water, etc., as it is produced.

(62) **Shut-in pressure** shall mean the pressure in pounds per square inch (psi) at the well head when the well is completely shut in.

(63) **Shut-in well** shall mean, for purposes only of compliance with requirements herein, a well that is capable of producing hydrocarbons but must remain shut-in until connected to a gathering system, pipeline or processing facility; or for some other reason.

(64) **Site.** See Location.

(65) **Sour gas operations** shall mean a facility that handles hydrogen sulfide concentrations in the system equal to one hundred (100) parts per million (ppm) or more.

(66) **Spacing unit** shall mean a unit established by the Board for each well. A spacing unit may either be (a) a drilling unit or (b) a drainage or production unit.

(67) **Special field rules** shall mean those rules promulgated for, and which are limited in their application to, individual pools and fields within the State of Alabama.

(68) **Spud** shall mean, the commencement of the continuous physical operation of drilling a well in which the land surface is penetrated by a drill bit.

(69) **State** shall mean the State of Alabama.

(70) **Storage operator** shall mean any company, person, corporation, partnership, limited partnership, association of persons, municipality, association of municipalities, public utility, gas district, or other entity, authorized by the Board pursuant to Section 9-17-152 of the Code to operate any storage facility.

(71) **Storage well** shall mean any well drilled or converted for use in an Underground Storage Facility.

(72) **Submerged offshore lands** shall mean all lands within Baldwin and Mobile Counties that are overlain by water and within the territorial jurisdiction of the State.

(73) **Sulfide stress cracking** shall mean the cracking phenomenon which is the result of corrosive action of hydrogen sulfide on susceptible metals under stress.

(74) **Supervisor** shall mean the State Oil and Gas Supervisor.

(75) **Tank** shall mean the receptacle into which the oil, condensate, or produced water is produced either directly from a well or from a well through a separator, gun barrel, or similar equipment.

(76) **Temporarily abandoned well** shall mean, for purposes only of compliance with the requirements herein, a well that is currently not producing hydrocarbons but that has been approved for future utility by the Supervisor or Board.

(77) **Tender** shall mean a permit or certificate of clearance, approved and issued or registered under the authority of the Board, for the transportation of oil, gas condensate, or products.

(78) **Transporter** shall mean and include any person engaged in the transportation of any petroleum hydrocarbons or products thereof within the contemplation of these rules or the laws of the State of Alabama, and in addition, shall mean any person or company who transports wastes by any method other than pipeline.

(79) **Turnaround** shall mean a scheduled time when an operation is shut down for routine maintenance, inspections, or installation of new equipment.

(80) **Underground storage** shall mean the storage of gas in an underground reservoir, stratum or formation of the earth.

(81) **Underground storage facility** shall mean an underground reservoir or an underground solution-mined cavity, the wellbore tubular goods, the wellhead, and related equipment to the last positive shut-off valve before the gathering line that is used or to be used for the underground storage of gas and all surface and subsurface rights and appurtenances necessary or useful in the operation of the facility for the underground storage of gas, including any necessary or reasonable buffer zone as recommended by the storage operator and approved by the Board for the purpose of insuring the safe operation of the storage of gas and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, together with any and all subsequent extensions thereof.

(82) **Waste**, in addition to its ordinary meaning, shall mean “physical waste” as that term is generally understood in the oil and gas industry. Waste shall include:

(a) The inefficient, excessive, or improper use or dissipation of reservoir energy, and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner which results or tends to result in reducing the quantity of petroleum hydrocarbons ultimately to be recovered from any pool in this State;

(b) The inefficient storing of oil or condensate and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of oil, condensate, or gas;

(c) Abuse of the correlative rights and opportunities of each owner of oil and gas in a common reservoir due to non-uniform, disproportionate, and unratable withdrawals, causing undue drainage between tracts of land;

(d) Producing oil or gas in such a manner as to cause unnecessary water channeling or coning;

(e) The operation of any oil well or wells with an inefficient gas-oil ratio;

(f) The drowning with water of any stratum, or part thereof, capable of producing oil or gas, not including the methods necessary for enhanced recovery after approval of the Board;

(g) Underground waste, however caused and whether or not defined;

(h) The creation of fire hazards;

(i) The escape into the open air, from a well producing both oil and gas, of gas in excess of the amount which is necessary in the efficient drilling or operation of the well;

(j) The use of gas, except sour gas, for the manufacture of carbon black;

(k) The escape of gas into the open air, from a well producing gas, in excess of the amount which is necessary for safety reasons or for the efficient drilling, testing, and operation of the well; and

(l) Production of oil, condensate, and gas in excess of reasonable market demand.

(83) **Wastes** are materials to be disposed of or reclaimed that were generated by drilling, completion, workover, production, storage, treatment, processing, or injection operations associated with oil and gas wells, Class II injection wells, production facilities, processing facilities, offshore plants, or underground storage facilities.

(84) **Waters** shall mean the water super adjacent to Submerged Offshore Lands.

(85) **Well** shall mean any oil or gas well, any well drilled or being drilled in search of oil and gas, any well defined as a Class II injection well or any well utilized for underground storage.

All other words used herein shall be given their usual, customary, and accepted meaning. All words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted within the oil and gas industry.

400-2-1-.06. Forms.

(1) The Supervisor may prescribe and require such forms within the rules and regulations of the Board as he reasonably deems advisable. The content of such forms and instructions for their completion may be such as the Supervisor may deem advisable, including the changes of such from time to time. The Supervisor may provide for the electronic filing of forms. Such forms applicable to submerged offshore lands operations shall be known and designated as:

(a)	OGB-1	Application for Permit to Drill, Deepen, Convert, or Amend;
(b)	OGB-1A	Application to Reenter;
(c)	OGB-1B	Application for Permit to Directionally Drill;
(d)	OGB-1C	Application for Permit to Inject Fluids;
(e)	OGB-1D	Application for Permit to Inject Storage Gas;
(f)	OGB-1E	Application for Change of Operator;
(g)	OGB-2	Affidavit of Ownership or Control;
(h)	OGB-2C	Affidavit of Ownership or Control, Underground Injection Control;
(i)	OGB-2D	Affidavit of Ownership or Control, Natural Gas Storage Operations;
(j)	OGB-3	Bond (Single Well);
(k)	OGB 3D	Bond for an Underground Storage Facility for a Solution-mined Cavity and Storage Well;
(l)	OGB-4	Bond (Blanket);
(m)	OGB-5	Organization Report;
(n)	OGB-6	Report of Well Treatment;
(o)	OGB-7	Well Record and Completion or Recompletion Report;
(p)	OGB-8	Electric Log, Sample, and Core Record;
(q)	OGB-9	First Production or Retest Report;
(r)	OGB-10	Multipoint Back-Pressure Test Report for Gas Wells;
(s)	OGB-10A	One-Point Back-Pressure Test Report for Gas Wells;
(t)	OGB-11	Report of Well Plugging;
(u)	OGB-12	Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well;
(v)	OGB-13	Operator's Certificate of Compliance and Authorization to Transport Products from Plant;
(w)	OGB-14	Operator's Monthly Report from Oil Wells;
(x)	OGB-15	Operator's Monthly Report from Gas Wells;
(y)	OGB-16	Transporter’s and Storer’s Monthly Report;
(z)	OGB-17	Monthly Report of Fluids Injected;
(aa)	OGB-17D	Monthly Report of Gas Injected/Withdrawn for Natural Gas Storage Facilities;
(bb)	OGB-18	Monthly Report for Products from Processing, Cleansing, or Extraction Facilities;
(cc)	OGB-19	No Form;
(dd)	OGB-20	No Form;
(ee)	OGB-21	Authorization to Clean Tank;
(ff)	OGB-22	Well Capacity Test;
(gg)	OGB-23	Unit Reserve Calculation (required only if specified by special field rules);
(hh)	OGB-24	Operator’s Certificate of Compliance for Operations Involving Hydrogen Sulfide;
(ii)	OGB-25	Transporter’s Certificate of Eligibility to Transport Wastes;
(jj)	OGB-26	Wastes Manifest;
(kk)	OGB-27	Notification of Fire, Spill, Leak, or Blow out Incident Report; and
(ll)	OGB-28	Master Electronic Filing Certification;

(2) Further, such forms, as applicable, shall be filed in a timely manner by the operator or such other person as required by these rules, and such forms shall be properly and fully completed. All forms shall contain true, correct, and accurate information. The Supervisor may allow the filing of certain data electronically in lieu of forms set forth hereinabove, provided Form OGB-28, Master Electronic Filing Certification, has been filed and approved by the Supervisor. The type data, the method of filing, and the format of filing electronic data must have the prior approval of the Supervisor. An operator shall refile a Master Electronic Filing Certification, Form OGB-28, on an annual basis or when the name or address of an operator changes.

400-2-1-.07. Determining and Naming Fields and Pools.

When discoveries of oil and gas are made and sufficient geologic, geophysical, engineering, and other data become available, then a petition shall be filed with the Board in accordance with its rules of practice and procedure for establishment of fields and pools. In naming fields, preference shall be given to common usage and geographic names. Each pool within the same field shall preferably be named according to the producing horizon.

400-2-1-.08. Authority of Supervisor.

The Supervisor may appoint an agent or agents under such names as he may desire and may delegate to such agent or agents the authority to perform any acts authorized by these rules and regulations to be performed by the Supervisor. The Supervisor may grant verbal approval for actions requiring Supervisor's approval if in his opinion it is necessary and justified to do so. Verbal approval so granted does not preclude the necessity of the operator filing all required forms and reports to obtain written approval as soon as possible.

400-2-1-.09. Appeal from Decision of Supervisor.

Any person aggrieved and affected by a decision of the Supervisor, as provided herein by these rules and regulations, may, within thirty (30) days after such decision by the Supervisor, petition the Board for a hearing *de novo* requesting the Board to consider and rule upon such decision by the Supervisor *de novo* and the Board shall make a decision upon the same, in the same manner as upon other petitions, and such petition shall set forth such decision by the Supervisor, the pertinent rule or rules and laws, the date of such decision by the Supervisor and the reasons petitioner alleges that such decision was wrongful and such petition shall be in compliance with the Rules and Regulations Governing Practice and Procedure as set forth in Rule 400-7-1-.01, et seq.

400-2-1-.10. Agents to Have Access.

All operators of oil and gas wells, Class II injection wells, drilling or workover rigs, injection facilities, and platforms, and underground storage facilities are required to allow and assist the agents of the Board in making any and all inspections that may be required by the Board. The agents of the Board shall have access to all well, production, injection and transport records and shall be permitted to come upon any property to inspect well records and to inspect and gauge any and all wells, drilling or workover rigs, injection facilities, and platforms, referred to herein at all times.

400-2-1-.11. Order Closing Down Operations.

In addition to the penalties and provisions provided for herein, the Board may order the closing of all or any part of the drilling, production, injection or other operations of any person in this State for the failure of such person, or the agents of such person, to comply with any rule, regulation, or order of the Board or with the laws of the State of Alabama and such operations shall not begin again until authorized by further order of the Board.

400-2-1-.12. Supervisor's Order Closing Down Operations.

In addition to the provisions provided for herein, the Supervisor, or any duly authorized agent may order the closing of all or any part of the drilling, production, injection or other operations of any person in this State for the failure of such person to comply with any rule, regulation or order of the Board or with the laws of the State of Alabama where the continuance of such failure to comply shall be dangerous to the public or where substantial pollution is occurring or is in imminent danger of occurring. Such operations shall not begin again until authorized by subsequent order of the Board or by further order of the Supervisor.

400-2-1-.13. Exceptions to Rules.

The Supervisor may approve exceptions such as the use of new or alternative techniques, procedures, equipment, or activities other than those prescribed in the regulations, if such exceptions afford a degree of protection, safety, or performance either equal to or exceeding that intended to be achieved by the regulations, or when such exceptions are necessary for the proper control of a well, the efficient development and conservation of natural resources, or the protection of life (including fish and other aquatic life), property, or the marine, coastal, or human environment.

400-2-2. Permitting of Wells

400-2-2-.01. Well Permit.

(1) **Activities Requiring Permits.** The following activities require permits:

(a) Drilling of any well in search of oil or gas;

(b) Drilling a Class II injection well or converting any well to a Class II injection well for enhanced recovery or for the disposal of salt water and other wastes produced in association with oil or gas operations;

(c) Drilling or converting any well for the development of reservoirs or solution-mined cavities for the underground storage of liquid or gaseous hydrocarbons; or

(d) Reentry of a plugged and abandoned well.

(2) **Permit Requirements.** Prior to initiating any of the activities identified in section (1) above, an application on either Form OGB-1, OGB-1A, or OGB-1B, whichever is appropriate, shall be filed with and approval obtained from the Supervisor or the Board. If applicable, applicants should also refer to Rule 400-4-1-.01, et seq. relating to Rules and Regulations Governing Class II Underground Injection Control Operations, Rule 400-5-1-.01, et seq. relating to Rules and Regulations Governing Underground Storage of Gas in Reservoirs, or Rule 400-6-1-.01, et seq. relating to Rules and Regulations Governing Underground Storage of Gas in Solution-Mined Cavities. Such applications shall be accompanied by:

(a) A check or bank draft in the sum of three hundred dollars ($300.00) payable to the State Treasurer, State of Alabama, which sum is fixed as the fee for the approval of a permit to drill. No permit fee is required if the application is submitted for the purpose of obtaining approval to convert or deepen a well;

(b) A plat, in triplicate, prepared by a licensed land surveyor showing the entire offshore tract and the surface and bottom hole locations of the proposed well within said offshore tract. The plat shall be drawn to the scale of one (1) inch equals two thousand (2,000) feet, unless otherwise stipulated by the Supervisor. The plat shall show the direction of north, and the latitude and longitude in decimal degrees to five (5) significant digits and state plane coordinates of the proposed well. The plat shall show the distances of the proposed well to the nearest unit boundaries and offshore tract or section boundaries and from the nearest well in the same offshore tract or section completed in or drilling to the same reservoir. The plat shall also show the location and status of all other wells that have been drilled in said offshore tract or section. For the purpose of designating the unit in which the proposed well is to be drilled, the boundaries of such unit shall be shown. For wells drilled in areas where offshore tracts for submerged offshore lands have not been established, or if the well is being drilled from submerged offshore lands to a bottom hole onshore location, the plat shall be drawn to the specifications of the Supervisor;

(c) An Affidavit of Ownership or Control on Form OGB-2, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the drilling rights with respect to the oil and gas in and under the land comprising either the drilling unit or the drainage and production unit, or an Affidavit of Ownership or Control, Underground Injection Control on Form OGB-2C, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the interests having rights to conduct Class II well operations in and under the land on which the well is located, or an Affidavit of Ownership or Control, Natural Gas Storage Operations on Form OGB-2D, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the interests having rights to conduct Natural Gas Storage Operations, whichever is applicable;

(d) A bond on Form OGB-3 (single well) or OGB-4 (blanket bond) required by Rule 400-2-2-.04 relating to Bond, unless such requirement has been previously satisfied. If two or more persons are

designated on the application as operators then each such person shall file a separate or joint bond if an appropriate bond is not already on file;

(e) An organization report on Form OGB-5, as prescribed in Rule 400-2-2-.03, unless such requirement has previously been satisfied. If two or more persons are shown as operator on the application, then each person shall file a separate organization report or have an organization report on file;

(f) A statement that all zones containing oil, gas, or fresh water, shall be fully protected by casing and cement;

(g) Two (2) copies of the following information shall be submitted to the Supervisor with an application for a drilling permit:

1. **Casing and Cement.**

(i) A down-hole schematic showing the size of the borehole and the size and anticipated setting depth (measured and true vertical depths) and cement top for each casing string and liner;

(ii) A tabular listing of the size, grade, thread, weight (lbs./ft.), minimum internal yield pressure, test pressure and anticipated setting depth for each casing string and liner;

(iii) A tabular listing of the anticipated type, volume (cu. ft.) and calculated top of cement for each casing string and liner; and

(iv) A vertical section for directionally drilled wells showing the planned trajectory of the borehole from the mud line to proposed total depth.

2. **Mud.** A tabular listing of the anticipated type and density (lbs./gal.) of mud in the various depth intervals of the wellbore, including the estimated pore pressure and fracture gradient in each respective depth interval.

3. **Blowout Prevention.**

(i) A schematic showing the type, number and arrangement of blowout preventers to be in place before drilling below each casing string and liner;

(ii) A tabular listing of the rated working pressure and test pressure anticipated at the time of initially testing each preventer, including the minimum internal yield pressure of the casing string on which it will be installed and the maximum anticipated surface pressure to be encountered after installation;

(iii) Written justification for any extensions between blowout preventer pressure tests that the operator feels are warranted.

4. **Drilling Rig Specifications.** Current specifications of the anticipated drilling facility, unless previously filed with the Board. If the actual drilling facility used is different from that identified in the application, the operator shall notify the Supervisor in writing and provide the necessary specifications.

5. **Listing of Drilling Problems.** A listing and description of potential problems that are anticipated during drilling of the proposed well (such as zones of abnormal pressure or lost circulation) and the methods proposed to control such problems.

6. **Report of Shallow Hazards.** A report of shallow hazards required by Rule 400-2-8-.01 relating to Survey of Shallow Hazards.

7. **Certificate of Compliance** If applicable, an Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide, Form OGB-24, required by Rule 400-2-8-.04

8. **Area Contingency Spill Response Plan.**

(i) An area contingency spill response plan required by Rule 400-2-8-.03(9) relating to Pollution Prevention and Control. This requirement may be satisfied by reference to an approved and current plan on file with the Board.

(ii) If multiple completions are anticipated, available information required by Rule 400-2-6-.05 relating to Procedures for Multiple Completions shall be submitted with the permit application. If said information is not available at the time the permit is filed, it shall be submitted to the Supervisor for approval prior to commencing said completions.

(iii) If applicable and available, the approved discharge permit(s) required by section (3) of Rule 400-2-8-.03 relating to Pollution Prevention and Control.

(iv) Additional information as deemed necessary may be requested by the Supervisor.

(3) The Board may require notice and hearing on any application for a drilling permit in submerged offshore lands.

(4) **Deepening.** Prior to deepening a well below its permitted depth, an operator shall obtain approval of the Supervisor and, thereafter, such person shall immediately file Form OGB-1, OGB-1A or OGB-1B, whichever is appropriate. There is no fee required for a permit to deepen a well previously drilled or being drilled under a permit issued by the Supervisor.

(5) **Directional Drilling.**

(a) All wells must be drilled with due diligence to maintain a reasonably vertical wellbore; however, upon application by an operator to drill a well that is to be intentionally deviated and directionally controlled, a permit may be issued by the Supervisor, provided that the proposed location of the bottom hole in the deviated well at the depth of the proposed producing zone is in compliance with the applicable spacing rules. The application for a permit to directionally drill shall be made in the manner prescribed above using Form OGB-1B, and the survey plat must show the proposed bottom hole location in addition to the surface location of the well.

(b) If an operator desires to directionally drill or sidetrack a permitted well, such operator, prior to initiating, any activities shall file with the Supervisor Form OGB-1B and a plat showing the surface location and the proposed bottom hole location of the directionally drilled or sidetracked well.

(c) In the event an operator, in good faith, proceeds with the drilling of a well and thereafter, decides to directionally drill or sidetrack the well, such operator shall obtain prior approval of the Supervisor and, hereafter, shall immediately file with the Supervisor Form OGB-1B and a plat showing the surface location and the proposed bottom hole location of the directionally drilled or sidetracked well.

(d) If an operator desires to deviate a well so as to straighten the wellbore or to drill around an obstruction in the wellbore, such operator shall first obtain approval of the Supervisor and shall file a written report to the Supervisor within thirty (30) days from the completion of said deviation setting forth the facts of the operation.

(6) **Permit Approval Procedures.** Applications for permits to drill, deepen, convert, or reenter that do not comply with submerged offshore lands rules or applicable special field rules shall be approved or rejected by the Board, after due notice and hearing. Applications in compliance with submerged offshore lands rules or applicable special field rules may be approved by the Supervisor. Drilling, deepening, converting or reentering shall not begin until such permit is issued.

(7) **Expiration of a Permit.** A permit shall expire six (6) months from the date of issuance if the permitted well has not been spudded.

400-2-2-.02. Spacing of Wells.

(1) Each well drilled in search of oil or gas shall be spaced on either (a) a drilling unit or (b) a drainage or production unit. A drilling unit is an administrative unit established by the Board to provide and allow for the drilling of a well. A drainage or production unit is the area in a pool that may be drained efficiently and economically by one well. Prior to the establishment of a field and the establishment of drainage or production units within the field, an operator may drill a well on a drilling unit. Furthermore, with respect to wells drilled in submerged offshore lands, a well may also be drilled on a “drilling unit” or a “drilling and development unit.” When the Board, after notice and hearing, establishes a field for a pool, special field rules apply for that field. The special field rules designate, among other things, the drainage or production units for the field. Thereafter, wells are drilled on the drainage or production units designated in the special field rules. The term “spacing unit” is used from time to time in these regulations. A spacing unit is either (a) a drilling unit, (b) a drilling and development unit, or (c) a drainage or production unit. For simplicity, the term “production unit” is hereinafter used from time to time in place of the longer term “drainage and production unit.” A spacing unit shall not include any part of another unit established for the same pool.

(2) The spacing for a well to be drilled to a pool or pools in an established field shall be governed by special field rules for that particular field. With respect to a well to be drilled to a pool or pools that are not governed by special field rules, the following spacing provisions shall be applicable for drilling and development units and for drilling units within an offshore tract.

(a) Where the operator owns or controls one hundred percent (100%) of working interest in the entire offshore tract, drilling and development units for wells deeper than six thousand (6,000) feet true vertical depth (TVD) may be permitted on an entire offshore tract, three-quarter (3/4) offshore tract, or one-half (1/2) offshore tract. Offshore tract lines may be projected across land areas to determine the appropriate unit boundaries. More than one well may be permitted on a drilling and development unit; however, no production except for testing can occur until unit operations are approved or until special field rules establishing appropriate production units are approved by the Board.

(b) Where the operator owns or controls one hundred percent (100%) of working interest in the entire offshore tract, drilling and development units for wells six thousand (6,000) feet true vertical depth (TVD) or shallower may be permitted on a one-half (1/2) offshore tract, or one-quarter(1/4) offshore tract. Offshore tract lines may be projected across land areas to determine the appropriate unit boundaries. More than one well may be permitted on a drilling and development unit; however, no production except for testing can occur until unit operations are approved or until special field rules establishing appropriate production units are approved by the Board.

(c) Drilling units for wells deeper than six thousand (6,000) feet true vertical depth (TVD) will be permitted on a one-quarter (1/4) offshore tract for regular offshore tracts. For irregular offshore tracts where regular one-quarter offshore tract units cannot be established, a drilling unit comprising up to fourteen hundred (1,400) acres may be permitted. Offshore tract lines may be projected across land areas to determine the unit boundaries. No production except for testing can occur until unit operations are approved or until special field rules establishing appropriate production units are approved by the Board.

(d) Drilling units for wells six thousand (6,000) feet true vertical depth (TVD) or shallower will be permitted on a quarter-quarter offshore tract for regular offshore tracts. For irregular offshore tracts where quarter-quarter units cannot be established, a drilling unit comprising up to three hundred sixty (360) acres may be permitted. Offshore tract lines may be projected across land areas to determine the unit boundaries. No production except for testing can occur until unit operations are approved or until special field rules establishing appropriate production units are approved by the Board.

(e) Wells to be drilled deeper than six thousand (6,000) feet true vertical depth (TVD) shall be located at least one thousand three hundred twenty (1,320) feet from every exterior boundary of the drilling and development unit or drilling units, and no closer than five hundred (500) feet from the State/Federal boundary. Wells to be drilled six thousand (6,000) feet TVD or shallower shall be located at least six hundred sixty (660) feet from every exterior boundary of the drilling and development units or drilling units, and no closer than five hundred (500) feet from the State/Federal boundary.

(f) The Board may approve a drilling and development unit or drilling unit consisting of portions of offshore tracts equal to an entire offshore tract, a three-quarter offshore tract or a one-half offshore tract, where it is shown, after notice and hearing, and the Board finds that a well located at a regular location on an offshore tract would cause the drilling of unnecessary wells.

(3) With respect to a well to be drilled to a pool or pools that are not governed by special field rules, the following spacing provisions shall be applicable for drilling units within submerged offshore lands that are not within an offshore tract.

(a) A well may be drilled on a drilling unit consisting of a governmental quarter-quarter section (approximately 40 acres). Such well shall be located at least three hundred thirty (330) feet from every exterior boundary of the drilling unit.

(b) A well may be drilled on a drilling unit consisting of a governmental quarter section (approximately 160 acres). The Supervisor may require written justification for the drilling unit. Such well shall be located at least six hundred sixty (660) feet from every exterior boundary of the drilling unit.

(c) A well to be drilled in search of gas in the Counties of Baldwin or Mobile may be drilled on a drilling unit consisting of a governmental section (approximately 640 acres). The Supervisor may require written justification for the drilling unit. Such well shall be located at least one thousand three hundred twenty (1,320) feet from every exterior boundary of the drilling unit. The operator shall designate on the permit application an alternate one hundred sixty (160) acre drilling unit, and the well shall be located at least six hundred sixty (660) feet from every exterior boundary of the alternate unit. If said Well is completed as an oil well, then the spacing for the well shall automatically revert to the

designated alternate one hundred sixty (160) acre drilling unit until the proper spacing for said Well is determined by the Board after notice and hearing.

(d) The Supervisor, upon receipt of written justification from an operator, may approve a permit application under sections (3)(a) through (3)(c) above for a well to be drilled on a drilling unit consisting of approximately 40, 160, or 640 contiguous surface acres other than a governmental section or division thereof as set forth herein.

(e) The Supervisor may require that a well to be drilled on a drilling unit contiguous with an existing field be drilled and completed as an extension of the field, in accordance with spacing provisions in the special field rules thereof. If, however, an operator provides written justification that such proposed well will likely be completed in a pool or pools not defined in the special field rules for said field, the Supervisor may approve the drilling and completion of such well in compliance with the spacing provisions as set forth herein.

(f) No well shall be drilled within two hundred (200) feet of any permanent residence, unless otherwise approved by the Board.

(4) Pursuant to Section 9-17-12(c) of the *Code of Alabama* (1975), the Board may grant an exception to the spacing rules as may be reasonably necessary where it is shown, after notice and hearing, and the Board finds that the unit is partly outside the pool, or for some other reason, a well located in accordance with applicable rules would be nonproductive, would not be at the optimum position in such spacing unit for the most efficient and economic drainage of the unit, or where topographical conditions are such as to make the drilling at an authorized location on the unit unduly burdensome or where an exception is necessary to prevent confiscation of property. Provided, however, that an exceptional location order issued by the Board for a well shall expire one (1) year from the date of issuance of the order unless a well has been spudded at said exceptional location.

400-2-2-.03. Bond.

(1) Before any person(s) shall commence drilling, completing, converting, operating, or producing any oil, gas, or Class II injection well, including production facilities, processing facilities, injection facilities, underground storage facilities in reservoirs, offshore plants, pipelines, and other equipment associated with such well, said person(s) shall file with the Board a single well bond on Form OGB-3. Such bond shall be payable to the State of Alabama, executed by said person(s) as principal(s), and by a surety approved by the Supervisor or Board; conditioned that such person(s) shall, in connection with the drilling, completing, converting, operating, or producing of such well, including production facilities, processing facilities, injection facilities, underground storage facilities in reservoirs, plants, pipelines, and other equipment associated with such well, prevent the escape of oil or gas out of one stratum to another, prevent the intrusion of water into any oil or gas stratum from a separate stratum, prevent the pollution of the sea, prevent pollution of all surface and ground water; conditioned also that such person(s) shall file all reports required by the Board, including drilling records and all logs of such well, if taken, and shall file drill cuttings and cores or core chips, if cores are taken, within six (6) months from the time of completion of such well, and in the event such well does not produce oil or gas in commercially profitable quantities or ceases to produce oil or gas in commercially profitable quantities or if the operations of such well shall cease for a period of six (6) months or if such well should become dangerous to the public, such person(s) shall plug and abandon such well in compliance with Rule 400-2-4-.11, dispose of all tank fluids in compliance with Rule 400-2-4-.10, clear the location in compliance with Rule 400-2-4-.13; and conditioned further that such person(s) shall drill, operate, produce, and plug and abandon, such well, and that such person(s) shall dispose of tank fluids, clear the location, and maintain the site in compliance with all lawful rules, regulations, and orders of the Board now existing or hereafter promulgated, and with the laws of the State of Alabama now existing or hereafter enacted. The amount of such bond shall be in accordance with the following relationship to measured depth:

Measured depth (ft)	Amount of bond required
0 - 6,000	$100,000
Greater than 6,000	$500,000

(2) The Board may, however, accept a blanket bond on Form OGB-4 in the amount of one million ($1,000,000). Such blanket bond shall be conditioned upon the same requirements as set forth for single

well bonds, except that a blanket bond may apply to more than one well. Furthermore, the Board may require a separate Bond of one hundred thousand dollars ($100,000.00) for an operator of a processing plant and associated facilities and pipelines where such plant operator does not operate any oil and gas wells.

(3) Any such bond filed with the Board, including any amendment or addendum thereto, must set forth the correct legal name and address of the principal and the surety thereto and must be countersigned by an Alabama agent of such surety, setting forth the correct legal name of such agent and such agent's company affiliation and correct business address. If more than one person is to be designated as operator, then each such person shall file a separate bond or a joint bond, whichever is appropriate.

(4) Provided, further, the Board, in its reasonable discretion for good cause, after notice and hearing, may require a different amount of bond because of environmentally sensitive conditions at the site or for other justifiable reasons for good cause and may deem and determine any existing bond to be inadequate and may require the filing of a new bond, that shall be approved by the Board or Supervisor, upon the Board's own motion or upon petition by any party allowed to file a petition by these rules and regulations, and the amount of such bond required may be more or less than hereinabove set forth.

400-2-2-.04. Organization Reports.

Every person acting as principal or agent for another or independently engaged in the drilling, production, injection, transportation, reclaiming, treating, or processing of oil, condensate, gas, or wastes associated with oil and gas operations shall file with the Board a report on Form OGB-5, Organization Report, reflecting the exact legal name under which such person or business is being operated or conducted, the exact corporate name, if such is incorporated, and the place of incorporation of such corporation, the name and post office address of such person, the business in which such person is engaged, and, in the case of a corporation, the state in which such corporation is incorporated, and the names and post office addresses of any persons acting as trustees, together with the names of the manager, agent, or executive thereof, and the names and post office addresses of any officers thereof. Prior to submitting the aforesaid report, all foreign corporations shall obtain a certificate of authority from the Secretary of State for the State of Alabama to transact business in the state. In the case where such business is conducted under an assumed name, or as a partnership or sole proprietorship, such report shall reflect the names and post office addresses of all owners or general partners in addition to the other information herein required. The aforesaid report shall be resubmitted every two (2) years or immediately after any change occurs as to facts previously submitted.

400-2-2-.05. Change of Operator.

(1) The operator of record shall immediately notify the Supervisor in writing of any agreement or other transaction, by which a new operator is to be designated for a well or wells, including all associated production, processing, injection, plant, and gathering line and pipeline facilities, and all other equipment associated with such well or wells. Such notification shall include, but not be limited to, identification of the proposed new operator and a list of wells and all associated facilities and equipment.

(2) Within sixty (60) days of the effective date of any agreement or other transaction causing a change of operator, any person or persons desiring to become the new operator of a well or wells must submit for approval to the Supervisor Form OGB-1E, Application for Change of Operator. A single Application for Change of Operator, Form OGB-1E, may be filed requesting a change of operator for multiple wells, facilities, and equipment. Form OGB-1E shall be signed by both the operator of record or present operator and the proposed new operator, with both parties applying to change the operator for the well or wells, including all associated production, processing, injection, plant, and gathering line and pipeline facilities, and all other equipment associated with such well or wells.

(3) In the application for Change of Operator, Form OGB-1E, the new operator shall acknowledge that it has ownership or control of one hundred percent (100%) of the rights to drill and produce with respect to oil and gas underlying the lands comprising the unit assigned to the well or wells in which a change of operator is requested. Further, the Application for Change of Operator, Form OGB-1E, shall be accompanied by a bond on Form OGB-3 or OGB-4, whichever is appropriate, if such requirement has not been fulfilled as prescribed in Rule 400-2-2-.04, relating to Bond; an Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well on Form OGB-12 if required by Rule 400-2-7-.01; an Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-

24 and other sour gas filing requirements prescribed in Rule 400-2-8-.04 if required by Rule 400-2-8-.04; and an Organization Report on Form OGB-5, if not already on file with the Board and current.

(4) In the event that the new operator is uncertain whether it owns or controls one hundred percent (100%) of the rights to drill or produce, then the new operator may petition the Board to delay filing of the Application for Change of Operator, Form OGB-1E. The Board may, after notice and hearing for good cause, delay the filing of the Application for Change of Operator, Form OGB-1E, for a period of up to 120 days thereby allowing the new operator time to ensure that the operator owns one hundred percent (100%) of the ownership rights or to force pool and integrate the interests in the unit or units assigned to the well or wells for which a change of operator is requested. The Board, on the petition by the new operator after notice and hearing for good cause, may delay for an additional period beyond 120 days the filing of the Application of Change of Operator, Form OGB-1E.

(5) In addition to the filing of an Application for Change of Operator on Form OGB-1E as required in section (2) and the additional filing requirements in section (3), filing requirements for Class II injection wells shall include, an Application for Permit to Inject Fluids on Form OGB-1C, an Affidavit of Ownership or Control, Underground Injection Control on Form OGB-2C, an affidavit of source, and a current analysis of fluids being injected.

(6) In addition to the filing of an Application for Change of Operator on Form OGB-1E as required in section (2) and the additional filing requirements in section (3), filing requirements for change of operator for a natural gas storage operation shall include an Application for Permit to Inject Storage Gas on Form OGB-1D, and an Affidavit of Ownership or Control, Natural Gas Storage Operations on Form OGB-2D.

(7) If the request for a change of operator pertains to a well which has not been drilled or completed, and the new operator wishes to drill and complete said well in accordance with the casing and cement, mud, and blowout prevention programs and report of shallow hazards filed as a part of the permit application, the new operator must submit a written statement to the Supervisor stating that it has reviewed the above mentioned information and will drill and complete the well in conformance with those programs. In such case, the refiling of the casing and cement, mud, and blowout prevention programs and report of shallow hazards documents may not be necessary.

(8) Prior to the Supervisor's approval of an Application for Change of Operator on Form OGB-1E, the current operator of record must be in compliance with the Board's submission requirements for forms and geologic data, such as logs, cuttings and cores for the subject well(s).

(9) The Supervisor may waive any filing requirements, or request additional information, associated with an application for change of operator.

(10) The Application for Change of Operator, Form OGB-1E, shall become effective upon approval by the Supervisor. Until such approval, the current operator of record shall be responsible for ensuring continued compliance with all applicable laws, and all rules, regulations, and orders, including special field rules, promulgated by the Board.

(11) When the operator is a corporation, limited liability company, limited partnership, or general partnership that is not publicly traded and when the majority of the ownership of the entity designated by the Board as operator changes, as a result of one or more transactions within a six-month period then the operator shall immediately notify the Supervisor in writing that the majority of the ownership has changed. Within sixty (60) days of the effective date of such change in ownership, the operator shall file a new Organization Report on Form OGB-5 showing the new ownership.

400-2-3. Notification and Approval of Activities

400-2-3-.01. Well Status Report.

A status or progress report of operations being performed in association with well activities requiring permits in Rule 400-2-2-.01 shall be reported orally or in writing to the appropriate Board office by 10:00 a.m. on the first working day of each week.

400-2-3-.02. Notification of Activities.

(1) **Notification Prior to Performance of Activity.** An operator shall notify the Supervisor prior to performing any of the following activities:

(a) Setting surface casing, see Rule 400-2-4-.03(1);

(b) Running intermediate or production casing, see Rule 400-2-4-.03(1);

(c) Perforating, see Rule 400-2-4-.03(1);

(d) Drillstem testing, see Rule 400-2-4-.03(1);

(e) Wireline logging or surveying, see Rule 400-2-4-.03(1);

(f) Coring, see Rule 400-2-4-.03(1);

(g) Pressure testing, see Rule 400-2-4-.09(1)(e) or Rule 400-4-2-.01(2)(d);

(h) Turnaround operations for processing facilities, see Rule 400-2-6-.10(2)(c); and

(i) Turnaround operations for offshore plants, see Rule 400-2-6-.10(3)(d).

(2) **Witness of Activities.** The Supervisor may send a duly authorized representative to the location to witness activities in section (1) above.

(3) **Notification Subsequent to Occurrence of Activity.** An operator shall notify the Supervisor when the following occurs:

(a) Sale, assignment, or acquisition of any well and associated facilities, see Rule 400-2-2-.05;

(b) Loss of a radioactive logging source, see Rule 400-2-4-.05(1);

(c) Encountering unexpected wellbore conditions during recompletion or reworking, see Rule 400-2-6-.06(2);

(d) Pressure exceeds by ten percent (10%) maximum pressure set for the casing, see Rule 400-2-6-.08(1)(a);

(e) Fire or blow out, see Rule 400-2-8-.02;

(f) Spill or leak, see Rule 400-2-8-.03; and

(g) Hydrogen sulfide concentration reaches fifty (50) parts per million in air, see Rule 400-2-8-.04(4)(d)3.

400-2-3-.03. Approval of Activities.

(1) An operator shall obtain approval of the Supervisor for:

(a) Initiating drilling, converting, or reentering a well, see Rule 400-2-2-.01(2);

(b) Deepening, see Rule 400-2-2-.01(4);

(c) Directionally drilling or sidetracking, see Rule 400-2-2-.01(5);

(d) Change of operator, see Rule 400-2-2-.05;

(e) Plan of abandonment of a radioactive logging source, see Rule 400-2-4-.05(3);

(f) Plan of operation for reentering, converting, recompleting, or reworking a well containing a radioactive logging source, see Rule 400-2-4-.05(7);

(g) Radioactive surveys, see Rule 400-2-4-.06;

(h) Chemical treatment or fracturing, see Rule 400-2-4-.07;

(i) Disposal of tank fluids, see Rule 400-2-4-.10;

(j) Plugging and abandonment, see Rule 400-2-4-.11;

(k) Clearance of location, see Rule 400-2-4-.13;

(l) Initial request for temporary abandoned or shut-in status, see Rule 400-2-4-.14;

(m) Production testing, see Rule 400-2-5-.03;

(n) Temporary test allowables, see Rule 400-2-5-.04;

(o) Multiple completions, see Rule 400-2-5-.05;

(p) Recompletion or reworking, see Rule 400-2-6-.06(1);

(q) Fluid used for testing production casing, see Rule 400-2-6-.08(1)(a);

(r) Maximum pressure limit for casing annuli, see Rule 400-2-6-.08(1)(a);

(s) Abnormal casing pressure, see Rule 400-2-6-.08(2);

(t) Platform or fixed structure design features or structural modifications thereto, see Rule 400-2-6-.09(2);

(u) Construction, and operation of a sour gas production facility, see Rule 400-2-6-.10(1);

(v) Design, construction, and operation of a processing facility, see Rule 400-2-6-.10(2);

(w) Design, construction, and operation of a plant and placing a plant into service, see Rule 400-2-6-.10(3);

(x) Modifications to sour gas production facilities, processing facilities, and plants, see Rule 400-2-6-.10(4);

(y) Activation of low-pressure sensors on pressure vessels that operate at less than five (5) pounds per square inch, see Rule 400-2-6-.10(5);

(z) Transportation of oil, gas, condensate, or plant products, see Rule 400-2-7-.01;

(aa) Operations involving hydrogen sulfide, see Rule 400-2-8-.04(8)(c);

(bb) Modification of existing hydrogen sulfide operations or facilities, see Rule 400-2-8-.04(8)(e);

(cc) Hydrogen sulfide monitoring system and test equipment prior to initial test production, see Rule 400-2-8-.04(f);

(dd) Transportation of wastes, see Rule 400-2-8-.05(1)(a); and

(ee) Modification of transportation of wastes procedures, see Rule 400-2-8-.05(1)(b).

(2) **Witness of Activities.** The Supervisor may send a duly authorized representative to the location to witness activities in section (1) above.

400-2-4. Drilling

400-2-4-.01. Identification of Wells.

A sign shall be posted and maintained in a legible state in a conspicuous place near the well. Such sign shall be posted before spudding or reentry and shall remain posted until the well is plugged and abandoned and the location restored. The sign shall include the name of the operator, the permit number, the well name and number, and the offshore tract number or the section, township, range, and county in which the well is located.

400-2-4-.02. Protection of Freshwater Resources.

An operator shall conduct all oil and gas operations in a manner so as to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock, or agricultural purposes shall be confined to their respective strata and shall be adequately protected. Special precautions shall be taken to guard against any loss of artesian water from the strata in which it occurs, and the contamination of fresh water by objectionable water, oil, condensate, gas, or other deleterious substance to such fresh water.

400-2-4-.03. Well Record.

(1) During drilling, completing, and workover operations on every permitted well, the owner, operator, contractor, driller, or other person responsible for the conduct of drilling operations, shall notify the Supervisor prior to performing the following activities: setting surface casing, running intermediate or production casing, perforating, drillstem testing (see Rule 400-2-5-.01), wireline logging or surveying, and coring. Such persons shall keep a detailed and accurate record of the well, reduced to writing from day to day, which shall be accessible to the Board and its agents at all times. Pertinent information from such records shall be furnished to the Board within thirty (30) days after completion, or at such time as prescribed by the Supervisor. Said information shall include but not be limited to: drilling contractor; spud date; ground level, derrick floor, and kelly bushing elevations surveyed by a licensed land surveyor; total depth; kick-off point depths and directions of any sidetracks; bottom-hole location; casing and liner record; cement record; squeeze cement record; perforation record; tubing record; the depth and type of any plugs or packers set; well stimulation and treatment record; drillstem test record; and a record of all wireline logging, sampling, and coring operations for said well. This information shall be submitted on the appropriate Form OGB-6, OGB-7, and OGB-8.

(2) One (1) copy of all electrical, mechanical, radioactive, and dipmeter logs or such other surveys performed as a part of drilling, completing, or workover operations shall be submitted to the Board within thirty (30) days after completion. In addition to filing either blue or black line log copies, all available digital log data in a Log ASCII Standard (LAS) format shall be filed with the Board. One (1) copy of all drillstem test results shall be submitted along with Form OGB-7 within thirty (30) days after completion. A complete set of washed (mud-logger) cuttings, if available, correctly labeled and identified as to depth, shall be filed with the Board within thirty (30) days from the time of completion of any well unless otherwise approved by

the Supervisor. If cores are taken, a complete set of cores, either whole or at least quarter slabs, correctly labeled and identified as to depth, shall be filed with the Board within three (3) months from the time of completion of any well unless otherwise approved by the Supervisor; provided, however, that an operator may obtain an exception to this requirement upon submission of an affidavit certifying that the operator:

(a) will store and maintain core from the well at a specified location or facility and provide the name, address and telephone number of the facility where the cores are stored;

(b) will provide the Board access to the core upon request and provide the name, address and telephone number of the person to handle such request;

(c) will provide the core to the Board if the operator should cease maintaining and storing said core; and

(d) will submit the core to the Board within one (1) year from the time of completion of the well. Additionally, the Supervisor may allow the filing of materials representative of the cored interval in lieu of filing whole or slab core if the Supervisor determines there is adequate core coverage in an area or for some other reason. Cores taken from wells drilled in submerged offshore lands shall be exempt from being filed with the Board; however, if the operator should cease maintaining and storing the core, then said core shall be submitted to the Board.

(3) If the operator so requests in writing, all logs, cuttings, cores, core analyses, cored intervals, and formation depths from a well shall be kept confidential for a period of six (6) months from the completion of such well.

400-2-4-.04. Directional Surveys.

A directional survey, which may include logging while drilling (LWD) or measurement while drilling (MWD) logs, shall be run and one (1) copy thereof filed by the operator with the Supervisor within thirty (30) days after completion of a well. Directional surveys shall be run from total depth to base of drive pipe or the kickoff point, whichever is shallowest, unless otherwise approved by the Supervisor. However, directional surveys to total depth shall be unnecessary in cases where the interval below the survey is less than five hundred (500) feet. In such an instance, a projection of the latest survey shall satisfy Board requirements. In the event the proposed or final location of the producing interval of the directionally controlled well is not in accordance with spacing or other rules of the Board applicable to the reservoir, proper applications shall be made to obtain approval of exceptions to such rules. Such approval shall be granted, or denied, at the discretion of the Board, after notice and hearing.

400-2-4-.05. Abandonment of Radioactive Logging Sources.

(1) The Supervisor shall be notified immediately of the loss of any radioactive logging source in a well.

(2) No radioactive source used for logging may be left in a well without written consent of the Supervisor.

(3) When it is determined by the operator that it may be necessary to leave a radioactive source in a well, the Supervisor must be notified in writing of such and a plan of the abandonment procedure submitted to the Supervisor for approval. This plan must be approved by the Alabama Department of Public Health (Division of Radiation Control), and any other agency that has jurisdiction.

(4) Wells in which radioactive sources are abandoned shall be mechanically equipped so as to prevent the accidental or intentional mechanical disintegration of the radioactive source.

(a) Such sources being abandoned in the bottom of a well shall be covered with a substantial standard color-dyed cement plug on top of which a whipstock or other mechanical device approved by the Supervisor shall be set. Such dye shall be so as to alert a re-entry operator prior to encountering such source.

(b) In wells where a logging source has been cemented in place behind a casing string and above total depth, upon abandonment, a standard color-dyed cement plug shall be placed opposite the abandoned source and a whipstock or other mechanical device approved by the Supervisor placed on top of the plug.

(c) In the event the operator finds that, after expending a reasonable effort, because of hole conditions, it is not possible to abandon the sources as prescribed in (a) or (b) above, prior to ceasing efforts to so abandon, he must obtain Board approval to cease such efforts and obtain approval for an alternate abandonment procedure.

(d) When a logging source must be abandoned in a producing zone, a standard color-dyed cement plug shall be set and a whipstock or other mechanical device approved by the Supervisor placed above to direct the sidetrack at least fifteen (15) feet away from the source.

(5) Any well in which a radioactive source is left in the hole, shall have a visual warning sign posted and maintained in a legible state, in a conspicuous place near the well. The sign shall depict the trefoil radiation symbol with a radioactive warning.

(6) Upon permanent abandonment, any well in which a radioactive source is left in the hole shall have a permanent plaque attached to the top of the casing left in the hole in such a manner that re-entry cannot be accomplished without disturbing the plaque. This plaque shall serve as a visual warning to any person reentering the hole that a radioactive source has been abandoned in-place in the well. The plaque shall depict the trefoil radiation symbol with a radioactive warning and shall be constructed of a long lasting material such as monel, stainless steel, or brass. This marker shall bear the following information: well name, permit number, surface location, name of the operator, the source of material abandoned in the well, the total well depth, depth at which the source is abandoned, plug-back depth, the date of the abandonment of the source, the activity of the source, and a warning not to drill below the plug-back depth.

(7) If an operator desires to reenter, convert, recomplete, or rework a well in which a radioactive source used for logging is present, the applicant operator must have his plan of operation approved by the Supervisor and any other agency that has jurisdiction before such reentry, conversion, recompletion, and reworking application is granted.

(8) Upon permanent abandonment below the mud line of any well in which a radioactive source is left in the hole, the requirements of section (6) above are not applicable upon approval of the Alabama Department of Public Health (Division of Radiation Control).

400-2-4-.06. Operations Involving Radioactive Material.

An operator shall obtain approval from the Supervisor, the Alabama Department of Public Health (Division of Radiation Control) and any other agency that has jurisdiction before introducing any radioactive material, exclusive of radioactive logging devices, into the substrata for the purpose of conducting a tracer survey or for any other reason.

400-2-4-.07. Chemically Treating or Fracturing a Well.

Wells shall not be chemically treated or fractured until the approval of the Supervisor is obtained. Each well shall be treated or fractured in such manner as will not cause damage to the formation, result in water encroachment into the oil- or gas-bearing formation, or endanger freshwater-bearing strata. Necessary precautions shall be taken to prevent damage to the casing. Routine chemical treatments for corrosion control shall be excluded from this notice requirement. If chemical treating or fracturing results in irreparable damage to the well, the oil or gas-bearing formation or freshwater-bearing strata, then the well shall be properly plugged and abandoned.

400-2-4-.08. Report of Well Treatment.

Within thirty (30) days after the chemical treating or fracturing of a well, a report shall be filed with the Board in triplicate by the operator on Form OGB-6 setting forth in detail the method used in treating the well.

400-2-4-.09. Casing, Cementing, Mud, and Blowout Prevention Program.

The design of the integrated casing, cementing, mud, and blowout prevention control program shall be based upon sound engineering principles, and must take into account the depths at which freshwater, hydrocarbon, and other mineral-bearing formations are expected to be penetrated, the formation fracture gradients and pressures expected to be encountered, and other pertinent geologic and engineering data and information about the area.

(1) **Well Casing and Cementing.**

(a) The operator shall case and cement all wells with a sufficient number of strings in a manner necessary to:

1. prevent release of fluids from any stratum through the wellbore (directly or indirectly) into the waters;

2. prevent communication between separate hydrocarbon-bearing strata (except such strata approved for commingling) and between hydrocarbon and water-bearing strata;

3. prevent contamination of freshwater-bearing strata;

4. support unconsolidated sediments; and

5. otherwise provide a means of controlling formation pressures and fluids.

(b) The operator shall install casing that meets American Petroleum Institute (API) standards. Cement shall meet API standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Safety factors in casing program design shall be of sufficient magnitude to provide optimum well control while drilling and to assure safe operations for the life of the well.

(c) For the purpose hereof, the several casing strings in order of normal installation are drive or structural casing, conductor casing, surface casing, intermediate casing, and production casing. All wells shall be cased and cemented in accordance with the following requirements, unless a specific exception is granted by the Supervisor following submission by the operator of an affidavit justifying said exception and demonstrating that the proposed exception is in accordance with standard industry practices and safe drilling techniques:

1. **Drive or Structural Casing.** This casing shall be set by drilling, driving, or jetting to a minimum depth of one hundred (100) feet below the waters floor or to such greater depth required to support unconsolidated deposits and to provide hole stability for initial drilling operations. A calculated cement volume sufficient to fill the annular space back to the waters floor shall be used if the drive or structural casing is set by drilling.

2. **Conductor Casing.**

(i) This casing shall be set before drilling into shallow formations known to be abnormally pressured or known to contain oil or gas; or upon encountering such formations. This casing shall be set in accordance with conductor and surface casing setting depths in Table 1 below. A conductor string of casing (the first string run other than any structural or drive casing) shall be cemented with a calculated volume of cement sufficient to fill the annular space back to the waters floor. To facilitate casing removal upon well abandonment, cement may be washed out or displaced to a depth not to exceed forty (40) feet below the waters floor, unless otherwise approved by the Supervisor.

(ii) The Supervisor or Board may approve a request to waive the requirement for setting conductor casing at a specific well location provided at least one well has been drilled near the specified well location and the well logs and mud monitoring procedures from the nearby well demonstrate the absence of shallow hydrocarbons and shallow hazards.

3. Surface Casing.

(i) This casing shall be set in accordance with conductor and surface casing setting depths in Table 1 below, and cemented in a manner necessary to protect all freshwater-bearing strata, and provide well control until the next string of casing is set. This casing shall be cemented with a calculated volume of cement sufficient to fill the annular space back to the waters floor.

(ii) Surface casing shall not be used as production casing, unless otherwise approved by the Supervisor.

4. **Conductor and Surface Casing Setting Depths.**

(i) These casing strings shall be properly cemented in place prior to drilling below the minimum setting depths required in Table 1 below. However, if the operator does not set surface or first intermediate casing below the base of the underground source of drinking water (USDW) containing fluids of less than ten thousand (10,000) milligrams per liter total dissolved solids, the operator may not be allowed to dispose of tank fluids in the well. See Rule 400-2-4-.10(1), relating to Disposal of Tank Fluids.

Table 1. Minimum Required Setting Depth Below Waters Floor in True Vertical Depth (TVD)

Proposed TVD from Rotary Table (ft)	Minimum Conductor Casing (ft)	Minimum Surface Casing (ft)
0 - 6,000	0	750
6,001 - 12,000	750	2,000
Greater than 12,000	750	Into Selma Chalk

(ii) The Supervisor may approve exceptions to the requirements of Table 1 above in order to permit the casing to be set in a competent bed, through formations determined desirable to be isolated from the wellbore, or to protect against abnormally pressured formations or other abnormal well conditions. The Supervisor may recommend setting depths for those casing strings prior to encountering abnormally pressured formations or other abnormal well conditions. The operator may request the approval of an alternative casing program provided that the operator certifies or provides an affidavit to attest in writing that the casing design demonstrates that all normal pressure zones will be isolated from abnormal pressure through the setting of an intermediate casing string and is in accordance with accepted industry practices and safe drilling procedures.

5. **Intermediate Casing.** Intermediate or protective casing shall be set when required by abnormal pressure, mud weights, sediments, and other well conditions. A quantity of cement sufficient to cover and isolate all hydrocarbon zones and to isolate abnormal pressure intervals from normal pressure intervals shall be used. If a liner is used as an intermediate string, the cement shall be tested by a fluid entry or pressure test to determine whether a seal between the liner top and next larger casing string has been achieved. The test shall be recorded in the driller's log. When such liner is used as production casing, it shall be extended to the surface and cemented to avoid surface casing being used as production casing.

6. **Production Casing.** Production casing shall be set before completing the well for production. It shall be cemented in a manner necessary to cover or isolate all zones which contain hydrocarbons. A calculated volume of cement sufficient to fill the annular space at least five hundred (500) feet above the top of the uppermost hydrocarbon zone shall be used. When a liner is used as production casing, the testing of the seal between the liner top and next larger string shall be conducted as in the case of intermediate liners.

(d) If there are indications of inadequate primary cementing (such as lost returns, cement channeling, or mechanical failure of equipment) of the surface, intermediate, or production casing strings, the operator shall evaluate the adequacy of the cementing operations by pressure testing the casing shoe, running a cement bond log or a cement evaluation tool log, running a temperature survey, or a combination thereof before continuing operations. If the evaluation indicates inadequate cementing, the operator shall re-cement or take other actions as approved by the Supervisor. The operator shall verify the adequacy of the remedial cementing operations as described above.

(e) **Pressure Testing.** An operator shall give notice to the Supervisor prior to pressure testing.

1. After primary cementing any of the above strings, drilling shall not be resumed until a time lapse of eight (8) hours under pressure for the conductor casing string and twelve (12) hours under pressure for all other strings. Cement is considered under pressure if one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used.

2. After cementing and prior to drilling the plug, all casing strings, except the drive or structural casing, shall be pressure tested. The conductor casing shall be tested to a minimum pressure of two hundred fifty (250) pounds per square inch (psi). All other casing strings shall be pressure tested to fifty percent (50%) of the specified minimum internal yield strength of the weakest section of the casing string. Test pressure may be limited by hydrostatic pressures based on internal and external mud weights. All pressure tests are to be held for thirty (30) minutes. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure or if any other

indications of a leak are found, the casing shall be re-cemented, repaired, or an additional casing string run. The casing shall then be tested again in the same manner as prescribed herein. The above procedures shall be repeated until a satisfactory test is obtained. All casing pressure tests shall be recorded in the driller's log.

3. In the event of prolonged drill-pipe rotation within a casing string run to surface or of extended operations such as milling, fishing, jarring, washing over, working over, or other operations which could damage the casing, such casing string shall be pressure tested, and if required by the Supervisor, evaluated by a logging technique such as a caliper or casing inspection log every thirty (30) days. The evaluation results shall be submitted to the Supervisor with a determination of the integrity of casing for continued service during both drilling and workover operations, and over the producing life of the well. If the integrity of the casing in the well is deteriorated to a potentially unsafe level, remedial operations shall be conducted with a plan approved by the Supervisor prior to continuing operations.

4. Production casing shall be tested during completion operations to the estimated surface shut in tubing pressure for thirty (30) minutes using a fluid, approved by the Supervisor, with a pressure loss of ten percent (10%) or less. If a failure of the test occurs, remedial operations shall be conducted with a plan approved by the Supervisor prior to continuing operations.

(f) **Recording Test Pressures.**

1. Proper documentation of pressure tests, including beginning and ending pressures and the duration of each test, shall be recorded in a daily drilling report.

2. Unless witnessed by an agent of the Board, all pressure tests and re-tests shall be documented with a properly calibrated continuous pressure recorder or other pressure-recording device acceptable to the Supervisor. A representative of the operator shall sign the pressure test record(s) following completion of each pressure test.

3. The operator shall maintain all pressure test records at the well site during drilling operations. Such records shall be made available for inspection upon request.

4. The operator shall maintain all pressure test records for a minimum of three (3) years from the date such pressure tests were conducted.

(g) **Reporting Test Pressures.** The operator shall report pressure tests on Form OGB-7.

(2) **Drilling Mud Tanks.** All tanks utilized to contain fluids during drilling, completion, and workover of a well shall be constructed and maintained so as to prevent pollution.

(3) Drilling Mud.

(a) The operator shall maintain readily usable quantities of mud sufficient to insure well control. The testing procedures, characteristics, and use of drilling mud and the conduct of related drilling procedures shall be such as are necessary to prevent blowouts.

(b) Mud Control.

1. Before starting out of the hole with drill pipe, the mud shall be circulated and conditioned on or near bottom. When coming out of the hole with drill pipe, the annulus shall be filled with mud before the change in mud level decreases the hydrostatic pressure seventy-five (75) pounds per square inch (psi) or every five (5) stands of drill pipe, whichever gives a lower decrease in hydrostatic pressure. A device for measuring the amount of mud required to fill the hole shall be utilized. The volume of mud required to fill the hole shall be watched, and any time there is an indication of swabbing, or influx of formation fluids, the necessary safety devices and actions shall be employed to control the well. The mud shall be circulated and conditioned on or near bottom, unless well or mud conditions prevent running the drill pipe back to bottom. The mud in the hole shall be circulated or reverse circulated prior to pulling drillstem test tools from the hole.

2. An operable gas separator shall be installed in the mud system prior to commencement of drilling operations. The separator shall be maintained for use throughout the drilling and completion of the well.

(c) **Mud Testing Equipment.** Mud testing equipment shall be maintained on the drilling facility at all times, and mud tests shall be performed daily, or more frequently as conditions warrant. Suitable mud test records shall be kept and made available to the Supervisor's representative upon request.

(d) **Mud System Monitoring Equipment.** The following equipment shall be installed and used throughout drilling operations below the conductor casing (unless noted otherwise, such equipment shall have derrick floor indicators):

1. Recording mud pit level indicator to determine mud pit volume gains and losses. This indicator shall include a visual or audio warning device.

2. Mud volume measuring device for accurately determining mud volumes required to fill the hole on trips.

3. Mud return indicator to determine that returns essentially equal the pump discharge rate.

4. Gas-detecting equipment to monitor the drilling mud returns, with indicators located in the mud-logging compartment or the derrick floor. If the indicators are in the mud-logging compartment, there shall be a means of immediate communication with the derrick floor, and the equipment shall be continually manned.

(4) Blowout Prevention Equipment.

(a) The operator shall install, use, and test blowout preventers and related well-control equipment in a manner necessary to prevent blowouts. Drilling shall not be conducted below the conductor string of casing until equipment for circulating drilling fluid to the drilling facility and at least one remotely controlled blowout preventer are installed. Accumulators or accumulators and pumps shall maintain a pressure capacity reserve at all times to provide for repeated operation of hydraulic preventers. Blowout preventers and related well-control equipment shall be pressure-tested when installed, after each string of casing is cemented, and at such other times as prescribed by the Supervisor.

(b) The working pressure of the annular preventer need not exceed five thousand (5,000) pounds per square inch (psi), unless a higher working pressure is required by the Supervisor. When the anticipated surface pressure exceeds the rated working pressure of the annular preventer, the operator shall include in the application for a drilling permit a well control procedure which indicates how the annular preventer will be utilized and the pressure limitations that will be applied during each mode of pressure control.

(c) Blowout prevention equipment shall be installed, used, and tested in accordance with the following requirements:

1. **Conductor Casing.** Before drilling below this string, at least one remotely controlled annular-type blowout preventer and equipment for circulating the drilling fluid to the drilling facility shall be installed. To avoid formation fracturing from complete shut-in of the well, a large diameter pipe with control valves shall be installed on the conductor casing below the blowout preventer so as to permit the diversion of hydrocarbons and other fluids; except that, when the blowout preventer assembly is on the waters floor, the choke and kill lines shall be equipped to permit the diversion of hydrocarbons and other fluids.

2. **Surface and Intermediate Casings.** Before drilling below these casing strings, the blowout prevention equipment shall include a minimum of four (4) remotely controlled, hydraulically operated, blowout preventers with a working pressure which equals or exceeds the maximum anticipated surface pressure, including two equipped with pipe rams, one with blind rams, and one annular-type; a drilling spool with side outlets, if side outlets are not provided in the blowout preventer body; a choke manifold; a kill line; and a fill-up line.

3. **Auxiliary Equipment.** The following auxiliary equipment shall be provided and maintained in operable condition at all times:

(i) A kelly cock shall be installed below the swivel, and an essentially full-opening valve of such design that it can be run through blowout preventers shall be installed at the bottom of the kelly. A wrench to fit each valve shall be stored in a conspicuous location readily accessible to the drilling crew.

(ii) An inside blowout preventer and an essentially full-opening drill string safety valve in the open position shall be maintained on the derrick floor at all times while drilling operations are being conducted. These valves shall be maintained on the derrick floor to fit all connections that are in the drill string.

(iii) A safety valve shall be available on the derrick floor assembled with the proper connection to fit the casing string that is being run in the hole at the time.

4. **Testing Frequency.** Ram-type and annular-type blowout preventers and related control equipment shall be tested when installed; before drilling out after each casing string has been set; except for blind and blind shear rams, at least once each week, but not exceeding seven (7) days between tests; and following repairs that required disconnecting a pressure seal in the assembly. A period of more than seven (7) days between blowout preventer tests may be allowed, with the Supervisor's approval when well operations prevent testing, provided the tests will be conducted as soon as possible before normal operations resume and the reason for postponing testing is entered in the driller's log, or when written justification has been submitted to and approved by the Supervisor justifying an extension between blowout preventer pressure tests. Auxiliary well control equipment such as choke manifold valves, kelly cocks, drill string safety valves, and inside blowout preventers shall also be pressure tested weekly. Casing safety valves shall be actuated prior to running casing. All blowout preventer tests shall be recorded in the driller's log. Testing shall be at staggered intervals to allow each drilling crew an opportunity to operate the equipment.

5. **Testing Limits.** Ram-type and related control equipment shall be tested at the anticipated surface pressure or at seventy percent (70%) of the minimum internal yield pressure of the casing, whichever is lesser. The annular-type preventer shall be tested initially at seventy percent (70%) of its rated working pressure, at seventy percent (70%) of the minimum internal yield pressure of the casing, or at the anticipated surface pressure, whichever is less. Subsequent tests of the annular-type preventer may be at lesser pressures.

6. **Blowout Preventer Drills.** All drilling personnel shall be trained in blowout preventer drills and be familiar with the equipment before starting work on the well. A blowout preventer drill shall be conducted for each drilling crew to insure that crews are properly trained to carry out emergency duties. A blowout preventer drill may be required by the Supervisor at any time during the drilling operations after notifying and consulting with the operator. All blowout preventer crew drills shall be recorded in the driller's log.

400-2-4-.10. Recycling or Disposal of Tank Fluids.

(1) After a well is drilled, completed, or worked over, all fluids that remain in tanks shall be recycled or disposed of in accordance with this rule within thirty (30) days of completion, unless otherwise approved by the Supervisor. Prior to the subsurface disposal of tank fluids down the surface casing or first intermediate casing/production casing annulus, any oil that is present in the tank must be skimmed immediately after drilling operations cease and recycled or disposed of in accordance with appropriate permit(s) and regulations. If tank fluids are transported off location, except for disposal in an acceptable well, then these fluids should be disposed in a lawfully approved disposal facility, or recycled or disposed of in accordance with appropriate permit(s) and regulations.

(2) The following procedures shall be implemented regarding the subsurface disposal of tank fluids down the surface casing or first intermediate casing/production casing annulus. These procedures are applicable for subsurface disposal into the well on location or to an approved well.

(a) Approval must be obtained from the Supervisor prior to implementing subsurface disposal operations.

(b) Pressure testing for subsurface disposal of tank fluids shall be conducted and recorded in accordance with applicable requirements of Rule 400-2-4-.09(1)(e), relating to Pressure Testing, and Rule 400-2-4-.09(1)(f), relating to Recording Test Pressures.

(c) During disposal operations the injection pressure shall not exceed ninety percent (90%) of the mechanical integrity test pressure of the casing. A pressure relief valve, set to the authorized maximum disposal pressure, shall be installed. Verification of the pressure setting of the relief valve may be requested by the Supervisor.

(d) If surface or first intermediate casing is not set below the base of the underground source of drinking water (USDW) containing fluids of less than ten thousand (10,000) milligrams per liter total dissolved solids in the well to be used for subsurface disposal of tank fluids, then in addition to section (2)(a), (2)(b), (2)(c), and (2)(d) the following may apply:

1. The operator shall submit a schematic showing the downhole construction of such well and the approximate location and construction of all known water wells, core holes and oil and gas wells within a one-quarter (1/4) mile radius; and

2. The operator shall submit an affidavit certifying that the disposal fluids contain only materials that are exempt under the Resource Conservation and Recovery Act, that the chloride concentration of the disposal fluids does not exceed two thousand (2,000) parts per million (ppm), and that the pH of the disposal fluids ranges between 6.0 and 9.0 standard units.

400-2-4-.11. Plugging and Abandonment of Wells.

(1) Any nonproductive well shall be plugged within thirty (30) days of completion unless said Well has been classified as temporarily abandoned or shut in pursuant to Rule 400-2-4-.14. Any productive well that has not produced in six (6) months or any Class II injection well or underground reservoir storage well that has ceased operation for six (6) months shall be plugged within thirty (30) days unless said Well has been classified as temporarily abandoned or shut in pursuant to Rule 400-2-4-.14. Before any work is commenced to plug and abandon any well drilled in search of oil and gas or utilized as a Class II injection well or utilized as an underground reservoir storage well the operator shall provide the Supervisor with the proposed method and procedure to plug and abandon such well. Such method and procedure may be required in writing by the Supervisor. Also, the Supervisor may require that well records, including logs, be made available to determine if the proposed depths and lengths of plugs are adequate. Operations to plug and abandon a well shall not begin until approval of procedures has been obtained from the Supervisor. Unless otherwise allowed by the Supervisor, the operator shall notify the Supervisor at least twenty-four (24) hours prior to the commencement of plugging operations so that said operation may be witnessed by an agent of the Board. The cement in all plugs shall meet American Petroleum Institute (API) standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Unless specified otherwise by the Supervisor, the operator shall comply with the following requirements which apply to all wells drilled in search of oil and gas or utilized as Class II injection wells or underground reservoir storage wells.

(2) **Permanent Abandonment.**

(a) Isolation in Uncased Hole.

1. A cement plug shall be placed across each hydrocarbon-bearing, abnormally pressured, or injection zone or a permanent-type bridge plug shall be place at the top of each hydrocarbon-bearing or injection zone, but in either event a cement plug at least two hundred (200) feet in length shall be placed above the uppermost hydrocarbon-bearing or injection zone.

2. When the base of fresh water is penetrated, a cement plug at least two hundred (200) feet in length shall be placed fifty (50) feet below and shall extend to at least one hundred fifty (150) feet above the base of fresh water. A cement plug may be required in the casing-borehole annulus if fresh water is not adequately protected by casing and cement.

(b) **Isolation of Open Hole.** Where there is open hole below casing, a cement plug shall be placed in the deepest casing string in accordance with 1. or 2. below, or in the event lost circulation conditions exist or are anticipated, the plug may be placed in accordance with 3. below:

1. A cement plug at least two hundred (200) feet in length shall be placed by the displacement method at least fifty (50) feet below and shall extend to at least one hundred fifty (150) feet above the casing shoe.

2. A cement retainer with effective back-pressure control shall be placed at least seventy-five (75) feet above the casing shoe with a cement plug calculated to extend at least one hundred (100) feet below the casing shoe and at least fifty (50) feet above the retainer.

3. A permanent-type bridge plug shall be placed within one hundred fifty (150) feet above the casing shoe with fifty (50) feet of cement on top of the bridge plug. This plug shall be tested prior to placing subsequent plugs.

(c) **Plugging or Isolating Perforated Intervals.** A cement plug shall be placed by the displacement method across all open perforations (perforations not squeezed with cement) extending a minimum of at least one hundred (100) feet above the top of the perforated interval and at least one hundred (100) feet below the base of the perforated interval or down to a casing plug, whichever is less. In lieu of setting a cement plug by the displacement method, the following two methods may be acceptable, provided the perforations are isolated from the hole below:

1. A cement retainer with effective back-pressure control shall be place at least fifty (50) feet above the top of the perforated interval with a cement plug calculated to extend at least one hundred (100) feet below the base of the perforated interval and at least fifty (50) feet above the retainer.

2. A permanent-type bridge plug shall be placed within one hundred fifty (150) feet above the top of the perforated interval with fifty (50) feet of cement on top of the bridge plug.

(d) **Plugging of Casing Stubs.** If casing is cut and recovered leaving a stub, one of the following methods shall be used to plug the casing stub.

1. **Stub Termination Inside Casing String.** A stub terminating inside a casing string shall be plugged by one of the following methods:

(i) A cement plug at least two hundred (200) feet in length shall be place at least one hundred (100) feet below and extend to at least one hundred (100) feet above the stub.

(ii) A cement retainer with effective back-pressure control shall be placed at least fifty (50) feet above the stub with a volume of cement equivalent to one hundred fifty (150) feet squeezed below the retainer and with an additional fifty (50) feet of cement placed above the retainer.

(iii) A permanent-type bridge plug shall be placed at least fifty (50) feet above the stub and capped with at least fifty (50) feet of cement.

2. **Stub Termination Below Casing String.** If the stub is below the next larger string, a cement plug at least two hundred (200) feet in length shall be placed to extend at least one hundred (100) feet above to at least one hundred (100) feet below the stub.

(e) **Plugging of Annular Space.** No annular space that extends to the waters floor shall be left open to drilled hole below. If this condition exists, cement shall be used to plug the annulus to prevent the upward migration of fluids to the waters floor.

(f) **Surface Plug Requirement.** A cement plug at least one hundred fifty (150) feet in length shall be place with the top of the plug one hundred fifty (150) feet or less below the waters floor, and shall be placed in the smallest string of casing which extends to, or nearest to, the waters floor.

(g) **Testing of Plugs.** The setting and location of the first plug below the surface plug required in (f) above shall be verified by one of the following methods:

1. By placing a minimum pipe weight of fifteen thousand (15,000) pounds on the cement plug, cement retainer, or bridge plug. The cement placed above the bridge plug or retainer need not be tested.

2. By testing the plug with a minimum pump pressure of one thousand (1,000) pounds per square inch (psi) with no more than a ten percent (10%) pressure drop during a fifteen- (15) minute period.

(h) **Fluid Between Plugs.** Each of the respective intervals of the hole between the various plugs shall be filled with a fluid of sufficient density to maintain well control while plugging and abandonment operations are in progress.

(i) Other plugging and permanent abandonment procedures may be required by the Supervisor.

(j) Clearance of location shall be done in accordance with Rule 400-2-4-.13.

400-2-4-.12. Report of Well Plugging.

Within thirty (30) days after the plugging of any well, an operator shall file Form OGB-11, Report of Well Plugging, with the Supervisor setting forth in detail the method used in plugging such well. A schematic showing the down-hole construction of the well, including the depths and lengths of plugs, shall accompany Form OGB-11.

400-2-4-.13. Clearance of Location.

(1) All casing, wellhead equipment, platforms, fixed structures, and pilings shall be removed to a depth of at least fifteen (15) feet below the waters floor. The operator shall verify site clearance after abandonment by one or more of the following methods as approved by the Supervisor.

(a) Drag a trawl in two (2) directions across the location with one hundred percent (100%) coverage within a one-quarter- (1/4-) mile radius.

(b) Conduct a diver search around the wellbore.

(c) Scan across the location with a side-scan or on-bottom scanning sonar.

(d) Use other methods based on particular site conditions.

(2) Certification that the area within a one-quarter- (1/4-) mile radius of the wellbore was cleared of all obstructions, the date the work was performed, the extent of the area searched around the location, and the search method utilized shall be submitted in writing to the Supervisor.

400-2-4-.14. Request to Classify Wells as Temporarily Abandoned or Shut-in.

(1) **Temporary Abandonment Status.**

(a) An operator may request that a well be placed in a temporarily abandoned status by submitting a written statement to the Supervisor describing its future utility and including the proposed temporary plugging procedures. A well may be classified as a temporarily abandoned well upon a showing that the well has future utility. Upon approval of a request by the Supervisor, the well will be placed in a temporarily abandoned status for a period of not more than one (1) year, or for a period which shall be concurrent with the term on any suspension of obligation to produce (SOP) which may have been granted by the Alabama Department of Conservation and Natural Resources as lessor. The operator must submit a subsequent request to the Supervisor prior to the end of such period in order to extend the temporarily abandoned status for an additional period of time of not more than one (1) year. Such request for an extension must be justified in writing, stating the reasons for the request, which should include the future utility of the well, the formations and intervals to be utilized, and a proposed schedule for future operations. Upon approval of the request by the Supervisor, the temporarily abandoned status will be extended for a period of not more than one (1) year. Thereafter, the Board may, after notice and hearing, extend further the temporarily abandoned status for a well.

(b) Any well which is approved for temporary abandonment shall utilize fluids of sufficient density to contain the formation pressure between the plugs and shall be cemented as required for permanent abandonment in Rule 400-2-4-.11(2) except for sections (f) and (j). When casing extends above the waters floor, a mechanical bridge plug (retrievable or permanent) shall be placed between fifteen (15) and two hundred (200) feet below the waters floor or a cement plug of at least one hundred (100) feet in length shall be placed between fifteen (15) and two hundred (200) feet below the waters floor. The cement plug shall be verified by tagging and pressure testing.

(c) Other plugging and temporary abandonment procedures may be required by the Supervisor or Board. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.

(d) The well location shall be maintained in accordance with Rule 400-2-4-.01, relating to Identification of Wells.

(2) **Shut-in Status.**

(a) An operator may request that a well be placed in a shut-in status by submitting a written statement to the Supervisor ~~if~~ stating that the well is capable of producing hydrocarbons but must remain shut in until connected to a gathering system, pipeline or processing facility, or for some other reason. A request to classify a well as shut-in will not be considered until the official test results have been received by the Board on Form OGB-9, First Production or Retest Report. Such request must be submitted in writing to the Supervisor stating why the well is shut in and the date when production is expected to commence. Upon approval of the request by the Supervisor, the well will be placed in a shut-in status for a period of not more than one (1) year, or for a period which shall be concurrent with the term on any suspension of obligation to produce (SOP) which may have been granted by the Alabama Department of Conservation and Natural Resources as lessor. The operator must submit a subsequent request to the Supervisor prior to the end of such period in order to extend the shut-in status for an additional period of time of not more than one (1) year. Such request for an extension must describe the progress that has been made toward placing the well on production and when production is expected to commence. Upon approval of the request by the Supervisor, the shut-in status will be extended for a period of not more than one (1) year. Thereafter, the Board may, after notice and hearing, extend further the shut-in status for a well.

(b) Any well which is approved for shut-in status shall utilize fluids of sufficient density to contain the formation pressure between the plugs and shall be cemented as required for permanent abandonment in Rule 400-2-4-.11(2) except for subsections (f) and (j). When casing extends above the waters floor, a mechanical bridge plug (retrievable or permanent) shall be placed between fifteen (15) and two hundred (200) feet below the waters floor or a cement plug of at least one hundred (100) feet

in length shall be placed between fifteen (15) and two hundred (200) feet below the waters floor. The cement plug shall be verified by tagging and pressure testing.

(c) Other plugging and shut-in procedures may be required by the Supervisor or Board. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.

(d) The well location shall be maintained in accordance with Rule 400-2-4-.01, relating to Identification of Wells.

400-2-4-.15. Abandoned Wells.

A well is considered abandoned when it has not been used for six (6) consecutive months, and has not been classified as temporarily abandoned or shut in pursuant to Rule 400-2-4-.14, and cannot be operated, whether because it was drilled as a dry hole or has ceased to produce, or operations have not been conducted thereon, or for some other reason.

400-2-4-.16. Seismic, Core, and Other Exploratory Holes to be Plugged.

Before any hole is abandoned which is drilled for seismic, core, or other exploratory purposes, it shall be the duty of the owner or driller of any such hole to plug the same in such manner as to properly protect all freshwater-bearing strata.

400-2-5. Testing and Allowable

400-2-5-.01. Daylight Hours.

All open hole drillstem tests shall be completed in daylight hours before sunset and shall not be considered as a production test. Copies of all drillstem test results shall be submitted to the Board pursuant to Rule 400-2-4-.03(2). For purposes of this rule, the word completed shall mean the closing of the drillstem test tool valve. No well shall be swabbed into production except during daylight hours before sunset. No well which contains or which is reasonably expected to contain hydrogen sulfide shall be brought into production except during daylight hours before sunset, unless otherwise approved by the Supervisor.

400-2-5-.02. Swabbing and Cleaning Wells.

Flow tests of less than four (4) hours, including swabbing and cleaning a well, shall not be considered as a production test. A record of the daily operation of well cleaning shall be reported on the reverse side of Form OGB-9, First Production or Retest Report, giving pressure data and the volumes of water, fracture fluid, oil or condensate, and gas recovered. Unless otherwise approved by the Supervisor, all wells shall be cleaned into a tank prior to production. The tank shall be of sufficient size to contain all fluids.

400-2-5-.03. Production Tests.

(1) All production tests shall be made only after approval by the Supervisor. An operator completing a new well or recompleting an old well shall test the well to determine if the well is capable of producing and the amount it can produce up to and including any allowable if assigned. Such test shall be at stabilized rates for a minimum of four (4) hours' duration, shall not exceed seventy two (72) hours, and shall be taken in a manner prescribed by the Board in its rules and regulations. An operator shall submit a request in writing to, and receive approval from, the Supervisor pursuant to Rule 400-2-5-.04 for extended testing beyond seventy-two (72) hours. The results thereof shall be verbally reported to the Supervisor immediately and filed with the Board on Form OGB-9, First Production or Retest Report, within fifteen (15) days after such test is completed. When more than one test is made, the reverse side of Form OGB-9 may be used to give complete test data. The test shown on the front side shall be considered the official test results for such well.

(2) **Gas Well Capacity Tests.** The capacity of a producing gas well shall be determined at the time the well goes on production and on an annual basis thereafter, as follows:

(a) **Initial Capacity Test.** Capacity flow shall be determined by the stabilized multipoint back-pressure method in accordance with the procedures set out in the Interstate Oil and Gas Compact Commission (IOGCC) "Manual of back-pressure testing of gas wells." The capacity shall be the calculated bottom-hole absolute open-flow potential of the well and shall indicate the capacity of the well to produce against zero pounds per square inch absolute (psia) at the formation. The results of capacity tests shall be reported to the Board on Form OGB-10 within fifteen (15) days after such tests have been completed. All field data, calculation, and a plot of the backpressure curve shall be submitted with this form.

(b) **Annual Capacity Tests.** Capacity flow shall be determined by the stabilized one-point back-pressure method in accordance with the procedure set out in the Interstate Oil and Gas Compact Commission (IOGCC) “Manual of back-pressure testing of gas wells.” The most recently determined exponent “n” established by a stabilized multipoint-back pressure test shall be used with this stabilized one-point test to determine the absolute open flow. The results of this capacity test shall be reported to the Board within fifteen (15) days of its completion on Form OGB-10A. All field data calculations and a plot of the backpressure curve shall be submitted with this form. The Board may approve some other method of testing, but under no circumstances shall the open-flow method be used.

(3) Measurements shall be taken under the following requirements:

(a) All pressures used in test calculations shall be corrected to pounds per square inch absolute (psia), using 14.65 psia as the average barometric pressure.

(b) Basic orifice coefficients used in the calculation of gas flow shall be those contained in the American Gas Association’s Gas Measurement Committee Report No. 3, or some other basic orifice coefficients generally accepted in the industry and approved by the Board.

(c) Gas measurements with pitot tubes shall be based on Reid’s formula and shall follow recommendations similar to those set forth in Appendix 4 of the U.S. Bureau of Mines Monograph 7. Corrections for base pressure and base temperature shall be made as in orifice measurements.

(d) Gas measurements with orifice well testers shall follow recommendations similar to that set forth in Bulletin No. E-7 of the American Meter Company. Corrections for base pressure and base temperature and gravity shall be made as in orifice measurements.

400-2-5-.04. Production Allowable.

Until special field rules are adopted, an operator shall submit a request in writing to, and receive approval from, the Supervisor for extended testing under a temporary test allowable. This request shall be accompanied by Form OGB-9, First Production and Retest Report and Form OGB-12, Operator's Certificate of Compliance and Authorization to Transport Oil, Gas or Condensate from Well. The duration of such temporary test allowable shall be as specified by the Supervisor. Permanent production allowables shall be established by the Board after notice and hearing.

400-2-5-.05. Oil Measurements.

(1) Quantities of oil shall be computed from tank tables correctly compiled in accordance with American Petroleum Institute (API) standard 2501, “Crude oil tank measurement and calibration,” second edition, July 1961 or subsequent revisions thereof.

(2) The American Petroleum Institute (API) gravity of crude oil shall be determined in accordance with API standard 2500, “Measuring, sampling, and testing crude oil,” second edition, March 1961 and subsequent revisions thereof. API standard 2500 restates the standards of the American Society for Testing Materials (ASTM), viz., ASTM designation D287-39; “Standard method of test for gravity of petroleum and petroleum products by means of the hydrometer,” *Observed gravity* at the *observed temperature* be corrected to (API) gravity and volume at sixty degrees Fahrenheit (60°F) by the use of tables of the American Society for Testing Materials and the Institute of Petroleum, “ASTM-IP petroleum measurement tables” (ASTM designation No. 1250; IP designation 200).

(3) Correction for Basic Sediment and Water (BS & W) shall be made in accordance with the methods specified in the joint ASTM-API method, “Standard method of test for water and sediment in crude oils,” ASTM designation: D96-63, API standard: 2542.

(4) The standards cited above shall be superseded by future revisions of such standards. However, the Board shall, if a characteristic of crude oil makes it necessary, after notice and hearing, issue field rules, special rules or regulations and orders prescribing a specific method of measuring, sampling, and testing crude oil.

400-2-5-.06. Oil and Condensate to be Measured.

All oil produced shall be accurately measured and reported to the Board by the operator on Form OGB-14, Operator's Monthly Report from Oil Wells. All condensate produced shall be accurately measured and reported to the Board by the operator on Form OGB-15, Operator's Monthly Report from Gas Wells. Sufficient capacity shall be provided by the operator to take accurate measurements of all oil and

condensate produced, provided exceptions may be granted by the Supervisor or the Board when physical conditions make an exception necessary.

400-2-5-.07. Gas to be Metered.

All gas produced shall be accurately metered in accordance with standards set by the American Gas Association (AGA) and reported to the Board by the operator on Form OGB-15, Operator's Monthly Report from Gas Wells.

400-2-5-.08. Gas-Oil Ratio.

Any oil well producing with a gas-oil ratio in excess of two thousand (2,000) cubic feet of gas per barrel of oil produced shall be allowed to produce daily only that volume of gas obtained by multiplying its daily oil allowable by two thousand (2,000) cubic feet. The gas volume thus obtained shall be known as the daily gas allowable of such well. The daily oil allowable of such well in barrels shall then be determined by dividing its daily gas allowable, obtained as herein provided, by its producing gas-oil ratio in cubic feet per barrel of oil produced. A well producing from the gas cap of an oil reservoir in which an oil well or wells are completed and producing shall, to the extent that it can produce without waste, be allowed to produce daily only that volume of gas and other hydrocarbons that under conditions of pressure and temperature existing in the reservoir from which produced is the equivalent in volume, under like pressure and temperature, to the oil and gas that would be produced daily from that oil well in the same reservoir producing the highest daily oil allowable if its gas-oil ratio were two thousand (2,000) cubic feet of gas per barrel of oil.

400-2-5-.09. Permissible Tolerance in Production Volumes Allowed for Oil Wells.

(1) **Daily Tolerance.** It is recognized that oil wells located on units capable of producing their daily allowable may overproduce one day and underproduce another. No unit, except for the purpose of testing in the process of completing or recompleting a well and for tests made for the purpose of obtaining scientific data, shall produce during any day more than one hundred twenty-five percent (125%) of the daily allowable assigned the unit, or ten (10) barrels above the daily unit allowable, whichever is greater. Subject to the foregoing, any underproduction may be made up by production from the same unit within the same month and overproduction shall be adjusted by underproduction.

(2) **Monthly Tolerance.** No unit shall produce in any one (1) month more than its monthly allowable plus a tolerance equal to three (3) days' allowable production. The allowed monthly tolerance of overproduction shall be adjusted during the following month by underproduction. Overproduction within the permitted tolerance shall be considered as oil produced against the allowable assigned to the unit for the following month.

(3) **Production in Excess of Monthly Allowable Plus Tolerance.** In instances where production in excess of the monthly allowable plus tolerance occurs from error, mechanical failure, testing, or other cause reasonably beyond the control of the operator, a report of such excess production shall be filed in writing with the Board and the transporter within fifteen (15) days after occurrence. Such report shall contain the number of barrels of excess production and the plan of adjustment. Such excess production shall be considered as oil produced against the allowable assigned to the unit for the following month and such may be transported from the tanks only as the unit accrues daily allowable to offset such excess production.

(4) **General.** The tolerance permitted on a daily or monthly basis shall not be construed to increase the allowable of a production unit or to grant authority to any operator to market or to any transporter to transport any quantity of oil in excess of the units allowable. The possession of a quantity of oil in storage at the end of any month in excess of three (3) days' allowable plus any untransported allowable oil shall be construed as a violation of this rule unless reported as provided in (3) above.

400-2-5-.10. Permissible Tolerance in Production Volumes Allowed for Gas Wells

(1) **Daily tolerance.** Although gas wells may overproduce their daily allowable one day and underproduce another, no unit, other than for the purpose of testing in the process of completing or recompleting a well and for the purpose of testing to obtain scientific data, shall produce, during any one day, more than two hundred percent (200%) of the daily allowable assigned for the unit. Subject to the foregoing, any underproduction may be made up by production from the same unit within the same month and overproduction shall be adjusted by underproduction.

(2) **Monthly tolerance.** No unit shall be allowed to produce, in any one (1) month, more than the monthly allowable for such unit plus a tolerance equal to five (5) days' allowable production. The allowed

monthly tolerance of overproduction shall be adjusted during the following month by underproduction. Overproduction within the permitted tolerance shall be considered as gas produced against the allowable assigned to the unit for the following month.

(3) **Production in Excess of Monthly Allowable Plus Tolerance.** In instances where production in excess of the monthly allowable plus tolerance occurs from error, mechanical failure, testing, or other cause reasonably beyond the control of the operator, a report of such excess production shall be filed in writing with the Board and the transporter within fifteen (15) days after occurrence. Such report shall contain the number of cubic feet of excess production and the plan of adjustment. Such excess production shall be considered as gas produced against the allowable assigned to the unit for the following month.

(4) **General.** The tolerance permitted on a daily or monthly basis shall not be construed to increase the allowable of a production unit or to grant authority to any operator to market or to any transporter to transport any quantity of gas in excess of the units allowable.

400-2-6. Production

400-2-6-.01. General.

The design and construction of all wells and production facilities shall be based on sound engineering principles and must take into account the composition of the well stream, maximum pressures, and other pertinent engineering data and information. All flowing wells shall be produced through tubing anchored by a packer and shall be equipped with a master valve and adequate chokes or beans to properly control the flow thereof. The Supervisor may approve alternative procedures for properly controlling well flow, upon request by the operator.

400-2-6-.02. Protection of Oil and Gas.

Before any oil or gas well is completed as a producer, the producing horizons shall be sealed or separated in order to prevent their contents from passing into another stratum. Except for test purposes approved by the Supervisor, no well shall be permitted to produce oil or gas simultaneously from different strata through the same string of casing, without the permission of the Board after notice and hearing.

400-2-6-.03. Initial Bottom Hole Pressure Survey.

Unless otherwise specified by the Supervisor, an operator completing a well in a new oil or gas pool(s) shall perform an initial bottom hole pressure survey on said pool(s) prior to receiving a temporary allowable from the Supervisor. The bottom hole pressure survey shall be performed with a bottom hole pressure gauge and results of the survey shall be reported to the Supervisor. The bottom hole pressure survey shall be conducted for at least twenty-four (24) hours and in accordance with industry standards.

400-2-6-.04. Pressure-Volume-Temperature Analysis.

Unless otherwise specified by the Supervisor, an operator completing a well in a new oil or gas-condensate pool at a measured depth of six thousand (6,000) feet or greater shall perform a pressure-volume-temperature (PVT) analysis on a subsurface sample or recombined surface sample of hydrocarbon fluids from said Well prior to receiving a temporary allowable from the Supervisor. The analysis shall be performed in accordance with industry standards and the results shall be reported to the Supervisor.

400-2-6-.05. Procedures for Multiple Completions.

(1) Information shall be submitted to the Supervisor for approval showing the top and bottom of all zones proposed for completion, including a partial electrical log and a diagrammatic sketch showing such zones and equipment to be used.

(2) If zones approved for multiple completion become intercommunicated, the operator shall, after obtaining approval from the Supervisor, immediately repair the well so as to separate such zones.

400-2-6-.06. Recompletion or Reworking.

(1) Prior to commencing recompletion or reworking operations, approval shall be obtained from the Supervisor. Unless an exception is granted by the Supervisor, a proposed workover or recompletion procedure shall be submitted to the Supervisor in writing. Unless an exception is granted by the Supervisor, an operator shall submit with such procedure statements addressing the following: the reason for the workover, calculated bottom hole pressure in the well, method of controlling pressure, expected hydrogen sulfide concentrations of the well stream, blow-out preventer arrangements, and the testing requirements

for blow-out preventers to be used during the operations. If the workover or recompletion is being performed on a well which contains hydrogen sulfide and the work being performed requires that the wellhead be removed, then Form OGB-24, Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide, shall accompany the workover or recompletion procedure. If the workover or recompletion is being performed on a well which contains hydrogen sulfide, then the hydrogen sulfide gas shall not be vented.

(2) If, after recompletion or reworking operations have begun, unexpected wellbore conditions are encountered the operator may, at his own risk, proceed with appropriate remedial action. As soon as practical, the Supervisor must be notified of such remedial action. Within thirty (30) days of recompletion or reworking operations, the operator shall submit a revised Form OGB-6, OGB-7, OGB-8, and OGB-9 where applicable, and one (1) copy of any additional logs.

400-2-6-.07. Subsurface Safety Devices.

(1) Safety devices and valves shall be installed, inspected, and tested, and records shall be maintained in accordance with the following requirements:

(a) All wells open to hydrocarbon-bearing zones shall be equipped with a surface-controlled subsurface safety device, installed at a depth of one hundred (100) feet or more below the waters floor. In case of failure of the surface-controlled subsurface safety device a subsurface-controlled subsurface safety device may be installed, at a depth of one hundred (100) feet or more below the waters floor, upon approval by the Supervisor. All wells in which a subsurface safety device or tubing plug is installed shall have the tubing-casing annulus packed off above the uppermost open casing perforations. The control system for all surface-controlled subsurface safety devices shall be an integral part of the platform shut-in system. In addition to the activation by manual action on the platform, the system may be activated by and shut-in by a signal from a remote location. Surface-controlled Subsurface Safety Valve's (SCSSV's) shall close in response to shut-in signals from the Emergency Shutdown Device (ESD) and in response to the fire loop or other fire detection devices.

(b) Subsurface safety devices shall be adjusted, installed, and maintained to insure reliable operation. These installations shall be made within two (2) days after stabilized production is established. The well shall be continuously attended during the stabilization period and the interval preceding the installation of the safety device. If the subsurface safety device is not installed within this two- (2-) daytime interval, or other interval specified by the Supervisor, the well shall be shut in, unless a waiver for omitting the device has been approved by the Supervisor.

1. Each subsurface-controlled subsurface safety device shall be removed, inspected, and repaired or adjusted as necessary at intervals not to exceed twelve (12) months for valves installed in a landing nipple and at intervals not to exceed six (6) months for those valves not installed in a landing nipple. Prior to installation, each device shall be repaired as necessary and adjusted or resized to compensate for changes in well conditions.

2. The subsurface safety device may be removed from a well for routine operations without authorization or notice provided the well is attended while the master valve(s) is open. The well shall not be open to flow while the subsurface safety device is removed, except when flowing of the well is necessary for routine operations. When such operations occur, the well shall be identified by a sign on the wellhead stating that the subsurface safety device has been removed.

3. Each surface-controlled subsurface safety valve shall be tested in place for proper operation when installed or reinstalled and thereafter at intervals not exceeding six (6) months. Testing shall be in accordance with API RP 14B, and subsequent revisions thereof, to ensure proper operation. However, the Supervisor may require more frequent inspection and testing of these devices or valves. Prior to installation, each device shall be repaired as necessary and adjusted or resized to compensate for changes in well conditions.

(c) In all tubing installations, the tubing string shall be equipped with a landing nipple to provide for the setting of the subsurface safety device. New completions (perforated but not placed on production) and completions shut in for a period of one (1) year shall be equipped with either:

1. a pump-through-type tubing plug;

2. a surface-controlled SCSSV, provided the surface control has been rendered inoperative; or

3. an injection valve capable of preventing back flow. In lieu of, or in addition to, other subsurface safety devices such devices shall be set at a depth of one hundred (100) feet or more below the waters floor.

(d) In the event well conditions prevent, or make impractical the installation of subsurface safety devices, the operator may submit in writing a request for a waiver of the requirement for the installation of such a device, including a detailed statement of the efforts made to overcome the difficulties and, if possible, an alternate safety measure.

1. The Supervisor may require a different program under the following conditions:

(i) When artificial lift is required;

(ii) When the flowing tubing pressure at the wellhead is too low to permit adjustment of the safety device for proper operation;

(iii) When the subsurface device causes sand to plug the tubing or sand makes the subsurface safety device inoperative;

(iv) When flow rate fluctuation or water production prevents a well equipped with a subsurface device from producing;

(v) When the mechanical condition of the well does not permit the installation of a subsurface safety device or at the prescribed minimum depth under section (a) above;

(vi) Class II injection wells; and

(vii) Underground storage wells.

(e) **Emergency Action.** In the event of an emergency, such as an impending storm, any well not equipped with a subsurface safety device and which is capable of natural flow shall have the device properly installed as soon as possible with due consideration being given to personnel safety.

(f) The well completion report and any subsequent report of workover shall state the type and the depth of the subsurface safety device installed in the well or state that the requirement has been waived.

(g) The operator shall maintain records showing the present status and past history of each subsurface safety device, or automatic surface shut in device installed in lieu of a subsurface safety device, including pressure settings and setting depths (if applicable), and dates and details of inspections, testing, repairing, adjustment, installations and bench tests. Records shall be retained for a period of two (2) years during which time they shall be available for review by the Supervisor.

400-2-6-.08. Wellhead Equipment and Testing Procedures.

(1) **Wellhead equipment.**

(a) All completed wells shall be equipped with casing heads, wellhead fittings, valves and connections with a rated working-pressure greater than the surface shut-in pressure of the well. Prior to production, the production casing shall be tested to the shut-in tubing pressure with a fluid approved by the Supervisor. When the wellhead is installed, the tree shall be equipped so that the pressures on all annuli can be continuously monitored. Each casing annulus shall have an established maximum pressure limit, which shall be approved by the Supervisor. The maximum allowable pressure for each casing annulus shall be posted near the casing or wellhead. The Supervisor shall be notified if the pressure exceeds, by ten percent (10%), the maximum pressure set for the casing string. Positive pressure shall be maintained on all annuli while producing the well. This pressure may be maintained by repressuring the casing with an approved fluid or inert gas such as nitrogen. All casing annuli pressures shall be continuously monitored and the pressures recorded. The pressure on each casing annulus shall be recorded daily and the maximum pressure each casing annulus reaches during the calendar month shall be reported to the Supervisor quarterly. Connections and valves shall be designed to permit fluid to be pumped between any two strings of casing, unless otherwise approved by the Supervisor. Two master valves shall be installed on the tubing in wells with a surface shut-in pressure in excess of five thousand (5,000) pounds per square inch (psi). All wellhead connections shall be assembled and tested prior to installation by a fluid pressure, which shall be equal to the rated working pressure of the fitting to be installed.

(b) In the event of prolonged operations such as drilling, milling, fishing, jarring, or washing over that could damage casing, the casing shall be pressure-tested, calipered, or otherwise evaluated every thirty (30) days, while operations are ongoing, and the results submitted to the Supervisor.

(2) **Abnormal Casing Pressure/Leak Testing.** Any well showing abnormal pressure on the casinghead or leaking gas or oil between production casing and the next larger string of casing, shall be immediately reported to the Supervisor and shall be monitored and evaluated for the source of the pressure and leak. A diagnostic test including bleed down through a needle valve and buildup to record the pressures in at least one (1)-hour increments shall be performed on each casing string in the wellbore found with abnormal casing pressure. Wells with abnormal casinghead pressure that is less than twenty percent (20%) of the minimum internal yield pressure of the affected casing and that bleed to zero (0) pounds per square inch (psi) pressure through a needle valve in twenty-four (24) hours or less may continue producing operations from the present completion. Requests for wells having casings with abnormal pressure more than twenty percent (20%) of the minimum internal yield pressure of the affected casing or pressure that does not bleed to zero (0) psi through a needle valve, shall be submitted to the Supervisor for approval to continue producing operations from the present completion. The operator shall comply with any additional diagnostic testing the Supervisor may require. Complete data on each well's casing pressure shall be maintained for a period of two (2) years. If the conditions cannot be corrected, the well shall be killed.

400-2-6-.09. Platforms and Fixed Structures.

(1) **General.** The location, design, and installation of all platforms and fixed structures shall include consideration of such factors as shallow hazards on and immediately underlying the waters floor, water depths, soil conditions, wave and current forces, wind forces, total equipment weight, and other pertinent geological, geographical, environmental, and operational conditions.

(2) **Design Features.** At least thirty (30) days prior to installing any platform or fixed structure, the operator shall submit for approval by the Supervisor design features applicable to the exact location and primary intended use or uses of such platform or fixed structure including a certification and plats showing:

(a) Platform dimensions (plan view and two elevations);

(b) Nominal size and thickness range of piling;

(c) Nominal size and thickness range of jacket column leg;

(d) Nominal size and thickness range of deck column leg;

(e) Design piling penetration;

(f) Maximum bearing and lateral load per pile in tons;

(g) Number and location of well slots;

(h) Water depths; and

(i) Plat showing the location of living quarters, evacuation routes, boat landings, heliports, and cranes.

(j) The following certification signed and dated with the title of the company representative: “(Operator) certifies that the design of (platform or structure and identification number) has been approved by a registered professional engineer having a specialty in structural engineering or registered civil engineer specializing in structural design.”

(k) Any structural modification to a platform or fixed structure shall be submitted for approval by the Supervisor prior to making such modification. The operator shall recertify the modified structure.

(l) Additional information when required by the Supervisor.

(3) **Shallow Hazards.** In accordance with Rule 400-2-8-.01, relating to Survey of Shallow Hazards, an operator shall file two (2) copies of a report of shallow hazards with the information required to be submitted in accordance with (2) above.

(4) **Recertification of Structural Integrity.** Periodic inspections and proper maintenance shall be performed to assure the structural integrity of each platform or fixed structure. Unless otherwise approved by the Supervisor, the structural integrity of each platform or fixed structure shall be recertified every five years. Recertifications of platforms and fixed structures shall be submitted to the Supervisor and shall include a written report of inspections performed in accordance with API RP 2A, and subsequent revisions thereof, and the following certification signed and dated with the title of the company representative: “(Operator) certifies that (platform or structure and identification number) has been inspected in accordance with API RP 2A, and subsequent revisions thereof, and the structural integrity of the (platform or fixed structure) has been verified by a registered professional engineer having a specialty in structural engineering or registered civil engineer specializing in structural design.”

400-2-6-.10. Production Facilities, Processing Facilities, and Offshore Plants.

Onshore facilities processing hydrocarbons produced from submerged offshore lands are subject to this rule. All offshore production facilities, processing facilities, and offshore plants shall be designed, installed, and maintained in a manner which provides for efficiency, safety of operation, and protection of the environment. All information required for the Supervisor's approval in this rule shall be submitted at least thirty (3) days prior to installation.

(1) **Production Facilities.**

(a) All production equipment shall be designed, installed, and maintained in accordance with generally accepted industry practices or standards.

(b) A generalized process schematic flow diagram showing all equipment with size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels, and the location of safety and pollution control equipment shall be submitted to the Supervisor for approval.

(c) Prior to construction and operation of a sour gas production facility, approval must be obtained from the Supervisor. Application for permission to construct and operate a sour gas production facility shall be considered a two-step process.

1. **Step 1.** An operator seeking the Supervisor's approval for the construction and operation of a sour gas production facility shall submit in duplicate the information listed below:

(i) A generalized schematic flow diagram showing all equipment on location with size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels, and the location of safety and pollution control equipment.

(ii) A description and schematic diagram showing hydrogen sulfide safety and monitoring equipment specified in Rule 400-2-8-.04 relating to Operations Involving Hydrogen Sulfide.

2. **Step 2.** Prior to placing equipment in service, the following information shall be submitted:

(i) The following certification signed and dated with the title of the company representative: "(Operator) certifies that the (Production Facility) has been designed, installed and will be operated in accordance with generally accepted industry practices or standards for such facilities."

(ii) In accordance with Rule 400-2-8-.04 relating to Operations Involving Hydrogen Sulfide, an Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-24 for the facility, and associated wells, shall be submitted to the Supervisor.

(d) Additional information when required by the Supervisor.

(2) **Processing Facilities.**

(a) Processing facilities shall be designed, installed, and maintained in accordance with generally accepted industry practices or standards.

(b) Prior to the construction and operation of a processing facility, approval must be obtained from the Supervisor. Application for permission to construct and operate a processing facility shall be considered as a two-step process.

1. **Step 1.** An operator seeking the Supervisor's approval for the design and construction of a processing facility shall submit in duplicate the information listed below:

(i) A plat of the site.

(ii) A generalized statement of processes and procedures used in the facility and the design capacity of the facility.

(iii) A generalized schematic flow diagram showing all equipment on location and a plat showing location, size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels, and the location of safety and pollution control equipment.

(iv) Generalized schematic diagrams showing location of hydrogen sulfide and combustible gas detection equipment, sensors and alarms, personnel safety equipment, fire fighting equipment, and emergency shutdown devices.

(v) Construction plans and schedules shall be submitted to the Supervisor prior to initiating construction of the facility.

2. **Step 2.** Prior to placing a processing facility into service, the following certification signed and dated with the title of the company representative shall be submitted: "(Operator) certifies that the (Processing Facility) has been designed, installed and will be operated to meet or exceed generally accepted industry standards or practices for such facilities."

(c) Notification shall be given to the Supervisor for turnaround operations.

(d) For sour gas operations, in addition to the above, the following information shall be submitted:

1. A description and schematic diagram showing hydrogen sulfide safety and monitoring equipment specified in Rule 400-2-8-.04 relating to Operations Involving Hydrogen Sulfide.

2. Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-24 for the facility, and associated wells, shall be submitted to the Supervisor.

(e) Additional information when required by the Supervisor.

(3) **Offshore Plant.**

(a) An offshore plant shall be designed, installed, and maintained in accordance with generally accepted industry practices or standards.

(b) Prior to the construction and operation of an offshore plant, approval must be obtained from the Supervisor. Application for permission to construct and operate an offshore plant shall be considered as a two-step process.

1. **Step 1.** An operator seeking the Supervisor's approval for the design and construction of an offshore plant shall submit in duplicate the information listed below:

(i) A plat of the site.

(ii) A generalized statement of processes and procedures used in the facility and the design capacity of the facility.

(iii) A generalized schematic flow diagram showing all equipment on location and a plat showing location, size, capacity, and design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, line pumps, metering devices, and other hydrocarbon-handling vessels, and the location of safety and pollution control equipment.

(iv) Generalized schematic diagrams showing location of hydrogen sulfide and combustible gas detection equipment, sensors and alarms, personnel safety equipment, fire fighting equipment, and emergency shut- down devices.

(v) Construction plans and schedules shall be submitted to the Supervisor prior to initiating construction of the facility.

2. **Step 2.** Prior to placing the offshore plant in service the operator shall submit information pertaining to operation and maintenance as listed below:

(i) The operator shall submit a schedule for initial testing and inspection of the safety systems at the offshore plant. Such test shall be witnessed by the Board's representative prior to commencing the operation of the offshore plant. Schedules for subsequent inspections and testing shall be submitted to the Supervisor.

(ii) Gas monitoring equipment, including equipment for hydrogen sulfide monitoring and combustible gas detection, shall be maintained in accordance with industry standards.

(iii) The operator shall maintain records showing the dates and results of inspection, testing, repairing, adjustment, and reinstallation of all shut-in devices, relief valves, and safety systems for a period of two (2) years, during which time they shall be available for review by an agent of the Board.

(iv) Prior to placing an offshore plant into service, the following certification signed and dated with the title of the company representative shall be submitted: "(Operator) certifies that the (Offshore Plant) has been designed, constructed and will be operated to meet or exceed generally accepted industry practices or standards for such facilities."

(c) Prior to placing an offshore plant involving extraction, into service, approval must be obtained from the Board after notice and hearing.

(d) Notification shall be given to the Supervisor for turnaround operations.

(e) For sour gas operations, in addition to the above, the following information shall be submitted:

1. A description and schematic diagram showing hydrogen sulfide safety and monitoring equipment specified in Rule 400-2-8-.04, relating to Operations Involving Hydrogen Sulfide.

2. Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-24 for the facility and associated wells shall be submitted to the Supervisor.

(f) Additional information when required by the Supervisor.

(4) **Modifications to Production Facilities, Processing Facilities, and Offshore Plants.** Modifications to production facilities, processing facilities, and offshore plants shall be addressed in the following manner:

(a) If any production facility requires modifications or metering changes that revise the basic information pertaining to flow diagrams or treatment, revised schematics shall be submitted to the Supervisor for his approval prior to making such modifications.

(b) If any sour gas production facility, processing facility or offshore plant requires modifications or metering changes that revise the basic information pertaining to flow diagrams, processing, safety systems, or equipment size and locations, revised schematics shall be submitted to the Supervisor for the approval prior to making such modifications.

(c) Additional information when required by the Supervisor.

(5) **Safety and Pollution Control Equipment and Procedures.** All platform production facilities, processing facilities, and offshore plants shall be protected with a basic and ancillary surface safety system designed, analyzed, installed, tested, and maintained in operating condition in accordance with the provisions of API RP 14C, or subsequent revisions thereof, and in accordance with the following:

(a) All pressure vessel relief valves shall be connected to a flare line.

(b) All pressure sensors and all pressure relief valves shall be equipped to permit testing with an external pressure source. A relief valve shall be set no higher than the designed working pressure of the vessel. The high-pressure shut-in sensor shall be set no higher than five percent (5%) or five (5) pounds per square inch (psi), whichever is greater, below the rated or designed working pressure of the vessel. The low pressure shut-in sensor shall be set no lower than fifteen percent (15%) or 5 psi, whichever is greater below the lowest pressure in the operating pressure range. The activation of low-pressure sensors on pressure vessels that operate at less than 5 psi shall be approved by the Supervisor.

(c) All flare lines shall be equipped with a scrubber or similar separation equipment capable of handling the rated capacity of the vessel on the platform.

(d) All wellhead assemblies shall be equipped with an automatic fail-close valve. Automatic safety valves temporarily out of service shall be flagged.

(e) Flowlines from wells shall be equipped with high- and low-pressure shut-in sensors located in accordance with Figure A1 of API RP 14C, or subsequent revisions thereof.

(f) All shut-in systems shall be activated by fusible material as specified by Table C1 of API RP 14C, or subsequent revisions thereof.

(g) The Emergency Shutdown Device (ESD) shall conform to the requirements of Appendix C, Section C1, of API RP 14C, or subsequent revisions thereof. The manually operated ESD valve(s) shall be quick opening and nonrestricted to enable the rapid actuation of the shutdown system.

(h) The following safety devices shall be tested monthly for the first four (4) months after being placed in service.

1. All Pressure Sensor High (PSH) or Pressure Sensor Low (PSL),

2. All Level Sensor High (LSH) and Level Sensor Low (LSL) controls,

3. All automatic inlet Shutdown Valves (SDV's) which are actuated by a sensor on a vessel or compressor, and

4. All SDV's in liquid discharge lines and actuated by vessel low-level sensors.

(i) If the monthly results are consistently within test tolerance, a quarterly test shall be required for at least one (1) year. If these results are consistently within test tolerance, upon request of the operator, a longer period of time between testing may be considered for approval by the Supervisor.

(j) All automatic wellhead safety valves shall be tested monthly for operation. If these results are consistently within test tolerance, a longer period of time between pressure tests, not to exceed quarterly, may be considered for approval by the Supervisor.

(k) All flowline check valves shall be tested monthly for leakage for the first four (4) months after being placed in service. If the monthly results are consistently within test tolerance, quarterly tests shall be required for at least one (1) year. If these results are consistently within test tolerance, or upon request of the operator, a longer period of time between tests may be considered for approval by the Supervisor.

(l) A complete testing and inspection of the safety system shall be witnessed by the Supervisor's representative at the time production is commenced. Thereafter, the operator shall arrange for a test every twelve- (12-) months. The test shall be conducted when it can be witnessed by the Supervisor's representative.

(m) The operator shall maintain records showing the dates and results of inspection, testing, repairing, adjustment and reinstallation of all surface and subsurface safety devices for a period of two (2) years, during which time they shall be available for review by the Supervisor.

(n) Additional information when required by the Supervisor.

(6) **Fire Fighting System.** A fire fighting system shall be installed in accordance with the following:

(a) A fire fighting system shall be installed in conformance with Subsection 5.2, Fire Water Systems, of API RP14G, or subsequent revisions thereof. The firewater system shall consist of rigid pipe with fire hose stations or fixed firewater monitors and shall be installed in all areas where hydrocarbon production equipment is located. A fire fighting system using chemicals may be installed in lieu of a firewater system if it is determined that it will provide equivalent fire protection. A fixed water spray system shall be installed in enclosed well-bay areas where hydrocarbon vapors may accumulate.

(b) Fuel or power for firewater pump drivers shall be available for at least thirty (30) minutes of run time during platform shut-in time. If necessary, an alternate fuel or power supply shall be installed to provide continued pump operation during platform shut down unless an alternate fire fighting system is provided.

(c) Portable fire extinguishers shall be placed in conformance with Subsection 6.2, Placement of Extinguishers, of API RP14G, or subsequent revisions thereof.

(d) The fire fighting system and all portable fire extinguishers shall be inspected and maintained in conformance with Section 7, Inspection, Testing, and Maintenance, of API RP14G, or subsequent revisions thereof. A record of testing shall be retained for a period of two (2) years during which time they shall be available for review by the Supervisor.

(e) A diagram of the fire fighting system showing the location of all equipment shall be posted in a prominent place on the platform or structure.

(f) Additional information when required by the Supervisor.

(7) **Automatic Detector and Alarm System.** Fire and gas detection systems shall be capable of continuous monitoring. Fire-detection systems and portions of combustible gas-detection systems related to the higher gas concentration levels shall be of the manual-reset type. Combustible gas-detection systems related to the lower gas-concentration level may be of the automatic-reset type.

(a) Gas detection systems shall be installed in all enclosed areas containing gas handling facilities or equipment and in other enclosed areas which are not adequately ventilated as defined in Section C1.3b. of API RP14C, or subsequent revisions thereof.

(b) Fire and gas detection systems shall be an approved type, designed and installed in accordance with API RP14C, RP14G, and RP14F, or subsequent revisions thereof.

(c) The central control shall be capable of initiating an alarm at a maximum of twenty-five (25%) of the lower explosive limit (LEL). This low level shall be for alarm purposes only.

(d) A high level setting of no greater than sixty percent (60%) LEL shall initiate appropriate sequences on the platform or structure.

(e) Fire (flame, heat, or smoke) sensors shall be installed in all enclosed classified areas.

(f) Additional information when required by the Supervisor.

(8) **Electrical Equipment and Systems.** The following requirements shall be applicable to all electrical equipment and systems installed on platforms, fixed structures, and mobile drilling facilities:

(a) All electrical generators, motors, and lighting systems shall be installed, protected and maintained in accordance with the most current edition of the National Electrical Code and API RP 500, or subsequent revisions thereof.

(b) Marine-armored cable or metal-clad cable may be substituted for wire in conduit in any area.

(c) Additional information when required by the Supervisor.

(9) **Certification.** The following certification signed and dated with the title of the company representative: "(Operator) certifies that the design and installation of the safety and pollution control equipment and procedures in section (5), the fire fighting system in section (6), the automatic detector and alarm system in section (7), and the electrical equipment and systems in section (8), to be installed on (platform or structure identification number) have been approved by qualified personnel including a registered professional engineer(s) and that future modifications and maintenance of these systems will be in accordance with acceptable industry standards."

400-2-7. Transportation

400-2-7-.01. Certificate of Compliance, Authorization to Transport.

No transporter shall transport oil, gas, or condensate from any production facility or plant products from any plant, until the operator thereof shall furnish to the transporter an approved Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Form OGB-12, and, if required, an approved Operator's Certificate of Compliance and Authorization to Transport Products from Plant, Form OGB-13. If oil, gas, or condensate is being transported from multiple wells, and there is a common transporter and a common purchaser for each of the wells, then an operator may submit a single Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12, listing the permit number, well name and number, and field name for each well. Such certificates shall certify that the conservation laws of the State have been complied with, and that such transporter is authorized by the operator to transport oil, gas, or condensate from such facility or plant products from any plant. Unless otherwise authorized by the Supervisor, Form OGB-12 or OGB-13 must be approved prior to transporting first production.

400-2-7-.02. Revocation of Certificate of Compliance.

Whenever the operator of any oil or gas production facility or plant shall have failed to comply with all applicable laws and applicable rules and regulations of the Board, with respect to such facility or plant, the applicable Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12, and, if required, the applicable Operator's Certificate of Compliance and Authorization to Transport Products from Plant, Form OGB-13, shall be revoked. The Supervisor or Board shall provide written notice to the operator and transporter of revocation, and the transporter moving oil, gas, condensate, or plant products from such facility or plant, shall immediately discontinue transporting oil, gas, condensate, or plant products until further notice from the Supervisor or Board.

400-2-8. Safety and Environment

400-2-8-.01. Survey of Shallow Hazards.

Unless otherwise approved by the Supervisor, an operator shall conduct a survey of shallow hazards, natural and manmade, within a one-quarter- (1/4-) mile radius of the proposed installation or operation of any mobile drilling facility, platform, or fixed structure. Unless otherwise approved by the Supervisor, such survey shall include a magnetic survey, a sub-bottom profile, and a sparker or shallow seismic survey. The purpose of this survey is to document the location of specific areas on, and immediately underlying the waters floor that would not support a drilling or production facility; that may contain shallow hydrocarbons; and other conditions that could be a potential safety hazard. For this reason, the operator shall submit a summary report with drawings on eight-and-one-half (8½) inch X eleven (11) inch plats showing water depths and the location and aerial extent of all shallow hazards, including pipelines and other developments, with respect to the proposed operation. The report shall also include a listing of safety measures to accommodate any identified potential safety hazards that may occur as a result of the proposed operation. Two (2) copies of the shallow hazards report shall be submitted to the Supervisor with the application for a drilling permit as required by section (2) of Rule 400-2-2-.01, relating to Permitting of Wells, or in accordance with section (3) of Rule 400-2-6-.09, relating to Platforms and Fixed Structures,

whichever is appropriate. If a new installation or operation is proposed in an area where an existing survey of shallow hazards has been conducted, then the Supervisor may require a new survey of shallow hazards.

400-2-8-.02. Notification of Fire or Blow Out.

(1) The Supervisor shall be notified immediately of a fire or blow out that occurs at or is related to the operation of any well, production, processing, storage, or Class II injection facility, underground storage facility, offshore plant, used in operations including but not limited to drilling, completing, testing, recompletion or reworking, producing, processing, storing, injecting, or metering.

(2) Such report shall be made immediately to the Board and shall contain information pertaining to a description of the incident; location by offshore tract or section, extent of damage to life and environment, and corrective action taken.

(3) If deemed necessary by the agent of the Board upon investigation, Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days.

(4) The operator shall immediately take the appropriate action to extinguish fires and bring blow outs under control. Additionally, the operator shall notify other appropriate governmental agencies of the incident.

400-2-8-.03. Pollution Prevention and Control.

(1) The operator shall conduct oil and gas operations so as not to pollute in any way that would harm the environment, including plant and animal life and water resources. If pollution occurs, the operator shall immediately take the appropriate action to control and effectively remove the pollutant. Additionally, the operator shall notify other appropriate governmental agencies of the incident. If the waters are polluted by the drilling or production operations conducted by or on behalf of the operator, and such pollution threatens human life, wildlife and aquatic life, or damages public or private property, the control and effective removal of the pollutant shall be at the expense of the operator. Upon failure of the operator to control and remove the pollutant, the Supervisor shall have the right to accomplish the control and removal of the pollutant in accordance with any established contingency plan for combating oil spills or by other means at the cost of the operator. Such action shall not relieve the operator of any responsibility as provided herein.

(2) The operator's liability to third parties, other than for cleaning up the pollutant in accordance with section (1) of this rule shall be governed by Section 9-17-19 of the *Code of Alabama* (1975).

(3) No liquid or solid substances resulting from any oil or gas drilling or production operation shall be discharged into the waters until seven (7) days after two (2) copies of appropriate permit(s) and written statement(s) of agreement with the appropriate governmental agencies approving such discharge(s) have been filed with the Supervisor.

(4**) Rubbish and Debris.**

(a) Materials, equipment, tools, containers, and other items used in offshore waters, which are of such shape, or configuration that they are likely to snag or damage fishing devices shall be handled and marked as follows:

1. All loose material, small tools, and other small objects shall be kept in a suitable storage area or a marked container when not in use and in a marked container before transport over offshore waters;

2. All cable, chain, or wire segments shall be recovered after use and securely stored until suitable disposal is accomplished;

3. Skid-mounted equipment, portable containers, spools or reels, and drums shall be marked with the owner's name prior to use or transport over offshore waters; and

4. All markings must clearly identify the owner and must be durable enough to resist the effects of the environmental conditions to which they may be exposed.

(b) Disposal of equipment, cables, chains, containers, or other materials into offshore waters is prohibited.

(c) Any of the items described in section (4)(a)1 of this rule that are lost overboard shall be recorded on the facility's operations report, as appropriate, and reported to the Supervisor.

(5) **Class II Underground Injection Control Operations.** Underground injection of brines or other fluids is subject to Rule 400-4-1-.01, et seq., relating to Rules and Regulations of the State Oil and Gas Board of Alabama Governing Class II Underground Injection Control Operations.

(6) **Drilling and Production Facilities.**

(a) Curbs, gutters, drip pans and drains shall be installed in deck areas in a manner necessary to collect all contaminants not authorized for discharge and maintained on all platforms, fixed structures, and mobile drilling facilities to collect and pipe all contaminants to a properly designed, operated and maintained sump system that will prevent discharge of such contaminants into the waters.

(b) All production facilities, such as separators, tanks, treaters, and other equipment, shall be such as are necessary to control the maximum anticipated pressures and production of hydrocarbons and associated sulfur; and shall be maintained at all times in a manner necessary to prevent pollution.

(c) The requirements of section (6)(a) and (b) of this rule shall not prohibit the discharge of certain substances, provided such discharge is approved in accordance with Rule 400-2-8-.03(3)

(d) The operator's personnel shall be thoroughly instructed in the techniques of equipment maintenance and operation for the prevention of pollution. Other personnel shall be informed in writing, prior to executing contracts, of the operator's obligations to prevent pollution.

(7) **Inspection and Reports.** The operator shall comply with the following pollution inspection and reporting requirements:

(a) Pollution Inspections.

1. Manned facilities shall be inspected daily.

2. Unattended facilities, including those equipped with remote control and monitoring systems, shall be inspected at frequent intervals. The Supervisor may prescribe the frequency of inspections for these facilities.

(b) **Pollution Reports.**

1. All spills or leakage of oil and liquid substances not approved for discharge shall be reported orally to the Supervisor or his representative within the following time limits:

(i) By noon of the next business day, if spill or leakage is less than one (1) gallon in the aggregate, or

(ii) Immediately, if spill or leakage is more than one (1) gallon in the aggregate. Within fifteen (15) days after reporting a spill or leakage required in (ii), Form OGB-27, Notification of Fire, Spill, Leak, or Blowout Incident Report shall be filed with the Supervisor describing the location, size, and cause of such spill or leakage, action taken, and the effectiveness of removal and cleanup operations.

2. The operator shall immediately take the appropriate action to clean up spills and repair leaks. Additionally, the operator shall notify other appropriate governmental agencies of the incident.

3. Operators shall notify each other upon observation of equipment malfunction or pollution resulting from another operator's operation.

(8) **Pollution Control Equipment and Materials.** Pollution-control equipment and materials shall be maintained by, or shall be available to, each operator at an offshore location or at a shore base location. The equipment shall include containment booms, skimming apparatus, cleanup materials, chemical agents and other items needed for the existing environmental conditions, and shall be available prior to the commencement of drilling and production operations. The equipment and materials shall be inspected monthly and maintained in a state of readiness for use. A record of the inspections shall be maintained at the site at which the equipment is stored and maintained.

(9) **Area Contingency Spill Response Plan.** Unless previously filed with the Supervisor, an operator shall submit two (2) copies of the area contingency spill response plan that has been approved by the appropriate agency, or agencies, having such authority. Unless required otherwise, such plan shall be submitted to the Board within fifteen (15) days after it is approved, with an attached written statement verifying approval of said plan. Any modifications to the plan shall be submitted to the Supervisor.

400-2-8-.04. Operations Involving Hydrogen Sulfide.

This rule shall apply to all operations that encounter or could reasonably expect to encounter oil or gas containing hydrogen sulfide. Preventative measures shall be taken to control the effects of hydrogen sulfide (H_2S) at all operations where hydrogen sulfide concentrations in the system are equal to one hundred (100) parts per million (ppm) or more. Such operations shall include, but may not be limited to drilling, completion,

recompletion or reworking, testing, producing, metering, cleansing, processing, storing, transporting, and injecting.

(1) **Operator Responsibility.**

(a) Each operator shall conduct operations in accordance with section (2) through (7), and (10) below. Section (8) requires each operator to file a Certificate of Compliance for each operation that encounters or could reasonably be expected to encounter oil or gas containing hydrogen sulfide.

(b) Any person or persons submitting an application for a change of operator pursuant to Rule 400-2-2-.05 for an existing sour gas well or platform shall comply with the requirements of this rule.

(c) Exemptions to section (2) through (7) may be obtained by filing a Certificate of Compliance with the Supervisor as directed under section (9) below.

(d) Variances to or waivers from the specifications of this rule may be granted by the Supervisor upon showing a good cause by the operator.

(2) **Safety Program.** A safety program shall be established and maintained to promote safety procedures. All personnel that are assigned, contracted, or employed shall be instructed as to hazards of hydrogen sulfide, including physiological responses and the application of first aid to victims of hydrogen sulfide exposure.

(3) **Equipment and Materials.** All equipment and materials that will be exposed, or can reasonably be expected to be exposed to hydrogen sulfide, shall be designed and maintained to resist damage caused by hydrogen sulfide stress cracking, embrittlement, or corrosion. The design shall be in accordance with applicable National Association of Corrosion Engineers (NACE) Standards.

(4) **Warning Systems.**

(a) **Warning Signs and Security.**

1. For an offshore facility, the operator shall post, where permitted by law, clearly visible warning signs on public streets or roads inside the radius of exposure.

2. For an offshore facility, the operator shall display clearly visible warning signs on at least two sides of the rig and at points of access to the rig or platform.

3. In populated areas such as towns and cities where the use of signs is not considered to be acceptable, an alternate warning plan may be approved upon written request to the Supervisor.

(b) **Monitors and Alarms.**

1. Unless otherwise approved by the Supervisor, each drilling, workover, testing, or offshore facility shall have a hydrogen sulfide monitoring system which activates visible alarms when the concentration of hydrogen sulfide exceeds ten (10) parts per million (ppm) in air and audible alarms when the concentration of hydrogen sulfide exceeds twenty (20) ppm in air. This system shall be capable of sensing a minimum of five (5) ppm in air.

(i) As a minimum, hydrogen sulfide sensors for offshore drilling and workover rigs shall be located at the rig floor, bell nipple, shale shaker, mud pits, and living quarters.

(ii) For drilling operations, this monitor and alarm system shall be on site and operational prior to penetrating the hydrogen sulfide bearing zone in accordance with the time specified in the contingency plan. Said equipment shall be on site and operational prior to commencing all other operations involving hydrogen sulfide.

2. The operator of each production well or platform shall install and maintain a monitor and alarm system at the well site or platform designed to detect the continuing escape of hydrogen sulfide.

3. The operator of each unplugged inactive well shall establish safety procedures, as approved by the Supervisor, which are designed to prevent the undetected continuing escape of hydrogen sulfide.

4. The operator of each production well, injection well, processing facility, or offshore plant facility shall install and maintain in operable condition safety devices to include automatic shutdown devices designed to prevent the undetected continuing escape of hydrogen sulfide. Safety devices shall be maintained within industry standards.

(c) **Wind Direction Equipment.** Wind direction equipment shall be installed at prominent locations on or near the drilling, workover, test, or offshore facility to indicate the wind direction at all times and the safe upwind areas in the event hydrogen sulfide becomes present in the atmosphere.

(d) **Danger Signals.** Danger signals consisting of signs and flags shall be displayed in a manner visible to all traffic approaching the facility. All signals shall be illuminated under conditions of limited visibility when in use. If illumination is not feasible, signals must be constructed of reflective material or covered with reflective paint so they will be readily visible from other light sources such as automobiles. Danger signals shall be displayed to indicate the following operational conditions and requirements:

1. The color green shall indicate possible danger, when the concentration of hydrogen sulfide is less than ten (10) parts per million (ppm) in air;

2. The color yellow shall indicate moderate danger, when the concentration of hydrogen sulfide reaches ten (10) ppm in air. If the concentration of hydrogen sulfide reaches twenty (20) ppm in air, breathing apparatuses shall be worn by all personnel and all non-essential personnel shall proceed to the safe briefing areas;

3. The color red shall indicate extreme danger, when the concentration of hydrogen sulfide reaches fifty (50) ppm in air. All non-essential personnel shall be evacuated, immediate notification shall be given to local civil authorities, and traffic in the immediate vicinity of the facility shall be diverted. The State Oil and Gas Board and other appropriate governmental agencies shall be notified as soon as possible when conditions of extreme danger exist.

(5) **Training Requirements.**

(a) Each operator whose operations are subject to this rule shall provide training of personnel responsible for his operations. An attendance list of these training sessions shall be maintained by the operator.

(b) The training of personnel shall include the following elements:

1. Safety precautions;
2. Operation of safety equipment and life support systems;
3. Corrective action and shutdown procedures;
4. Effect on metal components of the system.

(6) **Personnel Safety Equipment.**

(a) Breathing apparatuses shall be provided and be readily accessible. A minimum requirement shall be to provide self-contained breathing equipment for all personnel that could be exposed to hydrogen sulfide concentrations in excess of ten (10) parts per million (ppm) in air.

(b) A system of breathing air manifolds, hoses, and masks shall be provided on the rig floor for all drilling or workover operations or when hydrogen sulfide concentrations reach twenty (20) parts per million (ppm) in the air in all other operations. A rechargeable cascade air bottle system shall be provided to refill individual bottles of breathing air. Additional equipment such as a first aid kit, ear plugs, spectacle kits, portable hydrogen sulfide detectors, retrieval ropes and harnesses, chalk boards, note pads, bull horns, flashing lights, resuscitators, and a litter shall also be available.

(c) For drilling operations, the equipment specified in section (6)(a) and (6)(b) shall be on site and operational prior to penetrating the hydrogen sulfide bearing zone. Said equipment shall be on site and operational prior to commencing all other operations involving hydrogen sulfide.

(d) Explosion-proof ventilation devices shall be provided in critical work areas of the drilling, workover, test or plant facility and be multidirectional and capable of dispersing hydrogen sulfide vapors.

(e) If hydrogen sulfide is detected, frequent inspections of all areas of poor ventilation shall be made with a hydrogen sulfide detector instrument, and personal hydrogen sulfide detectors shall be made available to personnel.

(7) **Contingency Plan.**

(a) Operations that handle gas containing one hundred (100) parts per million (ppm) hydrogen sulfide or more in the system must formulate a contingency plan unless exempted under section (9). The contingency plan must be in place, as specified on Form OGB-24, Operator’s Certificate of Compliance for Operations involving Hydrogen Sulfide, prior to commencing the following operations:

1. Penetrating the hydrogen sulfide bearing zone during drilling operations;

2. Working over or recompleting a well in a hydrogen sulfide bearing zone;

3. Completing a temporarily abandoned well in a hydrogen sulfide bearing zone;

4. Testing or putting on permanent production a well that is completed in a hydrogen sulfide bearing zone;

5. Producing hydrocarbons bearing hydrogen sulfide into a sour flowline or sour gathering line;

6. Starting up a facility that will remove hydrogen sulfide from production;

7. Implementing any modification to an existing operation or facility, which increases the radius of exposure in a public area or results in a change of the applicable requirements of this rule.

(b) A contingency plan shall include the following items:

1. A plat covering the area of exposure or an area having a radius of one (1) mile, whichever is greater. The plat shall include the location of the well, facility, or corridor showing all good roads, residences, public areas and places, areas of low elevation where hydrogen sulfide might accumulate, the direction of prevailing winds, oil and gas wells, separators, heaters, corridors of gathering or pipeline systems, pumping stations, plants, transformer stations, and other manmade structures or features that may be of importance.

2. An index list of houses and places of business with telephone numbers and names and numbers of residents and employees as well as the identification of residents needing assistance in evacuation shall accompany the plan. This index list shall be limited to those houses and places of business located within a radius of one (1) mile or the radius of exposure, whichever is greater.

3. Information about the safety program established in section (2), the training requirements in section (5), the personnel safety equipment required in section (6), the location of briefing areas, and responsibilities of personnel during different operational conditions;

4. A description of the warning systems required in section (4) to include number, location, and detection limits of all monitors as well as the schedules for calibrating and testing said systems;

5. For drilling operations, a specification of the time at which the warning systems required in section (4) and the personnel safety equipment required in section (6) will be on site and operational;

6. Procedures to evacuate residences, businesses, and public places;

7. Procedures to divert traffic in the immediate vicinity and to notify the local civil authorities, the State Oil and Gas Board, and other appropriate governmental agencies;

8. Procedures to evacuate non-essential personnel from the well or facility in the event attempts to control the well or facility are unsuccessful;

9. A list including names, addresses, and telephone numbers of the closest hospitals, ambulance services, medical personnel, and other individuals or facilities that could assist in the event of an emergency;

10. The name, address, and telephone number of the individual in charge of administering the plan;

11. Any other information that the operator deems appropriate;

12. Other information deemed necessary by the Supervisor.

(c) The contingency plan shall be amended when any significant change in public exposure caused by public infringement of an existing radius of exposure requires such changes to be made. Otherwise, the contingency plan for each facility shall be reviewed and updated on an annual basis.

(d) Copies of the contingency plan shall be available for inspection by the Supervisor at the location indicated on Form OGB-24, Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide and shall be provided to local civil authorities prior to commencing any one of the operations set forth in section (7)(a) and be readily available at the drilling, workover, test or plant facility.

(8) **Certificate of Compliance.**

(a) An Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide, Form OGB-24, shall be filed in triplicate with the Supervisor for each facility or operation involving hydrogen sulfide subject to any requirement of this rule. A Certificate of Compliance may cover a single operation or multiple operations located within a field. The description of the type of operation indicated on Form

OGB-24 must sufficiently define the facilities covered. Each operator shall maintain a current list of all operations covered by a Certificate of Compliance. Said list shall be available for inspection by the Supervisor upon request.

(b) The Certificate of Compliance shall certify that the operator has complied, or will comply, with the applicable requirements of this rule.

(c) For drilling operations, the Certificate of Compliance shall be filed with and approved by the Supervisor as a part of the application to drill. For facilities involving other types of hydrogen sulfide operation, as set forth in section (7)(a), the Certificate shall be filed with and approved by the Supervisor prior to commencing those operations.

(d) A new or amended Certificate of Compliance shall be required if there is a change in public exposure caused by public infringement of an existing radius of exposure resulting in a change in the applicable provisions of this rule, not described by the existing certificate. The operator shall file the new or amended certificate within thirty (30) days after an operator becomes aware of such infringement.

(e) A new or amended Certificate of Compliance shall be required if there is a modification of an existing operation or facility which increases the radius of exposure in a public area or results in a change in the applicable provisions of this rule not described by the existing Certificate. The operator shall file the new or amended Certificate at least thirty (30) days prior to initiating the operation or construction. Approval of the Certificate must be granted by the Supervisor prior to commencing that operation or construction.

(f) For drilling operations, the Certificate of Compliance submitted with the permit shall remain in effect through the completion, testing and well securing operations provided that the rig remains in place. If the rig is removed prior to these procedures, an amended Certificate accompanied by a schematic of the location showing the monitoring system and test equipment locations shall be submitted. The monitoring system and test equipment must be approved by the Supervisor prior to initiating test procedures.

(g) Each facility or operation for which a Certificate of Compliance has been approved shall be recertified by the operator on an annual basis. The recertification shall be filed with the Supervisor within thirty (30) days of the anniversary date of the most recently approved Certificate of Compliance for that facility or operation. Recertification is not required for operations containing less than one hundred (100) parts per million (ppm) hydrogen sulfide.

(9) **Rule Exemptions.** Exemptions from sections (2) through (7) may be obtained by filing the Certificate of Compliance as directed below:

(a) Each operator must determine the hydrogen sulfide concentration in the gaseous mixture in an operation or system.

1. Tests shall be made in accordance with standards as set by American Society for Testing and Methods (ASTM) Standard D-2385-66, or Gas Processors Association (GPA) Plant Operation Test Manual C-1, GPA Publication 2265-68, as revised, or other methods approved by the Supervisor.

2. Tests of vapor accumulation in storage tanks may be made with industry-accepted colorimetric tubes.

(b) To obtain an exemption from this rule, the radius of exposure must be determined, except in the cases of storage tanks, using the following Pasquill-Gifford equation, or by other methods satisfactory to the Supervisor:

For determining the radius of exposure:

$$X = ((1.589) (\text{mole fraction } H_2S) (Q))^{(.6258)}$$

Where: X = radius of exposure in feet for 100 ppm H_2S concentration
Q = maximum volume determined to be available for escape in standard cubic feet per day
H_2S = mole fraction of hydrogen sulfide in the gaseous mixture available for escape (i.e. for 1% H_2S (volume basis), mole fraction is 0.01)

(c) The volume used as the escape rate in determining the radius of exposure shall be that specified below, as applicable:

1. The maximum daily volume rate of gas containing hydrogen sulfide handled by that system for which the radius of exposure is calculated.

2. For existing gas wells, the estimated maximum open flow potential shall be used.

3. For new wells drilled in developed areas, the escape rate shall be determined by using the estimated maximum flow potential of adjacent wells in the field.

4. The escape rate used in determining the radius of exposure shall be corrected to standard conditions of 14.65 pounds per square inch absolute (psia) and 60°F.

(d) For drilling of a well in an area where insufficient data exist to calculate a radius of exposure but where hydrogen sulfide may be expected, then a radius of exposure equal to one-half (1/2) mile shall be assumed. A lesser-assumed radius may be considered upon written request setting out the justification.

(e) Storage tanks which are utilized as part of a production operation and which are operated at or near atmospheric pressure are exempt from sections (2) and (4) through (7); however, where the vapor accumulation has a hydrogen sulfide concentration in excess of five hundred (500) parts per million (ppm), the storage tanks are exempt from sections (4), (6b, c, d, and e) and (7) only.

(f) Operations with a radius of exposure less than fifty (50) feet are exempt from sections (2) through (7) upon filing the Certificate of Compliance.

(g) Provided no public area is included within one-half (1/2) mile, operations with a radius of exposure greater than fifty (50) feet and less than one-half (1/2) mile are exempt from sections (4)(b) through (7) upon filing the Certificate of Compliance.

(h) Operations with a radius of exposure that either is greater than fifty (50) feet and includes a public area or is equal to or greater than one-half (1/2) mile are not eligible for an exemption under this.

(10) **Well Testing Procedures.** Well testing procedures for operations involving hydrogen sulfide shall be conducted in accordance with this section.

(a) Well testing shall be performed with a minimum number of personnel in the immediate vicinity of the location.

(b) During the test, the use of hydrogen sulfide detection equipment shall be intensified.

(c) All surface units and related equipment that will handle or be exposed to produced fluids containing hydrogen sulfide shall be designed for hydrogen sulfide service.

(d) All produced gases that are vented or flared shall be produced through a flare system that has been designed to gather and burn hydrogen sulfide gas safely. Flare lines shall be located at a distance that is sufficient to compensate for wind changes. The flare system shall be equipped with a pilot and an automatic igniter. Backup ignition for each flare shall be provided.

(e) Gases from stored test fluids shall be vented into a flare system.

(f) Testing operations in which produced gases are flared shall comply with permit regulations of other state and federal agencies.

400-2-8-.05. Transportation of Wastes Associated with Oil and Gas Operations.

(1) **Certificate of Eligibility to Transport Wastes.**

(a) No transporter shall transport wastes from a site until a Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, has been approved by the Supervisor and an Organization Report, Form OGB-5, as prescribed in Rule 400-2-2-.04, has been filed with the Board. Said approval of a

Transporter's Certificate shall be for a two- (2-) year period, but may be renewed every two (2) years by filing a new Organization Report, Form OGB-5.

(b) If any transportation procedures are modified, then an amended Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be submitted for approval by the Supervisor.

(2) **Revocation of Certificate of Eligibility to Transport Wastes.** Whenever the transporter of wastes shall have failed to comply with all applicable laws and applicable rules and regulations of the Board, the applicable Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be revoked. The Supervisor or Board shall provide written notice to the transporter of revocation and the transporter shall immediately discontinue transporting wastes until further notice from the Supervisor or Board.

(3) **Wastes Manifest.**

(a) Every shipment of wastes shall be accompanied by a Wastes Manifest, Form OGB-26.

(b) At the time of transport, the operator shall initiate the manifest by completing and signing Part I. After the transporter completes and signs Part II, the operator shall retain a copy of the manifest. All other copies shall accompany the waste shipment.

(c) Upon receipt of the wastes, the disposer shall complete and sign Part III of the manifest. The transporter shall then retain the transporter's copy.

(d) Upon completion of the manifest, the disposer shall retain the disposer's copy and mail the original copy to the operator within ten (10) days.

(e) The operator, transporter, and disposer shall maintain file copies of the completed manifest for a period of at least five (5) years. Said file copies shall be provided to the Board upon request by the Supervisor.

(f) Oil and gas operations from which wastes are transported out of state must comply with the manifest system requirements.

(4) **Unit or Field-Wide Operations.** In the case of unitized or field-wide operations where the transporting of wastes is confined to the geographical boundaries of the unit or field, the operator may be eligible for the following exemptions:

(a) When the operator also serves as the generator, transporter and disposer, the operator may request an exemption from the manifest system upon filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25.

(b) When the operator serves as the generator and disposer but contracts the transportation to another party, the operator may request an exemption from the manifest system upon the transporter filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25. The transporter shall be required to file a Transporter's and Storer's Monthly Report, Form OGB-16.

400-2-9. Reports

400-2-9-.01. Reports.

Operators of oil and gas and Class II injection wells, storage wells, plants, and transporters of oil, condensate, or gas or storage operators shall make reports of their operations. The following reports shall be filed with the Supervisor by the twenty-eighth (28th) day of the month subsequent to the period for which the report is made, or at such other time as prescribed by the Supervisor. Any person conducting operations that fall within the classification of operator, transporter, processor, or storage operator shall prepare and file the following reports applicable to his operations:

(1) Operator's Monthly Report from Oil Wells, Form OGB-14;

(2) Operator's Monthly Report from Gas Wells, Form OGB-15;

(3) Transporter's and Storer's Monthly Report, Form OGB-16;

(4) Monthly Report of Fluids Injected, Form OGB-17;

(5) Monthly Report of Gas Injected/Withdrawn for Natural Gas Storage Facilities, Form OGB-17-D; and

(6) Monthly Report for Products from Processing, Cleansing, or Extraction Facilities, Form OGB-18.

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400-3. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING COALBED METHANE GAS OPERATIONS

400-3-1. General

400-3-1-.01. Applicability.

The following rules and regulations shall govern coalbed methane gas operations. These rules explicitly exclude and except operations of coal mining where it is necessary for safety or efficient operations of the mine to vent coalbed methane gas and where capture and sales of coalbed methane gas is not a part of the operations.

400-3-1-.02. Application of Other Rules.

In addition to the rules and regulations governing coalbed methane gas operations set forth in Rule 400-3-1-.01 et seq., the following rules shall apply to coalbed methane gas operations:

(1) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Class II Underground Injection Control Operations, Rule 400-4-1-.01, et seq., and

(2) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Practice and Procedure and Forced Integration or Forced Pooling, Rule 400-7-1-.01, et seq.

400-3-1-.03. Repealed Rules, Special Field Rules, and Orders.

All rules and regulations governing the conservation of oil and gas in Alabama which have been heretofore promulgated by the Board under the authority of Act No. 1, approved May 22, 1945, General Act of Alabama, Regular Session 1945, are hereby repealed, rescinded, and superseded by these rules and regulations; provided, however, no special field rules or other orders of the Board are so repealed, rescinded, or superseded. Special field rules and orders will be issued when required and shall prevail over these rules and regulations, where in conflict therewith.

400-3-1-.04. Authority.

Rules, regulations, special field rules, orders, changes, renewals, or extensions thereof, shall be adopted in accordance with the requirements of Section 9-17-1 et seq. of the *Code of Alabama* (1975).

400-3-1-.05. Definitions.

The words defined hereafter shall have the following meaning when used within these rules:

(1) **Abandoned well** shall mean, for purposes only of compliance with requirements herein, that a well is to be considered abandoned when it has not been used for six (6) consecutive months, and cannot be operated, whether because it was drilled as a dry hole, or has ceased to produce, or operations have not been conducted thereon, or for some other reason.

(2) **Barrel** shall mean forty-two (42) U.S. gallons, and when used for liquid hydrocarbon volumes it shall be at a temperature of sixty degrees Fahrenheit (60°F), with deductions for the full percent of any basic sediment, water, and other impurities present, ascertained by centrifugal or other recognized and customary tests.

(3) **Blow out** shall mean any uncontrolled escape of fluids, hydrocarbons, or any other materials from a well.

(4) **Blow-out preventer** shall mean a heavy casinghead device or devices that helps control or prevent a blow out by closing around the drill string, or work string, or that completely closes the top of the casing if the drill string, tubing, or other pipe is withdrawn.

(5) **Board** shall mean the State Oil and Gas Board of Alabama.

(6) **Bottom-hole pressure** shall mean the pressure per square inch (psi) at or near the face of the producing horizon obtained by means of a pressure-recording instrument or other method approved by the Board, with readings corrected to a predetermined plane or datum.

(7) **Cased completion** shall mean a coalbed methane gas well in which production casing is set through the productive coalbed or coalbeds.

(8) **Cased/open hole completion** shall mean a coalbed methane gas well in which at least one coalbed is completed through casing and at least one coalbed is completed open hole.

(9) **Casing pressure** shall mean the pressure at the surface of a well between the casing and tubing or between two (2) strings of casing.

(10) **Christmas tree** (wellhead connection) shall mean an assembly of valves and fittings attached to the head of the casing of a well to control the flow.

(11) **Class II injection well** shall mean an injection well which is used (1) to inject brine or other fluids which are brought to the surface in connection with natural gas storage operations or oil or natural gas production and which may be commingled with waste waters from plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection; (2) for enhanced recovery of oil or natural gas; or (3) for storage of hydrocarbons which are liquid at standard temperature and pressure.

(12) **Coalbed methane gas** shall mean occluded natural gas found in coalbeds.

(13) **Coalbed methane gas field** shall mean the area as defined by the operator and approved by the Board which is underlain or appears to be underlain by at least one coalbed, capable of producing occluded natural gas.

(14) **Coalbed methane gas well** shall mean a well capable of producing occluded natural gas from a coalbed or coalbeds.

(15) **Completion** shall mean, for purposes only of compliance with requirements herein, that a well is considered completed when drilling operations have ceased or at such other times as the Supervisor may determine.

(16) **Compressor station** shall mean an installation in a pipeline in which the pressure of gas is raised for transmission through pipelines.

(17) **Consenting owner** shall mean an owner having a working interest in an oil and gas lease or an unleased oil and gas interest in an established or proposed spacing unit, who has reached an agreement in writing with the Board-appointed operator of the unit relative to the terms and conditions which will govern the manner in which his interest shall be developed and operated.

(18) **Conservation** shall mean the conserving, preserving, guarding, or protecting of oil and gas resources of the State by obtaining the maximum efficiency with minimum waste in the production, transportation, processing, treating, and marketing of the nonrenewable oil and gas resources of the State.

(19) **Cubic foot of gas** shall mean a volume of gas expressed in cubic feet and computed at a base pressure of 14.65 pounds per square inch absolute (psia), and flowing temperature of sixty degrees Fahrenheit (60°F); correction to be made for pressure deviation and for specific gravity according to tests made by the Balance Method, or other methods customary to the industry if approved by the Supervisor.

(20) **Day** shall mean a period of twenty-four (24) consecutive hours from 7:00 a.m. one day to 7:00 a.m. the following day.

(21) **Developed area or developed unit** shall mean a drainage or production unit having a well completed thereon which is capable of producing oil or gas in paying quantities; however, in the event it is shown, and the Board finds, that a part of any unit is nonproductive, then the developed part of the unit shall include only that part found to be productive.

(22) **Disposer** shall mean any person or company who receives wastes for disposal in a disposal facility that is in compliance with existing state and federal regulations.

(23) **Drainage or production unit** shall mean the area in a pool, which may be drained efficiently and economically by one well. For simplicity, the term “production unit” is used hereinafter from time to time in place of the term “drainage or production unit.”

(24) **Drilling unit** shall mean an administrative unit established by the Board to provide and allow for the drilling of a well.

(25) **Enhanced recovery** shall mean the increased recovery from a pool achieved by flooding, pressuring, cycling, or pressure maintenance and which may include the injection into the pool of a substance or a form of energy extrinsic to the pool.

(26) **Field** shall mean the general area which is underlain or appears to be underlain by at least one pool, and field shall include the underground reservoir or reservoirs containing crude oil or natural gas, or

both. The words field and pool mean the same thing when only one underground reservoir is involved; however, field, unlike pool, may relate to two or more pools.

(27) **Flowline** shall mean a pipeline that transports full well stream production from a well site to the production equipment where produced hydrocarbons are first separated, dehydrated, commingled with other production, or otherwise processed or to the point of custody transfer.

(28) **Forced integrated unit or forced pooled unit** shall mean a spacing unit in which all nonconsenting owners have been ordered by the Board to integrate or pool their tracts and interests and develop them in accordance with law and the rules and regulations of the Board.

(29) **Gas** shall mean all natural gas, including casinghead gas and occluded natural gas found in coalbeds, and all other liquid or gaseous hydrocarbons not defined as oil.

(30) **Gas well** shall mean a well capable of producing gas from a gas pool or gas pools.

(31) **Gathering line** shall mean all pipelines, equipment, facilities, or buildings downstream of production equipment and used in the transportation of hydrocarbons to a treatment or storage facility or to a transmission line.

(32) **Gob well** shall mean a coalbed methane gas well which is drilled in conjunction with underground mining of one or more coal beds and produces from cavities and fractures resulting from the collapse of an underground mine. A gob well is initially drilled as a vertical well and is not considered a gob well until after the well has been mined through and the roof of the mine has collapsed.

(33) **Horizontal borehole** shall mean a hole drilled horizontally into a coalbed at the mine face of an underground mine.

(34) **Illegal gas** shall mean gas which has been produced within the State of Alabama from any well or wells in excess of the amount allowed by any rule, regulation, or order of the Board, as distinguished from gas produced within the State of Alabama not in excess of the amount so allowed, which is legal gas.

(35) **Illegal product** shall mean any product of oil or gas, any part of which was processed or derived, in whole or part, from illegal oil or illegal gas or from any product thereof, as distinguished from legal product, which is a product processed or derived to no extent from illegal oil or illegal gas.

(36) **Location** or **site** shall mean the area surrounding a well, production facility, injection facility, storage facility, or other facility that has been developed for oil and gas operations.

(37) **Mode of transportation** shall mean any waste transportation method including trucks, rail cars, barges, maritime vessels, aircraft, or any other means of transportation acceptable to the Supervisor.

(38) **Month** and **calendar month** shall mean the period or interval of time from 7:00 a.m. on the first (1st) day of any month of the calendar to 7:00 a.m. of the first (1st) day of the next succeeding month of the calendar.

(39) **Nonconsenting owner** shall mean an owner having a working interest in an oil and gas lease or an unleased oil and gas interest in an established or proposed spacing unit, who has reached no agreement in writing with the Board-appointed operator of the unit relative to the terms and conditions which will govern the manner in which his interest shall be developed and operated.

(40) **Open hole completion** shall mean a coalbed methane gas well in which no production casing is set through the productive coalbed or coalbeds.

(41) **Operator** shall mean any person who is authorized by the Board to operate an oil, gas, or Class II injection well, or production facility, or engages in the transportation of hydrocarbons by pipeline, including the handling and disposal of wastes that may be generated during operation of a well or production facility. The person named as operator according to the most current records of the Board is charged with complying with the oil and gas statutes and the rules and regulations of the Board.

(42) **Owner** shall mean the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another, or others.

(43) **Person** shall mean any natural person, firm, corporation, association, partnership, joint venture, receiver, trustee, guardian, executor, administrator, fiduciary, representative of any kind, or any other group acting as a unit, and the plural as well as the singular number.

(44) **Pipe** shall mean any pipe or tubing used in the transportation of hydrocarbons or produced waters.

(45) **Pipeline** shall mean all parts of those physical facilities through which hydrocarbons or produced waters move in transportation, including pipes, valves, and other appurtenances attached to pipes, compressor units, or metering stations.

(46) **Pool** shall mean an underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both and each zone of a general structure, which is completely separated from any other zone in the structure. The classification of such pool, as to oil or gas, is determined after notice and hearing and is based on the type of hydrocarbons in such pool.

(47) **Pressure base** shall mean an absolute pressure agreed upon or set as a base for converting the volume of gas metered to a correct volume.

(48) **Pressure maintenance** shall mean the injection of gas, water, or other fluid into an oil or gas pool to maintain pressure or retard pressure decline in the pool for the purpose of enhanced recovery, or in the case of coalbed methane gas production the withdrawal of water to maintain gas pressure for the purpose of primary or enhanced recovery.

(49) **Produced water** shall mean water produced from a coalbed methane gas well as a necessary by-product of drilling, completing and producing methane gas from a coalbed or coalbeds.

(50) **Product** shall mean any commodity made from oil or gas, and shall include refined crude oil, crude tops, topped crude, processed crude petroleum residue from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casinghead gasoline, natural gas gasoline, naphtha, distillate, gasoline, kerosene, benzene, wash oil, waste oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or by-products derived or separated from oil or gas, and blends or mixtures of two or more liquid products or by-products derived or separated from oil, gas, or sulfur whether hereinabove enumerated or not.

(51) **Production equipment** shall mean piping and vessels used in the production, extraction, recovery, lifting, stabilization, separation, initial treating, and storage of produced hydrocarbons.

(52) **Production facility** shall mean either a separation facility or a treatment facility.

(a) **Separation facility** shall mean a facility that uses a pressure vessel(s) for the purpose of separating well fluids into gaseous and liquid components.

(b) **Treatment facility** shall mean a facility that separates well fluids into gaseous and liquid components, with the addition of treatment such as stabilization of liquids from the gaseous phase and the dehydration of the gaseous phase or hydrocarbon liquid knockout.

(53) **Production unit** is used hereinafter from time to time in place of the term “drainage or production unit.”

(54) **Purchaser** shall mean any person who acquires title to oil, gas or condensate by purchase from an operator or other person.

(55) **Recompletion or reworking** shall mean any operation that requires a change in the physical construction of a well after its initial completion to secure production when there has been none, or to restore production that has ceased, or to increase production. Such operations include, but are not limited to, any changes in the depths of perforations, packer depths, restoring pressure integrity to casing or tubing, etc.

(56) **Rural locations** shall mean those locations that lie outside the limits of any incorporated or unincorporated city, town, village, or any other designated residential or commercial area such as a subdivision, a business or shopping center, or a community development.

(57) **Separator** shall mean an apparatus for separating oil, gas, condensate, water, etc., as it is produced.

(58) **Shut-in pressure** shall mean the pressure in pounds per square inch (psi) at the well head when the well is completely shut in.

(59) **Shut-in well** shall mean, for purposes only of compliance with requirements herein, a well that is capable of producing hydrocarbons but must remain shut-in until connected to a gathering system, pipeline or processing facility; or for some other reason.

(60) **Site.** See Location.

(61) **Spacing unit** shall mean a unit established by the Board for each well. A spacing unit may either be (a) a drilling unit or (b) a drainage or production unit.

(62) **Special field rules** shall mean those rules promulgated for, and which are limited in their application to, individual pools and fields within the State of Alabama.

(63) **Spud** shall mean, the commencement of the continuous physical operation of drilling a well in which the land surface is penetrated by a drill bit.

(64) **State** shall mean the State of Alabama.

(65) **Supervisor** shall mean the State Oil and Gas Supervisor.

(66) **Temporarily abandoned well** shall mean, for purposes only of compliance with the requirements herein, a well that is currently not producing hydrocarbons but that has been approved for future utility by the Supervisor or Board.

(67) **Tender** shall mean a permit or certificate of clearance, approved and issued or registered under the authority of the Board, for the transportation of oil, gas condensate, or products.

(68) **Transmission line** shall mean a pipeline operated for the purpose of transporting gas from a gathering line, or gas storage facility to another transmission line, gas storage facility or an end-user distribution system.

(69) **Transporter** shall mean and include any person engaged in the transportation of any petroleum hydrocarbons or products thereof within the contemplation of these rules or the laws of the State of Alabama, and in addition shall mean any person or company who transports waste by any method other than pipeline.

(70) **Underground mine area** shall mean an area defined in special field rules to provide for the development and production of coalbed methane gas from gob wells and horizontal boreholes associated with underground mining. Such area may be underground mined or designated as imminently to be mined.

(71) **Underground source of drinking water (USDW)**

(a) Shall mean an aquifer or its portion:

1. Which supplies any public water system; or

2. Which contains a sufficient quantity of ground water to supply a public water system; and

(i) Currently supplies drinking water for human consumption; or

(ii) Contains fewer than 10,000 mg/L total dissolved solids; and

(b) Shall mean an aquifer or its portion which is not an exempted aquifer.

(72) **Waste**, in addition to its ordinary meaning, shall mean "physical waste" as that term is generally understood in the oil and gas industry. Waste shall include:

(a) The inefficient, excessive, or improper use or dissipation of reservoir energy, and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner which results or tends to result in reducing the quantity of petroleum hydrocarbons ultimately to be recovered from any pool in this State;

(b) The inefficient storing of oil or condensate and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of oil, condensate, or gas;

(c) Abuse of the correlative rights and opportunities of each owner of oil and gas in a common reservoir due to non-uniform, disproportionate, and unratable withdrawals, causing undue drainage between tracts of land;

(d) Producing oil or gas in such a manner as to cause unnecessary water channeling or coning;

(e) The operation of any oil well or wells with an inefficient gas-oil ratio;

(f) The drowning with water of any stratum, or part thereof, capable of producing oil or gas, not including the methods necessary for enhanced recovery after approval of the Board;

(g) Underground waste, however caused and whether or not defined;

(h) The creation of fire hazards;

(i) The escape into the open air, from a well producing both oil and gas, of gas in excess of the amount which is necessary in the efficient drilling or operation of the well;

(j) The use of gas, except sour gas, for the manufacture of carbon black;

(k) The escape of gas into the open air, from a well producing gas, in excess of the amount which is necessary for safety reasons or for the efficient drilling, testing, and operation of the well; and

(l) Production of oil, condensate, and gas in excess of reasonable market demand.

(73) **Wastes** are materials to be disposed of or reclaimed that were generated by drilling, completion, workover, production, storage, treatment, or injection operations associated with oil and gas wells, Class II injection wells, or production facilities.

(74) **Well** shall mean any oil or gas well, any well drilled or being drilled in search of oil and gas, any well defined as a Class II injection well or any well utilized for the purpose of storing gaseous hydrocarbons. All other words used herein shall be given their usual, customary, and accepted meaning. All words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted within the oil and gas industry.

400-3-1-.06. Forms.

(1) The Supervisor may prescribe and require such forms within the rules and regulations of the Board as he reasonably deems advisable. The content of such forms and instructions for their completion may be such as the Supervisor may deem advisable, including the changes of such from time to time. The Supervisor may provide for the electronic filing of forms. Such forms applicable to coalbed methane gas operations shall be known and designated as:

(a)	OGB-1	Application for Permit to Drill, Deepen, Convert, or Amend;
(b)	OGB-1A	Application to Reenter;
(c)	OGB-1B	Application for Permit to Directionally Drill;
(d)	OGB-1C	Application for Permit to Inject Fluids;
(e)	OGB-1E	Application for Change of Operator;
(f)	OGB-2	Affidavit of Ownership or Control;
(g)	OGB-2C	Affidavit of Ownership or Control, Underground Injection Control;
(h)	OGB-3	Bond (Single Well);
(i)	OGB-4	Bond (Blanket);
(j)	OGB-5	Organization Report;
(k)	OGB-6	Report of Well Treatment;
(l)	OGB-7	Well Record and Completion or Recompletion Report;
(m)	OGB-8	Electric Log, Sample, and Core Record;
(n)	OGB-9	First Production or Retest Report;
(o)	OGB-11	Report of Well Plugging;
(p)	OGB-12	Operator’s Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well;
(q)	OGB-15	Operator's Monthly Report from Gas Wells;
(r)	OGB-16	Transporter's and Storer's Monthly Report;
(s)	OGB-17	Monthly Report of Fluids Injected;
(t)	OGB-19	No Form;
(u)	OGB-20	No Form;
(v)	OGB-25	Transporter's Certificate of Eligibility to Transport Wastes;
(w)	OGB-26	Wastes Manifest;
(x)	OGB-27	Notification of Fire, Spill, Leak, or Blow out Incident Report; and
(y)	OGB-28	Master Electronic Filing Certification.

(2) Further, such forms, as applicable, shall be filed in a timely manner by the operator and such other person as required by these rules, and such forms shall be properly and fully completed. All forms shall contain true, correct, and accurate information. The Supervisor may allow the filing of certain data electronically in lieu of forms set forth hereinabove, provided Form OGB-28, Master Electronic Filing Certification, has been filed and approved by the Supervisor. The type data, the method of filing, and the format of filing electronic data must have the prior approval of the Supervisor. An operator shall refile a Master Electronic Filing Certification, Form OGB-28, on an annual basis or when the name or address of an operator changes.

400-3-1-.07. Determining and Naming Fields and Pools.

When discoveries of oil and gas are made and sufficient geologic, geophysical, engineering, and other data become available, then a petition shall be filed with the Board in accordance with its rules of practice and procedure for establishment of fields and pools. In naming fields, preference shall be given to common usage and geographic names. Each pool within the same field shall preferably be named according to the producing horizon.

400-3-1-.08. Authority of Supervisor.

The Supervisor may appoint an agent or agents under such names as he may desire and may delegate to such agent or agents the authority to perform any acts authorized by these rules and regulations to be performed by the Supervisor. The Supervisor may grant verbal approval for actions requiring Supervisor's approval if in his opinion it is necessary and justified to do so. Verbal approval so granted does not preclude the necessity of the operator filing all required forms and reports to obtain written approval as soon as possible.

400-3-1-.09. Appeal from Decision of Supervisor.

Any person aggrieved and affected by a decision of the Supervisor, as provided herein by these rules and regulations, may, within thirty (30) days after such decision by the Supervisor, petition the Board for a hearing *de novo* requesting the Board to consider and rule upon such decision by the Supervisor *de novo* and the Board shall make a decision upon the same, in the same manner as upon other petitions, and such petition shall set forth such decision by the Supervisor, the pertinent rule or rules and laws, the date of such decision by the Supervisor and the reasons petitioner alleges that such decision was wrongful and such petition shall be in compliance with the Rules and Regulations Governing Practice and Procedure as set forth in Rule 400-7-1-.01, et seq.

400-3-1-.10. Agents to Have Access.

All operators of oil and gas wells, Class II injection wells, drilling or workover rigs, injection facilities, storage facilities, and gathering lines are required to allow and assist the agents of the Board in making any and all inspections that may be required by the Board. The agents of the Board shall have access to all well, production, injection, and transport records and shall be permitted to come upon any property to inspect well records and to inspect and gauge any and all wells, drilling or workover rigs, injection facilities, storage facilities, and gathering lines referred to herein at all times.

400-3-1-.11. Order Closing Down Operations.

In addition to the penalties and provisions provided for herein, the Board may order the closing of all or any part of the drilling, production, injection or other operations of any person in this State for the failure of such person, or the agents of such person, to comply with any rule, regulation, or order of the Board or with the laws of the State of Alabama and such operations shall not begin again until authorized by further order of the Board.

400-3-1-.12. Supervisor's Order Closing Down Operations.

In addition to the provisions provided for herein, the Supervisor, or any duly authorized agent may order the closing of all or any part of the drilling, production, injection or other operations of any person in this State for the failure of such person to comply with any rule, regulation or order of the Board or with the laws of the State of Alabama where the continuance of such failure to comply shall be dangerous to the public or where substantial pollution is occurring or is in imminent danger of occurring. Such operations shall not begin again until authorized by subsequent order of the Board or by further order of the Supervisor.

400-3-1-.13. Exceptions to Rules.

The Supervisor may approve exceptions such as the use of new or alternative techniques, procedures, equipment, or activities other than those prescribed in the regulations, if such exceptions afford a degree of protection, safety, or performance either equal to or exceeding that intended to be achieved by the regulations, or when such exceptions are necessary for the proper control of a well, the efficient development and conservation of natural resources, or the protection of life (including fish and other aquatic life), property, or the marine, coastal, or human environment.

400-3-2. Permitting of Wells

400-3-2-.01. Well Permit.

(1) **Activities Requiring Permits.** The following activities require permits:

(a) Drilling of any well in search of oil or gas;

(b) Drilling a Class II injection well or converting any well to a Class II injection well for enhanced recovery or for the disposal of salt water and other wastes produced in association with oil or gas operations; or

(c) Reentry of a plugged and abandoned well.

(2) **Permit Requirements.** Prior to initiating any of the activities identified in section (1) above, an application on either Form OGB-1, OGB-1A, or OGB-1B, whichever is appropriate, shall be filed with and approval obtained from the Supervisor or the Board. Applicants should also refer to Rule 400-4-1-.01, et seq. relating to Rules and Regulations Governing Class II Underground Injection Control Operations for activities involving the drilling or converting of wells for enhanced recovery and salt water disposal. Such applications shall be accompanied by:

(a) A check or bank draft in the sum of three hundred dollars ($300.00) payable to the State Treasurer, State of Alabama, which sum is fixed as the fee for the approval of a permit to drill. No permit fee is required if the application is submitted for the purpose of obtaining approval to convert or deepen a well;

(b) Each permit application to drill a coalbed methane gas well shall be accompanied by a check or bank draft in the sum of one hundred and fifty dollars ($150.00) payable to the State Treasurer, State of Alabama, which sum is fixed by the Alabama Coalbed Methane Gas Well Plugging Fund Act;

(c) A plat, in triplicate, prepared by a licensed land surveyor, showing the entire section and the surface and bottom-hole locations of the proposed well within said section. The plat shall be drawn to the scale of one (1) inch equals one thousand (1,000) feet, unless otherwise stipulated by the Supervisor. The plat shall show the direction of north, and the latitude and longitude in decimal degrees to five (5) significant digits and state plane coordinates of the proposed well. The plat shall show the distances of the proposed well to the nearest unit boundaries and section lines and from the nearest well in the same section completed in or drilling to the same reservoir. The plat shall also show the location and status of all other wells that have been drilled in said section. For the purpose of designating the unit in which the proposed well is to be drilled, the boundaries of such unit shall be shown. If an alternate unit is designated on the permit application, then said unit shall be shown on the plat;

(d) An affidavit of ownership or control on Form OGB-2, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the drilling rights with respect to the oil and gas in and under the land comprising the spacing unit, or an affidavit of ownership or control, underground injection control on Form OGB-2C, whereby the applicant verifies that he owns or has control of one hundred percent (100%) of the interests having rights to conduct Class II well operations in and under the land on which the well is located;

(e) A bond on Form OGB-3 (Single Well) or OGB-4 (Blanket), required by Rule 400-3-2-.04 relating to Bond, unless such requirement has been previously satisfied. If two or more persons are designated on the application as operators then each such person shall file a separate or joint bond if an appropriate bond is not already on file;

(f) An organization report on Form OGB-5, as prescribed in Rule 400-3-2-.03, unless such requirement has been previously satisfied. If two or more persons are shown as operator on the application, then each person shall file a separate organization report or have an organization report on file;

(g) A letter identifying the proposed coal beds to be hydraulically fractured must accompany all applications for coalbed methane gas wells.

(h) Illustrations or narrative material that may be necessary for the Supervisor to clearly understand all details of the proposed operation; and

(i) Additional information as deemed necessary may be requested by the Supervisor.

(3) **Deepening.** Prior to deepening a well below its permitted depth, an operator shall obtain approval of the Supervisor and, thereafter, such person shall immediately file Form OGB-1, OGB-1A or OGB-1B,

whichever is appropriate. There is no fee required for a permit to deepen a well previously drilled or being drilled under a permit issued by the Supervisor.

(4) **Directional Drilling.**

(a) All wells must be drilled with due diligence to maintain a reasonably vertical wellbore; however, upon application by an operator to drill a well that is to be intentionally deviated and directionally controlled, a permit may be issued by the Supervisor, provided that the proposed location of the bottom hole in the deviated well at the depth of the proposed producing zone is in compliance with the applicable spacing rules. The application for a permit to directionally drill shall be made in the manner prescribed above using Form OGB-1B, and the survey plat must show the proposed bottom hole location in addition to the surface location of the well.

(b) If an operator desires to directionally drill or sidetrack a permitted well, such operator, prior to initiating, any activities shall file with the Supervisor Form OGB-1B and a plat showing the surface location and the proposed bottom hole location of the directionally drilled or sidetracked well.

(c) In the event an operator, in good faith, proceeds with the drilling of a well and thereafter, decides to directionally drill or sidetrack the well, such operator shall obtain prior approval of the Supervisor and, thereafter, shall immediately file with the Supervisor Form OGB-1B and a plat showing the surface location and the proposed bottom hole location of the directionally drilled or sidetracked well.

(d) If an operator desires to deviate a well so as to straighten the wellbore or to drill around an obstruction in the wellbore, such operator shall first obtain approval of the Supervisor and shall file a written report to the Supervisor within thirty (30) days from the completion of said deviation setting forth the facts of the operation.

(5) **Permit Approval Procedures.** Applications for permits to drill, deepen, convert, or reenter that do not comply with coalbed methane rules or applicable special field rules shall be approved or rejected by the Board, after due notice and hearing. Applications in compliance with onshore rules or applicable special field rules may be approved by the Supervisor. Drilling, deepening, converting or reentering shall not begin until such permit is issued.

(6) **Expiration of a Permit.** A permit shall expire six (6) months from the date of issuance if the permitted well has not been spudded.

400-3-2-.02. Spacing of Wells.

(1) Each well drilled in search of oil or gas shall be spaced on either (a) a drilling unit or (b) a drainage or production unit. A drilling unit is an administrative unit established by the Board to provide and allow for the drilling of a well. A drainage or production unit is the area in a pool that may be drained efficiently and economically by one well. Prior to the establishment of a field and the establishment of drainage or production units within the field, an operator may drill a well on a drilling unit. When the Board, after notice and hearing, establishes a field for a pool, special field rules apply for that field. The special field rules designate, among other things, the drainage or production units for the field. Thereafter, wells are drilled on the drainage or production units designated in the special field rules. The term “spacing unit” is used from time to time in these regulations. A spacing unit is either (a) a drilling unit or (b) a drainage or production unit. For simplicity, the term “production unit” is hereinafter used from time to time in place of the longer term “drainage and production unit.” A spacing unit shall not include any part of another unit established for the same pool.

(2)The spacing for a well to be drilled to a pool or pools in an established field shall be governed by special field rules for that particular field. The spacing for gob wells and horizontal boreholes in areas designated as underground mine areas or in unitized areas shall be provided for in special field rules. With respect to a well to be drilled to a pool or pools that are not governed by special field rules, the following shall be applicable for determining the drilling unit for a well.

(a) A well shall be drilled on a drilling unit consisting of a governmental quarter-quarter section (approximately 40 acres). Such well shall be located at least three hundred thirty (330) feet from every exterior boundary of the drilling unit.

(b) The Supervisor, upon receipt of written justification from an operator, may approve a permit application under section (2)(a) for a well to be drilled on a drilling unit consisting of approximately 40 contiguous surface acres other than a governmental quarter-quarter section as set forth herein.

(c) The Supervisor may require that a well to be drilled on a drilling unit contiguous with an existing field be drilled and completed as an extension of the field, in accordance with field spacing provisions in the special field rules thereof. If, however, an operator provides written justification that such proposed well will likely be completed in a pool or pools not defined in the special field rules for said field, the Supervisor may approve the drilling and completion of such well in compliance with the spacing provisions as set forth herein.

(d) Pursuant to Section 9-17-12(c) of the *Code of Alabama* (1975), the Board may grant an exception to the spacing rules as may be reasonably necessary where it is shown, after notice and hearing, and the Board finds, that the unit is partly outside the pool, or for some other reason, that a well located in accordance with applicable rules would be nonproductive, would not be at the optimum position in such spacing unit for the most efficient and economic drainage of the unit, or where topographical conditions are such as to make the drilling at an authorized location on the unit unduly burdensome or where an exception is necessary to prevent confiscation of property. Provided, however, that an exceptional location order issued by the Board for a well shall expire one (1) year from the date of issuance of the order unless a well has been spudded at said exceptional location.

(e) No well shall be drilled within two hundred (200) feet of any permanent residence, unless otherwise approved by the Board.

(3) If any well drilled in conformity with the provisions of section (2) above, or in conformity with the special field rules for a particular field is completed as other than a coalbed methane gas well, said Well shall not be produced other than on a test basis until authorization has been granted by the Board after notice and hearing. This rule shall not apply to vent holes drilled for safety purposes in conjunction with coal mining operations.

400-3-2-.03. Bond.

(1) Before any person(s) shall commence drilling, completing, converting, operating, or producing any coalbed methane gas well or Class II injection well, including production facilities, injection facilities, pipelines, and other equipment associated with such well, said person(s) shall file with the Board a single well bond on Form OGB-3. Such bond shall be payable to the State of Alabama, executed by said person(s) as principal(s), and by a surety approved by the Supervisor or Board; conditioned that, such person(s) shall, in connection with the drilling, completing, converting, operating, or producing of such well, including production facilities, injection facilities, pipelines, and other equipment associated with such well, prevent the escape of oil or gas out of one stratum to another, prevent the intrusion of water into any oil or gas stratum from a separate stratum, prevent the pollution of the sea, prevent pollution of all surface and ground water; conditioned also that such person(s) shall file all reports required by the Board, including drilling records and all logs of such well, if taken, and shall file drill cuttings and cores or core chips, if cores are taken, within six (6) months from the time of completion of such well, and in the event such well does not produce oil or gas in commercially profitable quantities or ceases to produce oil or gas in commercially profitable quantities or if the operations of such well shall cease for a period of six (6) months or if such well should become dangerous to the public, such person(s) shall plug and abandon such well in compliance with Rule 400-3-4-.14, dispose of all pit fluids and close the pit in compliance with Rule 400-3-4-.11, restore the location in compliance with Rule 400-3-4-.16, and maintain the site in compliance with Rule 400-3-6-.08; and conditioned further that such person(s) shall drill, operate, produce, and plug and abandon, such well, and that such person(s) shall dispose of pit fluids, close the pit, restore the location, and maintain the site in compliance with all lawful rules, regulations, and orders of the Board now existing or hereafter promulgated, and with the laws of the State of Alabama now existing or hereafter enacted. The amount of such bond shall be in accordance with the following relationship to measured depth:

Measured Depth (ft)	Amount of bond required
0 - 5,000	$5,000
5,001-10,000	$10,000
10,001-15,000	$15,000
15,001-20,000	$30,000
Greater than 20,000	$50,000

(2) The Board may, however, accept a blanket bond on Form OGB-4 in the amount of one hundred thousand dollars ($100,000.00). Such blanket bond shall be conditioned upon the same requirements as set forth for single well bonds, except that a blanket bond may apply to more than one well. Furthermore, the Board may require a separate Bond of one hundred thousand dollars ($100,000.00) for an operator of a processing plant and associated facilities and pipelines where such plant operator does not operate any oil and gas wells.

(3) Any such bond filed with the Board, including any amendment or addendum thereto, must set forth the correct legal name and address of the principal and the surety thereto and must be countersigned by an Alabama agent of such surety, setting forth the correct legal name of such agent and such agent's company affiliation and correct business address. If more than one person is to be designated as operator, then each such person shall file a separate bond or a joint bond, whichever is appropriate.

(4) Provided, further, the Board, in its reasonable discretion for good cause, after notice and hearing, may require a different amount of bond because of environmentally sensitive conditions at the site or for other justifiable reasons for good cause and may deem and determine any existing bond to be inadequate and may require the filing of a new bond, that shall be approved by the Board or Supervisor, upon the Board's own motion or upon petition by any party allowed to file a petition by these rules and regulations, and the amount of such bond required may be more or less than hereinabove set forth.

400-3-2-.04. Organization Reports.

Every person acting as principal or agent for another or independently engaged in the drilling, production, injection, or transportation, of gas or wastes associated with oil and gas operations shall file with the Board a report on Form OGB-5, Organization Report, reflecting the exact legal name under which such person or business is being operated or conducted, the exact corporate name, if such is incorporated, and the place of incorporation of such corporation, the name and post office address of such person, the business in which such person is engaged, and, in the case of a corporation, the state in which such corporation is incorporated, and the names and post office addresses of any persons acting as trustees, together with the names of the manager, agent, or executive thereof, and the names and post office addresses of any officers thereof. Prior to submitting the aforesaid report, all foreign corporations shall obtain a certificate of authority from the Secretary of State for the State of Alabama to transact business in the state. In the case where such business is conducted under an assumed name, or as a partnership or sole proprietorship, such report shall reflect the names and post office addresses of all owners or general partners in addition to the other information herein required. The aforesaid report shall be resubmitted every two (2) years or immediately after any change occurs as to facts previously submitted.

400-3-2-.05. Change of Operator.

(1) The operator of record shall immediately notify the Supervisor in writing of any agreement or other transaction, by which a new operator is to be designated for a well or wells, including all associated production, processing, injection, plant, and gathering line and pipeline facilities, and all other equipment associated with such well or wells. Such notification shall include, but not be limited to, identification of the proposed new operator and a list of wells and all associated facilities and equipment.

(2) Within sixty (60) days of the effective date of any agreement or other transaction causing a change of operator, any person or persons desiring to become the new operator of a well or wells must submit for approval to the Supervisor Form OGB-1E, Application for Change of Operator. A single Application for Change of Operator, Form OGB-1E, may be filed requesting a change of operator for multiple wells, facilities, and equipment. Form OGB-1E shall be signed by both the operator of record or present operator and the proposed new operator, with both parties applying to change the operator for the well or wells, including all associated production, processing, injection, plant, and gathering line and pipeline facilities, and all other equipment associated with such well or wells.

(3) In the application for Change of Operator, Form OGB-1E, the new operator shall acknowledge that it has ownership or control of one hundred percent (100%) of the rights to drill and produce with respect to oil and gas underlying the lands comprising the unit assigned to the well or wells in which a change of operator is requested. Further, the Application for Change of Operator, Form OGB-1E, shall be accompanied by a bond on Form OGB-3 or OGB-4, whichever is appropriate, if such requirement has not been fulfilled as prescribed in Rule 400-2-2-.04, relating to Bond; an Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well on Form OGB-12 if required by Rule 400-2-7-.01; an Operator's Certificate of Compliance for Operations Involving Hydrogen Sulfide on Form OGB-

24 and other sour gas filing requirements prescribed in Rule 400-2-8-.04 if required by Rule 400-2-8-.04; and an Organization Report on Form OGB-5, if not already on file with the Board and current.

(4) In the event that the new operator is uncertain whether it owns or controls one hundred percent (100%) of the rights to drill or produce, then the new operator may petition the Board to delay filing of the Application for Change of Operator, Form OGB-1E. The Board may, after notice and hearing for good cause, delay the filing of the Application for Change of Operator, Form OGB-1E, for a period of up to 120 days thereby allowing the new operator time to ensure that the operator owns one hundred percent (100%) of the ownership rights or to force pool and integrate the interests in the unit or units assigned to the well or wells for which a change of operator is requested. The Board, on the petition by the new operator after notice and hearing for good cause, may delay for an additional period beyond 120 days the filing of the Application of Change of Operator, Form OGB-1E.

(5) In addition to the filing of an Application for Change of Operator on Form OGB-1E as required in section (2) and the additional filing requirements in section (3), filing requirements for Class II injection wells shall include, an Application for Permit to Inject Fluids on Form OGB-1C, an Affidavit of Ownership or Control, Underground Injection Control on Form OGB-2C, an affidavit of source, and a current analysis of fluids being injected.

(6) In addition to the filing of an Application for Change of Operator on Form OGB-1E as required in section (2) and the additional filing requirements in section (3), filing requirements for change of operator for a natural gas storage operation shall include an Application for Permit to Inject Storage Gas on Form OGB-1D, and an Affidavit of Ownership or Control, Natural Gas Storage Operations on Form OGB-2D.

(7) If the request for a change of operator pertains to a well which has not been drilled or completed, and the new operator wishes to drill and complete said well in accordance with the casing and cement, mud, and blowout prevention programs and report of shallow hazards filed as a part of the permit application, the new operator must submit a written statement to the Supervisor stating that it has reviewed the above mentioned information and will drill and complete the well in conformance with those programs. In such case, the refiling of the casing and cement, mud, and blowout prevention programs and report of shallow hazards documents may not be necessary.

(8) Prior to the Supervisor's approval of an Application for Change of Operator on Form OGB-1E, the current operator of record must be in compliance with the Board's submission requirements for forms and geologic data, such as logs, cuttings and cores for the subject well(s).

(9) The Supervisor may waive any filing requirements, or request additional information, associated with an application for change of operator.

(10) The Application for Change of Operator, Form OGB-1E, shall become effective upon approval by the Supervisor. Until such approval, the current operator of record shall be responsible for ensuring continued compliance with all applicable laws, and all rules, regulations, and orders, including special field rules, promulgated by the Board.

(11) When the operator is a corporation, limited liability company, limited partnership, or general partnership that is not publicly traded and when the majority of the ownership of the entity designated by the Board as operator changes, as a result of one or more transactions within a six-month period then the operator shall immediately notify the Supervisor in writing that the majority of the ownership has changed. Within sixty (60) days of the effective date of such change in ownership, the operator shall file a new Organization Report on Form OGB-5 showing the new ownership.

400-3-3. Notification and Approval of Activities

400-3-3-.01. Well Status Report.

A status or progress report of operations being performed in association with well activities requiring permits in Rule 400-3-2-.01 shall be reported orally or in writing to the appropriate Board office by 10:00 a.m. on the first working day of each week.

400-3-3-.02. Notification of Activities.

(1) **Notification Prior to Performance of Activity.** An operator shall notify the Supervisor prior to performing any of the following activities:

(a) Setting surface casing, see Rule 400-3-4-.03(1);

(b) Running intermediate or production casing, see Rule 400-3-4-.03(1);

(c) Perforating or slotting casing, see Rule 400-3-4-.03(1);

(d) Drillstem testing, see Rule 400-3-4-.03(1);

(e) Wireline logging or surveying, see Rule 400-3-4-.03(1);

(f) Coring, see Rule 400-3-4-.03(1);

(g) Pressure testing, see Rule 400-3-4-.09(4) or Rule 400-4-2-.01(2)(d); and

(h) Swabbing and cleaning wells, see Rule 400-3-5-.02.

(2) **Witness of Activities.** The Supervisor may send a duly authorized representative to the location to witness activities in section (1) above.

(3) **Notification Subsequent to Occurrence of Activity.** An operator shall notify the Supervisor when the following occurs:

(a) Sale, assignment, or acquisition of any well and associated facilities, see Rule 400-3-2-.05;

(b) Loss of a radioactive logging source, see Rule 400-3-4-.05(1); and

(c) Fire, spill, leak, or blow out, see Rule 400-3-8-.01.

400-3-3-.03. Approval of Activities.

(1) An operator shall obtain approval of the Supervisor for:

(a) Initiating drilling, converting, or reentering a well, see Rule 400-3-2-.01(2);

(b) Deepening, see Rule 400-3-2-.01(3);

(c) Directionally drilling or sidetracking, see Rule 400-3-2-.01(4);

(d) Change of operator, see Rule 400-3-2-.05;

(e) Plan of abandonment of a radioactive logging source, see Rule 400-3-4-.05(3);

(f) Plan of operation for reentering, converting, recompleting, or reworking a well containing a radioactive logging source, see Rule 400-3-4-.05(7);

(g) Radioactive surveys, see Rule 400-3-4-.06;

(h) Chemical treatment or fracturing, see Rule 400-3-4-.07;

(i) Construction of any pit, see Rule 400-3-4-.10

(j) Disposal of pit fluids, see Rule 400-3-4-.11;

(k) Plugging and abandonment, see Rule 400-3-4-.14;

(l) Restoration of location, see Rule 400-3-4-.16;

(m) Initial request for temporary abandoned or shut-in status, see Rule 400-3-4-.17;

(n) Venting or flaring, see Rule 400-3-5-.03;

(o) Production approval, see Rule 400-3-5-.04;

(p) Recompletion or reworking, see Rule 400-3-6-.05;

(q) Transportation of gas, see Rule 400-3-7-.01;

(r) Transportation of wastes, see Rule 400-3-8-.02(1)(a); and

(s) Modification of transportation of wastes procedures, see Rule 400-3-8-.02(1)(b).

(2) **Witness of Activities.** The Supervisor may send a duly authorized representative to the location to witness activities in section (1) above.

400-3-4. Drilling

400-3-4-.01. Identification of Wells.

A sign shall be posted and maintained in a legible state in a conspicuous place near the well. Such sign shall be posted before spudding or reentry and shall remain posted until the well is plugged and abandoned and the location restored. The sign shall include the name of the operator, the permit number, the well name and number, and the section, township, range, and county in which the well is located.

400-3-4-.02. Protection of Freshwater Resources.

An operator shall conduct all oil and gas operations in a manner so as to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock, or agricultural purposes shall be confined to their respective strata and shall be adequately protected. Special precautions shall be taken to guard against any loss of artesian water

from the strata in which it occurs, and the contamination of fresh water by objectionable water, oil, condensate, gas, or other deleterious substance to such fresh water.

400-3-4-.03. Well Record.

(1) During drilling, completing, and workover operations on every permitted well, the owner, operator, contractor, driller, or other person responsible for the conduct of drilling operations, shall notify the Supervisor prior to performing the following activities: setting surface casing, running intermediate or production casing, perforating or slotting casing, drillstem testing (see Rule 400-1-5-.01), wireline logging or surveying, and coring. Such persons shall keep a detailed and accurate record of the well, reduced to writing from day to day, which shall be accessible to the Board and its agents at all times. Pertinent information from such records shall be furnished to the Board within thirty (30) days after completion, or at such time as prescribed by the Supervisor. Said information shall include but not be limited to: drilling contractor; spud date; ground level, derrick floor, and kelly bushing elevations surveyed by a licensed land surveyor; total depth; kick-off point depths and directions of any sidetracks; bottom-hole location; casing and liner record; cement record; squeeze cement record; perforation record; tubing record; the depth and type of any plugs or packers set; well stimulation and treatment record; drillstem test record; and a record of all wireline logging, sampling, and coring operations for said well. This information shall be submitted on the appropriate Form OGB-6, OGB-7, and OGB-8.

(2) One (1) copy of all electrical, mechanical, radioactive, and dipmeter logs or such other surveys performed as a part of drilling, completing, or workover operations shall be submitted to the Board within thirty (30) days after completion. In addition to filing either blue or black line log copies, all available digital log data in a Log ASCII Standard (LAS) format shall be filed with the Board. One (1) copy of all drillstem test results shall be submitted along with Form OGB-7 within thirty (30) days after completion. A complete set of washed (mud-logger) cuttings, if available, correctly labeled and identified as to depth, shall be filed with the Board within thirty (30) days from the time of completion of any well unless otherwise approved by the Supervisor. If cores are taken, a complete set of cores, either whole or at least quarter slabs, correctly labeled and identified as to depth, shall be filed with the Board within three (3) months from the time of completion of any well unless otherwise approved by the Supervisor; provided, however, that an operator may obtain an exception to this requirement upon submission of an affidavit certifying that the operator:

(a) will store and maintain core from the well at a specified location or facility and provide the name, address and telephone number of the facility where the cores are stored;

(b) will provide the Board access to the core upon request and provide the name, address and telephone number of the person to handle such request;

(c) will provide the core to the Board if the operator should cease maintaining and storing said core; and

(d) will submit the core to the Board within one (1) year from the time of completion of the well. Additionally, the Supervisor may allow the filing of materials representative of the cored interval in lieu of filing whole or slab core if the Supervisor determines there is adequate core coverage in an area or for some other reason.

(3) If the operator so requests in writing, all logs, cuttings, cores, core analyses, cored intervals, and formation depths from a well shall be kept confidential for a period of six (6) months from the completion of such well.

400-3-4-.04. Directional Surveys.

If required by this rule, a directional survey, which may include logging while drilling (LWD) or measurement while drilling (MWD) logs, shall be run and one (1) copy thereof filed by the operator with the Supervisor within thirty (30) days after completion of a well. Directional surveys shall be run from total depth to base of surface casing or the kickoff point, whichever is shallowest, unless otherwise approved by the Supervisor. However, directional surveys to total depth shall be unnecessary in cases where the interval below the survey is less than five hundred (500) feet. In such an instance, a projection of the latest survey shall satisfy Board requirements. In the event the proposed or final location of the producing interval of the directionally controlled well is not in accordance with spacing or other rules of the Board applicable to the reservoir, proper applications shall be made to obtain approval of exceptions to such rules. Such approval shall be granted, or denied, at the discretion of the Board, after notice and hearing. Directional surveys shall be run when:

(1) The well is directionally controlled and is thereby intentionally deflected from the vertical; or

(2) The well is drilled as an exceptional location and such directional survey is ordered by the Board.

400-3-4-.05. Abandonment of Radioactive Logging Sources.

(1) The Supervisor shall be notified immediately of the loss of any radioactive logging source in a well.

(2) No radioactive source used for logging may be left in a well without written consent of the Supervisor.

(3) When it is determined by the operator that it may be necessary to leave a radioactive source in a well, the Supervisor must be notified in writing of such and a plan of the abandonment procedure submitted to the Supervisor for approval. This plan must be approved by the Alabama Department of Public Health (Division of Radiation Control) and any other agency that has jurisdiction.

(4) Wells in which radioactive sources are abandoned shall be mechanically equipped so as to prevent the accidental or intentional mechanical disintegration of the radioactive source.

(a) Such sources being abandoned in the bottom of a well shall be covered with a substantial standard color-dyed cement plug on top of which a whipstock or other mechanical device approved by the Supervisor shall be set. Such dye shall be so as to alert a re-entry operator prior to encountering such source.

(b) In wells where a logging source has been cemented in place behind a casing string and above total depth, upon abandonment, a standard color-dyed cement plug shall be placed opposite the abandoned source and a whipstock or other mechanical device approved by the Supervisor placed on top of the plug.

(c) In the event the operator finds that, after expending a reasonable effort, because of hole conditions, it is not possible to abandon the sources as prescribed in (a) or (b) above, prior to ceasing efforts to so abandon, he must obtain Board approval to cease such efforts and obtain approval for an alternate abandonment procedure.

(d) When a logging source must be abandoned in a producing zone, a standard color-dyed cement plug shall be set and a whipstock or other mechanical device approved by the Supervisor placed above to direct the sidetrack at least fifteen (15) feet away from the source.

(5) Any well in which a radioactive source is left in the hole, shall have a visual warning sign posted and maintained in a legible state, in a conspicuous place near the well. The sign shall depict the trefoil radiation symbol with a radioactive warning.

(6) Upon permanent abandonment, any well in which a radioactive source is left in the hole shall have a permanent plaque attached to the top of the casing left in the hole in such a manner that re-entry cannot be accomplished without disturbing the plaque. This plaque shall serve as a visual warning to any person reentering the hole that a radioactive source has been abandoned in-place in the well. The plaque shall depict the trefoil radiation symbol with a radioactive warning and shall be constructed of a long lasting material such as monel, stainless steel, or brass. This marker shall bear the following information: well name, permit number, surface location, name of the operator, the source of material abandoned in the well, the total well depth, depth at which the source is abandoned, plug-back depth, the date of the abandonment of the source, the activity of the source, and a warning not to drill below the plug-back depth.

(7) If an operator desires to reenter, convert, recomplete, or rework a well in which a radioactive source used for logging is present, the applicant operator must have his plan of operation approved by the Supervisor and any other agency that has jurisdiction before such reentry, conversion, recompletion, and reworking application is granted.

400-3-4-.06. Operations Involving Radioactive Material.

An operator shall obtain approval from the Supervisor, the Alabama Department of Public Health (Division of Radiation Control) and any other agency that has jurisdiction before introducing any radioactive material, exclusive of radioactive logging devices, into the substrata for the purpose of conducting a tracer survey or for any other reason.

400-3-4-.07. Chemically Treating or Fracturing a Well.

Wells shall not be chemically treated or fractured until the approval of the Supervisor is obtained. Each well shall be treated or fractured in such manner as will not cause damage to the formation, result in water encroachment into the oil- or gas-bearing formation, or endanger freshwater-bearing strata. Necessary precautions shall be taken to prevent damage to the casing. Routine chemical treatments for corrosion

control shall be excluded from this notice requirement. If chemical treating or fracturing results in irreparable damage to the well, the oil or gas-bearing formation or freshwater-bearing strata, then the well shall be properly plugged and abandoned.

400-3-4-.08. Report of Well Treatment.

Within thirty (30) days after the chemical treating or fracturing of a well, a report shall be filed with the Board in triplicate by the operator on Form OGB-6 setting forth in detail the method used in treating the well.

400-3-4-.09. Casing, Cementing, and Test Pressure Requirements.

(1) The operator shall case and cement all wells with a sufficient number of strings in a manner necessary to:

(a) prevent communication between separate hydrocarbon-bearing strata (except such strata approved for commingling) and between hydrocarbon and water-bearing strata;

(b) prevent contamination of freshwater-bearing strata;

(c) support unconsolidated sediments; and

(d) otherwise provide a means of controlling formation pressures and fluids.

(2) The operator shall install casing that meets American Petroleum Institute (API) standards. Standard cement shall be used and shall be mixed with water of adequate quality so as not to degrade the setting properties. Safety factors in casing program design shall be of sufficient magnitude to provide optimum well control while drilling and to assure safe operations for the life of the well.

(a) **Surface Casing.** The minimum amount of surface casing to be set below ground level, the cement requirements and the test pressure requirements shall be determined from Table 1.

TABLE 1

Proposed True Vertical Depth (TVD) (ft)	Minimum Casing Required (ft)	Cement required	Surface test-pressure (psi)
0 - 4,000	300	Circulate to surface	300
4,001 - 5,000	400	Circulate to surface	600
5,001 - 6,000	600	Circulate to surface	800
6,001 - 7,000	800	Circulate to surface	1,000
7,001 - 8,000	1,000	Circulate to surface	1,000
8,001 - 9,000	1,400	Circulate to surface	1,000
Greater than 9,000	1,800	Circulate to surface	1,500

The Supervisor may specify surface casing requirements other than those set forth in Table 1 if such requirements are needed to provide for increased protection of freshwater resources.

(b) **Production Casing.** All producing wells shall be completed with a production string of casing that shall be properly cemented at a sufficient depth adequate to protect the methane bearing coalbeds.

1. For cased hole completions or cased/open hole completions, casing shall be cemented in place with a calculated volume of cement sufficient to fill the annular space at least two hundred (200) feet above the top of the uppermost coalbed which is to be completed, except that the annular space adjacent to a coalbed or coalbeds may be left uncemented.

2. For open hole completions, the bottom of production casing shall be set not more than one hundred (100) feet above the depth of the uppermost coalbed which the operator intends to complete, unless prior approval is granted by the Supervisor. The casing shall be cemented with a calculated volume of cement sufficient to fill the annular space at least two hundred (200) feet above the base of the casing.

(c) The Supervisor may approve an alternative casing program upon written justification by the operator.

(3) If there are indications of inadequate primary cementing (such as lost returns, cement channeling, or mechanical failure of equipment) of the surface or production casing strings, the operator shall evaluate the adequacy of the cementing operations by pressure testing the casing shoe, running a cement bond log or a cement evaluation tool log, running a temperature survey, or a combination thereof before continuing operations. If the evaluation indicates inadequate cementing, the operator shall re-cement or take other actions as approved by the Supervisor. The operator shall verify the adequacy of the remedial cementing operations as described above.

(4) **Pressure Testing.** An operator shall give notice to the Supervisor prior to pressure testing.

(a) After primary cementing of surface casing, drilling shall not be resumed until a time lapse of twelve (12) hours under pressure. Cement is considered under pressure when one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used. After cementing and prior to drilling the plug, surface casing shall be pressure tested as set forth in Table 1 above. All pressure tests are to be held for thirty (30) minutes. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure, then such corrective measures shall be taken to insure that the casing string is so set and cemented that it will hold the test pressure for thirty (30) minutes without a drop of more than ten percent (10%).

(b) Upon conclusion of the drilling of the well, or prior to the setting of production casing, the surface casing shall be re-tested in accordance with Rule 400-3-4-.09(2)(a) in order to verify the integrity of the casing string. This requirement will not apply if the well is permitted to be drilled to a total depth of less than six thousand (6,000) feet and no problems are encountered during the drilling of such well that would require a retest to verify the mechanical integrity of its surface casing string.

(c) After primary cementing of production casing, drilling shall not resume until a time lapse of twelve (12) hours under pressure. Cement is considered under pressure when one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used. After cementing and prior to drilling the plug, production casing shall be pressure tested at a pressure of six hundred (600) pounds per square inch (psi), if the plug is to be drilled. All pressure tests are to be held for thirty (30) minutes. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure, then corrective measures shall be taken to insure that the casing string is so set and cemented that it will hold the test pressure for thirty (30) minutes without a drop of more than ten percent (10%) unless otherwise approved by the Supervisor.

(5) **Recording Test Pressures.**

(a) Proper documentation of pressure tests, including beginning and ending pressures and the duration of each test shall be recorded in a daily drilling report.

(b) Unless witnessed by an agent of the Board, all pressure tests and retests shall be documented with a properly calibrated continuous pressure recorder or other pressure recording device acceptable to the Supervisor. A representative of the operator shall sign the pressure test record(s) following completion of each pressure test.

(c) The operator shall maintain all pressure test records at the well site during drilling operations. Such records shall be made available for inspection upon request.

(d) The operator shall maintain all pressure test records for a minimum of three (3) years from the date such pressure tests were conducted.

(6) **Reporting Test Pressures.** The operator shall report casing pressure tests on Form OGB-7.

400-3-4-.10. Pit Construction and Maintenance.

(1) An operator shall obtain approval of the Supervisor prior to the construction of any pit to be used in conjunction with drilling, completion, and workover operations.

(2) All pits utilized to contain fluids during drilling, completion, and workover operations shall be constructed and maintained so as to prevent pollution of surface and ground water.

(3) Pits shall be constructed and maintained so as to contain fluids within the pit. No fluids shall be discharged from the pit except as allowed by appropriate permit(s) and regulation(s). The fluid level in such pits shall be kept at least two (2) feet below the top of the pit wall or dike.

(4) Pits shall be constructed and maintained so that no surface water or runoff will enter the pit.

(5) Operators should construct pits so that the bottom of the pit is above the seasonal high water table. If the pit cannot be constructed in such a manner, then the Supervisor shall require that the pit be lined with

a material that is capable of retaining pit fluids or that other action be taken to insure the protection of ground water.

(6) Operators shall prevent materials that are not exempt under the Resource Conservation and Recovery Act from entering the pit during drilling, completion, or workover operations.

(7) Prior to utilizing such pit, the pit shall be inspected by the operator who shall make a determination that said pit is constructed in a manner that will prevent the pollution of surface and ground water. The operator shall keep a record of the determination and shall provide a copy of said determination to the Board, upon request by the Supervisor. If requested by the Supervisor, an operator may be required to be available at the well location for a review of the determination as to whether or not the pit is in compliance with this rule.

400-3-4-.11. Recycling or Disposal of Pit Fluids and Pit Closure.

(1) **Recycling or Disposal of Pit Fluids.** After a well is drilled, completed, or worked over all fluids that remain in pits shall be recycled or disposed of in a manner acceptable to the Supervisor within thirty (30) days of completion, unless otherwise approved by the Supervisor. Any oil that is present in the pit must be skimmed immediately after drilling operations cease and prior to the disposal of pit fluids and recycled or disposed of in accordance with appropriate permit(s) and regulations.

(2) **Pit Closure.** Within ninety (90) days after a well is drilled, completed, or worked over all pits shall be properly filled and compacted, unless otherwise approved by the Supervisor. Pits shall be backfilled with earth and compacted to the satisfaction of the Supervisor. After all fluids in such pits have been disposed of, the Supervisor may permit the operator to leave such pit for use by the landowner, if the surface owner requests in a written statement to the Board that the pit be left open. The written statement should include the intended use for the pit.

400-3-4-.12. Drilling Fluid.

The use of drilling fluids shall not be required in the drilling of coalbed methane gas wells when other appropriate methods are available to control any pressure which may be encountered.

400-3-4-.13. Blow-Out Prevention.

All operations shall be conducted in a manner to ensure continuous control of the well. Adequate well control equipment and procedures shall be used to prevent uncontrolled release of methane, produced water, completion fluids or other material during completion operations. The method of well control may consist of conventional blow-out preventers, stripper heads, and other methods that may be approved by the Supervisor.

400-3-4-.14. Plugging and Abandonment of Wells.

Any nonproductive well shall be plugged within thirty (30) days of completion unless said Well has been classified as temporarily abandoned or shut in pursuant to Rule 400-3-4-.17. Any productive well that has not produced in six (6) months or any Class II injection well that has ceased operation for six (6) months shall be plugged within thirty (30) days unless said Well has been classified as temporarily abandoned or shut in pursuant to Rule 400-3-4-.17. Before any work is commenced to plug and abandon any well drilled in search of oil and gas or utilized as a Class II injection well the operator shall provide the Supervisor with the proposed method and procedure to plug and abandon such well. Such method and procedure may be required in writing by the Supervisor. Also, the Supervisor may require that well records, including logs, be made available to determine if the proposed depths and lengths of plugs are adequate. Operations to plug and abandon a well shall not begin until approval of procedures has been obtained from the Supervisor. Unless otherwise allowed by the Supervisor, the operator shall notify the Supervisor at least twenty-four (24) hours prior to the commencement of plugging operations so that said operation may be witnessed by an agent of the Board. The cement in all plugs shall be standard cement and shall be mixed with water of adequate quality so as not to degrade the setting properties. Unless specified otherwise by the Supervisor, the operator shall comply with the following requirements which apply to all wells drilled in search of coalbed methane gas or utilized as Class II injection wells.

(1) **Open Hole Completions.**

(a) **Uncompleted Wells.** A cement, concrete, or grout plug at least one hundred (100) feet in length shall be placed across the surface casing shoe.

(b) **Wells Without Production Casing.** A cement, concrete, or grout plug at least one hundred (100) feet in length shall be placed above the uppermost producing coalbed or injection zone.

(c) **Wells With Production Casing.** A cement, concrete, or grout plug at least one hundred (100) feet in length shall be placed at least fifty (50) feet below and shall extend to at least fifty (50) feet above the production casing shoe.

(2) **Cased Hole Completions.**

(a) **Perforated Wells.** A perforated well shall be plugged by one of the following methods:

1. A permanent-type bridge plug shall be placed above the uppermost perforation or injection zone and a cement, concrete or grout plug not less than one hundred (100) feet in length shall be placed atop the bridge plug.

2. A permanent-type bridge plug shall be placed above the uppermost perforation or injection zone and at least fifty (50) feet below the surface casing shoe, and the well shall be filled from the bridge plug to land surface with cement, concrete, or grout.

(b) **Unperforated Wells.** An unperforated well shall be plugged by one of the following methods:

1. If records indicate production casing has been cemented, a permanent-type bridge plug shall be placed inside production casing at a depth of at least two hundred (200) feet, and the well shall be filled from the bridge plug to land surface with cement, concrete, or grout.

2. If records do not indicate production casing has been cemented, freshwater shall be pumped into the well to establish circulation, whenever possible. The amount of cement calculated to fill the production casing and its annulus shall, whenever possible, be pumped down that casing. After a minimum of twenty-four (24) hours, the top of the cement in the casing shall be verified by tagging or pressure testing.

3. Other plugs consisting of cement, concrete or grout shall be set if deemed necessary by the Supervisor.

(3) When the base of fresh water is penetrated, a cement, concrete, or grout plug at least two hundred (200) feet in length shall be placed at least fifty (50) feet below and shall extend to at least one hundred fifty (150) feet above the base of fresh water. A cement, concrete, or grout plug may be required in the casing-borehole annulus if fresh water is not adequately protected by casing and cement, concrete, or grout.

(4) A cement, concrete, or grout plug at least twenty-five (25) feet in length shall be placed inside the smallest string of casing and in all annular spaces near the surface of the ground in each hole plugged, and casing(s) cut in such a manner so as not to interfere with soil cultivation, and a steel plate at least one-quarter (1/4) inch in thickness shall be welded to the casing stub(s).

(5) The Supervisor may require verification of plugs by tagging and pressure testing.

(6) The interval between plugs shall be filled with an approved fluid.

(7) Other plugging methods and procedures may be required by the Supervisor.

(8) Restoration of location shall be done in accordance with Rule 400-3-4-.16.

400-3-4-.15. Report of Well Plugging.

Within thirty (30) days after the plugging of any well, an operator shall file Form OGB-11, Report of Well Plugging, with the Supervisor setting forth in detail the method used in plugging such well. A schematic showing the down-hole construction of the well, including the depths and lengths of plugs, shall accompany Form OGB-11.

400-3-4-.16. Restoration of Location.

When a location is abandoned, all material, debris and equipment, such as drill pipe, casing, tubing, treaters, separators, tanks, and other production, injection, and above-ground pipeline equipment and materials shall be removed from the location. Adequate measures shall be taken to stabilize the location and silt fences or other erosion preventative measures shall be used to minimize erosion, unless otherwise approved by the Supervisor. In any event, the location shall be restored within ninety (90) days in a manner approved by the Supervisor. All water supply wells drilled in connection with the operation shall be properly plugged and abandoned unless future utilization of such well is desired by the landowner, in which case the operator must obtain written consent from the landowner to leave the well open. A copy of such request must be filed with the Supervisor.

400-3-4-.17. Request to Classify Wells as Temporarily Abandoned or Shut-in.

(1) **Temporary Abandonment Status.** An operator may request that a well be placed in a temporarily abandoned status by submitting a written statement to the Supervisor describing its future utility. A well may be classified as a temporarily abandoned well upon a showing that the well has future utility. Upon approval of a request by the Supervisor, the well will be placed in a temporarily abandoned status for a period of not more than one (1) year. The operator must submit a subsequent request to the Supervisor prior to the end of such period in order to extend the temporarily abandoned status for an additional period of time of not more than one (1) year. Such request for an extension must be justified in writing and include a statement when the well is scheduled to be utilized. Upon approval of the request by the Supervisor, the temporarily abandoned status will be extended for a period of not more than one (1) year. Thereafter, the Board may, after notice and hearing, extend further the temporarily abandoned status for a well. The Supervisor or Board may require the operator to temporarily or partially plug the well, to verify the mechanical integrity of the casing in the well, and to implement a monitoring program before approving a request to classify a well as temporarily abandoned. The well location shall be maintained in accordance with Rule 400-3-4-.01, relating to Identification of Wells, and Rule 400-3-6-.08, relating to Site Maintenance. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.

(2) **Shut-in Status.** An operator may request that a well be placed in a shut-in status by submitting a written statement to the Supervisor stating that the well is capable of producing hydrocarbons but must remain shut in until connected to a gathering system, pipeline or processing facility, or for some other reason. A request to classify a well as shut-in will not be considered until the official test results have been received by the Board on Form OGB-9, First Production or Retest Report. Such request must be submitted in writing to the Supervisor stating why the well is shut in and the date that production is expected to commence. Upon approval by the Supervisor, the well will be placed in a shut-in status for a period of not more than one (1) year. The operator must submit a subsequent request to the Supervisor prior to the end of such period in order to extend the shut-in status for an additional period of time of not more than one (1) year. Such request for an extension must describe the progress that has been made toward placing the well on production and when production is expected to commence. Upon approval of the request by the Supervisor, the shut-in status will be extended for a period of not more than one (1) year. Thereafter, the Board may, after notice and hearing, extend further the shut-in status for a well. The Supervisor or Board may require the operator to temporarily or partially plug the well, to verify the mechanical integrity of the casing in the well, and to implement a monitoring system before approving a request to classify a well as shut-in. The well location shall be maintained in accordance with Rule 400-3-4-.01, relating to Identification of Wells, and Rule 400-3-6-.08, relating to Site Maintenance. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.

400-3-4-.18. Abandoned Wells.

A well is considered abandoned when it has not been used for six (6) consecutive months, and has not been classified as temporarily abandoned or shut in pursuant to Rule 400-3-4-.17, and cannot be operated, whether because it was drilled as a dry hole or has ceased to produce, or operations have not been conducted thereon, or for some other reason.

400-3-4-.19. Wells Used for Freshwater.

When a well to be plugged may safely be used as a freshwater well and such utilization is desired by the surface owner, the well need not be filled above the required sealing plug set below freshwater; provided, the surface owner demonstrates to the Supervisor that the well is being utilized as a freshwater well or agrees to take full responsibility for the well and acquires a two thousand dollar ($2,000.00) surety bond acceptable to the Board and files such bond with the Board on Form OGB-3. The Supervisor may later release the bond upon proper demonstration that the well is being utilized as a freshwater well.

400-3-4-.20. Seismic, Core, and Other Exploratory Holes to be Plugged.

Before any hole is abandoned which is drilled for seismic, core, or other exploratory purposes, it shall be the duty of the owner or driller of any such hole to plug the same in such manner as to properly protect all freshwater-bearing strata.

400-3-5. Testing and Allowable

400-3-5-.01. Daylight Hours.

All open hole drillstem tests shall be completed in daylight hours before sunset and shall not be considered as a production test. Copies of all drillstem test results shall be submitted to the Board pursuant to Rule 400-3-4-.03(2). For purposes of this rule, the word completed shall mean the closing of the drillstem test tool valve. No well shall be swabbed into production except during daylight hours before sunset. No well which contains or which is reasonably expected to contain hydrogen sulfide shall be brought into production except during daylight hours before sunset, unless otherwise approved by the Supervisor.

400-3-5-.02. Swabbing and Cleaning Wells.

Flow tests of less than twenty-four (24) hours, including swabbing and cleaning a well, shall not be considered as a production test. A record of the daily operation of well cleaning shall be reported on the reverse side of Form OGB-9, First Production or Retest Report, giving pressure data and the volumes of water, fracture fluid, oil or condensate, and gas recovered. Unless otherwise approved by the Supervisor, all wells shall be cleaned into a tank prior to production. The tank shall be of sufficient size to contain all fluids.

400-3-5-.03. Venting or Flaring of Coalbed Methane Gas.

Upon approval of the Supervisor, venting or flaring of gas from a permitted coalbed methane gas well shall be allowed where necessary for safety reasons or for the efficient testing and operation of coalbed methane gas wells. With the exception of pressure relief valves, vents for the venting or flaring of coalbed methane gas shall be located at least twenty (20) feet above ground level, unless otherwise approved by the Supervisor.

400-3-5-.04. Production Approval.

Prior to production into a gas sales line, approval shall be obtained from the Supervisor.

400-3-5-.05. Production Test.

An operator completing a new well or recompleting an old well shall first obtain approval to produce pursuant to Rule 400-3-5-.03, and during production, test the well to determine its capacity to produce. The test shall be for a minimum of twenty-four (24) hours' duration. The results thereof shall be verbally reported to the Supervisor immediately and filed with the Board on Form OGB-9, First Production or Retest Report, within fifteen (15) days after such test is completed. When more than one test is made, the reverse side of Form OGB-9 may be used to give complete test data. The test shown on the front side shall be considered the official test results for such well.

400-3-5-.06. Production Allowable.

The gas allowable for coalbed methane gas wells shall be set at 100% of the well's capacity to produce, unless otherwise ordered by the Board.

400-3-5-.07. Gas to be Metered.

All gas produced shall be accurately metered in accordance with standards set by the American Gas Association (AGA) and reported to the Board by the operator on Form OGB-15, Operator's Monthly Report from Gas Wells.

400-3-6. Production

400-3-6-.01. General.

The design and construction of all wells and production facilities shall be based on sound engineering principles and must take into account the composition of the well stream, maximum pressures, and other pertinent engineering data and information. All flowing wells shall be equipped with a master valve and adequate chokes or beans to properly control the flow thereof. The Supervisor may approve alternative procedures for properly controlling well flow, upon request by the operator.

400-3-6-.02. Holding Ponds.

All holding ponds for produced water shall be constructed and maintained consistent with appropriate permit(s) and regulation(s).

400-3-6-.03. Produced Water.

No produced water, unless immediately contained or not leaving the location, shall be discharged to land surface, streams or rivers unless the appropriate approved permit(s) allowing such discharge is on file with the Board. The Supervisor and Board reserve the authority to prevent the discharge of any substances that may be harmful to the environment.

400-3-6-.04. Commingling.

Each coalbed methane gas well shall be allowed to commingle production from distinct coalbed methane pools.

400-3-6-.05. Recompletion or Reworking.

Prior to commencing recompletion or reworking operations, approval shall be obtained from the Supervisor. All recompletion or reworking operations shall be conducted in a manner to ensure continuous control of the well. Adequate well control equipment and procedures shall be used to prevent uncontrolled release of methane, produced water, completion fluids or other material during recompletion or reworking operations. The method of well control may consist of conventional blow-out preventers, stripper heads, and other equipment or techniques, which provide for safe operations. Within thirty (30) days of recompletion or reworking operations, the operator shall submit a revised Form OGB-6, OGB-7, OGB-8, and OGB-9, where applicable, and one (1) copy of any additional logs.

400-3-6-.06. Tanks or Tank Batteries.

A sign shall be posted and maintained in a legible state, in a conspicuous place near a tank or tank battery. Such sign shall be posted when the tank or tank battery is installed and shall remain posted until the tank or tank battery is removed and the location restored. The sign shall include the name of the operator, the name or number designation of the battery, a listing of the permit number(s) from well(s) with fluids flowing into the battery, and the section, township, range, and county in which the tank or tank battery is located.

400-3-6-.07. Dikes.

All permanent tanks, tank outlets, treaters, or other facilities used to store salt water, must be surrounded by a dike constructed with impermeable material. The containment area surrounded by the dike shall be lined with impermeable material. The containment area shall have a capacity of at least one-and-one-half (1 1/2) times that of the tank or other vessel containing fluids and in any event the dike shall be at least two (2) feet high on the inside wall unless otherwise approved by the Supervisor. The Supervisor may require dikes around other facilities that contain salt water or other fluids. In the case of tank batteries, the dike must have the capacity to contain a volume equal to one-and-one-half (1 1/2) times that of the largest tank in the battery and in any event the dike shall be at least two (2) feet high on the inside wall unless otherwise approved by the Supervisor. The top of the dike must be at least two (2) feet higher than the bottom of the lowest tank or other vessel containing fluids. The tanks or other vessels containing fluids must be elevated to provide enough gradient to allow drainage away from the tanks toward the dike. No salt water shall be allowed to remain within containment areas. Drainage of fluids from containment areas shall be authorized by appropriate permit(s) or regulations.

400-3-6-.08. Site Maintenance.

(1) Access roads shall be maintained to allow motor vehicle access to all sites, such as well sites, production facility sites, and Class II injection facility sites.

(2) All unusable materials or equipment shall be removed from sites.

(3) Any rubbish, debris, or vegetation that might constitute a fire hazard shall be removed to a distance of at least thirty (30) feet from the wellhead, production facilities, and meter run, or to the boundary of the well site, whichever is less. All wastes and other materials shall be recycled or disposed of as allowed by appropriate permit(s) or regulations. All site conditions must meet the approval of the Supervisor.

400-3-6-.09. Production Facilities.

(1) All production facilities shall be designed, installed, and maintained in accordance with generally accepted industry practices or standards and in a manner which provides for efficiency, safety of operation, and protection of the environment.

(2) Prior to placing equipment in service, a generalized schematic flow diagram showing all equipment on location shall be submitted to the Supervisor.

(3) For operations within designated field boundaries where well sites and equipment are the same, a typical schematic may be submitted by the operator for that field. Any deviation from the typical schematic should be submitted to the Supervisor.

400-3-7. Transportation

400-3-7-.01. Certificate of Compliance, Authorization to Transport.

No transporter shall transport coalbed gas from any production facility until the operator thereof shall furnish to the transporter an approved Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12. If coalbed gas is being transported from multiple wells, and there is a common transporter and a common purchaser for each of the wells, then an operator may submit a single Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12, listing the permit number, well name and number, and field name for each well. Such certificate shall certify that the conservation laws of the State have been complied with, and that such transporter is authorized by the operator to transport coalbed gas from such facility. Unless otherwise authorized by the Supervisor, Form OGB-12 must be approved prior to transporting first production.

400-3-7-.02. Revocation of Certificate of Compliance.

Whenever the operator of any coalbed gas production facility shall have failed to comply with all applicable laws and applicable rules and regulations of the Board, with respect to such facility, the Operator’s Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well, Form OGB-12, shall be revoked. The Supervisor or Board shall provide written notice to the operator and transporter of revocation, and the transporter moving coalbed gas from such shall immediately discontinue transporting coalbed gas until further notice from the Supervisor or Board.

400-3-7-.03. Gathering Lines.

(1) **Applicability.**

(a) All intrastate gathering lines, located in a rural location, must be designed, installed, constructed, and maintained in accordance with generally accepted industry standards.

(b) Any modification, replacement, relocation, or other change in an intrastate gathering line, located in a rural location shall be made in accordance with generally accepted industry standards.

(c) Flowlines and transmission lines, as defined in Rule 400-3-1-.05, relating to Definitions shall not be subject to this rule.

(2) **Compressor Stations.** A location map and generalized process and flow diagrams of each compressor station, including working pressure ranges, safety equipment, and ancillary equipment shall be submitted to the Supervisor prior to the installation of the facility.

(3) **Maintenance and Abandonment.**

(a) All gathering lines and right of ways shall be maintained and operated in safe manner and in accordance with this rule.

(b) Each gathering line abandoned in place must be disconnected from all sources and supplies of hydrocarbons and purged with water or inert materials.

400-3-8. Safety and Environment

400-3-8-.01. Notification of Fire, Spill, Leak, or Blow Out.

(1) The Supervisor shall be notified immediately of a spill or leak that is not immediately contained or that leaves the location, or of any fire or blow out that occurs at or is related to the operation of any well, production, storage, or Class II injection facility, gathering line or flowline, used in operations including but not limited to drilling, completing, testing, recompletion or reworking, producing, storing, injecting, gathering, transporting, or metering.

(2) Such notification shall include information pertaining to a description of the incident; location by county, section, township, and range; extent of damage to life and environment; and corrective action taken.

(3) If deemed necessary by the agent of the Board, Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days of the incident; however,

when a spill or leak leaves the location Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days.

(4) The operator shall immediately take the appropriate action to clean up spills that leave the location, repair leaks, extinguish fires, and bring blow outs under control. Additionally, the operator shall notify other appropriate governmental agencies of the incident.

400-3-8-.02. Transportation of Wastes Associated with Oil and Gas Operations.

(1) **Certificate of Eligibility to Transport Wastes.**

(a) No transporter shall transport wastes from a site until a Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, has been approved by the Supervisor and an Organization Report, Form OGB-5, as prescribed in Rule 400-3-2-.04, has been filed with the Board. Said approval of a Transporter's Certificate shall be for a two- (2-) year period, but may be renewed every two (2) years by filing a new Organization Report, Form OGB-5.

(b) If any transportation procedures are modified, then an amended Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be submitted for approval by the Supervisor.

(2) **Revocation of Certificate of Eligibility to Transport Wastes.** Whenever the transporter of wastes shall have failed to comply with all applicable laws and applicable rules and regulations of the Board, the applicable Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be revoked. The Supervisor or Board shall provide written notice to the transporter of revocation and the transporter shall immediately discontinue transporting wastes until further notice from the Supervisor or Board.

(3) **Wastes Manifest.**

(a) Every shipment of wastes shall be accompanied by a Wastes Manifest, Form OGB-26.

(b) At the time of transport, the operator shall initiate the manifest by completing and signing Part I. After the transporter completes and signs Part II, the operator shall retain a copy of the manifest. All other copies shall accompany the waste shipment.

(c) Upon receipt of the wastes, the disposer shall complete and sign Part III of the manifest. The transporter shall then retain the transporter's copy.

(d) Upon completion of the manifest, the disposer shall retain the disposer's copy and mail the original copy to the operator within ten (10) days.

(e) The operator, transporter, and disposer shall maintain file copies of the completed manifest for a period of at least five (5) years. Said file copies shall be provided to the Board upon the request by the Supervisor.

(f) Oil and gas operations from which wastes are transported out of state must comply with the manifest system requirements.

(4) **Unit or Field-Wide Operations.** In the case of unitized or field-wide operations where the transporting of wastes is confined to the geographical boundaries of the unit or field, the operator may be eligible for the following exemptions:

(a) When the operator also serves as the generator, transporter and disposer, the operator may request an exemption from the manifest system upon filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25.

(b) When the operator serves as the generator and disposer but contracts the transportation to another party, the operator may request an exemption from the manifest system upon the transporter filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25. The transporter shall be required to file a Transporter's and Storer's Monthly Report, Form OGB-16.

400-3-8-.03. Hydraulic Fracturing of Coal Beds.

(1) Each coal bed shall be hydraulically fractured so as not to cause irreparable damage to the coalbed methane (CBM) well, or to adversely impact any fresh water supply well or any fresh water resources.

(2) A proposal to fracture a coal group shall be accompanied by a check or bank draft in the amount of one hundred seventy five dollars ($175) payable to the State Treasurer, State of Alabama, which sum is fixed as the fee for each proposal; however, in no case shall the fee paid for concurrent hydraulic fracturing operations in a single well exceed five-hundred twenty-five dollars ($525) regardless how many coal groups

are hydraulically fractured. The fee shall be deposited into the Alabama State Oil and Gas Board Special Fund pursuant to Section 9-17-24 of the *Code of Alabama* (1975).

(3) Coal beds shall not be hydraulically fractured until approval of the Supervisor is obtained. In order to receive approval, the operator shall submit to the Supervisor: a wellbore schematic showing the specifications of the casing and cementing program, including pressure tests and the depth interval(s) and name(s) of coal beds to be fractured; geophysical and cement bond logs; and (if applicable) an inventory of fresh water supply wells within a one quarter- (1/4-) mile radius of the CBM well. Further, the operator shall affirm to the Supervisor, in writing, that the well construction and pressure tests results, geophysical and cement bond logs, and (if applicable) inventory of fresh water supply wells have been evaluated and that the results of this evaluation indicate that the proposed hydraulic fracturing operations can be conducted without adverse impact on any fresh water supply wells or any fresh water resources.

(4) The operator of CBM wells with proposed fracturing operations in the depth interval of four hundred (400) to six hundred (600) feet shall prepare an inventory of fresh water supply wells within a one quarter- (1/4-) mile radius of the well to be fractured. Records of fresh water supply wells shall be used by the operator in delineating the construction and completion depths of such supply wells. The records of the Geological Survey of Alabama (GSA) shall be the primary source~~s~~ of information used in this evaluation process. Additionally, the operator shall conduct a field reconnaissance within a one quarter- (1/4-) mile radius of the CBM well to determine the location of any additional fresh water supply wells that may not be identified in the previously described documents. If possible, construction information for such additional fresh water supply wells must be obtained. Consideration shall be given to the records of all fresh water supply wells available and the operator shall report the results of his findings to the Supervisor. Fracturing operations shall not be conducted if it is determined that any fresh water resources or any fresh water supply well located within a one quarter- (1/4-) mile radius of the CBM well could be adversely impacted as a result of the fracturing operation.

(5) A program describing the proposed fracturing operation in the depth interval of four hundred (400) to six hundred (600) feet shall be used by the operator in conjunction with the evaluation process described in section (4) of this rule. Information to be considered shall include, but not be limited to, the maximum length and orientation of the fracture(s) to be propagated and the type fluids and materials that are to be utilized. Programs to hydraulically fracture shall be prepared by a person, or entity, familiar with the technicalities of fracturing coal beds in the area in which fracturing operations are proposed. Operators shall submit the fracturing program to the Supervisor. The program filed with the Board shall identify the person, or entity, that has prepared the fracturing program and be accompanied by a letter from the operator stating its intended application. Recurrent filing of a fracturing program will not be necessary if such program has previously been submitted to the Supervisor and is directly applicable to the fracturing proposal under consideration. Modification(s) to a fracturing program that would alter the maximum length and orientation of the fracture(s) to be propagated, or the type fluids and material to be utilized, shall be submitted to the Supervisor prior to its implementation in the field.

(6) Hydraulic fracturing of coal beds in the depth interval zero (0) to three hundred ninety-nine (399) feet is prohibited.

(7) Diesel oil or fuel is prohibited in any fluid mixture used in the hydraulic fracturing of a coal bed.

(8) The Supervisor may request the submittal of additional information in order to clarify a proposal to hydraulically fracture a coal bed.

(9) The operator shall maintain all records associated with each proposal approved by the Supervisor and implemented by the operator to hydraulically fracture coal beds until such time that the CBM well has been plugged for permanent abandonment, but not less than three (3) years following completion of the fracturing operation. Upon request, copies of these records shall be made available to the Supervisor.

(10) In order to provide adequate disclosure of well stimulation fluids utilized in a hydraulic fracturing operation,

(a) The operator shall provide to the Board:

1. a description of the fracture fluid identified by additive, e.g., acid, proppant, surfactant, and

2. the name of the chemical compound and the Chemical Abstracts Service Registry number, if such registry number exists, as published by the Chemical Abstracts Service, a division of the American Chemical Society, for each constituent added to the base fluid, and

3. the operator is not required to disclose information that is deemed to be a trade secret. However, information deemed to be a trade secret shall be disclosed as necessary for proper medical diagnosis and treatment or for spill response.

(b) Within thirty (30) days after the fracturing of a well, the operator shall post the information to the Frac Focus website.

400-3-9. Reports

400-3-9-.01. Reports.

Operators of gas and Class II injection wells, and transporters of gas shall make reports of their operations. The following reports shall be filed with the Supervisor by the twenty-eighth (28th) day of the month subsequent to the period for which the report is made, or at such other time as prescribed by the Supervisor. Any person conducting operations that fall within the classification of operator or transporter shall prepare and file the following reports applicable to his operations:

(1) Operator's Monthly Report from Gas Wells, Form OGB-15;

(2) Transporter’s and Storer’s Monthly Report, Form OGB-16; and

(3) Monthly Report of Fluids Injected, Form OGB-17.

400-4. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING CLASS II UNDERGROUND INJECTION CONTROL OPERATIONS

400-4-1. General

400-4-1-.01. Applicability.

The following rules and regulations shall govern Class II underground injection control operations. These rules apply to all wells drilled as or converted to Class II injection wells within the territorial jurisdiction of the State.

400-4-1-.02. Application of Other Rules.

In addition to the rules and regulations governing Class II underground injection control operations set forth in Rule 400-4-1-.01 et seq., the following rules and regulations shall apply to Class II underground injection control operations:

(1) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Onshore Lands Operations, Rule 400-1-1-.01, et seq.,

(2) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Submerged Offshore Lands Operations, Rule 400-2-1-.01, et seq.,

(3) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Coalbed Methane Gas Operations, Rule 400-3-1-.01, et seq., and

(4) Rules and Regulations of the State Oil and Gas Board of Alabama Governing Practice and Procedure, Rule 400-7-1-.01, et seq.

400-4-1-.03. Repealed Rules, Special Field Rules, and Orders.

All orders of the Board promulgating rules and regulations governing the conservation of oil and gas in Alabama which have been heretofore adopted by the Board under the authority of Act No. 1, approved May 22, 1945, General Act of Alabama, Regular Session 1945, are hereby repealed, rescinded, and superseded by these rules and regulations; provided, however, no special field rules or other orders of the Board are so repealed, rescinded, or superseded. Special field rules and orders will be issued when required and shall not take precedence over these rules and regulations, where in conflict therewith.

400-4-1-.04. Authority.

Rules, regulations, special field rules, orders, changes, renewals, or extensions thereof, shall be adopted in accordance with the requirements of Section 9-17-1 et seq. of the *Code of Alabama* (1975).

400-4-2. Class II Underground Injection Control Operations

400-4-2-.01. Underground Injection Control.

All Class II injection wells must be permitted and operated in accordance with the following requirements.

(1) **Definitions.** In addition to the definitions set forth in Rules 400-1-1-.05, 400-2-1-.05, and 400-3-1-.05, whichever is applicable, unless the context otherwise requires, the following words shall have the meanings indicated when used within this rule.

(a) **Class II injection well** shall mean an injection well which is used (1) to inject brine or other fluids which are brought to the surface in connection with natural gas storage operations or oil or natural gas production and which may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection; (2) for enhanced recovery of oil or natural gas; or (3) for storage of hydrocarbons which are liquid at standard temperature and pressure.

(b) **Fluid** shall mean a material or substance which flows or moves whether in a semi-solid, liquid, sludge, gaseous or any other form or state.

(c) **Hazardous waste** shall mean a hazardous waste as defined by Section 22-30-3(5) of the *Code of Alabama* (1975).

(d) **Injection** shall mean the introduction of fluids into a subsurface stratum or formation.

(e) **Underground injection control** shall mean control of the underground injection of fluids.

(f) **Underground source of drinking water (USDW)**

1. Shall mean an aquifer or its portion:

(i) Which supplies any public water system; or

(ii) Which contains a sufficient quantity of ground water to supply a public water system; and

a. Currently supplies drinking water for human consumption; or

b. Contains fewer than 10,000 mg/L total dissolved solids; and

2. Shall mean an aquifer or its portion which is not an exempted aquifer.

(2) **Injection of Fluids.** Fluids injected into a Class II injection well shall be stored, transported, and injected in such a manner as may be approved by the Supervisor. Any such injection procedure that results or may result in the pollution of any USDW or in damage to oil, gas, or other minerals is prohibited.

(a) Immediately following the initiation of production in any field or pool, all salt water shall be disposed of into an approved underground formation or otherwise disposed of as approved by the Supervisor where such salt water cannot damage or pollute any USDW, oil, gas, or other minerals.

(b) Injection wells may be drilled for the purpose of Class II operations or existing wells may be converted to injection wells for this purpose. Class II injection wells shall be completed in a manner that will insure injection into zones approved by the Supervisor. A well drilled for Class II operations shall have surface casing or first intermediate casing set at least one hundred (100) feet below the base of the deepest USDW described in section (2)(c). Such casing strings shall meet the requirements of Rules 400-1-3-.11, 400-2-3-.11, or 400-3-3-.11, whichever is applicable.

(c) Wells drilled or converted for injection purposes shall be cased and cemented to prevent the loss of injected fluids into any zone not approved by the Supervisor. All Class II injection wells shall be completed with a long string of casing that shall be properly cemented at a sufficient depth to adequately protect the hydrocarbon-bearing stratum and any USDW. Casing shall be cemented in place with a calculated volume of cement sufficient to fill the annular space at least five hundred (500) feet above the top of the injection interval.

(d) An operator shall give notice to the Supervisor prior to pressure testing. After primary cementing of the long string of casing, drilling shall not resume until a time lapse of twelve (12) hours under pressure. Cement is considered under pressure when one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used. After cementing and prior to drilling the plug, the long string of casing shall be pressure tested at a pressure in pounds per square inch (psi) calculated by multiplying the depth of the midpoint of the injection interval by two-tenths (2/10) or any other pressure required by the Board or Supervisor. All pressure tests are to be held for thirty (30) minutes and the maximum test pressure required shall not exceed fifteen hundred (1,500) psi. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure, then corrective measures shall be taken to insure that the long string of casing is so set and cemented that it will hold the test pressure for thirty (30) minutes without a drop of more than ten percent (10%). Cement-bond logs or other fluid movement test(s) specified by the Supervisor shall be run to verify the seal on all wells drilled or converted for injection purposes.

(e) All injections shall be through tubing anchored by a packer that is to be set within one hundred (100) feet above the uppermost perforations or injection interval, unless otherwise approved by the Supervisor. The injection of fluids into any USDW is hereby prohibited, unless it can be demonstrated before the Board after notice and hearing that the injection zone has no use as a drinking water source due to contamination of the zone or other reasons. The injection of fluids into the annular space between strings of casing is prohibited, except as may be approved by the Supervisor.

(3) **Application for Class II Injection Well.** Application for permits for Class II injection wells shall be considered as a two-step process. An applicant seeking the Supervisor’s approval for the injection of fluids as described in section (2) shall submit the following and any additional information as may be required by the Supervisor:

(a) **Step 1.**

1. Well permit requirements as set forth in Rules 400-1-2-.01, 400-2-2-.01, or 400-3-2-.01, whichever is applicable for the drilling, conversion, or reentry of a plugged and abandoned well for injection purposes;

2. A plat, in triplicate, prepared by a licensed land surveyor showing the location of the proposed injection well. The plat shall be drawn to the scale of one (1) inch equals one thousand (1,000) feet, unless otherwise stipulated by the Supervisor and shall show distances from the proposed well to the nearest governmental section lines. The plat shall show the direction of north, and the latitude and longitude in decimal degrees to five (5) significant digits and state plane coordinates of the proposed well. The plat shall also show the location and status of all other wells that have been drilled within one-fourth (1/4) mile of the proposed injection well;

3. A prognosis specifying the drilling, completion, or conversion procedures for the proposed injection well;

4. A well bore sketch showing the name, description, and depth of the proposed injection formation and the depth of the deepest USDW; a description of the casing in the injection well, or the proposed casing program, including a full description of cement already in place or as proposed; and the proposed method of testing casing before use of the injection well;

5. A complete log through the injection zone of the injection well, or if an injection well is to be drilled, a complete log through the injection zone from a nearby well. Such log shall be annotated to identify the estimated location of the base of the deepest USDW, significant aquicludes, and the injection formation;

6. A statement specifying the proposed source of injected fluids and chemical constituents of the proposed fluids to be injected and the fluids in the injection zone (If an analysis of the water in the proposed injection zone is not available such application shall include a determination of the chlorides by accepted log interpretation methods. Such data used in that calculation and the calculation shall be included in the application.); a statement specifying any proposed treatment of the injected fluids;

7. The estimated minimum and maximum amount of fluids to be injected daily and anticipated injection pressures with resultant and anticipated bottom hole pressures and the known or calculated fracturing pressure of the injection zone. All determinations included in this application shall be supported by basic data and calculations; and

8. Proof of public notification as set forth in section (9). (An application for an injection well permit shall be filed with the Board prior to publication of notice.)

(b) **Step 2.`**

1. Permit application, Form OGB-1C, Application for Permit to Inject Fluids;

2. A schematic diagram of the surface injection system and its appurtenances;

3. A well bore sketch showing the name, description, and depths of the injection formation and the base of the deepest USDW; a schematic of the well depicting the casing, cementing, perforation, tubing, and plug and packer records associated with the construction of the well; and the method and results of casing tests reported on Form OGB-7, Well Record and Completion or Recompletion Report, before use of the injection well;

4. A complete dual induction laterolog or equivalent log through the injection zone of the injection well. Such log for wells drilled for Class II operations shall be run prior to the setting of casing through the injection zone. Logs shall be annotated to identify the estimated location of the base of the deepest USDW, significant aquicludes, and the injection formation unless previously submitted in Step 1. When approved in advance by the Supervisor, depth to the base of the USDW and confirmation that significant aquicludes exist between the injection formations and the base of the USDW can be demonstrated with a dual induction or equivalent log run in a nearby well or by such other method acceptable to the Supervisor;

5. An affidavit specifying the source of injected fluids; an analysis of the fluids to be injected and the fluids in the injection zone; and a statement specifying any proposed treatment of the injected fluids;

6. Proof that the long string of casing of the injection well is cemented adequately so that injected fluids cannot migrate along the annular space to any USDW. Such proof shall be provided in the form of a cement bond log or the results of a fluid movement study or such other method specified by the Supervisor;

7. The results of a mechanical-integrity test of the casing-tubing annulus above the packer in accordance with the pressure test requirements in section (2)(d);

8. Forms OGB-6 (if applicable), OGB-7, and OGB-8; and

9. Two (2) copies of all electrical, mechanical, radioactive, and dipmeter logs or such other surveys performed as a part of drilling, completing, or converting the well unless previously submitted to the Board.

(4) **Permit Approval Procedures.**

(a) Applications for Class II injection well permits shall be submitted in writing to the Supervisor in accordance with section (3). Conceptual approval may be granted by the Supervisor after submittal and consideration of the information required under section (3)(a). Approval to inject fluids may be granted by the Supervisor after submittal and consideration of the information required under section (3)(b).

(b) The operator may apply for a field-wide permit for injection wells for enhancement of oil or gas production, or for pressure maintenance. Such field-wide application shall include all of the information required by section (3). If a permit has been issued for a field-wide injection program, the operator will be required on each injection well, whether it be drilled or converted, to submit in an application the information required under Step 1 section (3)(a)1, (3)(a)2, (3)(a)3, and (3)(a)4, and Step 2 section (3)(b)1, (3)(b)2, (3)(b)3, (3)(b)5, (3)(b)6, (3)(b)7, (3)(b)8, and (3)(b)9.

(c) Applications for permits to inject fluids (Step 2) shall be approved or rejected by the Supervisor on the basis of the information provided in accordance with section (3) in conjunction with a thorough evaluation of the endangering influence posed by any defective wells that may exist within the area of review, which is within a minimum radius of one-fourth (1/4) mile of the proposed injection well. In the event a defective well is determined to exist within the area of review, the Supervisor may order corrective action to be taken on the defective well by the applicant prior to approving the permit to inject (Step 2). If corrective action is determined to be unfeasible, the Supervisor may reject the application or conditionally approve the application subject to stated constraints, which will minimize the risk of fluid migration from the injection zone. In all cases, injection of fluids shall not begin until approval is obtained.

(5) **Expiration of a Permit.** A permit shall expire six (6) months from the date of issuance if no fluids have been injected or from the date of the last injection episode documented on Form OGB-17, Monthly Report of Fluids Injected, whichever is longer, unless otherwise approved by the Supervisor.

(6) **Operation of and Reports for a Class II Injection Well.**

(a) The well shall be operated at all times so that mechanical integrity of the injection operation can be verified. The mechanical integrity of the tubing-casing annulus above the packer shall be demonstrated by pressure testing when deemed necessary by the Supervisor or at least every five (5) years beginning from the date that the well is pressure tested prior to being permitted for injection. A test for mechanical integrity shall be in accordance with the pressure test requirements in section (2)(d) unless otherwise specified by the Supervisor. Tests for fluid movement along the annular space outside of the well bore shall be conducted when deemed necessary by the Supervisor. The well shall be equipped so that the injection rate, injection pressure, and tubing-casing annulus pressure data may be recorded.

(b) The operator of any Class II injection well shall submit to the Supervisor:

1. Injection-volume, injection-pressure, and tubing-casing annulus pressure data for each such well monthly. The injected volumes shall be recorded on a daily basis, and the injection pressure and tubing-casing annulus pressure reported shall be either recorded on a daily basis or computed as a daily average on the basis of a minimum of one measurement per week for each month. The information for each month shall be submitted by the twenty-eighth (28th) of the following month on Form OGB-17, Monthly Report of Fluids Injected.

2. A chemical analysis of the injected fluids shall be submitted by the first of January of each year following initial approval. The Supervisor may extend the period of time between analyses upon receipt and approval of justification.

(7) **Monitoring Records.**

(a) The operator of any Class II injection well shall submit the data required under Rules 400-1-9-.01 and 400-1-9-.02; Rules 400-2-8-.02, 400-2-8-.03(7)(b), and 400-2-8-.04; or Rule 400-3-8-.01, whichever is applicable. Said operator shall maintain the following and any additional monitoring records as may be required by the Supervisor.

1. All calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation.

2. Injection and tubing-casing annulus pressure data recorded on a daily or weekly basis and copies of the monthly reports, Form OGB-17, submitted to the Board.

3. Nature and composition of injection fluids.

(b) These records shall be maintained for a minimum of three (3) years.

(8) **Operational Status.** All Class II injection wells which were not being operated as of January 1, 1981, even though a permit by the Board or Supervisor has been heretofore granted, are forbidden to be operated until such time as a new application has been filed in accordance with section (3) and approval of the Supervisor has been obtained.

(9) **Public Participation.** In order to afford the public an opportunity to participate in the permitting process for any of the above-described Class II wells the following shall apply:

(a) The applicant for a permit shall publish a notice setting forth the details of the permit sought in the newspaper having the largest circulation in the county in which the proposed Class II injection well is located, as indicated by the most recent annual figures compiled by the Alabama Press Association. Proof of publication of such notice shall be provided to the Supervisor.

(b) The notice shall provide an adequate description of the proposed action and a description of the location of the proposed well, and the notice shall be placed one time in the newspaper at least fifteen (15) days prior to the date that the Supervisor may approve the permit.

(c) The notice shall state that interested parties may obtain additional information concerning the proposed well from the State Oil and Gas Supervisor, 420 Hackberry Lane, P. O. Box 869999, Tuscaloosa, Alabama 35486-6999.

(d) The notice shall state that a public hearing may be requested by any interested party at any time during the fifteen- (15-) day comment period.

(e) If no public hearing has been requested at the expiration of the fifteen- (15-) day period, and if the permit application meets all of the requirements of the above rule, the Supervisor may grant the permit.

(f) If there are requests for a public hearing and in the opinion of the Supervisor the requests are justified, the Board will publish a notice for public hearing in accordance with Rule 400-7-1-.01, et seq., Rules and Regulations Governing Practice and Procedure. The application for the Class II injection well will either be granted, denied, or modified by the Board after the hearing.

(10) **Operational Problems.** The operator of any Class II injection well shall immediately notify the Supervisor in the event of any mechanical or down-hole problems resulting from the operation of the well which may endanger any USDW.

(11) **Permit Modifications.** Modification of a Class II injection permit can only be made after notice in writing to and approval of the Supervisor. Significant modifications, as determined by the Supervisor, will require the operator to publish notice in accordance with section (9) prior to obtaining the Supervisor’s approval.

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400-5. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING THE UNDERGROUND STORAGE OF GAS IN RESERVOIRS

400-5-1. General

400-5-1-.01. Applicability.

The following rules and regulations shall govern the underground storage of gas in reservoirs. These rules apply to all underground gas storage operations in reservoirs within the territorial jurisdiction of the State. These rules explicitly exclude and do not apply to gas injection or withdrawal operations conducted as a part of or in conjunction with any secondary or tertiary recovery methods utilized with respect to a unitized pool in a unit area heretofore or hereafter established by the Board pursuant to Article 3, Chapter 17 of Title 9 of the code; and nothing herein shall be deemed to allow the creation or operation of a storage facility pursuant to said Sections 9-17-150 through 157 of the Code within any underground reservoir where such secondary or tertiary recovery methods are being utilized.

400-5-1-.02. Application of Other Rules.

(1) In addition to the rules and regulations governing underground storage of gas in reservoirs set forth in Rule 400-5-1-.01, et seq., Rules and Regulations of the State Oil and Gas Board of Alabama Governing Practice and Procedure, Rule 400-7-1-.01, et seq. shall apply to underground storage of gas in reservoirs.

(2) Unless otherwise specified by the Supervisor, Rules and Regulations of the State Oil and Gas Board of Alabama Governing Onshore Lands Operations, Rule 400-1-1-.01, et seq., or Rules and Regulations of the State Oil and Gas Board of Alabama Governing Submerged Offshore Lands Operations, Rule 400-2-1-.01, et seq., whichever is applicable, shall apply to underground storage of gas in reservoirs, with the exception of the following:

(a) For Rules and Regulations of the State Oil and Gas Board of Alabama Governing Onshore Lands Operations, Rule 400-1-1-.01, et seq;

1. 400-1-1-.01 Applicability,
2. 400-1-1-.03 Repealed Rules, Special Field Rules, and Orders,
3. 400-1-1-.05(29, 31, and 84) Definitions,
4. 400-1-1-.07 Determining and Naming Fields and Pools,
5. 400-1-2-.02 Spacing of Wells,
6. 400-1-5 Testing and Allowable,
7. 400-1-6-.01 General,
8. 400-1-6-.02 Protection of Oil and Gas,
9. 400-1-6-.03 Initial Bottom Hole Pressure Survey,
10. 400-1-6-.04 Pressure-Volume-Temperature Analysis,
11. 400-1-6-.05 Procedures for Multiple Completions,
12. 400-1-6-.06 Recompletion or Reworking,
13. 400-1-6-.07 Tanks or Tank Batteries,
14. 400-1-6-.12 Authorization for Permit to Clean Tanks
15. 400-1-7 Processing, and
16. 400-1-8 Transportation.

(b) For Rules and Regulations of the State Oil and Gas Board of Alabama Governing Submerged Offshore Lands Operations, Rule 400-2-1-.01, et seq;

1. 400-2-1-.01 Applicability,
2. 400-2-1-.03 Repealed Rules, Special Field Rules, and Orders,
3. 400-2-1-.05(29 and 79) Definitions,
4. 400-2-1-.07 Determining and Naming Fields and Pools,
5. 400-2-2-.02 Spacing of Wells,

6. 400-2-5 Testing and Allowable,
7. 400-2-6-.01 General,
8. 400-2-6-.02 Protection of Oil and Gas,
9. 400-2-6-.03 Initial Bottom Hole Pressure Survey,
10. 400-2-6-.04 Pressure-Volume-Temperature Analysis,
11. 400-2-6-.05 Procedures for Multiple Completions,
12. 400-2-6-.06 Recompletion or Reworking,
13. 400-2-6-.07 Subsurface Safety Devices,
14. 400-2-6-.08 Wellhead Equipment and Testing Procedures,
15. 400-2-6-.10 Production Facilities, Processing Facilities, and Offshore Plants, and
16. 400-2-7 Transportation.

400-5-1-.03. Repealed Rules, Special Storage Rules, and Orders.

All rules and regulations governing the conservation of oil and gas in Alabama which have been heretofore promulgated by the Board under the authority of Act No. 1, approved May 22, 1945, General Act of Alabama, Regular Session 1945, are hereby repealed, rescinded, and superseded by these rules and regulations; provided, however, no special storage rules or other orders of the Board are so repealed, rescinded, or superseded. Special storage rules and orders will be issued when required and shall prevail over these rules and regulations, where in conflict therewith.

400-5-1-.04. Authority.

Rules, regulations, and orders shall be adopted in accordance with the requirements of Section 9-17-150 et seq. of the *Code of Alabama* (1975).

400-5-1-.05. Definitions.

In addition to the definitions set forth in Rule 400-1-1-.05, unless the context otherwise requires, the following words shall have the meanings indicated when used within this rule:

(1) **Certificate of effectiveness** shall mean a certificate, entitled “Certificate of Effectiveness” which shall be signed and acknowledged by the storage operator and which shall contain (a) an affidavit that the storage operator has acquired by eminent domain or otherwise all necessary ownership rights with respect to the storage facility and (b) the date upon which the storage facility shall become effective.

(2) **Cushion gas** shall mean the volume of gas required as permanent storage inventory to maintain adequate reservoir pressure for meeting minimum gas deliverability demand also called “base gas”.

(3) **Gas** shall mean all natural gas, casinghead gas, and occluded natural gas found in coalbeds, and all other hydrocarbons not defined as oil in Section 9-17-1(3) of the Code, except and not including liquid petroleum gas.

(4) **Gathering line** shall mean the line between the last positive shut-off valve at the wellhead to the pipeline or header where two or more such lines converge.

(5) **Native gas** shall mean gas which has not been withdrawn from the earth.

(6) **Observation well** shall mean any well drilled or converted for the purpose of monitoring reservoir pressures, temperatures, or mechanical integrity.

(7) **Order of approval** shall mean an order issued by the Board, after notice and hearing, (i) approving the underground storage of gas in an underground reservoir, (ii) designating the horizontal and vertical boundaries of the storage facility, such boundaries to include within them any necessary or reasonable buffer zone for the purpose of ensuring the safe operation of the storage facility and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, (iii) designating the minimum and maximum operating pressures of the storage facility, (iv) designating the storage operator for said facility, (v) adopting special rules for the operation of the facility, and (vi) containing the findings required by Section 9-17-152(a) of the Code.

(8) **Special storage rules** shall mean those rules promulgated for, and which are limited in their application to, individual underground storage facilities within the State of Alabama.

(9) **Storage operator** shall mean any company, person, corporation, partnership, limited partnership, association of persons, municipality, association of municipalities, public utility, gas district, or other entity, authorized by the Board pursuant to Section 9-17-152 of the Code to operate any storage facility.

(10) **Storage well** shall mean any well drilled or converted for use in an Underground Storage Facility.

(11) **Underground reservoir** shall mean any porous subsurface sand, stratum, or formation which is completely separated from any other porous zone and is suitable for or capable of being made suitable for the injection and storage of gas therein and the withdrawal of gas therefrom.

(12) **Underground source of drinking water (USDW)**

(a) means an aquifer or its portion:

1. Which supplies any public water system; or
2. Which contains a sufficient quantity of ground water to supply a public water system; and

(i) Currently supplies drinking water for human consumption; or

(ii) Contains fewer than 10,000 mg/L total dissolved solids; and

(b) Which is not an exempted aquifer.

(13) **Underground storage** shall mean the storage of gas in an underground reservoir, stratum or formation of the earth.

(14) **Underground storage facility** shall mean an underground reservoir, the wellbore tubular goods, the wellhead, and related equipment to the last positive shut-off valve before the gathering line that is used or to be used for the underground storage of gas and all surface and subsurface rights and appurtenances necessary or useful in the operation of the facility for the underground storage of gas, including any necessary or reasonable buffer zone as recommended by the storage operator and approved by the Board for the purpose of insuring the safe operation of the storage of gas and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, together with any and all subsequent extensions thereof.

(15) **Working gas** shall mean the portion of the storage volume that can be removed from a storage reservoir for deliveries and still maintain pressure sufficient to meet design deliverability.

All other words used herein shall be given their usual, customary, and accepted meaning. All words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted within the oil and gas industry.

400-5-1-.06. Forms.

(1) The Supervisor may prescribe and require forms within the rules and regulations of the Board as he reasonably deems advisable. The content of such forms and instructions for their completion may be such as the Supervisor may deem advisable, including the changes of such from time to time. All forms set forth in Rule 400-1-1-.06 or 400-2-1-.06, whichever is applicable shall be applicable to the underground reservoir storage rules with the exception of the following:

(a)	OGB-9	First Production or Retest Report;
(b)	OGB-10	Multipoint Back-Pressure Test Report For Gas Wells;
(c)	OGB-10A	One-Point Back-Pressure Test Report For Gas Wells;
(d)	OGB-12	Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well;
(e)	OGB-13	Operator's Certificate of Compliance and Authorization to Transport Products from Plant;
(f)	OGB-14	Operator’s Monthly Report from Oil Wells;
(g)	OGB-15	Operator’s Monthly Report from Gas Wells;
(h)	OGB-16	Transporter’s and Storer’s Monthly Report;
(i)	OGB-17	Monthly Report of Fluids Injected;
(j)	OGB-18	Monthly Report for Products from Processing, Cleansing, or Extraction Facilities;
(k)	OGB-21	Authorization to Clean Tank;
(l)	OGB-22	Well Capacity Test; and

(m) OGB-23 Unit Reserve Calculation.

(2) Further, such forms, as applicable, shall be filed in a timely manner by the operator and such other person as required by these rules, and such forms shall be properly and fully completed. All forms shall contain true, correct, and accurate information. The Supervisor may allow the filing of certain data electronically in lieu of forms set forth hereinabove, provided Form OGB-28, Master Electronic Filing Certification, has been filed and approved by the Supervisor. The type data, the method of filing, and the format of filing electronic data must have the prior approval of the Supervisor. An operator shall re-file a Master Electronic Filing Certification, Form OGB-28, on an annual basis or when the name or address of an operator changes.

400-5-2. Permitting of Wells

400-5-2-.01. Well Permit.

(1) **Activities requiring Permits.** A permit for the drilling, development and operation of a facility for underground storage of gas may be issued only after notice and hearing by the State Oil and Gas Board.

(2) **Permit Requirements.** Application for permits for underground storage wells shall be considered as a two-step process. All wells drilled or recompleted for the purpose of underground storage shall comply with the following permitting requirements:

(a) **Step 1.**

1. Well permit requirements as set forth in Rules 400-1-2-.01 or 400-2-2-.01, whichever is applicable for the drilling, conversion, or reentry of a plugged and abandoned well for underground storage purposes;

2. A plat, in triplicate, prepared by a licensed land surveyor showing the location of the proposed underground storage well. The plat shall be drawn to the scale of one (1) inch equals one thousand (1,000) feet, unless otherwise stipulated by the Supervisor and shall show distances from the proposed well to the nearest governmental section lines. The plat shall show the direction of north, and the latitude and longitude in decimal degrees to five (5) significant digits and state plane coordinates of the proposed well. The plat shall also show the location and status of all other wells that have been drilled within one-fourth (1/4) mile of the proposed underground storage well;

3. A prognosis specifying the drilling, completion, or conversion procedures for the proposed underground storage well;

4. A well bore sketch showing the name, description, and depth of the proposed underground reservoir and the depth of the deepest underground source of drinking water (USDW); a description of the casing in the underground storage well, or the proposed casing program, including a full description of cement already in place or as proposed; and the proposed method of testing casing before use of the underground storage well;

5. A complete log through the underground reservoir of the storage well or if an underground storage well is to be drilled, a complete log through the underground reservoir from a nearby well. Such log shall be annotated to identify the estimated location of the base of the deepest USDW, significant aquicludes, and the underground reservoir; and

6. The known or calculated fracturing pressure of the underground reservoir. All determinations included in this application shall be supported by basic data and calculations.

(b) **Step 2.**

1. Permit application, Form OGB-1D, Application for Permit to Inject Storage Gas;

2. A schematic diagram of the surface injection system and its appurtenances;

3. A well bore sketch showing the name, description, and depths of the underground reservoir and the base of the deepest USDW; a schematic of the underground storage well depicting the casing, cementing, perforation, tubing, and plug and packer records associated with the construction of the underground storage well; and the method and results of casing tests reported on Form OGB-7, Well Record and Completion or Recompletion Report, before use of the underground storage well;

4. A complete dual induction or equivalent log through the underground reservoir of the underground storage well. Such log for wells drilled for underground storage operations shall be

run prior to the setting of casing through the underground reservoir. Logs shall be annotated to identify the estimated location of the base of the deepest USDW, significant aquicludes, and the underground reservoir unless previously submitted in Step 1. When approved in advance by the Supervisor, depth to the base of the USDW and confirmation that significant aquicludes exist between the underground reservoir and the base of the USDW can be demonstrated with a dual induction or equivalent log run in a nearby well or by such other method acceptable to the Supervisor;

5. An affidavit specifying that the source of injected gas will be of pipeline quality;

6. Proof that the long string of casing of the underground storage well is cemented adequately so that injected gas cannot migrate along the annular space to any USDW. Such proof shall be provided in the form of a cement bond log or the results of a fluid movement study or such other method specified by the Supervisor;

7. The results of a mechanical-integrity test of the casing in accordance with the pressure test requirements in Rule 400-5-7.01;

8. A certificate, entitled “Certificate of Effectiveness”, which shall contain a statement that the storage operator has acquired by eminent domain or otherwise all necessary ownership rights with respect to the storage facility, and the date upon which the storage facility shall be effective;

9. Forms OGB-6 (if applicable), OGB-7, and OGB-8; and

10. Two (2) copies of all electrical, mechanical, radioactive, and dipmeter logs or such other surveys performed as a part of drilling, completing, or converting the underground storage well unless previously submitted to the Board.

(3) **Permit Approval Procedures.**

(a) Applications for underground storage well permits shall be submitted in writing to the Supervisor in accordance with section (2). Approval to inject gas may be granted by the Supervisor after submittal and consideration of the information required under section (2)(b).

(b) The operator may apply for a field-wide permit for underground storage wells. Such field-wide application shall include all of the information required by section (2). If a permit has been issued for a field-wide underground storage well program, the operator will be required on each underground storage well, whether it be drilled or converted, to submit in an application the information required under Step 1 section (2)(a)1, (2)(a)2, (2)(a)3, and (2)(a)4, and Step 2 section (2)(b)1, (2)(b)2, (2)(b)3, (2)(b)5, (2)(b)6, (2)(b)7, (2)(b)8, and (2)(b)9.

(c) Applications for permits to inject gas (Step 2) shall be approved or rejected by the Supervisor on the basis of the information provided in accordance with section (2) in conjunction with a thorough evaluation of the endangering influence posed by any defective wells that may exist within the area of review, which is within a minimum radius of one-fourth (1/4) mile of the proposed underground storage well. In the event a defective well is determined to exist within the area of review, the Supervisor may order corrective action to be taken on the defective well by the applicant prior to approving the permit to inject (Step 2). If corrective action is determined to be unfeasible, the Supervisor may reject the application or conditionally approve the application subject to stated constraints, which will minimize the risk of gas migration from the underground reservoir. In all cases, injection of gas shall not begin until approval is obtained.

(4) **Expiration of a Permit.** A permit shall expire six (6) months from the date of issuance if the permitted well has not been spudded.

400-5-3. Underground Storage Facility Design and Development

400-5-3-.01. General Design and Development.

Prior to the design and development of an underground storage facility, an engineer or geologist experienced in the development and operation of an underground storage facility shall perform an investigation to determine the feasibility of such a facility at a particular site and in a particular reservoir. The data obtained during the feasibility investigation shall be considered in the design of the storage facility and such data filed with the Board as a part of the permit application. The design shall be performed by or under the supervision of an engineer or geologist and shall include, but not be limited to, such factors as: location of storage wells; number of storage wells; number and location of observation wells, if any; number and location of abandoned and plugged wells penetrating the storage reservoir; capacity of the storage

reservoir; and the geological name of the storage reservoir. The design shall assure that project development can be conducted in a reasonable, prudent and systematic manner and shall insure environmental safety and the prevention of waste. The design and development shall be continually reviewed in order to take into consideration pertinent additional subsurface data. The Board shall be advised of any tests or surveys conducted during the development phase and copies shall be made available to the Board as soon as practical.

400-5-4. Underground Storage Operating Pressures

400-5-4-.01. Maximum and Minimum Operating Pressures.

The maximum and minimum operating pressures of an underground storage facility shall be determined by an engineer or geologist in conjunction with the requirements specified in Rule 400-5-3-.01. The maximum allowable stabilized reservoir pressure (gauge) shall be no greater than seventy-five percent (75%) of the fracture pressure of the underground reservoir as determined by a step rate test or as calculated by a qualified engineer, by a method acceptable to the Board. The average storage reservoir pressure shall be no greater than ninety percent (90%) of the fracture pressure even for short periods of time.

400-5-5. Volume Verification

400-5-5-.01. Volume Verification.

(1) Each underground storage facility developed shall have the storage volume calculated using acceptable reservoir engineering methods and such shall include working gas, native gas, and cushion gas.

(2) In the event the operator of a storage facility recalculates the actual reservoir volume determined after continued operation of the facility, then the operator shall petition the Board and submit the redetermination at a hearing.

400-5-6. Casing Requirements

400-5-6-.01. Casing Requirements for Newly Drilled Wells.

All wells drilled for the purpose of underground storage shall comply with the following requirements:

(1) All casing strings shall be centralized throughout the interval to be cemented. Casing and cementing programs shall comply with appropriate provisions of Rule 400-1-4-.09 or 400-2-4-.09, whichever is applicable except as specifically provided below;

(a) Surface casing shall be cemented with a minimum of one hundred fifty percent (150%) of the calculated annular volume to circulate cement to the surface;

(b) If the surface casing setting depth is below the lowermost USDW, the production casing shall be cemented with sufficient volume to fill the calculated annular space to a point five hundred (500) feet above the top of the storage reservoir, otherwise the casing string shall be cemented to the surface;

(c) All casing used in storage wells shall meet American Petroleum Institute standards for the pressures to be encountered and shall be new casing or reconditioned casing of new quality; and

(d) The top of cement and the degree of bonding of the cement used to anchor the production casing shall be verified by cement bond log, cement evaluation log or other logs approved by the Supervisor.

(2) All casing strings shall be tested in accordance with Rule 400-1-4-.09 or 400-2-4-.09, whichever is applicable.

(3) All tests and logs required by this section shall be prepared and supervised by a qualified engineer or geologist and a report of test results and copies of logs filed with the Board within thirty (30) days of date the log is run or the test conducted.

400-5-6-.02. Casing Requirements for Converted Wells.

All newly converted wells shall comply with the following requirements:

(1) Casing and cement specifications are to be in accordance with Rule 400-1-4-.09 or 400-2-4-.09, whichever is applicable.

(2) The top of cement and the degree of bonding of the cement used to anchor the production casing shall be verified by cement bond log, cement evaluation log or other logs approved by the Supervisor.

(3) Injection shall not result in the movement of fluids into an underground source of drinking water.

400-5-7. Storage Well Mechanical Integrity Test

400-5-7-.01. Testing Requirements.

(1) Utilizing a method approved by the Supervisor, each storage well shall be tested for internal mechanical integrity prior to storing gas. Verification of internal mechanical integrity shall be demonstrated at least every five (5) years thereafter.

(2) Tests for fluid movement along the annular space outside the wellbore shall be conducted when deemed necessary by the Supervisor.

(3) All storage well mechanical integrity tests or verifications shall be prepared and supervised by a qualified engineer or geologist and reports filed with the Board within thirty (30) days.

(4) The operator shall give sufficient notice prior to conducting a mechanical integrity test so the Supervisor may send a duly authorized representative to the location to witness such activity.

400-5-8. Wellhead Components, Valves, and Fittings

400-5-8-.01. Requirements for Wellhead Components, Valves, and Fittings.

(1) All wellhead components, (casing head, tubing head, etc.) valves, and fittings shall be of steel having primary service pressure ratings sufficient to exceed the maximum operating pressures computed at the wellhead. Wellhead valves and all related connections shall have a test pressure rating at least equivalent to one hundred fifty percent (150%) of the maximum operating pressure. All valves shall be periodically inspected and maintained in good working order.

(2) Each gathering line connected to the wellhead shall be equipped with a manually operated positive shut-off valve located on the wellhead.

400-5-9. Recompletion or Reworking

400-5-9-.01. Recompletion and Reworking Requirements.

(1) Prior to commencing recompletion or reworking operations, approval shall be obtained from the Supervisor. A detailed workover prognosis shall be submitted to the Supervisor in writing unless otherwise approved by the Supervisor. Form OGB-7, Well Record and Completion or Recompletion Report, shall be filed with the Board within thirty (30) days following completion of the well work.

(2) No downhole work shall be done prior to notifying the Supervisor. Such notification shall allow sufficient time for the Supervisor, at his discretion, to have his representative present to observe the work.

400-5-10. Gas Measurement and Analysis

400-5-10-.01. Gas Measurement.

All gas injected or withdrawn shall be measured using meters designed, installed, and operated in accordance with industry standards and shall be acceptable to the Supervisor. The storage operator shall report the current gas in storage, injection and withdrawal volumes, average reservoir pressures, and calculated storage capacity on Form OGB-17D, Monthly Report of Gas Injected/Withdrawn for Natural Gas Storage Facilities. The report shall be filed with the Board by the twenty-eighth (28th) day of the month subsequent to the period for which the report is made, or at such other time as prescribed by the Supervisor.

400-5-10-.02. Gas Analysis.

The storage operator shall submit a chemical analysis of the stored gas when deemed necessary by the Supervisor.

400-5-11. Wells Drilled Through a Storage Area

400-5-11-.01. Requirements for Wells Drilled Through a Storage Area.

All wells drilled through the storage reservoir within a storage area for any purpose other than storage shall comply with the following casing program:

(1) All surface and intermediate strings shall be centralized through the interval to be cemented. Casing and cementing programs shall comply with appropriate provisions of Rule 400-1-4-.09 or 400-2-4-.09, whichever is applicable except as specifically provided below or otherwise approved by the Supervisor.

(a) Surface casing shall be cemented with a minimum of one hundred fifty percent (150%) excess over the calculated annular volume needed to circulate cement to the surface.

(b) If the surface casing setting depth is below the lowermost underground source of drinking water, an intermediate casing string shall be set approximately one hundred (100) feet below the base of the storage reservoir and cemented with sufficient volume of cement to fill the calculated annular space to a point five hundred (500) feet above the top of the storage reservoir, otherwise the casing string shall be cemented to the surface.

(c) All surface and intermediate casing shall meet American Petroleum Institute standards for the pressures to be encountered and shall be new casing or reconditioned casing of new quality.

(d) The top of cement and the effectiveness of the seal of the cement used to anchor the intermediate casing shall be verified by cement bond log, cement evaluation log or other logs approved by the Supervisor.

(2) All casing strings shall be tested in accordance with Rule 400-1-4-.09 or 400-2-4-.09, whichever is applicable.

(3) All tests and logs required by this section shall be prepared and supervised by a qualified engineer or geologist and a report of test results and copies of logs shall be filed with the Board within thirty (30) days of date of test or log.

(4) No well shall be drilled through a storage reservoir or its stratigraphic equivalent within a storage area except after notice and hearing before the State Oil and Gas Board.

400-5-12. Safety and Environment

400-5-12-.01. General.

In addition to the rules set forth in Rule 400-1-9-.01 et seq. or 400-2-8-.01 et seq. whichever is applicable the following rules and regulations shall apply:

(1) Personnel experienced and trained in the operation of underground storage facilities shall monitor the facility or control site when gas is being injected or withdrawn from any storage well.

(2) The wellheads and related equipment and controls shall be protected from trespassers and accidental physical damage by a method approved by the Supervisor.

(3) Each storage operator of an underground storage facility shall conduct a semi-annual safety inspection of such facility and file with the Supervisor a written report consisting of the inspection procedure and results within thirty (30) days following the inspection. Such inspections shall be conducted during the months of January and July of each year. The operator shall notify the Supervisor at least five (5) days prior to such inspections so that a duly authorized representative of the Supervisor may be present to witness the inspections. Inspections shall include, but not be limited to, the following:

(a) Operation of all manual valves;

(b) Operation of all automatic shut-in safety valves, if applicable;

(c) Wellheads and related equipment; and

(d) Warning signs, safety fences, etc., if applicable.

(4) Additional inspections may be made by the Supervisor or his representatives. All reports required by this rule shall be subject to inspection at this time.

400-6. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING THE UNDERGROUND STORAGE OF GAS IN SOLUTION-MINED CAVITIES

400-6-1. General

400-6-1-.01. Applicability.

The following rules and regulations shall govern the underground storage of gas in solution-mined cavities. These rules apply to all underground gas storage operations in solution-mined cavities within the territorial jurisdiction of the State.

400-6-1-.02. Application of Other Rules.

(1) In addition to the rules and regulations governing underground storage of gas in solution-mined cavities set forth in Rule 400-6-1-.01, et seq., Rules and Regulations of the State Oil and Gas Board of Alabama Governing Practice and Procedure, Rule 400-7-1-.01, et seq. shall apply to underground storage of gas in solution-mined cavities.

(2) Unless otherwise specified by the Supervisor, Rules and Regulations of the State Oil and Gas Board of Alabama Governing Onshore Lands Operations, Rule 400-1-1-.01, et seq., or Rules and Regulations of the State Oil and Gas Board of Alabama Governing Submerged Offshore Lands Operations, Rule 400-2-1-.01, et seq., whichever is applicable, shall apply to underground storage of gas in solution-mined cavities, with the exception of the following:

(a) For Rules and Regulations of the State Oil and Gas Board of Alabama Governing Onshore Lands Operations, Rule 400-1-1-.01, et seq;

1. 400-1-1-.01 Applicability,
2. 400-1-1-.03 Repealed Rules, Special Field Rules, and Orders,
3. 400-1-1-.05(29, 31, and 84) Definitions,
4. 400-1-1-.07 Determining and Naming Fields and Pools,
5. 400-1-2-.02 Spacing of Wells,
6. 400-1-2-.03 Bond,
7. 400-1-4-.14 Plugging and Abandonment of Wells,
8. 400-1-4-.17 Request to Classify Wells as Temporarily Abandoned or Shut in,
9. 400-1-5 Testing and Allowable,
10. 400-1-6-.01 General,
11. 400-1-6-.02 Protection of Oil and Gas,
12. 400-1-6-.03 Initial Bottom Hole Pressure Survey,
13. 400-1-6-.04 Pressure-Volume-Temperature Analysis,
14. 400-1-6-.05 Procedures for Multiple Completions,
15. 400-1-6-.06 Recompletion or Reworking,
16. 400-1-6-.07 Tanks or Tank Batteries,
17. 400-1-6-.08 Dikes,
18. 400-1-6-.09 Berms,
19. 400-1-6-.11 Location of Fired Vessels,
20. 400-1-6-.12 Authorization to Clean Tanks
21. 400-1-7 Processing, and
22. 400-1-8 Transportation.

(b) For Rules and Regulations of the State Oil and Gas Board of Alabama Governing Submerged Offshore Lands Operations, Rule 400-2-1-.01, et seq;

1. 400-2-1-.01 Applicability,
2. 400-2-1-.03 Repealed Rules, Special Field Rules, and Orders,
3. 400-2-1-.05(29 and 79) Definitions,

4. 400-2-1-.07 Determining and Naming Fields and Pools,
5. 400-2-2-.02 Spacing of Wells,
6. 400-2-2-.03 Bond,
7. 400-2-4-.11 Plugging and Abandonment of Wells,
8. 400-2-4-.14 Request to Classify Wells as Temporarily Abandoned or Shut in,
9. 400-2-5 Testing and Allowable,
10. 400-2-6-.01 General,
11. 400-2-6-.02 Protection of Oil and Gas,
12. 400-2-6-.03 Initial Bottom Hole Pressure Survey,
13. 400-2-6-.04 Pressure-Volume-Temperature Analysis,
14. 400-2-6-.05 Procedures for Multiple Completions,
15. 400-2-6-.06 Recompletion or Reworking,
16. 400-2-6-.07 Subsurface Safety Devices,
17. 400-2-6-.08 Wellhead Equipment and Testing Procedures,
18. 400-2-6-.10 Production Facilities, Processing Facilities, and Offshore Plants, and
19. 400-2-7 Transportation.

400-6-1-.03. Repealed Rules, Special Storage Rules, and Orders.

All rules and regulations governing the conservation of oil and gas in Alabama which have been heretofore promulgated by the Board under the authority of Act No. 1, approved May 22, 1945, General Act of Alabama, Regular Session 1945, are hereby repealed, rescinded, and superseded by these rules and regulations; provided, however, no special storage rules or other orders of the Board are so repealed, rescinded, or superseded. Special storage rules and orders will be issued when required and shall prevail over these rules and regulations, where in conflict therewith.

400-6-1-.04. Authority.

Rules, regulations, and orders shall be adopted in accordance with the requirements of Section 9-17-150 et seq. of the *Code of Alabama* (1975).

400-6-1-.05. Definitions.

In addition to the definitions set forth in Rule 400-1-1-.05 or 400-2-1-.05, whichever is applicable unless the context otherwise requires, the following words shall have the meanings indicated when used within this rule:

(1) **Blanket material** shall mean any material used in solution mining to prevent erosion of the cavity roof or deterioration of salt around the casing seat. Blanket materials are generally hydrocarbons such as diesel oil, condensate, or liquefied petroleum products which are lighter than water and inert to salt.

(2) **Brine** shall mean the fluid resulting from the dissolution of salt formations with fresh water during salt solution mining.

(3) **Buffer zone** shall mean that portion of the subsurface surrounding the storage cavity designated to insure the safe operation of the storage of gas and to protect the storage facility.

(4) **Cavity site** shall mean the surface boundaries surrounding the storage well whose downward projection shall encompass the walls or sides of the storage cavity.

(5) **Certificate of effectiveness** shall mean a certificate, entitled “Certificate of Effectiveness” which shall be signed and acknowledged by the storage operator and which shall contain (a) an affidavit that the storage operator has acquired by eminent domain or otherwise all necessary ownership rights with respect to the storage facility and (b) the date upon which the storage facility shall become effective.

(6) **Cushion gas** shall mean the volume of gas required as permanent storage inventory to maintain adequate cavity pressure and insure cavity integrity, also called “base gas”.

(7) **Gas** shall mean all natural gas, casinghead gas, and occluded natural gas found in coalbeds, and all other hydrocarbons not defined as oil in Section 9-17-1(3) of the Code, except and not including liquid petroleum gas.

(8) **Facility boundaries** shall mean (1) the boundaries of the cavity site, (2) the area that would be enclosed within a downward projection of the cavity site area as a horizontal plane to a depth being 400’

above the storage well casing shoe, (3) from this depth the boundaries shall be enlarged to a horizontal plane so as to include the buffer zone, and (4) these boundaries shall include the area that would be enclosed within a projection of this enlarged plane downward to a depth 400' below the bottom of the storage cavity.

(9) **Gathering line** shall mean the line between the last positive shut-off valve at the wellhead to the pipeline or header where two or more such lines converge.

(10) **Order of approval** shall mean an order issued by the Board, after notice and hearing, (i) approving the underground storage of gas in an underground salt cavity, (ii) designating the horizontal and vertical boundaries of the storage facility, such boundaries to include within them any necessary or reasonable buffer zone for the purpose of ensuring the safe operation of the storage facility and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, (iii) designating the minimum and maximum operating pressures of the storage facility, (iv) designating the storage operator for said facility, (v) adopting special rules for the operation of the facility, and (vi) containing the findings required by Section 9-17-152(a) of the Code.

(11) **Special storage rules** shall mean those rules promulgated for, and which are limited in their application to, individual underground storage facilities within the State of Alabama.

(12) **Storage cavity** shall mean that portion of the subsurface salt formation underlying the cavity site that will comprise the storage cavity constructed for the underground storage of natural gas.

(13) **Storage operator** shall mean any company, person, corporation, partnership, limited partnership, association of persons, municipality, association of municipalities, public utility, gas district, or other entity, authorized by the Board pursuant to Section 9-17-152 of the Code to operate any storage facility.

(14) **Storage well** shall mean the wellhead and wellbore that connects the storage cavity with the wellhead.

(15) **Underground source of drinking water (USDW)**

(a) means an aquifer or its portion:

1. Which supplies any public water system; or
2. Which contains a sufficient quantity of ground water to supply a public water system; and

(i) Currently supplies drinking water for human consumption; or

(ii) Contains fewer than 10,000 mg/L total dissolved solids; and

(b) Which is not an exempted aquifer.

(16) **Underground storage** shall mean the storage of gas in an underground storage cavity.

(17) **Underground storage facility** shall mean an underground solution-mined cavity, the wellbore tubular goods, the wellhead, and related equipment to the last positive shut-off valve before the gathering line that is used or to be used for the underground storage of gas and all surface and subsurface rights and appurtenances necessary or useful in the operation of the facility for the underground storage of gas, including any necessary or reasonable buffer zone as recommended by the storage operator and approved by the Board for the purpose of insuring the safe operation of the storage of gas and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, together with any and all subsequent extensions thereof.

(18) **Working gas** shall mean the portion of the storage volume that can be removed from a storage cavity for deliveries.

All other words used herein shall be given their usual, customary, and accepted meaning. All words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted within the oil and gas industry.

400-6-1-.06. Forms.

(1) The Supervisor may prescribe and require forms within the rules and regulations of the Board as he reasonably deems advisable. The content of such forms and instructions for their completion may be such as the Supervisor may deem advisable, including the changes of such from time to time. All forms set forth in Rule 400-1-1-.06 or 400-2-1-.06, whichever is applicable shall be applicable to the solution-mined cavity storage rules with the exception of the following:

(a) OGB-9 First Production or Retest Report;

(b) OGB-10 Multipoint Back-Pressure Test Report For Gas Wells;

(c) OGB-10A One-Point Back-Pressure Test Report For Gas Wells;
(d) OGB-12 Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well;
(e) OGB-13 Operator's Certificate of Compliance and Authorization to Transport Products from Plant;
(f) OGB-14 Operator's Monthly Report from Oil Wells;
(g) OGB-15 Operator's Monthly Report from Gas Wells;
(h) OGB-16 Transporter's and Storer's Monthly Report;
(i) OGB-17 Monthly Report of Fluids Injected;
(j) OGB-18 Monthly Report for Products from Processing, Cleansing, or Extraction Facilities;
(k) OGB-21 Authorization to Clean Tank;
(l) OGB-22 Well Capacity Test; and
(m) OGB-23 Unit Reserve Calculation.

(2) Further, such forms, as applicable, shall be filed in a timely manner by the operator and such other person as required by these rules, and such forms shall be properly and fully completed. All forms shall contain true, correct, and accurate information. The Supervisor may allow the filing of certain data electronically in lieu of forms set forth hereinabove, provided Form OGB-28, Master Electronic Filing Certification, has been filed and approved by the Supervisor. The type data, the method of filing, and the format of filing electronic data must have the prior approval of the Supervisor. An operator shall re-file a Master Electronic Filing Certification, Form OGB-28, on an annual basis or when the name or address of an operator changes.

400-6-2. Permitting of Wells

400-6-2-.01. Well Permit.

(1) **Activities Requiring Permits.** A permit for the drilling, development and operation of a facility for underground storage of gas may be issued only after notice and hearing by the State Oil and Gas Board.

(2) **Permit Requirements.** Application for permits for underground storage wells shall be considered as a two-step process. All wells drilled or recompleted for the purpose of underground storage shall comply with the following permitting requirements:

(a) **Step 1.**

1. Well permit requirements as set forth in Rule 400-1-2-.01 or 400-2-2-.01, whichever is applicable for the drilling or conversion of a well for underground storage purposes;

2. A plat, in triplicate, prepared by a licensed land surveyor showing the location of the proposed underground storage well. The plat shall be drawn to the scale of one (1) inch equals one thousand (1,000) feet, unless otherwise stipulated by the Supervisor and shall show distances from the proposed well to the nearest governmental section lines. The plat shall show the direction of north, and the latitude and longitude in decimal degrees to five (5) significant digits and state plane coordinates of the proposed well. The plat shall also show the location and status of all other wells that have been drilled within one-fourth (1/4) mile of the proposed underground storage well;

3. A prognosis specifying the drilling, completion, or conversion procedures for the proposed underground storage well; and

4. A well bore sketch giving a full description of the casing in the underground storage well, or the proposed casing program, including a full description of cement already in place or as proposed; and the proposed method of testing casing before use of the underground storage well.

(b) **Step 2.**

1. Permit application, Form OGB-1D, Application for Permit to Inject Storage Gas;

2. A schematic diagram of the surface injection system and its appurtenances;

3. A schematic of the underground storage well showing the base of the deepest underground source of drinking water (USDW), casing, cementing, tubing, and plug and packer records, a diagram of the cavity, and the method and results of casing tests reported on Form OGB-7, Well Record and Completion or Recompletion Report, before use of the underground storage well;

4. A copy of the sonar survey performed in the cavity;

5. An affidavit specifying that the source of injected gas will be of pipeline quality;

6. The results of a mechanical-integrity test of the well bore and cavity in accordance with the pressure test requirements in Rule 400-6-7.01;

7. A certificate, entitled “Certificate of Effectiveness”, which shall contain a statement that the storage operator has acquired by eminent domain or otherwise all necessary ownership rights with respect to the storage facility, and the date upon which the storage facility shall be effective;

8. Forms OGB-7 and OGB-8; and

9. Two (2) copies of all electrical, mechanical, radioactive, and dipmeter logs or such other surveys performed as a part of drilling, completing, or converting the underground storage well unless previously submitted to the Board.

(3) **Permit Approval Procedures.** Applications for underground storage well permits shall be submitted in writing to the Supervisor in accordance with section (2). Approval to inject gas may be granted by the Supervisor after submittal and consideration of the information required under section (2)(b).

(4) **Expiration of a Permit.** A permit shall expire six (6) months from the date of issuance if the permitted well has not been spudded.

400-6-3. Bond

400-6-3-.01. Bond

(1) Before the storage operator shall commence operation of any underground storage facility for a solution-mined cavity and storage well said storage operator(s) shall file with the Board a bond on Form OGB 3-D, Bond for an Underground Storage Facility for a Solution-mined Cavity and Storage Well. Such bond shall be payable to the State of Alabama, executed by said storage operator(s) as principal(s) and by a surety approved by the Supervisor or Board; conditioned that such storage operator(s) shall, in connection with operating an underground storage facility for a solution-mined cavity and storage well, prevent the escape of gas out of one stratum to another at such facility, prevent the intrusion of water into any oil and gas stratum from a separate stratum at such facility, prevent the pollution of all surface and ground water; conditioned also that such storage operator shall make all reports required by the Board, including drilling records and all logs of such storage well and solution-mined cavity, if taken; conditioned further that such storage operator shall operate such facility and plug and abandon such storage well and abandon such cavity and underground storage facility in compliance with all lawful rules, regulations, and orders of the Board now existing or hereafter promulgated, and with the laws of the State of Alabama now existing or hereafter promulgated. The bond shall cover such underground storage facility for a solution-mined cavity and storage well and shall be in the amount of one hundred thousand dollars ($100,000.00).

(2) Any such bond filed with the Board, including any amendment or addendum thereto, must set forth the correct legal name and address of the principal and the surety thereto and must be countersigned by an Alabama agent of such surety, setting forth the correct legal name of such agent and such agent’s company affiliation and correct business address. If more than one person is to be designated as operator, then each such person shall file a separate bond or a joint bond, whichever is appropriate.

(3) Provided, further, the Board, in its reasonable discretion for good cause, after notice and hearing, may require a different amount of bond because of environmentally sensitive conditions at the site or for other justifiable reasons for good cause and may deem and determine any existing bond to be inadequate and may require the filing of a new bond, that shall be approved by the Board or Supervisor, upon the Board’s own motion or upon petition by any party allowed to file a petition by these rules and regulations, and the amount of such bond required may be more or less than hereinabove set forth.

400-6-4. Underground Storage Facility Design and Development

400-6-4-.01. General Design and Development.

Prior to the design and development of an underground storage cavity, an engineer or geologist experienced in the development and operation of a solution-mined storage facility shall perform an investigation to determine the feasibility of such a facility at a particular site. The data obtained during the feasibility investigation shall be considered in the design of the storage facility, and such data shall be filed with the Board as a part of the permit application. The design shall be performed by or under the supervision of an engineer or geologist and shall include, but not be limited to, such factors as: location of the cavities; cavity capacity; number and location of plugged and abandoned wells penetrating the salt structure; and

the maximum development diameter of the cavity. The design shall assure that project development can be conducted in a reasonable, prudent and systematic manner and shall insure environmental safety and the prevention of waste. The design and development shall be continually reviewed in order to take into consideration pertinent additional subsurface data. The Board shall be advised of any tests or surveys conducted during the development phase and copies shall be made available to the Board as soon as practical. Each solution-mined storage cavity shall be constructed with a blanket material in place in order to prevent uncontrolled leaching of the cavity roof. Storage operations utilizing fresh water or brine to displace stored gas shall be conducted in such a manner that the washing of the cavity will not result in an uncontrolled increase of the cavity diameter or capacity, or washing of the cavity roof. A solution-mined underground storage cavity cannot be used to store gas until the Board issues an order of approval, after notice and hearing pursuant to the provisions of Section 9-17-152 of the *Code of Alabama* (1975).

400-6-5. Underground Storage Operating Pressures

400-6-5-.01. Maximum and Minimum Operating Pressures.

(1) The maximum allowable operating pressure applied to the production casing shoe shall not exceed eighty-five (85) pounds per square inch (psi) per one hundred (100) feet (ft) in depth or 0.85 psi/ft. Appropriate safety devices shall be installed and maintained to prohibit exceeding the maximum allowable operating pressure.

(2) The minimum storage cavity pressure shall not decline below the minimum value that would be required to (a) prevent excessive storage cavity closure caused by plastic flow or formation subsidence, or (b) prevent over-stressing the vertical walls caused by adjacent cavity pressure. Such minimum value and the amount of cushion gas needed to maintain this minimum value shall be determined by the storage operator and provided to the Supervisor prior to gas injection.

(3) The maximum pressure release rate during storage cavity depressurization shall in no event exceed the value calculated for the storage cavity that would be required to prevent roof collapse or side-wall slabbing. This value shall be determined by the storage operator and provided to the Supervisor prior to gas injection.

400-6-6. Volume Verification

400-6-6-.01. Volume Verification.

(1) Prior to injecting gas into the storage cavity, the capacity of the storage cavity shall be verified utilizing a sonar survey or other method approved by the Supervisor. The Supervisor shall be notified at least forty-eight (48) hours prior to conducting any test or surveys to verify capacity. Copies of such tests or surveys shall be filed with the Board within thirty (30) days after such tests or surveys are conducted.

(2) In the event the operator of a storage facility recalculates the capacity of the actual storage cavern volume determined after continued operation of the facility, then the operator shall submit the redetermination to the Supervisor.

400-6-7. Casing Requirements

400-6-7-.01. Casing Requirements for Newly Drilled Wells.

All wells drilled for the purpose of underground storage in solution-mined underground storage cavities shall comply with the following requirements unless otherwise approved by the Board:

(1) All casing strings shall be centralized throughout the interval to be cemented. Casing and cementing programs shall comply with appropriate provisions of Rule 400-1-4-.09 or 400-2-4-.09, whichever is applicable except as specifically provided below:

(a) Surface casing shall be cemented with a minimum of one hundred fifty percent (150%) of the calculated annular volume to circulate cement to the surface, unless the surface casing is driven to setting depth.

(b) Each storage well shall be completed with a double string of casing into the salt, one casing string being an intermediate string, the other being the gas production casing string.

(c) The intermediate and gas production casing strings shall have adequate tensile and collapse strengths for the setting depths. These strings shall be cemented from casing seats (bottom of casing) set into the salt to ground surface. Cement slurries shall be compatible with the salt formation and

cement shall be placed by the inner-string displacement method. The intermediate and production casing cement jobs shall be documented by affidavits from the cementing company showing the amount and type of cementing materials and the method of placement. All cementing and service reports shall be filed with the Board.

(d) All casing used in storage wells shall meet American Petroleum Institute standards for the pressures to be encountered and shall be new casing or reconditioned casing of new quality.

(e) If the casing string is to be welded, it shall be of a weldable grade. Records of inspections of welds on each casing string in a storage well shall be retained by the storage operator and made available, upon request, for inspection by the Supervisor.

400-6-7-.02. Casing Requirements for Converted Wells.

Prior to converting an existing well to an underground storage well, the operator must submit a detailed procedure to the Board for approval. Converted wells shall meet the casing requirements outlined in Rule 400-6-7-.01.

400-6-8. Storage Well and Storage Cavity Mechanical Integrity Test

400-6-8-.01. Testing Requirements.

(1) Prior to testing a cavity, a detailed testing procedure shall be submitted to the Supervisor for approval. The testing procedure used must test the wellhead, cased borehole, and storage cavity as a unit using natural gas or a substance approved by the Supervisor. Such substance must be injected to a depth below the production casing shoe.

(2) The integrity of the storage cavity shall be verified prior to the initial injection of gas. The test pressure at the wellhead shall be equivalent to eighty-five (85) pounds per square inch (psi) per one hundred (100) feet (ft) in depth or 0.85 psi/ft at the production casing shoe. The shut-in pressure at the surface shall be monitored for a minimum period of twenty-four (24) hours following pressure stabilization. Gas shall not be injected into the storage cavity if beginning and ending pressures during the test period vary more than three percent (3.0%), after allowing for temperature change.

(3) In order to verify the continued maintenance of storage well and storage cavity integrity, a shut-in pressure test acceptable to the Board shall be conducted at least once every five (5) years following the initial mechanical integrity test, or at shorter intervals if deemed necessary by the Supervisor.

(4) All storage well and storage cavity mechanical integrity tests and verifications shall be prepared and supervised by a qualified engineer or geologist, and reported to the Board within thirty (30) days.

(5) The operator shall give sufficient notice prior to conducting a mechanical integrity test so the Supervisor may send a duly authorized representative to the location to witness such activity.

400-6-9. Wellhead Components, Valves, and Fittings

400-6-9-.01. Requirements for Wellhead Components, Valves, and Fittings.

(1) All wellhead components (casing head, tubing head, etc.), valves and fittings shall be of steel having primary service pressure ratings sufficient to exceed the maximum operating pressures computed at the wellhead. Wellhead valves and all related connections shall have a test pressure rating at least equivalent to one hundred fifty percent (150%) of the maximum operating pressure. All valves shall be periodically inspected and maintained in good working order.

(2) Each gathering line connected to the wellhead shall be equipped with a manually operated positive shut-off valve located on the wellhead.

400-6-10. Plugging and Abandonment of Storage Wells

400-6-10-.01. Plugging and Abandonment Requirements.

In the event there has not been any injection or withdrawal of gas from a storage well for a period of six (6) months, the storage well shall be plugged within thirty (30) days, unless said Well has been classified as temporarily abandoned or shut-in pursuant to Rule 400-6-11-.01 or 400-6-11-.02. Before any work is commenced to plug and abandon a storage well the storage operator shall provide the Supervisor with the proposed methods and procedures to plug the storage well and abandon the storage cavity. Such method and procedure may be required in writing by the Supervisor. Also, the Supervisor may require that well records, including logs, be made available to determine if the proposed depths and lengths of plugs are

adequate. Operations to plug and abandon a storage well shall not begin until approval of procedures has been obtained from the Supervisor. Unless otherwise allowed by the Supervisor, the operator shall notify the Supervisor at least twenty-four (24) hours prior to the commencement of plugging operations so that said operation may be witnessed by an agent of the Board. The cement in all plugs shall meet American Petroleum Institute (API) standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Unless specified otherwise by the Supervisor, the operator shall comply with the following requirements which apply to all storage wells.

(1) The storage cavity shall be filled with water saturated to a brine concentration of ninety percent (90%) or greater.

(2) All suspended casing shall be removed from the storage well.

(3) A balanced plug shall be approved by the Supervisor and shall be placed in the production casing so that it is within the salt section near the roof of the storage cavity in order to isolate the storage well from the storage cavity.

(4) A permanent-type bridge plug shall be placed within one hundred fifty (150) feet above the cement plug in the production casing .

(5) The entire production casing shall be cemented from the top of the permanent-type bridge plug to the surface.

(6) All casing strings shall be cut off in such a manner so as not to interfere with soil cultivation and a steel plate at least one-quarter (1/4) inch thickness shall be welded to the casing stub(s).

400-6-11. Request to Classify a Storage Well and Storage Cavity as Temporarily Abandoned or Shut in

400-6-11-.01. Temporarily Abandoned Status.

A storage operator may request that a storage well and the storage cavity be placed in a temporarily abandoned status for a period of one (1) year by submitting a written statement to the Supervisor stating the reasons for the request and including a detailed report outlining proposed temporary abandonment procedures. Upon approval of the request by the supervisor, the storage well and the storage cavity will be placed in a temporarily abandoned status for a period of one (1) year. The Board may grant a request for continuation of this temporarily abandoned status beyond the approved one (1) year if justified by the storage operator in writing stating the reasons for the request, which should include the future utility of the storage well and the storage cavity and a proposed schedule for future operations. The Supervisor may require temporary abandonment procedures other than those proposed by the storage operator.

400-6-11-.02. Shut-in Status.

A storage operator may request that a storage well and the storage cavity be placed in a shut-in status for a period of one (1) year by submitting a written statement to the Supervisor if the storage well and the storage cavity are capable of safely storing gas but must remain shut-in until connected to permanent facilities, or for some other reason. Upon approval of the request by the Supervisor, the storage well and the storage cavity will be placed in a shut-in status for a period of one (1) year. The storage well and the storage cavity may be classified as shut-in upon receipt of a written request to the Supervisor identifying the reason (s) why the storage well and storage cavity is shut-in and the date that storage operations are expected to begin. The Board may grant a request for continuation of this shut-in status beyond the approved one (1) year if justified by the storage operator in writing. The Supervisor may require shut-in procedures other than those proposed by the storage operator.

400-6-12. Recompletion or Reworking

400-6-12-.01. Recompletion and Reworking Requirements.

(1) Prior to commencing recompletion or reworking operations, approval shall be obtained from the Supervisor. A detailed workover prognosis shall be submitted to the Supervisor in writing unless otherwise approved by the Supervisor. Form OGB-7, Well Record and Completion or Recompletion Report, shall be filed with the Board within thirty (30) days following completion of the well work.

(2) No downhole work shall be done prior to notifying the Supervisor. Such notification shall allow sufficient time for the Supervisor, at his discretion, to have his representative present to observe the work.

400-6-13. Gas Measurement and Analysis

400-6-13-.01. Gas Measurement.

All gas injected or withdrawn shall be measured using meters designed, installed, and operated in accordance with industry standards and shall be acceptable to the Supervisor. The storage operator shall report the current gas in storage, injection and withdrawal volumes, average cavity pressures, and calculated storage capacity on Form OGB-17D, Monthly Report of Gas Injected/Withdrawn for Natural Gas Storage Facilities. The report shall be filed with the Board by the twenty-eighth (28th) day of the month subsequent to the period for which the report is made, or at such other time as prescribed by the Supervisor.

400-6-13-.02. Gas Analysis.

The storage operator shall submit a chemical analysis of the stored gas when deemed necessary by the Supervisor.

400-6-14. Safety and Environment

400-6-14-.01. General.

In addition to the rules set forth in Rule 400-1-9-.01 et seq. or 400-2-8-.01 et seq., whichever is applicable the following rules and regulations shall apply:

(1) Personnel experienced and trained in the operation of underground storage facilities shall monitor the facility or control site when gas is being injected or withdrawn from any storage well.

(2) The wellheads and related equipment and controls shall be protected from trespassers and accidental physical damage by a method approved by the Supervisor.

(3) Before a storage operator shall commence injecting gas into the storage cavity, said storage operator shall submit a written contingency plan to the Supervisor. The plan shall describe the storage operator’s emergency response communication system, procedures for coordination of emergency communication and response activities with local authorities, use of warning systems, procedures to provide public safety, and employee training. Other information shall be required as deemed necessary by the Supervisor. The plan shall be reviewed and updated annually and submitted to the Supervisor.

(4) Each storage operator of an underground storage facility shall conduct a semi-annual safety inspection of such facility and file with the Supervisor a written report consisting of the inspection procedure and results within thirty (30) days following the inspection. Such inspections shall be conducted during the months of January and July of each year. The operator shall notify the Supervisor at least five (5) days prior to such inspections so that a duly authorized representative of the Supervisor may be present to witness the inspections. Inspections shall include, but not be limited to, the following:

(a) Operation of all manual valves;

(b) Operation of all automatic shut-in safety valves, if applicable;

(c) Wellheads and related equipment; and

(d) Warning signs, safety fences, etc., if applicable.

(5) Additional inspections may be made by the Supervisor or his representatives. All reports required by this rule shall be subject to inspection at this time.

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400-7. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING PRACTICE AND PROCEDURE AND FORCED INTEGRATION OR FORCED POOLING

400-7-1. Rules and Regulations Governing Practice and Procedure

400-7-1-.01. Scope.

Rules 400-7-1-.01, et seq. shall be known and designated as “Rules and Regulations Governing Practice and Procedure before the State Oil and Gas Board of Alabama,” in all proceedings relating to the conservation of oil and gas in the State of Alabama and to the administration of the oil and gas rules, regulations, and statutes of this State. These rules shall be construed to secure the just, expedient, and least expensive determination of every proceeding before the Board.

400-7-1-.02. Necessity for Hearing.

Except as provided in the rules and regulations of the Board, before any rule, regulation, or order, including revocation, change, renewal or extension thereof, shall be made by the Board, a public hearing before the Board shall be held at such time and place as may be prescribed by the Board.

400-7-1-.03. Appointment of a Hearing Officer.

The State Oil and Gas Board of Alabama may, in its discretion designate and appoint one of its members, the Oil and Gas Supervisor, or the General Counsel for the Board, as a Hearing Officer, to conduct public hearings on behalf of the Board.

(1) **Powers of the Hearing Officer.** The Hearing Officer shall have the power and authority to regulate all proceedings before him and to perform all acts and take all measures necessary and proper for the efficient and orderly conduct of the hearing. Without limiting the authority granted in the foregoing sentence, the Hearing Officer is hereby specifically given the authority to administer oaths; certify to official acts; take and cause to be taken depositions of witnesses; issue and serve subpoenas; compel attendance of witnesses and the production of papers, books, and other pertinent materials; provide for site inspections or other inspection of operations; issue appropriate orders relating to discovery; regulate the course of the hearing; examine witnesses, if necessary; rule on and receive relevant evidence; order and preside at prehearing conferences as appropriate; and recommend decisions to the State Oil and Gas Board.

(2) **Report of Hearing Officer.** At the conclusion of the hearing, the Hearing Officer shall issue a report to the State Oil and Gas Board, including therein recommendations of the Hearing Officer in connection therewith. After receipt of the report of the Hearing Officer, the State Oil and Gas Board shall issue an order on the matter within thirty (30) days. The Hearing Officer shall cause a complete record of the proceeding to be made and transcribed, and the record shall have the same force and effect as if made before the State Oil and Gas Board. The Oil and Gas Board reserves the authority and discretion to order that further testimony be taken in reference to any proceeding.

(3) **Communication with Hearing Officer.** A party, or his attorney shall not communicate with the Hearing Officer about a pending contested petition, except:

(a) In the course of official proceedings concerning the contested petition;

(b) If other parties are promptly served a copy of the writing; or

(c) Orally upon adequate notice to all parties or their attorneys.

(4) **Procedure before Hearing Officer.** The Hearing Officer shall conduct all proceedings in accordance with the rules and regulations of the Board and, when applicable, the Alabama Administrative Procedure Act, Section 41-22-1, et seq., of the *Code of Alabama* (1975).

400-7-1-.04. Emergency Orders.

(1) Notwithstanding any other provision of these rules, in the event an emergency is found to exist by the Board which, in its judgment, requires the making of a rule, regulation or order without a hearing having first been had or concluded, such emergency rule, regulation, or order, when made by the Board shall have the same validity as if a hearing with respect to the same had been held before the Board, after due notice. Such emergency rule, regulation or order shall remain in force no longer than forty-five (45) days from its

effective date, and in any event, it shall expire when the rule, regulation, or order made after due notice and hearing with respect to the subject matter of such emergency rule, regulation, or order becomes effective.

(2) Unless otherwise allowed by the Board, no emergency order shall be promulgated until a proper written petition has been filed with the Board in accordance with these rules along with supporting and appropriate affidavits, sworn to or affirmed before an appropriate notary public, and such other evidence as may be required by the Board or Supervisor.

400-7-1-.05. Commencement of Proceedings.

(1) The Board, upon its own motion, the Attorney General of the State of Alabama on behalf of the State, any operator or producer, or any other interested person may institute proceedings for a hearing. If such hearing is sought by the Board, it shall be on motion of the Board, and if by any other person, it shall be by written petition.

(2) A petitioner, other than the Board, shall comply with Rule 400-7-1-.11, relating to Notice and must also file a written petition for a hearing, in neat and legible typewritten or printed form, together with four (4) copies thereof, with the Board at least twenty five (25) days prior to the meeting at which such petition shall be heard, unless otherwise allowed by the Board; provided, however, a petition requesting an emergency order may be granted or denied by the Board in less than twenty five (25) days from the filing of such petition requesting such action. If a petition, filed in accordance with the procedures outlined herein, has not been received by the Board at least twenty-five (25) days prior to the date of such hearing, such petition may be continued or dismissed.

(3) Five (5) copies of all exhibits to be presented by a petitioner as evidence at any hearing shall be submitted to the Board, at least twenty (20) days prior to such hearing. Five (5) copies of all exhibits to be presented by parties other than petitioner as evidence shall be submitted to the Board, at least two (2) working days prior to such hearing. The Board may, in its discretion waive the prefiling requirement. If a petition is continued, all parties shall submit five (5) copies of exhibits to be presented to the Board at least twenty (20) days prior to the hearing. Exhibits shall be dated as of the date of preparation and signed by the person who prepared the exhibits.

(4) If the form or content of a petition does not comply with these rules and regulations, the Board may decline or refuse to schedule a hearing regarding the petition.

400-7-1-.06. Form and Content of Pleading.

(1) Petitions shall be captioned: “Before the State Oil and Gas Board of Alabama,” shall bear a designated space for a docket number, and shall contain a brief summary at or near the beginning in reference to the nature of the action sought. Each petition shall set forth the exact legal name of the petitioner filing the petition and the name and address of the agent or petitioner to whom the Board may send notices, orders, and papers relating to the hearing thereof. The petition shall be drawn so as to apprise the Board in clear and simple language of all the pertinent and lawfully required facts involved and shall state concisely and directly the matters to be considered, what relief or action is sought from the Board, and the legal interest of such party described in the property in the petition. The petition shall accurately describe by appropriate section, township, range, and county the lands for which relief or action is sought. The petition must state whether each petitioner is a corporation, partnership, individual, or other legal entity, properly identifying the same, and set forth the principal place of business. If the petitioner is a corporation, then such petition shall state where petitioner is incorporated and whether petitioner is authorized by law to do business in the State of Alabama. If the petitioner is a partnership, then the exact legal name of the partnership and each general partner therein must be named in the petition and the petition must set forth the principal place of business of such partnership. The petitioner shall file separate petitions for each request for relief.

(2) Identification of any well or wells named in the petition shall include the permit number assigned to each such well by the Board.

(3) An amendment to a petition shall contain the heading "Amendment to Petition" or similar heading on the face of the pleading and if the petition is amended one or more times the heading shall state First Amendment, Second Amendment, etc.

(4) In the event the petition includes a request for forced pooling pursuant to Section 9-17-13 of the Code of Alabama (1975) as amended. and Rule 400-7-2-.01. et seq. of the State Oil and Gas Board of Alabama Administrative Code, and the petitioner is requesting the forced pooling of interests of an

unlocated or undiscovered nonconsenting owner, the petition shall state that the request includes a nonconsenting owner, who is unlocated or undiscovered.

400-7-1-.07. Execution.

(1) Every petition of a person represented by an attorney shall be signed by at least one (1) attorney of record in his individual name and his address shall be stated thereon. A party who is not represented by an attorney shall sign his own petition and his address shall be stated thereon.

(2) The signature of an attorney or person shall constitute a certificate by him that he has read the petition and that to the best of his knowledge, information, and belief, there is good ground to support the petition.

400-7-1-.08. Filing and Docketing.

When a proceeding is instituted by a petition, the Board shall assign to it a number and enter the petition with the date of its filing or, in the case of a proceeding initiated by the Board's own motion, the date of entry of such motion instituting such proceeding, on a docket provided for such purpose.

400-7-1-.09. Representation by Attorneys.

A petitioner may appear upon his own behalf or by his duly authorized agent and represent himself at hearings before the Board and a petitioner may be represented before the Board by a duly licensed attorney. Any notice, pleading, or other paper may be served upon such attorney or agent with the same effect as if personally served upon the petitioner within the State of Alabama.

400-7-1-.10. Parties.

The person filing the petition, or the Board on its own motion, shall be known as the "Petitioner."

(1) Any person who opposes a petition shall be known as an "Opponent."

(2) Any person who supports a petition shall be known as a "Proponent."

400-7-1-.11. Notice.

Notice of public hearings held by the Board shall be prepared and given in the following manner.

(1) **Preparation of Notice.** Prior to requesting approval to publish a proposed notice, a petitioner may obtain a schedule of hearing dates from the Board. The petitioner shall file a proposed notice for publication with the Board accompanied by a written request for approval to publish the notice for hearing on a specific scheduled hearing date of the Board not less than twenty-five (25) days prior to the meeting at which the petition shall be heard. The Supervisor may approve the proposed notice as submitted or approve the notice with modifications. The Supervisor will provide petitioner an approved notice for publication accompanied by a written statement that the petition is approved for hearing on a specific scheduled hearing date. A statement from the Supervisor approving a notice for publication shall include a listing of the newspaper for publication in accordance with this rule. Upon receipt of an approved notice from the Supervisor, the petitioner may proceed with publication of a notice in accordance with this rule and at petitioner's expense. Proof of notice by publication shall be by affidavit of the publisher of the newspaper in which notice is published, and the original newspaper publication and affidavit of the publisher shall be filed with the Board at least three (3) days prior to the hearing. The Board may, however, in its discretion, waive the three (3) day filing requirement.

(2) **Filing Fees.** Any petitioner, other than the Board, shall submit with the proposed notice, a filing fee of One Hundred Fifty Dollars ($150.00), by certified check or bank draft payable to the State Treasurer, State of Alabama. One filing fee may be submitted for all notices filed by the same petitioner that relate to the same subject matter.

(3) **Publication of Notice.** Notice of each public hearing before the Board of a petition, motion, or other matter of statewide application shall be published once at least ten (10) days prior to such hearing, in the daily newspaper in Jefferson and Mobile, Counties, having the largest circulation in the county, as indicated by the most recent annual figures compiled by the Alabama Press Association. Further, when such petition, motion, or other matter shall pertain to specific land and have less than statewide application, notice of such matters shall be published at least ten (10) days prior to such hearing, in the county or counties where the affected land lies.

(a) Notices shall be published in newspapers having the largest circulation in the county, as indicated by the most recent annual figures compiled by the Alabama Press Association.

(b) Publication fees and expenses incurred by the Board in publishing notices of motions by the Board relating to an operator or other party shall be charged to such operator or other party and promptly paid.

(4) **First Class Mail.** In the instances noted below, the petitioner shall give the additional notice specified.

(a) **Petitions for Exceptional Locations.** Notice of hearing a petition for an order authorizing a well to be drilled for oil or gas at a location other than that authorized by rule or order of the Board (an exceptional location) shall be served by the petitioner by ordinary first class mail upon the operator (as reflected by the Board's records) of each adjoining or cornering unit currently producing from the same pool, toward which the well location is proposed to be moved.

(b) **Petitions to Establish Spacing Units.** Notice of hearing a petition for an order establishing (by adoption of special field rules or otherwise) a spacing unit or units for a pool shall be served by the petitioner by ordinary first class mail:

1. upon the operator (as reflected by the Board's records) of each well that is capable of producing from the pool, and

2. upon each owner in the proposed unit or units whose name is known to the petitioner.

(c) **Petitions to Amend or Reform Established Spacing Units.** Notice of hearing a petition for an order amending or reforming an established drilling or production unit or units shall be served by the petitioner by ordinary first class mail upon:

1. each working interest owner and royalty interest owner in the established unit,

2. each working interest owner and royalty interest owner in the proposed amended or reformed unit, and

3. the operator (as reflected by the Board's records) of each developed spacing unit that has been established by the Board for the pool in question.

(d) **Petitions to Establish or Amend Allowables.** Notice of hearing a petition for an order establishing (by adoption of special field rules or otherwise) or changing the permanent allowable for any unit or units shall be served by the petitioner by ordinary first class mail upon the operator (as reflected by the Board's records) of each well capable of producing from the same pool.

(e) **Petitions for Forced Pooling.** Notice of hearing a petition for an order requiring the owners of any mineral or other related interest in an established or proposed spacing unit to integrate or pool their interests and to develop their interests and associated lands as a spacing unit (forced pooling) without a risk compensation fee shall be served by the petitioner by ordinary first class mail upon each nonconsenting owner. Notice of hearing a petition for forced pooling without a risk compensation fee shall be served by petitioner in accordance with Section 9-17-13 (c) of the *Code of Alabama* (1975).

(f) **Petitions for Compulsory Unitization.** Notice of hearing a petition for an order requiring the operation as a unit of an entire field or of any pool or pools or of any portion or portions or combinations thereof within a field (compulsory unitization) shall be served by the petitioner by ordinary first class mail:

1. upon the operator (as reflected by the Board's records) of each well capable of producing from the pool or pools in question,

2. upon each person owning an unleased mineral interest, a working interest, an overriding royalty interest, or a royalty interest within the proposed unit area who has not in writing ratified or approved the plan of unit operation being proposed by the petitioner, and

3. if the proposed unit area includes less than all of the land included within any field established by the Board for the pool or pools in question, upon each owner in the portion of the field not included within the proposed unit area whose name is known to the petitioner.

(g) **Petitions to Establish or Amend Special Field Rules.** Notice of hearing a petition for an order establishing or amending special field rules shall be served by the petitioner by ordinary first class mail upon the operator (as reflected by the Board's records) of each well within the proposed or established field.

(h) **Notice Required by Supervisor.** Whenever the Supervisor shall determine that notice of hearing a petition should be served upon a person or class of persons because the granting or denying of the relief requested in the petition would materially affect such person's or persons' rights or property,

the Supervisor shall notify the petitioner in writing of his determination, and the petitioner shall serve notice of hearing the petition upon such person or persons by first class mail.

(i) Time and Manner of Notice.

1. When, pursuant to the provisions set forth above, the petitioner is required to serve notice upon any person by ordinary first class mail, the notice shall be mailed at least fifteen (15) days prior to the date of the hearing; and service shall be deemed complete on the fifth (5th) day after the date on which notice is mailed unless the Board shall find, based upon evidence presented at the hearing, that the notice was received by any person upon whom it was served on some date different from that specified, in which case service shall be deemed complete as to such person on the date notice is shown to have been received by such person.

2. In those cases where notice is to be served by the petitioner upon persons who are known to the petitioner, the petitioner shall make a reasonably diligent effort to determine the mailing address of each such person; and in those cases where notice is to be served by the petitioner upon persons other than persons who are known to the petitioner, the petitioner shall make a reasonably diligent effort to determine the name and mailing address of each such person. If, after the exercise of reasonable diligence, the petitioner is unable to determine either the name or the correct mailing address of any person upon whom notice is to be served by the petitioner, the publication provided for in Rule 400-7-1-11(1) shall be effective as service upon such person.

3. If the petitioner shall fail to serve notice in conformity with the provisions set forth above upon any person whom the petitioner is required to serve notice, the Board, may, nevertheless, proceed to hear the petition if it is shown to the satisfaction of the Board that the person in question had actual notice of the hearing of the petition at least ten (10) days prior to the date of the hearing.

(5) **Contents of Notice of Petition.** The notice of the petition shall include:

(a) The name of the petitioner;

(b) A statement of the time, place, and nature of the hearing;

(c) A statement of the legal authority and jurisdiction under which the hearing is to be held;

(d) A reference to the particular sections of the statutes and rules involved; and

(e) A short and plain statement of the matters asserted. If the Board or the petitioner is unable to state the matters in detail at the time the notice is served, the initial notice may be limited to a statement of the issues involved. Thereafter, upon application, a more definite and detailed statement shall be furnished.

(f) An accurate description of the lands affected by the petition.

(6) **Proof of Notice by First Class Mail.** Proof of notice by ordinary first class mail shall be either by testimony or by affidavit of the petitioner or his attorney stating:

(a) the name and address of each person upon whom notice was served, and

(b) that notice was mailed to each such person on or before the fifteenth (15^{th}) day prior to the hearing or, if notice was not mailed to any such person on or before the fifteenth (15^{th}) day prior to the hearing, the date on which notice was mailed to such person and, if known to the petitioner, the date on which notice was received by such person. If, after the exercise of reasonable diligence regarding first class mail as provided for in Rule 400-7-1-.11(4), the petitioner is unable to obtain the name or the mailing address of any person or persons upon whom notice is to be served by the petitioner, the testimony presented or the affidavit filed by the petitioner shall so state and shall also state what efforts were made by the petitioner to obtain the name or mailing address of such person or persons.

400-7-1-.12. Prehearing Conference.

The Supervisor shall have the right to call a prehearing conference at any time prior to the regular Board hearing, if in his opinion, such a conference would resolve or narrow the issues in controversy or assist in the conduct of the hearing.

400-7-1-.13. Continuances of Hearing.

(1) Any interested party may request a continuance of a hearing; however, in order to avoid inconvenience or unnecessary expense, a request for a continuance shall be submitted in writing to the Board at least two (2) days prior to such hearing. The Board may in its discretion waive this requirement under extraordinary circumstances.

(2) Any hearing before the Board held after due notice may be continued by the Board at such hearing, to a specified time and place without the necessity of notice of the same being again made. In the event of any continuance, a statement thereof shall be made in the record of the hearing at which such continuance is made.

400-7-1-.14. Conduct of Hearing.

(1) Hearings before the Board shall be conducted without rigid formality. A transcript of the hearings shall be taken and preserved as a part of the permanent record of the Board. The transcript of the hearings shall be made available to the public upon the approval of the transcript by vote of the Board. Any person testifying shall be required to do so under oath, stating his full name and his residence or occupational address or both. However, relevant unsworn statements, comments, and observations by any interested person may be heard and considered by the Board as such and included in the record.

(2) Exhibits to be presented at a hearing by a petitioner or by an opponent shall be identified by exhibit number and by docket number and shall all be introduced in a set and marked for identification at the commencement of such petitioner's or opponent's presentation. Ten (10) sets of each exhibit shall be presented to the Board and every petitioner and every opponent offering exhibits into evidence shall have available a reasonably sufficient number of exhibits for other interested persons in attendance at the hearing.

400-7-1-.15. Power of Board to Require Attendance of Witness and Production of Evidence.

The Board or any member thereof has statutory power to subpoena witnesses and to require the production of books, papers, and records in any proceeding before the Board. A subpoena may be issued by the Board for a hearing upon the written request of any person interested in the subject matter of the hearing.

400-7-1-.16. Rules of Evidence.

Full opportunity shall be afforded all interested parties at a hearing to present evidence and to cross-examine witnesses. In general, the rules of evidence appertaining in a trial before a court without a jury shall be applicable, provided that such rules may be relaxed, where, by so doing, the ends of justice shall be better served, as determined in the reasonable discretion of the Board.

400-7-1-.17. Affidavits.

When a petition has been filed with the Board and the petition is not contested, then the Board may issue an order relating to the petition based solely upon sworn affidavits received into evidence at the hearing. The Board in its discretion may reject such affidavits and require the affiant or affiants to appear in person and testify at the hearing and present evidence in support of the petition. Unless otherwise allowed by the Board, an original together with four (4) copies of such affidavits shall be submitted to the Board at least twenty (20) days prior to such hearing.

400-7-1-.18. Copies.

The Board shall furnish copies of any pleadings, exhibits, orders, or other relevant materials to any person requesting the same upon payment of reasonable reproduction costs.

400-7-1-.19. Order of Docket of Hearing.

The Board reserves the right to determine the order in which proceedings may be called and the docket of proceedings regarding any hearing before the Board. Where circumstances permit, the Board, after sounding the docket, may first consider and dispose of all noncontested matters.

400-7-1-.20. Place of Hearings.

Public hearings shall be held in the Board Room of the State Oil and Gas Board Building located 420 Hackberry Lane on the campus of the University of Alabama in Tuscaloosa, Alabama, unless otherwise specified in the Board's notice of meetings.

400-7-1-.21. Preparation of Proposed Orders.

Petitioners shall submit to the Board proposed orders for the Board regarding petitions. The Board, may, in its discretion, consider and accept or reject such proposed orders. In addition, any opponent to such petition may submit a proposed order, which the Board may consider and accept or reject in its

discretion. All parties submitting proposed orders shall submit an original together with four (4) copies thereof unless otherwise allowed by the Board.

400-7-1-.22. Determination of Rulings Upon Evidence.

The materiality, relevancy, and competency of any testimony or other evidence shall be subject to challenge by any party to the hearing or by any member of the Board. When so interposed, such objections shall be acted upon by the Chairman or by the Acting Chairman, his ruling thereon being subject to change, upon request for a vote by any member of the Board, by a majority vote of the Board members then sitting; provided, however, if there is no majority, the ruling by the Chairman or Acting Chairman shall not be overturned.

400-7-1-.23. Entry of Rules, Regulations, and Orders.

During or after conclusion of any hearing, including continued sessions thereof, the Board shall promptly take such action as it may deem appropriate concerning the subject matter being considered by the Board, such action to be evidenced by oral order read or stated into the record granting, denying, continuing, amending, or other appropriate action regarding the petition or motion before the Board that shall then be effective as of that date unless ordered otherwise. Within a reasonable time thereafter, the Board shall enter a formal written order, executed by the appropriate members and attested by the Secretary of the Board, setting forth in extenso the action taken at such hearing upon each such petition or motion. A party may apply for rehearing before the Board under the procedures for rehearing established by the Alabama Administrative Procedure Act, Section 41-22-17, of the *Code of Alabama* (1975).

400-7-2. Rules and Regulations Governing Forced Integration or Forced Pooling

400-7-2-.01. Forced Integration or Forced Pooling.

Where owners have not agreed to develop their lands and interests as a spacing unit, and it is proposed that the Board establish or the Board establishes such unit and orders them to do so, the following rules shall apply as between the operator and all nonconsenting owners. These rules shall apply for the duration of the forced integrated or forced pooled unit where no agreement in writing has been reached to integrate or pool their interests and develop their lands as a spacing unit.

(1) Duration of Orders.

(a) All forced integration or forced pooling orders issued by the Board shall expire six (6) months from the date of issuance of said order unless a well has been spudded on the spacing unit, or unless a well has been reentered on the unit, or a well capable of producing oil or gas is located on said unit at the end of said six (6) month period.

(b) All forced integration or forced pooling orders issued by the Board shall expire six (6) months after all wells drilled on the unit have been plugged and abandoned.

(2) **Compliance with Well Permit Requirements Prior to Issuance of Order.** Prior to the issuance of an order providing for the forced integration or forced pooling of a unit, an operator shall comply with requirements for obtaining a well permit with the exception of the filing of an affidavit of ownership or control on Form OGB-2. Furthermore, the completed permit application and other forms required to obtain a well permit shall be filed at least twenty (20) days prior to the hearing at which the petition for forced integration and forced pooling will be conducted.

(3) **Request by Forced Integrated or Forced Pooled Nonconsenting Owner for Order Allowing Him to Pay His Pro Rata Share of Costs.** If, after notice of the proposed forced integration or forced pooling of a unit in accordance with Rule 400-7-1-.11, a nonconsenting owner desires to participate by paying his pro rata share of the costs of drilling, equipping, and operating the well, including a reasonable charge for supervision, on such unit, but such nonconsenting owner has received no offer from the operator to so participate or has received an offer which he deems unreasonable, he may appear at the public hearing at which such action is to be considered and request the Board to condition its order so as to allow such nonconsenting owner to so participate and the Board may so condition its order.

(4) **Development and Operation of Nonconsenting Owner's Interest.** The operator appointed by the Board to develop and operate the forced integrated or forced pooled unit shall bear the cost of development and operation of such unit. In the event of production, the operator may recover his costs out of production attributable to each nonconsenting owner, as provided by law, except in cases wherein

nonconsenting owners participate as provided in Rule 400-7-2-.01(3). Anything herein to the contrary notwithstanding, these rules shall not affect agreements between the operator and consenting owners.

(5) **Accounting and Furnishing of Information.** Upon receipt of a written request by the nonconsenting owner, the operator designated by the Board to develop and operate a forced integrated or forced pooled unit shall:

(a) Submit a statement of costs to such nonconsenting owner.

1. Such statement, such as that provided by the Council of Petroleum Accountants Societies Accounting Procedures (COPAS) rules, shall be in the same form and submitted at the same time as furnished by the operator to consenting owners within the same unit.

2. In the event there are no consenting owners in the same unit, the operator shall submit a statement of costs on or before the last day of each month to each nonconsenting owner in the unit. Such statement shall be in a form which reflects the total of such costs incurred during the indicated billing period with respect to development of the forced integrated or forced pooled unit, and shall indicate all charges and credits, summarized by appropriate classifications of costs, except that unusual charges and credits shall be separately identified and fully described in detail.

(b) Furnish each nonconsenting owner with such information regarding the unit operations as hereinafter set forth.

1. Each nonconsenting owner shall be notified of the dates of the following events within twenty (20) days after the occurrence of such events:

(i) Commencement of drilling operations,

(ii) Suspension of drilling operations,

(iii) Shutting in of the well as an oil or gas well,

(iv) Plugging of the well,

(v) Commencement of production.

2. The following information shall be furnished to each nonconsenting owner within thirty (30) days after the information is available: The gross amount of monthly production from the forced integrated or forced pooled unit and the value thereof. If the production is sold by the operator, the value for the purposes of these rules shall be the sale price received by the operator.

(c) Within twenty (20) days after receipt of a written request for such, the operator will advise each nonconsenting owner as to whether or not royalty due by such nonconsenting owner to his lessors will be paid by the operator.

(6) **Access to Information and Unit Premises by Nonconsenting Owners.** After the date upon which a nonconsenting owner's pro rata share of the total costs through completion of the well have been recovered by the operator, the operator shall, upon receipt of written request, furnish, within thirty (30) days thereafter, such nonconsenting owner with copies of drilling reports, well logs, and other such information as is furnished to consenting owners, and shall make available for inspection samples of cores or cuttings. Further, after such costs have been recovered, the nonconsenting owner shall have access to the unit premises at all reasonable times, at his sole risk, to inspect or observe operations.

(7) **Changes in Ownership.** Upon a transfer of any interest of a nonconsenting owner, subsequent to the Board's order of forced integration or forced pooling, such new owner shall submit a duly and properly certified copy of an instrument affecting such transfer to the operator and, upon receipt of such copy, the operator shall take appropriate action to insure that such new owner is thereafter treated in all respects in a manner not inconsistent with these rules.

(8) **Proof of Notice; Forced Pooling of Unlocated or Undiscovered Nonconsenting Owners.** In the event a petitioner is requesting the forced pooling (without risk compensation) of a nonconsenting owner, who is unlocated and/or undiscovered, petitioner shall submit evidence sufficient to show to the Board that petitioner made a diligent effort to identify the unlocated or undiscovered nonconsenting owner and made a diligent effort to locate and discover the nonconsenting owner. Such evidence may include, and the Board may require:

(a) an attestation of title and ownership relating to the nonconsenting owner's interest given by a person qualified to render opinions on title to real property in Alabama;

(b) copies of pertinent portions of title opinions, if any are available, prepared by a licensed Alabama attorney relating to the tract or interest being force pooled;

(c) a copy of the most recent source or sources of title from which the nonconsenting owner's interest is derived;

(d) sworn Affidavits of descent or heirship, if applicable, to a determination of the nonconsenting owner's interest; and

(e) such other evidence that the Board, Supervisor or Hearing Officer may deem proper and sufficient to show that the petitioner has identified the unlocated or undiscovered nonconsenting owner and made a diligent effort to locate the unlocated or undiscovered nonconsenting owner.

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400-8. RULES AND REGULATIONS OF THE STATE OIL AND GAS BOARD OF ALABAMA GOVERNING GEOLOGIC STORAGE OF CARBON DIOXIDE

400-8-1. General

400-8-1-.01. Definitions.

The words defined hereafter shall have the following meaning when used within these rules:

(1) **Abandoned well** shall mean, for purposes only of compliance with requirements herein, that a well is to be considered abandoned when it has not been used for twelve (12) consecutive months and cannot be operated, whether because it was drilled as a dry hole or has ceased to be utilized, or operations have not been conducted thereon, or for some other reason.

(2) **Activity** shall mean any activity related to the geologic storage of carbon dioxide subject to regulation under this chapter.

(3) **Aquifer** shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well, spring, or other point of discharge.

(4) **Area of review** shall mean the region adjoining and surrounding the geologic sequestration project or geologic storage area where underground sources of drinking water or other natural resources may be endangered by the storage operation and injection activity. The term “area of review” may be used synonymously with the term “buffer zone.”

(5) **Carbon dioxide plume** shall mean the extent underground, in three dimensions, of an injected carbon dioxide stream.

(6) **Carbon dioxide stream** shall mean carbon dioxide that has been captured from an emission source (e.g., a coal-burning power plant), plus incidental associated substances derived from the source materials and the capture process, and any substances added to the stream to enable or improve the injection process. This does not apply to any carbon dioxide stream that meets the definition of a hazardous waste.

(7) **Casing** shall mean a pipe or tubing of varying diameter and weight, which is installed into a well to maintain the structural integrity of that well.

(8) **Closure period** shall mean that period from permanent cessation of carbon dioxide injection until the Board issues a certificate of project completion.

(9) **Confining zone** shall mean a geologic formation, group of formations, or part of a formation stratigraphically overlying the injection zone that acts as a barrier to fluid movement.

(10) **Contaminant** shall mean any physical, chemical, biological, or radiological substance or matter in water.

(11) **Corrective action** shall mean the use of methods approved by the Board to ensure that wells within the area of review do not serve as conduits for the movement of fluids into underground sources of drinking water or damage natural resources.

(12) **Fault** shall mean a zone of rock fracture along which there has been displacement.

(13) **Flowlines** shall mean a pipeline that transports full well stream production from a well site to the production equipment where produced hydrocarbons are first separated, dehydrated, commingled with other production, or otherwise processed or to the point of custody transfer. Furthermore, pipelines transporting carbon dioxide from the carbon dioxide injection facilities to the wellhead.

(14) **Fluid** shall mean any material or substance which flows or moves, whether in a semisolid, liquid, sludge, gaseous, or any other form or state.

(15) **Formation** shall mean a body of rock characterized by a degree of lithologic homogeneity which is prevailingly, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

(16) **Formation fluid** shall mean fluid present in a formation under natural conditions as opposed to introduced fluids.

(17) **Formation fracture pressure** shall mean the pressure, measured in pounds per square inch, which, if applied to a subsurface formation, will cause that formation to fracture.

(18) **Geologic storage or sequestration** shall mean the geologic storage of a gaseous, liquid, or supercritical carbon dioxide stream in a storage facility or reservoir. This term does not apply to carbon dioxide transportation. The terms “geologic storage” or “geologic sequestration” may be use synonymously.

(19) **Ground water** shall mean water occurring beneath the surface of the ground that fills available openings in rock or soil materials such that they may be considered saturated.

(20) **Injection well** shall mean a nonexperimental well used to inject carbon dioxide into or withdraw carbon dioxide from a reservoir.

(21) **Injection zone** shall mean a geologic formation, group of formations, or part of a formation that is of sufficient areal extent, thickness, porosity, and permeability to receive carbon dioxide through a well or wells associated with a geologic sequestration project.

(22) **Mechanical integrity** shall mean the absence of significant leakage within an injection well's tubing, casing, or packer (internal mechanical integrity), or outside of the casing (external mechanical integrity).

(23) **Minerals** shall mean coal, oil, and natural gas.

(24) **Model** shall mean a representation or simulation of a phenomenon or process that is difficult to observe directly or that occurs over long timeframes. Models that support geologic sequestration can predict the flow of carbon dioxide within the subsurface, accounting for the properties and fluid content of the subsurface formations and the effects of injection parameters.

(25) **Operational period** shall mean the period during which injection occurs.

(26) **Packer** shall mean a device lowered into a well, which can be expanded or compressed to produce a fluid-tight seal.

(27) **Person** shall mean any natural person, firm, corporation, association, partnership, joint venture, receiver, trustee, guardian, executor, administrator, fiduciary, representative of any kind or any other group acting as a unit.

(28) **Plug or plugging** shall mean the act or process of sealing the flow of fluid into or out of a formation through a borehole or "well" penetrating that formation.

(29) **Pore space** shall mean the subsurface space that can be used for the geologic storage of sequestration of carbon dioxide and incidental substances that are part of the carbon dioxide capture, transportation, and storage process.

(30) **Post-closure period** shall mean that period after the Board has issued a certificate of project completion.

(31) **Post-injection site care** shall mean appropriate monitoring and other actions, including corrective action, needed following cessation of injection to ensure that underground sources of drinking water are not endangered. Post-injection site care may occur in the closure or post-closure periods.

(32) **Pressure** shall mean the total load or force per unit area acting on a surface.

(33) **Pressure front** shall mean the zone of elevated pressure and displaced fluids created by the injection of carbon dioxide into the subsurface. The pressure front of a carbon dioxide plume refers to a zone where there is a pressure differential sufficient to cause the movement of injected fluids or formation fluids into underground sources of drinking water.

(34) **Project completion** shall mean the point in time, as determined by the Board at which the certificate of project completion is issued and the storage operator is released from all regulatory requirements associated with the storage facility.

(35) **Storage facility** shall mean any underground reservoir used or to be used for the underground storage of carbon dioxide and all surface and subsurface rights and appurtenances necessary or useful in the operation of the facility for the underground storage of carbon dioxide, including any necessary or reasonable buffer zone as designated by the board for the purpose of ensuring the safe operation of the storage of carbon dioxide and to protect the storage facility against pollution, invasion, and escape or migration of carbon dioxide therefrom, together with any and all subsequent extensions thereof.

(36) **Storage facility area** shall mean the area with designated boundaries on which the storage facility is located.

(37) **Storage facility Operator** shall mean the person or entity designated by the Board to operate the storage facility.

(38) **Storage facility plan** shall mean the detailed proposal addressing the operation of the storage facility.

(39) **Stratigraphic test well** shall mean any hole or well drilled or bored into the subsurface for the purpose of obtaining cores or other geologic information and data.

(40) **Stratum** shall mean a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

(41) **Subsurface observation well** shall mean a well that is used to observe subsurface phenomena, including the presence of carbon dioxide, pressure fluctuations, fluid levels and flow, temperature, and in situ water chemistry.

(42) **Transmissive fault or fracture** shall mean a fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

(43) **Trapping** shall mean the physical and geochemical processes by which injected carbon dioxide is sequestered in the subsurface. Physical trapping occurs when buoyant carbon dioxide rises in the formation until it reaches impermeable strata that inhibits further upward and lateral migration or is immobilized in pore spaces due to capillary forces. Geochemical trapping occurs when chemical reactions between the injected carbon dioxide and natural occurring minerals in the formation lead to the precipitation of solid carbonate minerals or dissolution in formation fluids.

(44) **Underground source of drinking water** (USDW)

(a) Shall mean any aquifer or its portion:

1. Which supplies any public water system; or

2. Which contains a sufficient quantity of ground water to supply a public water system; and

(i) Currently supplies drinking water for human consumption; or

(ii) Contains fewer than 10,000 mg/L total dissolved solids; and

(b) Shall mean an aquifer or its portion which is not an exempted aquifer.

(45) **Well** shall mean any oil or gas well, any well drilled or being drilled in search of oil and gas, any well defined as a class II injection well, any well defined as a class VI injection well, any well utilized for underground storage, or any well used for geologic storage.

400-8-1-.02. Scope of Chapter; Purpose.

This chapter governs the geologic storage or sequestration of carbon dioxide. This chapter does not apply to the utilization of carbon dioxide for an enhanced oil or gas recovery project. The purpose of this chapter and these rules adopted by the Board shall be to promote the underground storage or sequestration of carbon dioxide. Furthermore, the Board shall ensure the protection of the underground sources of drinking water and Alabama's natural resources. The obligation to protect Alabama's water is set forth in the original enabling law establishing the Alabama Oil and Gas Board, which provided inter alia that the Board would "prevent the pollution of fresh water supplies." Act No. 1, Acts of Alabama 1945.

400-8-1-.03. Protection of Freshwater Resources.

An operator shall conduct all operations in a manner so as to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock, or agricultural purposes shall be confined to their respective strata and shall be adequately protected. Special precautions shall be taken to guard against any loss of artesian water and the contamination of fresh water.

400-8-1-.04. Injection into Underground Source of Drinking Water Prohibited.

Underground injection of carbon dioxide for geologic storage that causes or allows movement of fluid into an underground source of drinking water is prohibited.

No storage operator shall construct, operate, maintain, convert, plug, abandon, or conduct any injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may endanger underground sources of drinking water, endanger natural resources, or may adversely affect the health of persons. Any operator of a geologic storage facility must prove that the objectives set out in Rule 400-8-1-.01, et seq., are fulfilled.

Any underground storage of carbon dioxide shall be beneath the lowermost formation containing underground drinking water.

Notwithstanding any other rule, the Board may take emergency action upon receipt of information that a contaminant that is present in or likely to enter a public water system, endangers an underground source of drinking water or natural resources, or presents an imminent and substantial endangerment to the health of persons.

400-8-1-.05. Prohibition of Unauthorized Injection.

Any underground injection of carbon dioxide for the purpose of geologic storage, except into a storage facility approved by the Board, is prohibited. Furthermore, any underground injection of carbon dioxide for the purpose of geologic storage, except into a well authorized by well permit issued by the Board, is prohibited.

400-8-1-.06. Application of Other Rules to Geologic Storage of Carbon Dioxide.

The rules set forth in Rule 400-8-1.01 et seq. shall govern the geologic storage of carbon dioxide.

(1) In addition to the rules and regulations governing underground storage of carbon dioxide set forth in Rule 400-8-1-.01, et seq., the Rules and Regulations of the State Oil and Gas Board of Alabama Governing Practice and Procedure, Rule 400-7-1-.01, et seq. shall apply to underground storage of carbon dioxide.

(2) Unless otherwise specified by the Supervisor, Rules and Regulations of the State Oil and Gas Board of Alabama Governing Onshore Lands Operations, Rule 400-1-1-.01, et seq., or Rules and Regulations of the State Oil and Gas Board of Alabama Governing Submerged Offshore Lands Operations, Rule 400-2-1-.01, et seq., whichever is applicable, shall apply to underground storage of carbon dioxide, with the exception of the following:

(a) For Rules and Regulations of the State Oil and Gas Board of Alabama Governing Onshore Lands Operations, Rule 400-1-1-.01, et seq:

1. 400-1-1-.01 Applicability,
2. 400-1-1-.03 Repealed Rules, Special Field Rules, and Orders,
3. 400-1-1-.07 Determining and Naming Fields and Pools,
4. 400-1-2-.02 Spacing of Wells,
5. 400-1-5 Testing and Allowable,
6. 400-1-6-.01 General,
7. 400-1-6-.02 Protection of Oil and Gas,
8. 400-1-6-.03 Initial Bottom Hole Pressure Survey,
9. 400-1-6-.04 Pressure-Volume-Temperature Analysis,
10. 400-1-6-.05 Procedures for Multiple Completions,
11. 400-1-6-.06 Recompletion or Reworking,
12. 400-1-6-.07 Tanks or Tank Batteries,
13. 400-1-6-.12 Authorization for Permit to Clean Tanks,
14. 400-1-7 Processing, and
15. 400-1-8 Transportation.

(b) For Rules and Regulations of the State Oil and Gas Board of Alabama Governing Submerged Offshore Lands Operations, Rule 400-2-1-.01, et seq:

1. 400-2-1-.01 Applicability,
2. 400-2-1-.03 Repealed Rules, Special Field Rules, and Orders,
3. 400-2-1-.07 Determining and Naming Fields and Pools,
4. 400-2-2-.02 Spacing of Wells,
5. 400-2-5 Testing and Allowable,
6. 400-2-6-.01 General,
7. 400-2-6-.02 Protection of Oil and Gas,
8. 400-2-6-.03 Initial Bottom Hole Pressure Survey,
9. 400-2-6-.04 Pressure-Volume-Temperature Analysis,
10. 400-2-6-.05 Procedures for Multiple Completions,

11. 400-2-6-.06 Recompletion or Reworking,
12. 400-2-6-.07 Subsurface Safety Devices, and
13. 400-2-6-.08 Wellhead Equipment and Testing Procedures.

400-8-1-.07. Conversion from Enhanced Oil or Gas Recovery to Geologic Storage.

An operator proposing to convert an enhanced recovery unit or project to geologic storage shall petition the Board for approval of such conversion to geologic storage. In considering the Petition, the Board shall ensure that the proposed geologic storage operation does not cause an increased risk to underground sources of drinking water or natural resources. In petitioning the Board for such conversion, these rules addressing geologic storage shall be applicable, and a petitioner requesting such conversion shall operate the conversion in accordance with these rules. In determining if there is an increased risk to underground sources of drinking water by the conversion of the enhanced recovery operation to geologic storage, the Board shall consider the following factors:

(1) Increase in reservoir pressure within the injection zone;

(2) Increase in carbon dioxide injection rates;

(3) Decrease in reservoir production rates;

(4) Distance between the injection zone and underground sources of drinking water;

(5) Suitability of the enhanced oil or gas recovery area for the geologic storage of carbon dioxide;

(6) Quality of abandoned well plugs within the unit area of the enhanced recovery project and the area of review of the geologic storage facility;

(7) The source and properties of injected carbon dioxide; and

(8) Any additional factors determined by the Board.

400-8-1-.08. Exempted Aquifers.

The Board may, on the petition by an operator or on the Board's own motion, after notice and hearing, approve a designated aquifer that otherwise is defined as an underground source of drinking water (an aquifer containing fewer than 10,000 milligrams per liter (mg/L) total dissolved solids under 40 C.F.R. 144.3) only with prior approval by the United States Environmental Protection Agency.

400-8-1-.09. Converting an Existing Well to a Geologic Storage Well.

An operator of a storage facility may apply to convert an existing oil and gas well to an injection well or other well to be utilized for the purpose of geologic storage of carbon dioxide. In such cases, the operator must demonstrate that the well is constructed in a manner that will ensure the protection of underground sources of drinking water and protection of natural resources. Furthermore, the conversion of an existing well into an injection well or other well to be utilized for the geologic storage of carbon dioxide shall comply with these rules related to geologic storage.

400-8-1-.10. Records to be Kept to Substantiate Reports.

All owners, operators, drilling contractors, drillers, service companies, or other persons engaged in drilling, completing, operating, or servicing geologic storage facilities shall keep appropriate records covering their operations in order to make and substantiate the reports required by these rules addressing carbon dioxide storage operations. The storage operator shall retain until project completion all records relating to the storage facility, the storage facility plan, the storage facility area, and the area of review. Upon project completion of a facility closure, the storage operator shall deliver the records to the Board.

400-8-1-.11. Access to Records.

The Board and the Board's authorized agents shall have access to all storage facility records. All owners, operators, drilling contractors, drillers, service companies, or other persons engaged in drilling, completing, operating, or servicing storage facilities shall allow the Board and the Board's authorized agents access to come upon and inspect any facility, property, well, drilling rig, or other equipment engaged in storage operations. Further, the Board and its authorized agents may conduct sampling and testing as necessary to enforce these rules relating to geologic storage. If requested, copies of storage facility records must be filed with the Board. As provided in these rules addressing geologic storage, numerous records and information are due to be filed with the Board.

400-8-1-.12. Consent of Owners of Storage Rights for Carbon Dioxide; Amalgamation and Pooling of Owners of Storage Rights.

Pursuant to Section 9-17-162 of the *Code of Alabama* (1975), as amended:

(1) A storage operator shall make a good faith effort to obtain the consent of all persons that own a storage facility's pore space and storage rights for carbon dioxide.

(2) A storage operator shall obtain the consent of persons that own not less than sixty-six and two-thirds (66 2/3) percent of a storage facility's pore space and storage rights for carbon dioxide.

(3) Upon a storage operator obtaining the consent of persons that own not less than sixty-six and two-thirds (66 2/3) percent of a storage facility's pore space and storage rights for carbon dioxide, the Board, after providing notice and a public hearing, may enter an order to amalgamate and pool the pore space and storage rights for carbon dioxide owned by non-consenting owners into the storage facility on terms that are just and reasonable as determined by the Board.

(4) All non-consenting owners of a storage facility's pore space and storage rights for carbon dioxide shall be fairly and equitably compensated.

400-8-1-.13. Limiting Surface Impact.

Pursuant to Section 9-17-162 (6) of the *Code of Alabama* (1975), as amended, a storage operator shall use commercially reasonable efforts to limit the adverse surface-use impact upon the lands of non-consenting owners of a storage facility's pore space and storage rights.

400-8-1-.14. Storage Operations Near Coal Mining Operations

Pursuant to Section 9-17-162 (7) of the *Code of Alabama* (1975), as amended, a storage operator seeking approval to operate in the Blue Creek or Mary Lee coal seams in Jefferson, Tuscaloosa, or Walker Counties or within a 10-mile radius of any coal mine operation shall obtain the written consent of the coal mine operator and mineral owner with an operation or mineral interest in such seams or within such radius; provided, however, that such consent shall not be unreasonably withheld or delayed.

400-8-1-.15. Petition for Approval of a Storage Facility for the Storage of Carbon Dioxide.

(1) Operators of a proposed geologic storage facility for the storage of carbon dioxide shall petition the Board for approval of the storage facility. Upon the filing of such petition, the Board shall conduct a hearing after appropriate notice has been provided to all interested persons, and such hearing shall provide an opportunity for all interested parties to address the Board.

(2) A Petition for approval of a geologic storage facility for the storage of carbon dioxide shall include the following:

(a) A site map showing the boundaries of the storage facility showing the proposed storage facility area, the reservoir or reservoirs into which the carbon dioxide will be stored, the location of all proposed wells, proposed cathodic protection boreholes, and the surface facilities within the carbon dioxide storage facility area;

(b) A description of the storage facility area;

(c) A description of the area of review;

(d) A technical evaluation of the proposed storage facility, including the following:

1. The name, description, and average depth of the storage reservoir;

2. A geologic and hydrogeologic evaluation of the proposed facility area, including an evaluation of all existing information on all geologic strata overlying the storage reservoir, including the immediate caprock containment characteristics and all subsurface zones to be used for monitoring. The evaluation must include any available geophysical data and assessments of any regional tectonic activity, local seismicity and regional or local fault zones, and a comprehensive description of local and regional structural or stratigraphic features. The evaluation must describe the storage reservoir's mechanisms of geologic confinement, including rock properties, regional pressure gradients, structural features, and adsorption characteristics with regard to the ability of that confinement to prevent migration of carbon dioxide beyond the proposed storage reservoir. The evaluation must also identify any productive existing or potential mineral zones occurring within the facility area and any underground sources of drinking water in the facility area and within one mile of the outside boundary. The evaluation must include exhibits showing the following:

(i) All wells, including water, oil, and natural gas exploration and development wells, and other manmade subsurface structures and activities, including coal mines, within the facility area and within one mile of its outside boundary;

(ii) All manmade surface structures that are intended for temporary or permanent human occupancy within the facility area and within one mile of its outside boundary;

(iii) Any regional or local faulting;

(iv) An isopach map of the storage reservoirs;

(v) An isopach map of the primary and any secondary containment barrier for the storage reservoir;

(vi) A structure map of the top and base of the storage reservoir or reservoirs;

(vii) Identification of all structural spill points or stratigraphic discontinuities controlling the isolation of stored carbon dioxide and associated fluids within the storage reservoir;

(viii) Evaluation of the pressure front and the potential impact on underground sources of drinking water, if any;

(ix) Structural and stratigraphic cross sections that describe the geologic conditions at the storage reservoir;

(x) The location, orientation, and properties of known or suspected faults and fractures that may transect the confining zone in the area of review, and a determination that they would not interfere with containment;

(xi) Data on the depth, areal extent, thickness, mineralogy, porosity, permeability, and capillary pressure of the injection and confining zone, including facies changes based on field data, which may include geologic cores, outcrop data, seismic surveys, well logs, and names and lithologic descriptions; geologic cores, outcrop data, seismic surveys, well logs, and names and lithologic descriptions;

(xii) Geomechanical information on fractures, stress, ductility, rock strength, and in situ fluid pressures within the confining zone. The confining zone must be free of transmissive faults or fractures and of sufficient areal extent and integrity to contain the injected carbon dioxide stream;

(xiii) Information on the seismic history, including the presence and depth of seismic sources and a determination that the seismicity would not interfere with containment;

(xiv) Geologic and topographic maps and cross sections illustrating regional geology, hydrogeology, and the geologic structure of the facility area;

(xv) Identification and characterization of additional strata overlying the storage reservoir that will prevent vertical fluid movement, are free of transmissive faults or fractures, allow for pressure dissipation, and provide additional opportunities for monitoring, mitigation, and remediation; and

(xvi) Identification of any minerals in the storage facility area and within one mile of its outside boundary.

3. A review of public records, conducted by a geologist or engineer, for all wells within the proposed storage facility area, which penetrate the storage reservoir or primary or secondary seals overlying the reservoir, and all wells within the proposed storage facility area and within one mile, or any other distance as deemed necessary by the Board of the facility area boundary. The review must include the following:

(i) A determination that all abandoned wells have been plugged and all operating wells have been constructed in a manner that prevents the carbon dioxide or associated fluids from escaping from the storage reservoir;

(ii) A description of each well's type, construction, date drilled, location, depth, record of plugging, and completion;

(iii) Maps and stratigraphic cross sections indicating the general vertical and lateral limits of all underground sources of drinking water, water wells, and springs within the area of review; their positions relative to the injection zone; and the direction of water movement, where known;

(iv) Maps delineating the area of review and cross sections of the proposed area of review, including the model used, assumptions made, and the site character data on which the model is based;

(v) A map of the proposed area of review adjoining and surrounding the proposed storage facility area showing the number or name and location of all injection wells, producing wells, abandoned wells, plugged wells or dry holes, deep stratigraphic boreholes, subsurface cleanup sites approved by an agency of the State of Alabama or the USEPA , surface bodies of water, springs, mines (surface and subsurface), quarries, water wells, other pertinent surface features, including structures intended for human occupancy, state, or county boundary lines, and roads;

(vi) A list of contacts, submitted to the Board when the proposed area of review extends across state boundary lines;

(vii) Baseline geochemical data on subsurface formations, including all underground sources of drinking water in the proposed area of review;

(viii) Proposed special storage facilities rules, which include, inter alia, conditions placed on well permits; and

(ix) Any additional information that the Board may require.

4. The proposed calculated average and maximum daily injection rates, daily volume, and the total anticipated volume of the carbon dioxide stream using a method acceptable to and filed with the Board;

5. The proposed average and maximum bottom hole injection pressure to be utilized at the reservoir. The maximum allowed injection pressure, measured in pounds per square inch gauge, shall be approved by the Board and specified in the permit. In approving a maximum injection pressure limit, the Board shall consider the results of well tests and other studies that assess the risks of tensile failure and shear failure. The Board shall approve limits that, with a reasonable degree of certainty, will avoid initiating a new fracture or propagating an existing fracture in the confining zone or cause the movement of injection or formation fluids into an underground source of drinking water;

6. The proposed preoperational formation testing program to obtain an analysis of the chemical and physical characteristics of the injection zone and confining zone.

7. The proposed stimulation program, a description of stimulation fluids to be used, and a determination that stimulation will not interfere with containment; and

8. The proposed procedure outlining steps necessary to conduct injection operations.

(e) The extent of the pore space that will be occupied by carbon dioxide as determined by utilizing all appropriate geologic and reservoir engineering information and reservoir analysis, which must include various computational models for reservoir characterization, and the projected response of the carbon dioxide plume and storage capacity of the storage reservoir. The computational model must be based on detailed geologic data collected to characterize the injection zones, confining zones, and any additional zones;

(f) An emergency and remedial response plan.

(g) A detailed worker safety plan that addresses carbon dioxide safety training and safe working procedures at the storage facility.

(h) A corrosion monitoring and prevention plan for all wells and surface facilities.

(i) A leak detection and monitoring plan for all wells and surface facilities. The plan must:

1. Identify the potential for release to the atmosphere;

2. Identify potential degradation of ground water resources with particular emphasis on underground sources of drinking water; and

3. Identify potential migration of carbon dioxide into any mineral zone in the facility area.

(j) A leak detection and monitoring plan to monitor any movement of the carbon dioxide outside of the storage reservoir. This may include the collection of baseline information of carbon dioxide background concentrations in ground water, surface soils, and chemical composition of in situ waters within the facility area and the storage reservoir and within one mile of the facility area's

outside boundary. Provisions in the plan will be dictated by the site characteristics as documented by materials submitted in support of the permit application but must:

1. Identify the potential for release to the atmosphere;

2. Identify potential degradation of ground water resources with particular emphasis on underground sources of drinking water; and

3. Identify potential migration of carbon dioxide into any mineral zone in the facility area.

(k) The proposed well casing and cementing program.

(l) A corrective action plan.

(m) A proposed financial responsibility plan.

(n) A testing and monitoring plan.

(o) A plugging plan that meets the Board's requirements.

(p) A post-injection site care and facility closure plan.

(q) A sworn statement that petitioner has obtained the requisite percentage of rights of the owners of the storage facility area to store carbon dioxide within the storage facility area pursuant to Section 9-17-150 et seq. of the *Code of Alabama* (1975), as amended.

(r) A storage facility plan to be implemented and followed after approval of the Board during the operation of the storage facility.

(s) Proposed special storage facility rules.

(t) Any other information that the Board may require.

(3) Any operator petitioning the Board to establish a storage facility for carbon dioxide shall pay a fee of One Hundred Thousand Dollars ($100,000.00). The petitioner must pay the fee regardless of whether the petition is withdrawn.

(4) The Board shall have three (3) months from the date the hearing concludes to issue an order addressing the petition.

(5) Approval of a petition to establish a storage facility does not convey any property rights or exclusive privilege to a storage facility operator.

400-8-1-.16. Petitions, Notice.

The Board shall hold a public hearing before approving a storage facility**.**

(1) At least fifty days prior to the hearing, the petitioner shall give notice of the hearing to the following:

(a) Each operator of mineral extraction activities within the facility area and within one-half mile of the outside boundary;

(b) All mineral owners of record within the facility area, the area of review, and within one-half mile of the outside boundary of the area of review;

(c) All surface owners of record within the facility area, the area of review, and one-half mile of the outside boundary of the area of review;

(d) Each owner of record of the storage rights within the storage reservoir and within one-half mile of the reservoir's boundary; and

(e) Any other persons as determined by the State Oil and Gas Supervisor of the State Oil and Gas Board of Alabama.

(2) The notice given by the petitioner must contain:

(a) A description of the land within the proposed storage facility area.

(b) The date, time, and place that the Board will hold a hearing on the petition.

(c) A statement that a copy of the petition and exhibits may be obtained from the Board or petitioner. When the Board receives a request for a copy of the petition or exhibits from an interested party, the Board may direct Petitioner to deliver the Petition or exhibits to the interested party.

(d) A statement that all comments regarding the storage facility petition must be in writing and submitted to the Board prior to the hearing or presented at the hearing.

(e) A statement that if the Board approves the proposed storage facility, the storage facility operator may acquire storage rights from nonconsenting owners through amalgamation.

(3) Public notice of a petition for the storage facility shall be published at least fifty (50) days prior to a hearing. The notice shall be published in the county newspaper with the highest circulation, except in an emergency, including notice of the time and place of hearing thereon. The notice shall be issued in the name of the Board. The public notice must state that a petition has been filed with the Board for approval to store carbon dioxide and describe the location of the proposed storage facility area and the date, time, and place of the hearing before the Board at which time the merits of the petition will be considered.

(4) The public notice given by the Board must contain the following:

(a) Name and address of the Board;

(b) Name and address of the petitioner;

(c) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures;

(d) A brief description of the activity described in the storage facility petition;

(e) Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the petition and exhibits; and

(f) Any additional information that the Board requires.

(5) Public notice shall be given by the following methods:

(a) By mailing and e-mailing a copy of the notice of the petition to the following:

1. The Alabama Department of Environmental Management;

2. The United States Environmental Protection Agency;

3. To any local government having jurisdiction over the area where the storage facility is proposed to be located.

(6) At or prior to the hearing, any interested person may address the Board on the petition to establish the storage facility.

400-8-1-.17. Operations Prior to Approval to Inject.

Upon the granting of the Petition for approval of the storage facility plan, the storage facility operator may conduct additional operations, including construction, drilling, testing, and other operations in accordance with the storage plan approved by the Board and prior to injection of carbon dioxide.

400-8-1-.18. Petition for Approval to Inject.

Prior to commencing injection, the operator shall petition the Board to request approval to inject. The storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a petition for approval to inject. The requirements for notice of the petition shall be the same as the notice requirements for the petition to approve the storage facility. The Board shall conduct a hearing on the petition for approval to inject and thereafter issue an order addressing the petition.

400-8-1-.19. Approval to Inject.

The storage facility operator shall present and the Board shall review all new data obtained during the construction, drilling, and testing of wells drilled in considering the petition for approval to inject. The storage facility operator shall submit the following information to the Board at the hearing of the petition for approval to inject:

(1) Updated geologic modeling and site characterization;

(2) Final storage facility area, area of review, and the corrective action plan;

(3) Compatibility of carbon dioxide injections stream with the fluids and minerals in the injection zone;

(4) Final injection well construction;

(5) Demonstration of internal and external mechanical integrity;

(6) Maximum operating injection pressures;

(7) Any updates to the storage facility plan including but not limited to:

(a) Storage facility area and area of review;

(b) Corrective action plan;

(c) Testing and monitoring plan;

(d) Well plugging plan;

(e) Post-injection site care and facility closure plan;

(f) Emergency and remedial response plan;

(8) A sworn statement that petitioner has obtained one hundred percent (100%) of the rights to store carbon dioxide within the storage facility area.

(9) Other information that the Board may require.

400-8-1-.20. Competing Mineral Rights.

In accordance with Section 9-17-161 (g) of the *Code of Alabama* (1975), as amended, in considering approving a storage facility to be used for the storage and sequestration of carbon dioxide pursuant to this division, the Board shall consider both of the following:

(1) Any competing rights of all separately owned estates in lands potentially affected by the storage facility, giving due consideration of competing rights as to existing or future uses by pore space, surface, and mineral owners that may be affected.

(2) The distance of the storage facility from any current or future underground mining operation or other underground operation designed and operated for the extraction of minerals and the potential impact on the safety of these operations.

400-8-1-.21. Implementation of the Storage Facility Plan.

After the Board has approved a petition or approved the storage facility plan, and the petition for approval to inject, the storage operator shall implement the plan for the storage facility and commence injection.

400-8-1-.22. Delineation of Storage Facility Area and Area of Review.

In connection with the boundaries of the storage facility area and area of review, the storage operator shall perform the following actions:

(1) Predict, using existing site characterization, monitoring and operational data, and computational modeling, the projected lateral and vertical migration of the carbon dioxide plume and its associated pressure front in the subsurface from the commencement of injection activities until the plume movement ceases, or until the end of a fixed time period as determined by the Board. The model must:

(a) Be based on detailed geologic data collected to characterize the injection zone, confining zone, and any additional zones; and anticipated operating data, including injection pressures, rates, and total volumes over the proposed life of the geologic sequestration project;

(b) Take into account any geologic heterogeneities, other discontinuities, data quality, and their possible impact on model predictions; and

(c) Consider potential migration through faults, fractures, and artificial penetrations.

(2) Using methods approved by the Board, identify all penetrations, including active and abandoned wells and underground mines, in the storage facility and the area of review that may penetrate the confining zone. Provide a description of each well's type, construction, date drilled, location, depth, record of plugging and completion, and any additional information the Board may require.

(3) Determine which abandoned wells have been plugged or operating wells have been constructed in the storage facility area and the area of review in a manner that prevents the movement of the injected carbon dioxide or other fluids that may endanger underground sources of drinking water, including use of materials compatible with the carbon dioxide stream.

400-8-1-.23. Corrective Action.

(1) The storage operator shall perform corrective action on all wells in the storage facility and in the area of review that are determined to need corrective action, using methods designed to prevent the movement of fluid into or between underground sources of drinking water, including use of materials compatible with the carbon dioxide stream, where appropriate.

(2) With respect to corrective action, the storage operator shall address, among other things:

(a) The corrective action to be performed prior to injection and what, if any, corrective action will be on a phased basis and how the phasing will be determined;

(b) How corrective action will be adjusted if there are changes in the boundaries of the storage facility area or to the area of review; and

(c) How site access will be assured for future corrective action.

(3) Furthermore, the storage operator shall identify all wells that require corrective action and take appropriate corrective action.

400-8-1-.24. Reevaluation of Storage Facility.

(1) The storage operator shall petition the Board within five years of the initial injection of the storage facility to reevaluate the storage facility initially approved by the Board. The storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a petition for reevaluation. At the hearing on the petition to reevaluate the storage facility, the storage operator shall:

(a) Present evidence at the reevaluation hearing addressing the operations of the storage facility, the storage facility plan, the storage facility area, and the area of review and identifying all wells that require corrective action.

(b) Describe corrective action performed on wells requiring corrective action in the reevaluated storage facility area and the area of review.

(c) Submit exhibits showing any amended boundaries of the storage facility affecting the storage facility area, and the area of review and corrective action plan or demonstrate to the Board through monitoring data and modeling results that no amendment to the storage facility, the storage facility area, and to the area of review is needed.

(d) Submit exhibits addressing the emergency and remedial response plan.

(e) Submit exhibits addressing the financial responsibility of the storage operator at the time of this petition for reevaluation.

(f) Submit all modeling inputs and data used to support delineations of the boundaries of the storage facility, the storage facility area, and the area of review.

(g) The Board shall consider the evidence on the petition for reevaluation and issue an order addressing the storage facility, the storage facility area, the storage facility plan, and the area of review.

400-8-1-.25. Storage Facility Change of Operator.

(1) All proposals for Change of Operator of a storage facility shall be approved only after the filing of a petition for change of operator and subsequent notice and hearing. A storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a Change of Operator proposal. The petition for Change of Operator of a storage facility must contain the following:

(a) The name and address of the person proposed new storage operator.

(b) The date that the storage operator desires the proposed transfer to occur.

(c) A demonstration of financial assurance by the proposed new storage operator.

(d) The consent of the proposed Change of Operator by the current operator.

(2) The Board shall conduct a hearing on the petition for Change of Operator to ensure that the purposes of the Alabama Oil and Gas Conservation Laws are promoted. For good cause, the Board may deny a petition for Change of Operator of a storage facility or take other action that the Board deems appropriate.

400-8-1-.26. Obligations of an Operator of a Storage Facility for Carbon Dioxide.

A storage operator shall comply with the obligations set forth hereinbelow. These obligations are, however, not exhaustive, and the storage operator is responsible for other obligations required or implied by these regulations governing geologic storage of carbon dioxide.

(1) The storage operator shall comply with all conditions of the plan for storage operations approved by the Board. Further the storage operator shall comply with any well permits approved by the Board. Any noncompliance constitutes a violation and is grounds for enforcement action, including termination of the plan and termination of the storage facility.

(2) The storage operator shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the storage facility plan approved by the Board.

(3) The storage operator shall be prepared at all times to implement the emergency and remedial response plan.

(4) The storage operator shall at all times properly operate and maintain all storage facilities which are installed or used by the storage operator in its storage operations. Proper operation and maintenance

includes effective performance, adequate funding, adequate staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.

(5) The storage operator shall furnish to the Board, within a time specified by the Board, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the approval of the storage facility.

(6) The storage operator shall allow the Board or an authorized representative to:

(a) Enter upon the storage facility premises where records must be kept under the conditions of the permit;

(b) At reasonable times, have access to and copy any records related to storage operations;

(c) At reasonable times, inspect any facilities, equipment, including monitoring and control equipment, practices, or operations.

(7) The storage operator shall prepare, maintain, and comply with a testing and monitoring plan.

(8) The storage operator shall comply with all reporting requirements.

(9) The storage operator must obtain an injection well permit, and injection wells must meet the construction and completion requirements.

(10) The storage operator shall prepare, maintain, and comply with a plugging plan.

(11) The storage operator shall establish mechanical integrity prior to commencing injection and maintain mechanical integrity.

(12) The storage operator shall implement an approved worker safety plan.

(13) The storage operator shall comply with leak detection and reporting requirements.

(14) The storage operator shall conduct a corrosion monitoring and prevention plan.

(15) The storage operator shall prepare, maintain, and comply with the corrective action plan.

(16) The storage operator shall maintain financial responsibility.

(17) The storage operator shall maintain and comply with the post-injection site care and facility closure plan.

(18) The storage operator shall at the end of each calendar year provide the Board with a list of third-party contractors having the knowledge and expertise to perform operations in the event of default by the storage operator.

400-8-1-.27. Establishing Permit Conditions.

(1) The Board may establish conditions, as required on a case-by-case basis on each well permit. The operator shall comply with any conditions placed on the storage operator by the Board in the order approving the storage facility. Such additional conditions may be necessary to prevent the endangerment of underground sources of drinking water and natural resources.

(2) The Board shall establish conditions of any permit as required on a case-by-case basis, to provide for and assure compliance with all statutory or regulatory requirements which take effect prior to final administrative disposition of the permit.

(3) New permits may be modified or revoked as the Board determines.

(4) All permit conditions shall be stated expressly. All Alabama laws, statutes, regulations, and rules are incorporated by reference into each permit approved by the Board.

400-8-1-.28. Well Permit for Wells Within the Storage Facility.

(1) **Activities requiring Permits.** Individual well permits shall be issued by the Supervisor for all wells within a storage facility for the storage of carbon dioxide as approved by the Board.

(2) **Stratigraphic Test Well Requirements.** Application for permits for Stratigraphic test wells to obtain geologic information for the purpose of carbon dioxide storage shall be submitted as set forth in Rules 400-1-2-.01 or 400-2-2-.01, whichever is applicable. The applicant for a stratigraphic test well permit shall pay a fee of One Thousand Dollars ($1,000.00).

(3) **Subsurface Observation Well Permit Requirements.** Application for permits for subsurface observation wells for underground storage purposes shall be submitted as set forth in Rules 400-1-2-.01 or 400-2-2-.01, whichever is applicable. The storage operator shall pay a fee of One Thousand Dollars ($1,000.00) for each permit to drill a subsurface observation well.

(4) **Injection Well Permit Requirements.** Application for permits for underground storage injection wells shall be considered as a two-step process. All wells drilled or recompleted for the purpose of underground storage shall comply with the following permitting requirements:

(a) **Step 1**.

1. Well permit requirements as set forth in Rules 400-1-2-.01 or 400-2-2-.01, whichever is applicable for the drilling, conversion, or reentry of a plugged and abandoned well. The storage operator shall pay a fee of Three Thousand Dollars ($3,000.00) for each permit to drill an injection well.

2. A plat, in triplicate, prepared by a licensed land surveyor showing the location of the proposed underground storage well. The plat shall be drawn to the scale of one (1) inch equals one thousand (1,000) feet, unless otherwise stipulated by the Supervisor and shall show distances from the proposed well to the nearest governmental section lines. The plat shall show the direction of north, and the latitude and longitude in decimal degrees to five (5) significant digits and state plane coordinates of the proposed well.

3. A prognosis specifying the drilling, completion, or conversion procedures for the proposed underground storage well.

4. A well bore sketch showing the name, description, and depth of the proposed underground reservoir and the depth of the deepest underground source of drinking water (USDW); a description of the casing in the underground storage well, or the proposed casing program, including a full description of cement already in place or as proposed; and the proposed method of testing casing before use of the underground storage well.

5. A complete log through the underground reservoir of the storage well or if an underground storage well is to be drilled, a complete log through the underground reservoir from a nearby well. Such log shall be annotated to identify the estimated location of the base of the deepest USDW, significant aquicludes, and the underground reservoir.

6. The known or calculated fracturing pressure of the underground reservoir. All determinations included in this application shall be supported by basic data and calculations.

(b) **Step 2**.

1. Permit application, Form OGB-1 CO2, Application for Permit to Inject Carbon Dioxide;

2. A schematic diagram of the surface injection system and its appurtenances;

3. An as-built wellbore sketch showing the name, description, and depths of the underground reservoir and the base of the deepest USDW; a description of the casing, cementing, perforation, tubing, and plug and packer records associated with the construction of the underground storage well; and the method and results of casing tests reported on Form OGB-7, Well Record and Completion or Recompletion Report;

4. A complete dual induction or equivalent log through the underground reservoir of the underground storage well. Such log for wells drilled for underground storage operations shall be run prior to the setting of casing through the underground reservoir. Logs shall be annotated to identify the estimated location of the base of the deepest USDW, significant aquicludes, and the underground reservoir unless previously submitted in Step 1.

5. An affidavit specifying the source of injected fluids; an analysis of the fluids to be injected and the fluids in the injection zone; and a statement specifying any proposed treatment of the injected fluids;

6. Proof that the long string of casing of the underground storage well is cemented adequately so that injected gas cannot migrate along the annular space to any USDW. Such proof shall be provided in the form of a cement bond log or the results of a fluid movement study or such other method specified by the Supervisor;

7. Demonstration of internal and external mechanical integrity;

8. Forms OGB-6 (if applicable), OGB-7, and OGB-8;

9. Two (2) copies of all electrical, mechanical, radioactive, and dip-meter logs or such other surveys performed as a part of drilling, completing, or converting the underground storage well unless previously submitted to the Board; and

10. The calculated maximum operating wellhead injection pressure (MOWHIP) necessary to ensure that fractures are not initiated in the confining zone, that injected fluids do not migrate into any USDW, and that formation fluids are not displaced into any USDW.

(5) **Permit Approval Procedures.** Applications for underground storage well permits shall be submitted in writing to the Supervisor in accordance with sections 2, 3, and 4 of this rule. Approval to inject gas may be granted by the Supervisor after submittal and consideration of the information required under section (4)(b) of this rule, but not before “Approval to Inject” has been granted by the Board pursuant to Rule 400-8-1-.19.

(6) **Expiration of a Permit.** A permit shall expire twelve (12) months from the date of issuance if the permitted well has not been spudded.

400-8-1-.29. Financial Responsibility.

The Board shall ensure that the storage operator submits to the Board a surety bond or bonds sufficient to cover the costs and expenses of the closure of the storage facility. The proceeds of a bond shall be payable to the board by the surety upon order of the Board. The storage operator shall address in its petition to approve the proposed storage operation the sufficiency of the bond or bonds to cover the costs and expenses of the closure of the storage facility.

400-8-1-.30. Injection Well Construction and Completion Standards.

(1) The storage operator shall ensure that all injection wells are constructed and completed to prevent movement of the carbon dioxide stream or fluids into underground sources of drinking water or outside the authorized storage reservoir. Further, the storage operator shall ensure that all injection wells are constructed and completed to protect Alabama’s natural resources. The injection wells must be constructed and completed in a way that allows the use of appropriate testing devices and workover tools. The casing and cement or other materials used in the construction of each new injection well must be designed for the well's life expectancy. In determining and specifying casing and cementing requirement, all of the following factors must be considered:

(a) Depth to the injection zone;

(b) Injection pressure, external pressure, internal pressure, and axial loading;

(c) Hole size;

(d) Size and grade of all casing strings (wall thickness, external diameter, nominal weight, length, joint specification, and construction material);

(e) Corrosiveness of the carbon dioxide stream and formation fluids;

(f) Down-hole temperatures;

(g) Lithology of injection and confining zone;

(h) Type or grade of cement and cement additives; and

(i) Quantity, chemical composition, and temperature of the carbon dioxide stream.

(2) Surface casing in all newly drilled carbon dioxide injection and subsurface observation wells drilled below the underground source of drinking water must be set fifty (50) feet below the base of the lowermost underground source of drinking water and cemented.

(3) The long string casing in all injection and subsurface observation wells must be cemented. Sufficient cement must be used on the long string casing to fill the annular space behind the casing to the surface and a sufficient number of centralizers shall be used to assure a good cement job. The long string casing must extend to the injection zone.

(4) Any liner set in the well bore must be cemented with a sufficient volume of cement to fill the annular space.

(5) All cements used in the cementing of casings in injection and subsurface observation well must be of sufficient quality to maintain well integrity in the carbon dioxide injection environment. Circulation of cement may be accomplished by staging. The Board may approve an alternative method of cementing in cases where the cement cannot he recirculated to the surface, provided the storage operator can demonstrate by using logs that the cement does not allow fluid movement behind the well bore.

(6) All casings must meet the standards specified in any of the following publications, which are hereby adopted by reference:

(a) The most recent American Petroleum Institute publication on performance properties of casing, tubing and drill pipe;

(b) Specifications for casing and tubing as published by the American Petroleum Institute; or

(c) Other equivalent casing as approved by the Board.

(7) All casings used in new wells must be new casing or reconditioned casing of a quality equivalent to new casing and that has been pressure-tested.

(8) The location and amount of cement behind casings must be verified by an evaluation method approved by the Board. The evaluation method must be capable of evaluating cement quality radially and identifying the location of channels to ensure that underground sources of drinking water are not endangered.

(9) All injection wells must be completed with and injection must be through tubing and packer. In order for the Board to determine and specify requirements for tubing and packer, the storage operator shall submit the following information:

(a) Depth of setting;

(b) Characteristics of the carbon dioxide stream (chemical content, corrosiveness, temperature, and density) and formation fluids;

(c) Maximum proposed injection pressure;

(d) Maximum proposed annular pressure;

(e) Proposed injection rate (intermittent or continuous) and volume and mass of the carbon dioxide stream;

(f) Size of tubing and casing;

(g) Tubing tensile, burst, and collapse strengths; and

(h) Any other information or tests that the Board may require.

(10) All tubing strings must meet industry standards. All tubing must be new tubing or reconditioned tubing of a quality equivalent to new tubing and that has been pressure-tested.

(11) All wellhead components, including the casinghead and tubing head, valves, and fittings, must be made of steel having operating pressure ratings sufficient to exceed the maximum injection pressures computed at the wellhead and to withstand the corrosive nature of carbon dioxide. Each flow line connected to the wellhead must be equipped with a manually operated positive shutoff valve located on or near the wellhead.

(12) All packers, packer elements, or similar equipment critical to the containment of carbon dioxide must be of a quality sufficient to withstand exposure to carbon dioxide.

(13) All injection wells must have at all times an accurate, operating pressure gauge or pressure recording device. Gauges must be calibrated as required by the Board and evidence of such calibration must be available to the Board upon request.

(14) All newly drilled wells must establish internal and external mechanical integrity and continued mechanical integrity through periodic testing. All other wells to be used as injection wells must demonstrate mechanical integrity prior to use for injection and be tested on an ongoing basis.

(a) Pressure tests. Injection wells, equipped with tubing and packer as required, must be pressure-tested. A testing plan must be submitted to the Board for prior approval. At a minimum, the pressure must be applied to the tubing casing annulus at the surface for a period of thirty minutes and must have no decrease in pressure greater than ten percent of the required minimum test pressure. The packer must be set at a depth at which the packer will be opposite a cemented interval of the long string casing and must be set no more than fifty (50) feet above the uppermost perforation or open hole for the storage reservoirs; and

(b) The Board may require additional testing, such as a bottom hole temperature and pressure measurements, tracer survey, temperature survey, gamma ray log, neutron log, noise log, casing inspection log, or a combination of two or more of these surveys and logs, to demonstrate mechanical integrity.

(15) The Board has the authority to witness all mechanical integrity tests conducted by the storage operator.

(16) If an injection well fails to demonstrate mechanical integrity by an approved method, the storage operator shall immediately shut in the well, report the failure to the Board, and commence isolation and repair of the leak. The operator shall, within ninety days or as otherwise directed by the Board, perform one of the following:

(a) Repair and retest the well to demonstrate mechanical integrity; or

(b) Properly plug the well.

(17) All injection wells must be equipped with shutoff systems designed to alert the operator and shut in wells when necessary.

(18) Additional requirements may be required by the Board to address specific circumstances and types of projects.

400-8-1-.31. Injection Well Mechanical Integrity.

(1) An injection well has mechanical integrity if:

(a) There is no significant leak in the casing, tubing, or packer; and

(b) There is no significant fluid movement into an underground source of drinking water through channels adjacent to the well bore.

(2) To evaluate the absence of significant leaks, the storage operator shall, following an initial annulus pressure test, continuously monitor injection pressure, rate, injected volumes, pressure on the annulus between tubing and long string casing, and volume.

(3) On a schedule determined by the Board, but at least annually, the storage operator shall use one of the following methods to determine the absence of significant fluid movement:

(a) An approved tracer survey; or

(b) A temperature or noise log.

(4) If required by the Board, at a frequency specified in the testing and monitoring plan, the storage operator shall run a casing inspection log to determine the presence or absence of corrosion in the long string casing.

(5) The Board may require alternative and additional methods to evaluate mechanical integrity. Also, the Board may allow the use of an alternative method to demonstrate mechanical integrity other than those listed above with the written approval of the Board.

(6) To conduct and evaluate mechanical integrity, the storage operator shall apply methods and standards generally accepted in the industry. When the storage operator reports the results of mechanical integrity tests to the Board, the storage operator shall include a description of the test and the method used.

(7) The Board may require additional or alternative tests if the results presented by the storage operator are not satisfactory to the Board to demonstrate mechanical integrity.

(8) If the Board determines that an injection well lacks mechanical integrity pursuant to this section, the Board shall give written notice of its determination to the storage operator. Unless the Board requires immediate cessation of injection, the storage operator shall cease injection into the well within forty-eight hours of receipt of the Board's determination. The Board may allow plugging of the well or require the storage operator to perform such additional construction, operation, monitoring, reporting, and corrective action as is necessary to prevent the movement of fluid into or between underground sources of drinking water caused by the lack of mechanical integrity. The storage operator may resume injection upon written notification from the Board that the storage operator has demonstrated mechanical integrity pursuant to this section.

(9) The Board may allow the storage operator of an injection well that lacks mechanical integrity pursuant to this section to continue or resume injection, if the storage operator has made a satisfactory demonstration that there is no movement of fluid into or between underground sources of drinking water.

400-8-1-.32. Injection Well Logging, Sampling, and Testing.

(1) During the drilling and construction of an injection well, the storage operator shall run appropriate logs, surveys, and tests to determine or verify the depth, thickness, porosity, permeability, lithology, and salinity of any formation fluids in all relevant geologic formations to ensure conformance with the injection well construction requirements, and to establish accurate baseline data against which future measurements may be compared. The storage operator shall submit to the Board a descriptive report prepared by a log

analyst that includes an interpretation of the results of such logs and tests. At a minimum, such Logs and tests must include:

(a) Deviation surveys.

(b) Before and upon installing the surface casing:

1. Resistivity, spontaneous potential, and caliper logs before the casing is installed; and

2. A cement bond and variable density log to evaluate cement quality radially and a temperature log after the casing is set and cemented.

(c) Before and upon installation of the long string casing:

1. Resistivity, spontaneous potential, porosity, caliper, gamma ray, fracture finder logs, and any other logs the Board requires for the given geology before the casing is installed; and

2. A cement bond and variable density log, and a temperature log after the casing is set and cemented.

(d) A series of tests designed to demonstrate the internal and external mechanical integrity of injection wells, which may include:

1. A pressure test with liquid or gas;

2. A tracer survey;

3. A temperature or noise Log;

4. A casing inspection log; and

5. Any alternative methods that provide equivalent or better information and that the Board requires or approves.

(2) The storage operator shall take whole cores or sidewall cores of the injection zone and confining zone and formation fluid samples from the injection zone, and shall submit to the Board a detailed report prepared by a log analyst that includes well log analyses (including well logs), core analyses, and formation fluid sample information. The Board may accept information on cores from nearby wells if the storage operator can demonstrate that core retrieval is not possible and that such cores are representative of conditions at the well. The Board may require the storage operator to core other formations in the borehole.

(3) The storage operator shall record the fluid temperature, pH, conductivity, reservoir pressure, and static fluid level of the injection zone.

(4) At a minimum, the storage operator shall determine or calculate the following information concerning the injection and confining zone:

(a) Fracture pressure;

(b) Other physical and chemical characteristics of the injection and confining zone; and

(c) Physical and chemical characteristics of the formation fluids in the injection zone.

(5) Upon completion, but prior to operation, the storage operator shall conduct the following tests to verify hydrogeologic characteristics of the injection zone:

(a) Pressure fall-off test; and

(b) Pump test; or

(c) lnjectivity test.

(6) The storage operator shall provide the Board with the opportunity to witness all logging and testing carried out under this section. The storage operator shall submit a schedule of such activities to the Board thirty days prior to conducting the first test and submit any changes to the schedule thirty days prior to the next scheduled test.

400-8-1-.33. Injection Well Operating Requirements.

(1) Except during stimulation, the storage operator shall ensure that injection pressure does not exceed ninety percent of the fracture pressure of the injection zone so as to ensure that the injection does not initiate new fractures or propagate existing fractures in the injection zone. Injection pressure must never initiate fractures in the confining zone or cause the movement of injection or formation fluids that endanger an underground source of drinking water. All stimulation programs are subject to the Board 's approval as part of the approval of the storage facility.

(2) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

(3) The storage operator shall fill the annulus between the tubing and the long string casing with a noncorrosive fluid approved by the Board. The storage operator shall maintain on the annulus a pressure that exceeds the operating injection pressure, unless the Board determines that such requirement might harm the integrity of the well or endanger underground sources of drinking water.

(4) Other than during periods approved by the Board in which the sealed tubing-casing annulus is disassembled for maintenance or corrective procedures, the storage operator shall maintain mechanical integrity of the injection well at all times.

(5) The storage operator shall install and use the following monitoring equipment:

(a) Continuous recording devices to monitor the injection pressure; the rate, volume or mass, and temperature of the carbon dioxide stream; and the pressure on the annulus between the tubing and the long string casing and annulus fluid volume; and

(b) Alarms and automatic surface shutoff systems or, at the discretion of the Board, down-hole shutoff systems (e.g., automatic shutoff, check valves) or other mechanical devices that provide equivalent protection that are designed to alert the operator and shut-in the well when operating parameters diverge beyond permitted ranges or gradients specified in the permit.

(6) If a shutdown (down-hole or at the surface) is triggered or a loss of mechanical integrity is discovered, the storage operator shall immediately investigate and identify the cause as expeditiously as possible. If, upon such investigation, the well appears to be lacking mechanical integrity, or if monitoring required under section 5 of this rule indicates that the well may lack mechanical integrity, the storage operator shall:

(a) Immediately cease injection;

(b) Take all steps reasonably necessary to determine whether there may have been a release of the injected carbon dioxide stream or formation fluids into any unauthorized zone;

(c) Notify the Board within twenty-four hours;

(d) Restore and demonstrate mechanical integrity to the satisfaction of the Board prior to resuming injection; and

(e) Notify the Board when injection can be expected to resume.

(7) If any monitoring indicates the movement of injection or formation fluids into underground sources of drinking water, the Board shall prescribe such additional requirements for construction, corrective action, operation, monitoring, or reporting as are necessary to prevent such movement. These additional requirements must be imposed by modifying or terminating the approval of the storage facility if the Board determines that cause exists, or appropriate enforcement action may be taken if the storage facility plan has been violated.

400-8-1-.34. Injection Well Testing and Monitoring Requirements.

The storage operator shall prepare, maintain, and comply with a testing and monitoring plan to verify that the geologic sequestration project is operating as approved and is not endangering underground sources of drinking water or natural resources. The plan must be submitted with the petition to approve the storage facility and must include a description of how the storage operator will meet the requirements of this section, including accessing sites for all necessary monitoring and testing during the life of the project.

(1) The testing and monitoring plan must include:

(a) Analysis of the carbon dioxide stream in compliance with applicable analytical methods and standards generally accepted by industry and with sufficient frequency to yield data representative of its chemical and physical characteristics;

(b) Installation and use, except during well workovers, of continuous recording devices to monitor injection pressure, rate, and volume; the pressure on the annulus between the tubing and the long string casing; and the annulus fluid volume added;

(c) Corrosion monitoring of the well materials for loss of mass, thickness, cracking, pitting, and other signs of corrosion, which must be performed on a quarterly basis to ensure that the well components meet the minimum standards for material strength and performance by:

1. Analyzing coupons of the well construction materials placed in contact with the carbon dioxide stream;

2. Routing the carbon dioxide stream through a loop constructed with the material used in the well and inspecting the materials in the loop; or

3. Using an alternative method approved by the Board.

(d) Periodic monitoring of the ground water quality and geochemical changes above the confining zone that may be a result of carbon dioxide movement through the confining zone or additional identified zones, including:

1. The location and number of subsurface observation wells based on specific information about the geologic sequestration project, including injection rate and volume, geology, the presence of artificial penetrations, and other factors; and

2. The monitoring frequency and spatial distribution of subsurface observation wells based on baseline geochemical data and on any modeling results in the area of review evaluation.

(e) A demonstration of external mechanical integrity at least once per year until the injection well is plugged; and, if required by the Board, a casing inspection log at a frequency established in the testing and monitoring plan;

(f) A pressure fall-off test at least once every five years unless more frequent testing is required by the Board based on site-specific information;

(g) Testing and monitoring to track the extent of the carbon dioxide plume and the presence or absence of elevated pressure (e.g., the pressure front) by using:

1. Direct methods in the injection zone; and

2. Indirect methods (e.g., seismic, electrical, gravity, interferometric synthetic aperture radar or electromagnetic surveys and down-hole carbon dioxide detection tools), unless the Board determines, based on site- specific geology, that such methods are not appropriate;

(h) The Board may require surface air monitoring and soil gas monitoring to detect movement of carbon dioxide that could endanger an underground source of drinking water. Regarding these requirements:

1. Design of surface air and soil gas monitoring must be based on potential risks to underground sources of drinking water within the area of review;

2. The monitoring frequency and spatial distribution of surface air monitoring and soil gas monitoring must be based on using baseline data, and the monitoring plan must describe how the proposed monitoring will yield useful information on the area of review; and

3. Surface air monitoring and soil gas monitoring methods are subject to the Board's approval;

(i) Any additional monitoring, as required by the Board, necessary to support, upgrade, and improve computational modeling of the area of review evaluation;

(j) Periodic reviews of the testing and monitoring plan by the storage operator to incorporate monitoring data collected, operational data collected, and the most recent area of review reevaluation performed. The storage operator shall review the testing and monitoring plan at least once every five years. Based on this review, the storage operator shall submit an amended testing and monitoring plan or demonstrate to the Board that no amendment to the testing and monitoring plan is needed. Any amendments to the testing and monitoring plan are subject to the Board's approval, must be incorporated into the permit, and are subject to the permit modification requirements. Amended plans or demonstrations must be submitted to the Board as follows:

1. Within one (1) year of the reevaluation;

2. Following any significant changes to the facility, such as addition of subsurface observation wells or newly permitted injection wells within the storage facility area or the area of review, on a schedule determined by the Board; or

3. When required by the Board; and

4. A quality assurance and surveillance plan for all testing and monitoring requirements.

(2) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(3) Records of monitoring information shall include:

(a) The date, exact place, and time of sampling or measurements;

(b) The individual who performed the sampling or measurements;

(c) The date analyses were performed;

(d) The individual who performed the analyses;

(e) The analytical techniques or methods used; and

(f) The results of such analyses.

(4) All well permits issued by the Board shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods, including biological monitoring methods when appropriate;

(b) Required monitoring, including type, intervals, and frequency sufficient to yield data, which are representative of the monitored activity, including when appropriate, continuous monitoring; and

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified throughout this chapter.

400-8-1-.35. Monitoring of Seismicity.

The storage operator shall prepare, maintain, and comply with a monitoring plan to monitor the seismicity throughout the storage facility area. The seismicity plan shall be submitted with the petition to approve the storage facility.

400-8-1-.36. Injection Well Plugging.

(1) Prior to the well plugging, the storage operator shall flush each injection well with a buffer fluid, determine bottom hole reservoir pressure, and perform a final external mechanical integrity test.

(2) The storage operator shall prepare, maintain, and comply with a plugging plan that is approved by the Board. The well plugging plan shall be submitted as part of the petition for approval of the storage facility and shall include the following:

(a) Appropriate tests or measures for determining bottom hole reservoir pressure;

(b) Appropriate testing methods to ensure external mechanical integrity;

(c) The type and number of plugs to be used;

(d) The placement of each plug, including the elevation of the top and bottom of each plug;

(e) The type, grade, and quantity of material to be used in plugging. The material must be compatible with the carbon dioxide stream; and

(f) The method of placement of the plugs.

(3) The storage operator shall notify the Board in writing, at least sixty days before plugging a well. Any proposed amendments to the plugging plan are subject to the Board's approval after notice and hearing.

(4) Within thirty days after plugging, the storage operator shall submit a plugging report to the Board. The report must be certified as accurate by the storage operator.

400-8-1-.37. Modification, Revocation, and Reissuance or Termination of Orders Approving a Storage Facility.

Orders by the Board approving a storage facility are subject to review by the Board. Any interested person (e.g., the storage operator, local governments having jurisdiction over land within the area of review, and any person who has suffered or will suffer actual injury or economic damage) may petition the Board to review the storage facility approved by the Board for one of the reasons set forth below. All requests must be in writing and must contain facts or reasons supporting the request. If the Board determines that the request may have merit, the Board may, after notice and hearing, review the approval of the storage facility, the storage facility area. The Board may modify the storage facility, the plan for the storage facility, the area of review, or make such orders as the Board deems appropriate, including revoking the approval of the storage facility. The Board may at any time, particularly in considering a petition for reevaluation, enact the following:

(1) Changes to the storage facility area.

(2) Changes to the area of review.

(3) Injecting into a reservoir not specified in the Board order.

(4) Any increase greater than the permitted carbon dioxide storage volume.

(5) Changes in the chemical composition of the carbon dioxide stream;

(6) Amendment to the testing and monitoring plan.

(7) Amendment to the injection well plugging plan.

(8) Amendment to the post-injection site care and facility closure plan.

(9) Amendment to the emergency and remedial response plan.

(10) Review of monitoring and testing results conducted in accordance with injection well permit requirements.

If the Board at any time receives information that was not available at the time of the hearing on the petition for the storage facility, the Board may modify orders of the Board.

400-8-1-.38. Minor Modifications to the Plan of Storage Operations.

With approval of the Supervisor, upon the written request by the storage operator, the Supervisor may modify a plan for storage operations to make the corrections of minor modifications. Minor modifications may include:

(1) Correct typographical errors;

(2) Require more frequent monitoring or reporting by the storage operator;

(3) Change an interim compliance date in a schedule of compliance; or

(4) Change quantities or types of fluids injected which are within the capacity of the storage facility and, in the judgment of the Board, would not interfere with the operation of the facility.

400-8-1-.39. Emergency and Remedial Response Plan; Worker Safety Plan.

The storage operator shall include in its petition for approval of the storage facility an emergency and remedial response plan and a plan for worker safety. The plan must include, among other things, a list of contractors and vendors capable of addressing remedial work at the storage facility. Upon approval of the petition, the storage operator shall implement the emergency and remedial response plan and the plan for worker safety plan. This emergency and remedial response plan must include adequate emergency response and security procedures. The plan, including any revisions of the list of contractors and vendors, must be updated as necessary or as the Board requires. Copies of the plans must be available at the storage facility and at the storage operator's nearest operational office.

(1) The emergency and remedial response plan requires a description of the actions the storage operator shall take to address movement of the injection or formation fluids that may endanger an underground source of drinking water or natural resources during construction, operation, and post-injection site care periods. The plan must also include:

(a) The safety procedures concerning the facility and residential, commercial, and public land use within one mile, or any other distance set by the Board, of the outside boundary of the facility area;

(b) Contingency plans for addressing carbon dioxide leaks from any well, flow lines, or other facility, and loss of containment from the storage reservoir, and identify specific contractors and equipment vendors capable of providing necessary services and equipment to respond to such leaks or loss of containment; and

(c) A list of contractors and vendors capable of addressing remedial work at the storage facility.

(2) If the storage operator obtains evidence that the injected carbon dioxide stream and associated pressure front may endanger an underground source of drinking water or natural resources, the storage operator shall:

(a) Immediately cease injection;

(b) Take all steps reasonably necessary to identify and characterize any release;

(c) Notify the Board within twenty-four hours; and

(d) Implement the emergency and remedial response plan approved by the Board.

(3) The Board may allow the operator to resume injection prior to remediation if the storage operator demonstrates that the injection operation will not endanger underground sources of drinking water or natural resources.

(4) The storage operator shall review annually the emergency and remedial response plan developed under section 1 of this rule. Further, the storage operator shall submit to the Board by the end of each calendar year a written review of the status of the emergency and remedial response plan and the plan for worker safety. In this review, the storage operator shall include amended plans, if necessary, or a statement to the Board that no amendment to the plans are needed. Any amendments to the plans are subject to the

Board 's approval, must be incorporated into the storage facility order of approval. The written review of the status of the plans shall be submitted to the Board as follows:

(a) Annually by the end of the calendar year;

(b) With any petition for reevaluation;

(c) Following any significant changes to the facility, such as addition of injection or subsurface observation wells, on a schedule determined by the Board; or

(d) As required by the Board.

400-8-1-.40. Leak Detection and Reporting.

(1) Leak detectors or other approved leak detection equipment must be placed at the wellhead of all injection wells. Leak detectors must be integrated, where applicable, with automated warning systems and must be inspected and tested on a semiannual basis and, if defective, shall be repaired or replaced within ten days. Each repaired or replaced detector must be retested as required by the Board. An extension of time for repair or replacement of a leak detector may be granted upon a showing of good cause by the storage operator. A record of each inspection must be maintained by the operator for at least ten years, and must be made available to the Board.

(2) The storage operator shall immediately report to the Board any leak detected at any well or surface facility.

(3) The storage operator shall immediately report to the Board any pressure changes or other monitoring data from subsurface observation wells that indicate the presence of leaks in the storage reservoir.

(4) The storage operator shall immediately report to the Board any other indication that the storage facility is not containing carbon dioxide, whether the lack of containment concerns the storage reservoir, surface equipment, or any other aspect of the storage facility.

400-8-1-.41. Storage Facility Corrosion Monitoring and Prevention.

The storage operator shall conduct a corrosion monitoring and prevention program approved by the Board.

400-8-1-.42. Storage Facility Identification Requirements.

Identification signs shall be placed at each storage facility in a centralized location and at each well site. The signs identifying the storage facility shall show the name of the operator, the facility name, the emergency response number to contact the operator and contact information for the Board. Identification signs shall also be placed at each well in the storage facility. The well signs shall be posted and maintained in a legible state in a conspicuous place near the well. Such well signs shall be posted before spudding or reentry and shall remain posted until the well is plugged and abandoned and the location restored. Each well sign shall include the name of the operator, the permit number, the well name and number, and the section, township, range, and county in which the well is located.

400-8-1-.43. Stratigraphic Test Well.

Any company or individual proposing to drill a stratigraphic test well to obtain cores or other geologic information and data related to a proposed or current carbon dioxide storage operation shall obtain a well permit from the Board prior to commencing drilling operations.

400-8-1-.44. Storage Facility Fees.

(1) The storage operator shall pay the Board a fee of Three Cents ($0.03) on each ton of carbon dioxide injected for storage, which shall be deposited into the State Oil and Gas Board Geologic Storage of Carbon Dioxide Administrative Fund, authorized by Section 9-17-163 of the *Code of Alabama* (1975), as amended, to be utilized by the Board for the Board’s administrative services and regulatory duties for storage of carbon dioxide. The storage operator shall pay this fee to the State Oil and Gas Board of Alabama quarterly by the 15th of the month following end of quarter.

(2) The storage operator shall pay the Board a fee of Four Cents ($0.04) on each ton of carbon dioxide injected for storage which shall be deposited into the State Oil and Gas Board Geologic Storage of Carbon Dioxide Trust Fund, authorized by Section 9-17-163 of the *Code of Alabama* (1975), as amended, to be used by the Board for certain costs associated with geologic sequestration sites within this state pursuant

to Rule 400-8-1-.56. The storage operator shall pay this fee to the State Oil and Gas Board of Alabama quarterly by the 15th of the month following end of quarter.

(3) The storage operator shall pay the Board a filing fee for a petition to approve a storage facility in the amount of One Hundred Thousand Dollars ($100,000.00), pursuant to Rule 400-8-1-.15.

(4) The storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a petition to reevaluate the storage facility, pursuant to Rule 400-8-1-.24.

(5) A storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a request for Change of Operator, pursuant to Rule 400-8-1-.25.

(6) The storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a petition for approval to inject, pursuant to Rule 400-8-1-.18.

(7) The storage operator shall pay a fee of Three Thousand Dollars ($3,000.00) for each permit to drill an injection well, pursuant to Rule 400-8-1-.28. The storage operator shall pay a fee of One Thousand Dollars ($1,000.00) for each permit to drill a subsurface observation well, pursuant to Rule 400-8-1-.28. The applicant for a stratigraphic test well permit shall pay a fee of One Thousand Dollars ($1,000.00), pursuant to Rule 400-8-1-.28.

(8) The storage operator shall pay a fee of One Thousand Dollars ($1,000.00) for each petition for temporary abandoned status, pursuant to Rule 400-8-1-.53.

(9) A storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a petition to approve a Post-Injection Site Care and Facility Closure Plan, pursuant to Rule 400-8-1-.54.

(10) A storage operator shall pay a filing fee of Fifteen Thousand Dollars ($15,000.00) for a petition for approval of the facility closure and final assessment, pursuant to Rule 400-8-1-.55.

400-8-1-.45. Reporting Requirements.

(1) The storage operator shall file with the Board all reports, submittals, notifications, and any other information that the Board requires.

(2) The storage operator shall give notice to the Board as soon as possible of any planned physical alterations or additions to the permitted storage facility or any other planned changes in the permitted storage facility or activity which may result in noncompliance with permit requirements.

(3) Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than thirty days following each schedule date.

(4) The storage operator shall file with the Board quarterly, or more frequently if the Board requires, a report on the volume of carbon dioxide injected into or withdrawn since the last report, the average injection rate, average composition of the carbon dioxide stream, wellhead and down-hole temperature and pressure data or calculations, or other pertinent operational parameters as required by the Board.

(5) The storage operator shall submit copies of all required report, submittals, and notifications sent to the United States Environmental Protection Agency to the Board.

(6) The quarterly report is due thirty days after the end of the quarter. The report must:

(a) Describe any changes to the physical, chemical, and other relevant characteristics of the carbon dioxide stream from the proposed operating data;

(b) State the monthly average, maximum, and minimum values for injection pressure, flow rate and volume, and annular pressure;

(c) Describe any event that exceeds operating parameters for annulus pressure or injection pressure specified in the permit;

(d) Describe any event which triggers a shutoff device and the response by the storage operator.

(e) State the monthly volume and mass of the carbon dioxide stream injected over the reporting period and the volume injected cumulatively over the life of the project to date;

(f) State the monthly annulus fluid volume added; and

(g) State the results of monitoring.

(7) The storage operator shall file with the Board an annual report that summarizes the quarterly reports and that provides updated projections of the response and storage capacity of the storage reservoir. The projections must be based on actual reservoir operational experience, including all new geologic data and

information. All anomalies in predicted behavior as indicated in permit conditions or in the assumptions upon which the permit was issued must be explained. The annual report is due forty-five days after the end of the year.

(8) The storage operator shall report, within thirty days, the results of:

(a) Periodic tests of mechanical integrity;

(b) Any well workover; and

(c) Any other test of the injection well conducted by the storage operator if required by the Board.

(9) The storage operator shall report the following, within twenty-four hours:

(a) Any evidence that the injected carbon dioxide stream or associated pressure front may cause an endangerment to an underground source of drinking water;

(b) Any noncompliance which may endanger health and safety of persons or cause pollution of the environment, including:

1. Any monitoring or other information which indicates that any contaminant may cause an endangerment to underground sources of drinking water; or

2. Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water shall be provided verbally within twenty-four hours from the time the storage operator becomes aware of the circumstances. A written submission shall also be provided within five days of the time the storage operator becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(c) Any triggering of a shutoff system (e.g., down-hole or at the surface);

(d) Any failure to maintain mechanical integrity; or

(e) Any release of carbon dioxide to the atmosphere.

(10) The storage operator shall notify the Board in writing thirty days in advance of:

(a) Any planned well workover;

(b) Any planned stimulation activities, other than stimulation for formation testing conducted;

(c) Any other planned test of the injection well conducted by the storage operator; and

(d) The conversion or abandonment of any well used or proposed to be used in a geologic storage operation.

(11) The storage operator shall retain the following records until project completion:

(a) All data collected for the applications of the storage facility permit, injection well permit, and operation of injection well permit;

(b) Data on the nature and composition of all injected fluids collected. and

(c) All records from the closure period, including well plugging reports, post-injection site care data, and the final assessment.

(d) Upon project completion, the storage operator shall deliver any records required to the Board.

(12) The storage operator shall retain the following records for a period of at least ten years from the date of the sample, measurement, or report:

(a) Monitoring data collected, and

(b) Calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the storage facility permit.

(c) This period may be extended by request of the Board at any time.

(13) The storage operator shall report all instances of noncompliance under this section relating to reporting.

(14) The storage operator shall report all releases of carbon dioxide.

(15) When the storage operator becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or in any report to the Board, such facts or information shall be promptly submitted to the Board. Failure to do so may result in revocation of the approval of the storage facility, depending on the nature of the information withheld.

400-8-1-.46. Determining Storage Amounts.

The storage operator shall determine the amount of injected carbon dioxide stored in a reservoir that has been or is being used for an enhanced oil or gas recovery project or in a storage reservoir that has been or is being used for storage under order of the Board.

400-8-1-.47. Well Status Report.

A status or progress report of operations being performed in association with well activities shall be reported orally or in writing to the appropriate Board office by 10:00 a.m. on the first working day of each week.

400-8-1-.48. Notification of Activities.

(1) Notification Prior to Performance of Activity. A storage operator shall notify the Supervisor prior to performing any of the following activities:

(a) Setting surface casing;

(b) Running intermediate or production casing;

(c) Perforating;

(d) Drillstem testing;

(e) Wireline logging or surveying;

(f) Coring;

(g) Pressure testing;

(h) Cleaning tanks; and

(i) Initiating a gathering line construction operation.

(2) Witness of Activities. The Supervisor may send a duly authorized representative to the location to witness activities in section 1 of this rule.

(3) Notification Subsequent to Occurrence of Activity. An operator shall notify the Supervisor when the following occurs:

(a) Loss of a radioactive logging source;

(b) Encountering unexpected wellbore conditions during recompletion or reworking;

(c) Repairing or replacing damaged gathering lines; and

(d) Fire, spill, leak, or blow out.

400-8-1-.49. Approval of Activities.

(1) A storage operator shall obtain approval of the Supervisor for:

(a) Initiating drilling, converting, or reentering a well;

(b) Deepening;

(c) Directionally drilling or sidetracking;

(d) Plan of abandonment of a radioactive logging source;

(e) Plan of operation for reentering, converting, recompleting, or reworking a well containing a radioactive logging source;

(f) Radioactive surveys;

(g) Chemical treatment or fracturing;

(h) Construction of any pit;

(i) Disposal of pit fluids;

(j) Plugging and abandonment;

(k) Restoration of location;

(l) Recompletion or reworking;

(m) Construction and operation of gathering lines;

(n) Modifications to gathering lines;

(o) Repairing or replacing damaged sour flowlines or sour gathering lines;

(p) Transportation of wastes; and

(q) Modification of transportation of wastes procedures.

(2) Witness of Activities. The Supervisor may send a duly authorized representative to the location to witness activities in item 1 above.

400-8-1-.50. Well Record.

(1) During drilling, completing, and workover operations on every permitted well, the owner, operator, contractor, driller, or other person responsible for the conduct of drilling operations, shall notify the Supervisor prior to performing the following activities: setting surface casing, running intermediate or production casing, perforating, drillstem testing, wireline logging or surveying, and coring. Such persons shall keep a detailed and accurate record of the well, reduced to writing from day to day, which shall be accessible to the Board and its agents at all times. Pertinent information from such records shall be furnished to the Board within thirty (30) days after completion, or at such time as prescribed by the Supervisor. Said information shall include, but not be limited to: drilling contractor; spud date; ground level, derrick floor, and kelly bushing elevations surveyed by a licensed land surveyor; total depth; kick-off point depths and directions of any sidetracks; bottom-hole location; casing and liner record; cement record; squeeze cement record; perforation record; tubing record; the depth and type of any plugs or packers set; well stimulation and treatment record; drillstem test record; and a record of all wireline logging, sampling, and coring operations for said well. This information shall be submitted on the appropriate **Forms OGB-6, OGB-7, and OGB-8**.

(2) One (1) copy of all electrical, mechanical, radioactive, and dipmeter logs or such other surveys performed as a part of drilling, completing, or workover operations shall be submitted to the Board within thirty (30) days after completion. In addition to filing either blue or black line log copies, all available digital log data in a Log ASCII Standard (LAS) format shall be filed with the Board. One (1) copy of all drillstem test results shall be submitted along with **Form OGB-7** within thirty (30) days after completion. A complete set of washed (mud-logger) cuttings, if available, correctly labeled and identified as to depth, shall be filed with the Board within thirty (30) days from the time of completion of any well unless otherwise approved by the Supervisor. If cores are taken, a complete set of cores, either whole or at least quarter slabs, correctly labeled and identified as to depth, shall be filed with the Board within three (3) months from the time of completion of any well unless otherwise approved by the Supervisor.

400-8-1-.51. Forms.

In addition to **Form OGB-1 CO2**, Application for Permit to Inject Storage Gas, required pursuant to Rule 400-8-1-28, the Supervisor may prepare and utilize such forms as the Supervisor deems appropriate for the proper administration of these rules and regulations.

400-8-1-.52. Directional Surveys.

If required by this rule, a directional survey, which may include logging while drilling (LWD) or measurement while drilling (MWD) logs, shall be run and one (1) copy thereof filed by the operator with the Supervisor within thirty (30) days after completion of a well. Directional surveys shall be run from total depth to base of surface casing or the kickoff point, whichever is shallowest, unless otherwise approved by the Supervisor. However, directional surveys to total depth shall be unnecessary in cases where the interval below the survey is less than five hundred (500) feet. In such an instance, a projection of the latest survey shall satisfy Board requirements. Directional surveys shall be run when:

(1) The well is directionally controlled and is thereby intentionally deflected from the vertical; or

(2) The well is drilled to a measured depth of six thousand (6,000) feet or greater; or

(3) A well is expected to penetrate pore pressure gradients greater than sixty-seven (67) pounds per square inch (psi) per one hundred (100) feet (ft) in depth or 0.67 psi/ft; or

(4) A well penetrates or is expected to penetrate intervals containing hydrogen sulfide, such surveys to be run within five hundred (500) feet of entering such hydrogen sulfide bearing formation; or

(5) The well is drilled as an exceptional location and such directional survey is ordered by the Board.

400-8-1-.53. Abandonment of Wells.

(1) Notwithstanding the definition of abandoned well, the removal of injection equipment or the failure to operate an injection well for one year constitutes abandonment of the well. An abandoned well must be plugged in accordance with the plugging plan and the well site must be restored and reclaimed.

(2) On written request by the storage facility operator, the Board may grant a one-year temporarily abandoned status. This status may only be given to wells that are to be used for purposes related to the

geologic storage of carbon dioxide. In order for temporarily abandoned status to be approved, the Board may require that the well's perforations have been isolated, the well's casing has integrity, and the casing is sealed at the surface, all in a manner approved by the Board. The Board may extend a well's temporarily abandoned status beyond one year only after notice and hearing on a petition. The storage operator shall pay a filing fee of One Thousand Dollars ($1,000.00) for each request or petition for temporarily abandoned status.

400-8-1-.54. Post-Injection Site Care and Facility Closure Plan.

The Board may at any time by a motion by the Board during the operation of the facility require the operator at a hearing to present, discuss or review the post-injection site care and facility closure plan. Prior to the actual closure of the facility, the storage operator shall file a post-injection site care and facility closure plan. The storage operator shall pay a fee to the Board in the amount of Fifteen Thousand Dollars ($15,000.00) for a petition to approve a post-injection site care and facility closure plan.

(1) In support of the petition, the storage operator shall submit the following information:

(a) The pressure differential between pre-injection and predicted post-injection pressures in the injection zone;

(b) The predicted position of the carbon dioxide plume and associated pressure front at cessation of injection;

(c) A description of post-injection monitoring location, methods, and proposed frequency;

(d) A schedule for submitting post-injection site care monitoring results to the Board; and

(e) The duration of the post-injection site care monitoring timeframe that ensures nonendangerment of underground sources of drinking water.

(2) The storage operator shall specify in the post-injection site care and facility closure plan the wells that will be plugged and the wells that will remain unplugged to be used as subsurface observation wells. Subsurface observation and ground water subsurface observation wells as approved in the plan must remain in place for continued monitoring during the closure and post-closure periods.

(3) Upon cessation of injection, the storage operator shall either submit an amended post-injection site care and facility closure plan or demonstrate to the Board through monitoring data and modeling results that no amendment to the plan is needed. Any amendments to the post-injection site care and facility closure plan are subject to the Board 's approval.

(4) Upon cessation of injection, all wells not associated with monitoring must be properly plugged and abandoned in a manner which will not allow movement of injection or formation fluids that endanger underground sources of drinking water or natural resources. All storage facility equipment, appurtenances, and structures not associated with monitoring must be removed. Following well plugging and removal of all surface equipment, the surface must be reclaimed to the Board's specifications that will, in general, return the land as closely as practicable to original condition.

(5) The well casing must be cut off at a depth of five (5) feet below the surface and a steel plate welded on top identifying the well name and stating that it was used for carbon dioxide storage.

(6) The Board shall develop in conjunction with the storage operator a continuing monitoring plan for the post-closure period, including a review and final approval of wells to be plugged.

(7) The storage operator shall continue to conduct monitoring during the closure period as specified in the post-injection site care and facility closure plan.

400-8-1-.55. Petition for Approval of the Facility Closure Final Assessment.

Within ninety days of completing all post-injection site care and facility closure requirements, the storage operator shall petition the Board for approval of the closure of the storage facility and shall submit a final assessment to the Board. The storage operator shall pay a fee to the Board in the amount of Fifteen Thousand Dollars ($15,000.00) for the petition.

(1) In support of the petition, the storage operator must submit:

(a) The results of computational modeling performed pursuant to delineation of the area of review;

(b) The predicted timeframe for pressure decline within the injection zone, and any other zones, such that formation fluids may not be forced into any underground sources of drinking water or the timeframe for pressure decline to pre-injection pressures;

(c) The predicted rate of carbon dioxide plume migration within the injection zone and the predicted timeframe for the cessation of migration;

(d) A description of the site-specific processes that will result in carbon dioxide trapping, including immobilization by capillary trapping, dissolution, and mineralization at the site;

(e) The predicted rate of carbon dioxide trapping in the immobile capillary phase, dissolved phase, or mineral phase;

(f) The results of relevant laboratory analyses, research studies, or field or site-specific studies.

(g) A characterization of the confining zone, including a demonstration that it is free of transmissive faults, fractures, and microfractures, and an evaluation of thickness, permeability, and integrity to impede fluid (e.g., carbon dioxide, formation fluids) movement;

(h) The presence of potential conduits for fluid movement, including planned injection wells and project subsurface observation wells associated with the proposed geologic sequestration project;

(i) A description of the well construction and an assessment of the quality of plugs of all abandoned wells within the storage facility area and the area of review;

(j) The distance between the injection zone and the nearest underground source of drinking water above and below the injection zone; and

(k) An assessment of the operations conducted during the operational period, including the volumes injected, volumes extracted, all chemical analyses conducted, and a summary of all monitoring efforts.

(l) The report must also document the stored carbon dioxide's location and characteristics and predict how it might move during the post-closure period;

(m) Any additional factors specific to the particular site that the Board may require.

(2) Information submitted to support the petition shall comply with the following criteria:

(a) All analyses and tests for the final assessment must be accurate, reproducible, and performed in accordance with the established quality assurance standards. An approved quality assurance and quality control plan must address all aspects of the final assessment;

(b) Estimation techniques must be appropriate and test protocols certified by the United States Environmental Protection Agency must be used where available;

(c) Predictive models must be appropriate and tailored to the site conditions, composition of the carbon dioxide stream, and injection and site conditions over the life of the geologic sequestration project;

(d) Predictive models must be calibrated using existing information when sufficient data are available;

(e) Reasonably conservative values and modeling assumptions must be used and disclosed to the Board whenever values are estimated on the basis of known, historical information instead of site-specific measurements;

(f) An analysis must be performed to identify and assess aspects of the post-injection monitoring timeframe demonstration that contribute significantly to uncertainty. The storage operator shall conduct sensitivity analyses to determine the effect that significant uncertainty may contribute to the modeling demonstration; and

(g) Any additional criteria required by the Board.

(3) At the time of the closing, the storage operator shall record a plat of the storage facility certified by a registered surveyor in the Office of the Judge of Probate in the county where the storage facility lies. The storage operator shall also submit a copy of the plat to the United States Environmental Protection Agency regional administrator office.

400-8-1-.56. Certificate of Project Closing and Completion.

Once it is demonstrated that underground sources of drinking water and natural resources are no longer endangered, pursuant to Section 9-17-164 of the *Code of Alabama* (1975), as amended, the storage operator may petition the Board for a certificate of project completion for the storage facility.

(1) Upon all carbon dioxide injections into a storage facility ending and upon the filing of a petition by a storage facility operator, the Board may issue a certificate of project closure and completion for the storage facility.

(2) A certificate of project closure and completion shall only be issued after all of the following have been satisfied:

(a) Notice and a public hearing on the issuance of the certificate are provided.

(b) The Board has consulted with the Alabama Department of Environmental Management regarding issuing the certificate.

(c) Ten or more years have passed from the date carbon dioxide injection into the storage facility ended.

(d) The storage operator has demonstrated all of the following to the satisfaction of the Board:

1. The storage facility is in full compliance with all governing laws and rules.

2. The storage facility is reasonably expected to retain the carbon dioxide.

3. The carbon dioxide in the storage facility is stable. For purposes of this paragraph, carbon dioxide is stable if it is essentially stationary or, if it is migrating or may migrate, migration is unlikely to cross the underground reservoir boundary and is not expected to endanger any underground source of drinking water.

4. All wells, equipment, and facilities to be used in the post-closure period are in good condition and retain mechanical integrity.

5. All injection wells have been plugged, all related equipment and facilities used during the pre-closure period not necessary for long-term monitoring have been removed, and all reclamation work required by the Board has been completed.

(3) Upon the issuance of a certificate of project closure and completion, all of the following shall occur:

(a) Title to equipment and facilities necessary for long-term monitoring and all carbon dioxide injected into the storage facility, without payment of any compensation, shall transfer to the state. Title acquired by the state includes all rights and interests in, and all responsibilities and liabilities associated with, all equipment and facilities used for long-term monitoring and the stored carbon dioxide within the storage facility. A storage operator may not transfer to the state, and the state may not accept, any property interests or rights that the storage operator does not own or have the authority to transfer.

(b) The storage operator and all persons that generated any injected carbon dioxide shall be released from all regulatory requirements associated with the storage facility.

(c) The storage operator shall be released from all bonds and other security posted by the storage operator.

(d) Monitoring and managing the storage facility shall become the responsibility of the state and be administered by the Board unless an agency of the federal government assumes responsibility for the long-term monitoring and management of the storage facility.

400-8-1-.57. Liability and Responsibility to Close, Clean up, and Restore Storage Facility and Site.

If at the closure of the storage facility, the funds from the surety or other financial protections are insufficient to close, clean up, and restore the site of the facility, then the storage operator shall be responsible to the Board to pay the cost of the closure and clean up.

OIL AND GAS LAWS OF ALABAMA

CODE OF ALABAMA 1975

TITLE 9 – CONSERVATION AND NATURAL RESOURCES

CHAPTER 17 – OIL AND GAS

The official Alabama statutes pertaining to oil and gas are contained in Title 9, Chapter 17, and Title 40, Chapter 20, of the ***Code of Alabama* (1975)**, as printed by the Michie Company. The **Code of Alabama** is available online at https://alison.legislature.state.al.us/code-of-alabama. The following sections of the Alabama statutes are included herein for convenience of the reader. However, the reader is advised that the online version is the official version and should refer to that version for the most accurate and up-to-date statutes, which are subject to change.

ARTICLE 1. CONSERVATION AND REGULATION OF PRODUCTION

Section 9-17-1. Definitions.

Unless the context otherwise requires, the following terms shall have the following meanings:

(1) BOARD. The State Oil and Gas Board created by this article.

(2) DEVELOPED AREA OR DEVELOPED UNIT. A drainage unit having a well completed thereon which is capable of producing oil or gas in paying quantities; however, in the event it is shown and the board finds that a part of any unit is nonproductive, then the developed part of the unit shall include only that part found to be productive.

(3) DRAINAGE OR PRODUCTION UNIT. The area in a pool which may be drained efficiently and economically by one well.

(4) DRILLING UNIT. An administrative unit established by the Board to provide and allow for the drilling of a well. Prior to establishment of a field and drainage or production unit within the field, the board may establish a drilling unit to allow for the drilling of a well in search of oil or gas.

(5) FIELD. The general area which is underlain or appears to be underlain by at least one pool, and such term shall include the underground reservoir or reservoirs containing crude oil or natural gas or both. The words "field" and "pool" have the same meaning when only one underground reservoir is involved; however, the word "field," unlike "pool," may relate to two or more pools.

(6) GAS. All natural gas, including casinghead gas, and all other hydrocarbons not defined as oil in subdivision (9) of this section.

(7) HORIZONTAL WELL. A well initially drilled vertically and then turned and drilled at an angle of 75 degrees or greater from vertical.

(8) ILLEGAL GAS. Gas which has been produced within the State of Alabama from any well or wells in excess of the amount allowed by any rule, regulation, or order of the board, as distinguished from gas produced within the State of Alabama not in excess of the amount so allowed, which is "legal gas."

(9) ILLEGAL OIL. Oil which has been produced within the State of Alabama from any well or wells in excess of the amount allowed by any rule, regulation, or order of the board, as distinguished from oil produced within the State of Alabama not in excess of the amount so allowed, which is "legal oil."

(10) ILLEGAL PRODUCT. Any product of oil or gas, any part of which was processed or derived in whole or in part from illegal oil or illegal gas or from any product thereof, as distinguished from "legal product," which is a product processed or derived to no extent from illegal oil or illegal gas.

(11) OIL. Crude petroleum oil and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of a condensation of gas after it leaves the pool.

(12) OPERATOR. The person who is authorized by the board to operate an oil, gas, or Class II injection well, or production facility, or processing facility, or engages in the transportation of hydrocarbons by

pipeline, including the handling and disposal of wastes that may be generated during operation of a well, or production facility, or processing facility.

(13) OWNER. The person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or herself or for himself or herself and another or others.

(14) PERSONS. Any natural person, firm, corporation, association, partnership, joint venture, receiver, trustee, guardian, executor, administrator, fiduciary, representative of any kind or any other group acting as a unit.

(15) POOL. An underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both and each zone of a general structure which is completely separated from any other zone in the structure.

(16) PRODUCER. The owner of a well or wells capable of producing oil or gas or both; provided, however, that the word "producer" as used in Section 9-17-25 shall also include any person receiving money or other valuable consideration as royalty or rental for oil or gas produced or because of oil or gas produced, whether produced by him or her or by some other person on his or her behalf, either by lease, contract or otherwise, and whether the royalty consists of a portion of the oil or gas produced being run to his or her account or a payment in money or other valuable consideration.

(17) PRODUCT. Any commodity made from oil or gas and shall include refined crude oil, crude tops, topped crude, processed crude petroleum, residue from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casinghead gasoline, natural gas gasoline, naphtha, distillate, gasoline, kerosene, benzine, wash oil, waste oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or byproducts derived from oil or gas and blends or mixtures of two or more liquid products or byproducts derived from oil or gas, whether hereinabove enumerated or not.

(18) REASONABLE MARKET DEMAND. As to oil, the amount of oil reasonably needed for current consumption and use, together with a reasonable amount of oil for storage and working stock and, as to gas, the amount of gas of any type reasonably needed to supply the current consumption and use of such type of gas.

(19) TENDER. A permit or certificate of clearance approved and issued or registered under the authority of the board, for the transportation of oil, gas, or products.

(20) WASTE. In addition to its ordinary meaning, such term shall mean "physical waste" as that term is generally understood in the oil and gas industry. It shall include any of the following:

a. The inefficient, excessive or improper use or dissipation of reservoir energy and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner which results or tends to result in reducing the quantity of oil or gas ultimately to be recovered from any pool in this state.

b. The inefficient storing of oil and the locating, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of oil or gas.

c. Abuse of the correlative rights and opportunities of each owner of oil and gas in a common reservoir due to nonuniform, disproportionate and unratable withdrawals causing undue drainage between tracts of land.

d. Producing oil or gas in such manner as to cause unnecessary water channeling or coning.

e. The operation of any oil well or wells with an inefficient gas-oil ratio.

f. The drowning with water of any stratum or part thereof capable of producing oil or gas.

g. Underground waste however caused and whether or not defined.

h. The creation of unnecessary fire hazards.

i. The escape into the open air, from a well producing both oil and gas, of gas in excess of the amount which is necessary in the efficient drilling or operation of the well.

j. The use of gas, except sour gas, for the manufacture of carbon black.

k. The escape of gas into the open air, from a well producing gas, in excess of the amount which is necessary for safety reasons or for the efficient drilling, testing, and operation of the well.

l. Production of oil and gas in excess of reasonable market demand. *(Acts 1945, No. 1, p. 1, §2; Acts 1979, No. 79-475, p. 875, §1; Act 2000-714, p. 1517, §1; Act 2008-450, p. 853, §1; Act 2014-281, p. 890, §1.)*

Section 9-17-2. Declaration of public policy; purpose of article.

The prevention of waste of oil and gas and the protection of correlative rights are declared to be in the public interest. The purpose of this article is to prevent such waste and to protect correlative rights. *(Acts 1945, No. 1, p. 1, § 1; Acts 1969, No. 1033, p. 1916, § 1.)*

Section 9-17-3. Oil and Gas Board—Created; composition; compensation; member emeritus.

(a) There is hereby created and established a board, to be known as the State Oil and Gas Board, to be composed of three members to be appointed by the Governor for terms of the following duration: one member for a term of two years; one member for a term of four years; and one member for a term of six years. At the expiration of the term for which each of the original appointments is made, each successor member shall be appointed for a term of six years; and, in the event of a vacancy, the Governor shall by appointment fill such unexpired term. Each member shall be eligible for reappointment at the discretion of the Governor. The membership of the board shall be inclusive and reflect the racial, gender, geographic, urban/rural, and economic diversity of the state. The board shall annually report to the Legislature by the second legislative day of each regular session the extent to which the board has complied with the diversity provisions of this subsection. Each member of the board shall be a resident and citizen of the State of Alabama and shall be a qualified voter therein. Each member shall qualify by taking an oath of office and shall hold office until his successor is appointed and qualified. The board shall elect from its number a chairman. The board shall meet or hold hearings at such times and places as may be found by the board to be necessary to carry out its duties. Each member of the board shall receive as compensation for his services an annual salary of three thousand six hundred dollars ($3,600) and, in addition thereto, each member shall be entitled to a travel and office expense allowance of five hundred dollars ($500) per month. The compensation and travel and office expense allowance as above set forth shall be paid from the Oil and Gas Fund.

(b) Any person who has served 19 or more years continuously on the board shall be a nonvoting member emeritus of the board. A member emeritus shall receive no compensation, salary, or travel or expense allowance or reimbursement for his or her service on the board. *(Acts 1945, No. 1, p. 1, § 3; Acts 1965, 2nd Ex. Sess., No. 82, p. 112, § 1; Acts 1967, No. 219, p. 584, § 1; Acts 1990, No. 90-104, p. 114, § 3; Acts 1994, No. 94-593, p. 1100, § 3; Act 2010-276, p. 449, § 3.)*

9-17-3.1. Oil and Gas Board — Exemption from Sunset Law.

Commencing on February 8, 2018, the State Oil and Gas Board is not subject to review as an enumerated agency under the Alabama Sunset Law. *(Act 2018-75, §3.)*

Section 9-17-4. Oil and Gas Board—Quorum; votes required for promulgation of rules, regulations or orders.

Two members of the board shall constitute a quorum, but two affirmative votes shall be necessary for the adoption or promulgation of any rule, regulation or order of the board. *(Acts 1945, No. 1, p. 1, § 6.)*

Section 9-17-5. Oil and Gas Board—Representation in litigation; administration of oaths.

The Attorney General shall be attorney for the board; provided, that in cases of emergency the board may call upon the district attorney of the circuit where the action is to be brought or defended to represent the board until such time as the Attorney General may take charge of the litigation. Any member of the board, or the secretary thereof, shall have power to administer oaths to any witness in any hearing, investigation or proceeding contemplated by this article or by any other law of this state relating to the conservation of oil and gas. *(Acts 1945, No. 1, p. 1, § 7.)*

Section 9-17-6. Oil and Gas Board—Powers and duties generally.

(a) The board shall have jurisdiction and authority over all persons and property necessary to administer and enforce effectively the provisions of this article and all other articles relating to the conservation of oil and gas.

(b) The board shall have the authority and it shall be its duty to make such inquiries as it may think proper to determine whether or not waste, over which it has jurisdiction, exists or is imminent. In the exercise of such power the board shall have the authority to perform the following:

(1) Collect data.

(2) Make investigation and inspection.

(3) Examine properties, leases, papers, books and records, including drilling records, logs, and other geological and geophysical data.

(4) Examine, check, test and gauge oil and gas wells, tanks, plants, processing facilities, structures, natural gas pipelines and gathering lines, and storage and transportation equipment and facilities, and other modes of transportation.

(5) Hold hearings.

(6) Appoint a hearing officer for the purpose of conducting public hearings on behalf of the board and making recommendations to the board.

(7) Require the keeping of records and making of reports.

(8) Take such action as may be reasonably necessary to enforce this article.

(c) The board shall have the authority to make, after hearing and notice as provided in this article, such reasonable rules, regulations, and orders as may be necessary from time to time in the proper administration and enforcement of this article, including rules, regulations, and orders for the following purposes:

(1) To require the drilling, casing, and plugging of wells to be done in such a manner as to prevent the escape of oil or gas out of one stratum to another.

(2) To prevent the intrusion of water into an oil or gas stratum from a separate stratum.

(3) To prevent the pollution of fresh water supplies by oil, gas, salt water, or other contaminants resulting from oil and gas operations, including surface mining operations to recover oil from oil sands.

(4) To require the making of reports showing the location of oil and gas wells and to require the filing of logs, including electrical logs, and drilling records and the lodgment in the office of the State Oil and Gas Supervisor of typical drill cuttings or cores, if cores are taken, within six months from the time of the completion of any well or surface or underground operations for the recovery of oil from oil sands.

(5) To require reasonable bond, with good and sufficient surety, or other financial security approved by the board, conditioned for the performance of the duties outlined in subdivisions (1), (2), (3), and (4) of this subsection, including the duty to plug each dry or abandoned well and to restore the well site for each dry or abandoned well and associated production and processing facility and plant upon the abandonment of such well, facility, or plant and to reclaim all surfaces disturbed during surface mining operations for the recovery of oil from oil sands.

(6) To prevent wells from being drilled, operated, or produced in such a manner as to cause injury to neighboring leases or property from being damaged or injured by operations to recover oil from oil sands.

(7) To prevent the drowning by water of any stratum or part thereof capable of producing oil or gas in paying quantities and to prevent the premature and irregular encroachment of water which reduces or tends to reduce the total ultimate recovery of oil or gas from any pool.

(8) To require the operation of wells with efficient gas-oil ratios and to fix such ratios.

(9) To prevent "blowouts," "caving" and "seepage" in the sense that conditions indicated by such terms are generally understood in the oil and gas business.

(10) To prevent fires.

(11) To identify the ownership of all oil and gas wells, surface mining operations to recover oil from oil sands, producing leases, tanks, plants, processing facilities, structures, natural gas pipelines and gathering lines, and storage and transportation equipment and facilities.

(12) To regulate the "shooting," perforating, and chemical treatment of wells.

(13) To regulate enhanced recovery methods, which include Class II injection wells as defined in the Federal Safe Drinking Water Act, 42 U.S.C. 300f et seq.

(14) To establish drilling units, to determine the spacing of wells, to establish oil and gas fields for each oil and gas pool, including fields for operations to recover oil from oil sands, to establish the spacing of wells for each pool, and to establish drainage or production units.

(15) To limit and prorate the production of oil or gas or both from any pool or field for the prevention of waste as defined in this article.

(16) To require, either generally or in or from particular areas, certificates of clearance or tenders in connection with the transportation of oil, gas or any product.

(17) To prevent, so far as is practical, reasonably avoidable drainage from each developed unit which is not equalized by counterdrainage.

(18) To require the placing of meters of a type approved by the board wherever the board may designate in plants and processing facilities on all pipelines, gathering systems, barge terminals, loading racks, or other places deemed necessary or proper to prevent waste and the transportation of illegally produced oil or gas. Such meters at all times shall be under the supervision and control of the board; and it shall be a violation of this article, subject to the penalties provided in this article, for any person to refuse to attach or install such meter when ordered to do so by the board or in any way to tamper with such meter so as to produce a false or inaccurate reading or to have any bypass at such a place where the oil or gas can be passed around such meter, unless expressly authorized by written permit of the board. *(Acts 1945, No. 1, p. 1, § 9; Acts 1988, No. 88-576, p. 893, § 1; Act 2000-714, p. 1517, § 1; Act 2008-450, p. 853, §1; Act 2013-203, p. 426, §1.)*

Section 9-17-7. Oil and Gas Board—Rules of procedure for hearings, etc.; promulgation, etc., of rules, regulations or orders generally; promulgation, etc., of emergency rules, regulations or orders.

(a) The board shall prescribe its rules of order or procedure in hearings or other proceedings before it under this article.

(b) No rule, regulation or order, including any change, renewal or extension thereof, shall, in the absence of an emergency, be made by the board under the provisions of this article except after a public hearing upon at least 10 days' notice, given in the manner and form as may be prescribed by the board. Such public hearing shall be held at such time and place and in such manner as may be prescribed by the board, and any person having any interest in the subject matter of the hearing shall be entitled to be heard.

(c) In the event an emergency is found to exist by the board which in its judgment requires the making, changing, renewal or extension of a rule, regulation or order without first having a hearing, such emergency rule, regulation or order shall have the same validity as if a hearing with respect to the same had been held after due notice. The emergency rule, regulation or order permitted by this subsection shall remain in force no longer than 45 days from its effective date and, in any event, it shall expire when the rule, regulation or order made after due notice and hearing with respect to the subject matter of such emergency rule, regulation or order becomes effective.

(d) Should the board elect to give notice by personal service, such service may be made by any officer authorized to serve process or by any agent of the board in the same manner as is provided by law for the service of summons in civil actions in the circuit courts of this state. Proof of the service by such agent shall be by the affidavit of the person making personal service.

(e) All rules, regulations and orders made by the board shall be in writing and shall be entered in full by the secretary of the board in a book to be kept for such purpose by the board, which shall be a public record and open to inspection at all times during reasonable office hours. A copy of any rule, regulation or order, certified by the secretary of the board, shall be received in evidence in all courts of this state with the same effect as the original.

(f) Any interested person shall have the right to have the board call a hearing for the purpose of taking action in respect to any matter within the jurisdiction of the board by making a request therefor in writing. Upon the receipt of any such request, the board promptly shall call a hearing thereon and, after such hearing and with all convenient speed and in any event within 30 days after the conclusion of such hearing, shall take such action with regard to the subject matter thereof as it may deem appropriate. *(Acts 1945, No. 1, p. 1, § 10; Acts 1965, 2nd Ex. Sess., No. 79, p. 109, § 1.)*

Section 9-17-8. Oil and Gas Board—Powers as to witnesses; enforcement of subpoenas issued by board.

(a) The board or any member thereof is hereby empowered to issue subpoenas for witnesses, to require their attendance and the giving of testimony before it and to require the production of such books, papers and records in any proceeding before the board as may be material upon questions lawfully before the board. Such subpoenas shall be served by the sheriff or any other officer authorized by law to serve process in this state. No person shall be excused from attending and testifying or from producing books, papers and records before the board or a court or from obedience to the subpoena of the board or a court on the ground or for the reason that the testimony or evidence, documentary or otherwise, required of him may tend to incriminate him or subject him to a penalty or forfeiture; provided, that nothing contained in this section shall be construed as requiring any person to produce any books, papers or records or to testify in response to any inquiry not pertinent to some question lawfully before such board or court for determination. No natural person shall be subjected to criminal prosecution or to any penalty or forfeiture for or on account of any transaction, matter or thing concerning which he may be required to testify or produce evidence, documentary or otherwise, before the board or court or in obedience to its subpoena; provided, that no person testifying shall be exempt from prosecution and punishment for perjury committed in so testifying.

(b) In case of failure or refusal on the part of any person to comply with any subpoena issued by the board or any member thereof or in case of the refusal of any witness to testify or answer to any matter regarding which he may be lawfully interrogated, any circuit court in this state, on application of the board, may, in term time or vacation, issue an attachment for such person and compel him to comply with such subpoena and to attend before the board and produce such documents and give his testimony upon such matters as may be lawfully required, and such court have the power to punish for contempt as in case of disobedience of like subpoenas issued by or from such court or for a refusal to testify therein. *(Acts 1945, No. 1, p. 1, § 11.)*

Section 9-17-9. State Oil and Gas Supervisor.

The State Geologist shall be, ex officio, the State Oil and Gas Supervisor and shall perform all of the duties of and is hereby vested with all the powers imposed upon and vested in the State Oil and Gas Supervisor under and by the terms and provisions of this article. The State Oil and Gas Supervisor shall be charged with the duty of enforcing this article and all rules, regulations and orders promulgated by the board. The State Oil and Gas Supervisor shall be, ex officio, secretary of the board and shall keep all minutes and records of the board. He shall, as secretary, give bond in such sum as the board may direct with corporate surety to be approved by the board, conditioned that he will well and truly account for any funds coming into his hands. The State Geologist shall receive $3,600.00 per annum for the performance of his duty under this article. *(Acts 1945, No. 1, p. 1, § 4; Acts 1949, No. 671, p. 1033, § 1; Acts 1969, No. 1033, p. 1916, § 2.)*

Section 9-17-10. Employment of personnel.

(a) The Oil and Gas Supervisor, with the concurrence of the board, shall have the authority and it shall be his duty to employ all personnel necessary to carry out the provisions of this article. Such personnel shall be employed under and shall be subject to the provisions of the Merit System Act.

(b) The State Oil and Gas Board is prohibited from discriminating against blacks in its employment practices. *(Acts 1945, No. 1, p. 1, § 5; Act 2002-425, p. 1092, § 3.)*

Section 9-17-11. Waste prohibited.

Waste of oil or gas as defined in this article is hereby prohibited. *(Acts 1945, No. 1, p. 1, § 8.)*

Section 9-17-12. Limitations on regulations; drilling or production units; producers' shares.

(a) Whether or not the total production from a pool is limited or prorated, no rule, regulation, or order of the board shall be such in terms or effect that it will do the following:

(1) That it shall be necessary at any time for the producer from or the owner of, a tract of land in the pool, or an interest associated therewith or derived therefrom, in order that he or she may obtain the tract's just and equitable share or the just and equitable share of the interest of the production of such pool, as the share is set forth in this section, to drill and operate any well or wells on such tract in addition to the well or wells as can without waste produce the share.

(2) As to occasion net drainage from a tract or any interest associated therewith or derived therefrom, unless there is drilled and operated upon the tract a well or wells in addition to such well or wells thereon as can without waste produce the tract's just and equitable share or the just and equitable share of interest, as set forth in this section, of the production of the pool.

(b) (1) In order to prevent the waste of oil and gas resources, to protect and enforce the correlative rights of the owners and producers in a pool and to avoid the drilling of an excessive and unnecessary number of wells, the board shall, after notice and hearing, establish drainage or production units for each pool. Furthermore, the board shall, after notice and hearing, establish special field rules for each pool, and the special field rules established by the board shall designate, among other things, the drainage or production units for the field and production allowables for each drainage or production unit. A drainage or production unit, means the maximum area which may be efficiently and economically drained by one well. With respect to wells drilled and completed in shale natural gas reservoirs as defined by the board, when a party affirmatively demonstrates to the board after notice and hearing, with substantial evidence based on geologic and engineering evidence and production information derived from wells in an established field, that one well will not efficiently and economically drain the entire drainage or production units provided for in the special field rules, then the board may amend the special field rules to allow more than one well to be drilled and produced within the drainage or production units in the field. In no case, however, may the board establish a spacing unit in a shale natural gas reservoir larger than 320 acres for a vertical well or wells and 640 acres for a horizontal well or wells. With respect to wells drilled and completed in coalbed methane reservoirs as defined by the board, when a party affirmatively demonstrates to the board after notice and hearing with substantial evidence based on geologic and engineering evidence and production information derived from wells in an established field providing for 80-acre drainage and production units, that one well will not efficiently and economically drain the entire 80-acre drainage and production units provided for in the special field rules, then the board may amend the special field rules to allow a second well to be drilled and produced within the 80-acre drainage or production units in the field. In determining whether a well will efficiently and economically drain the 80-acre drainage or production unit, the board shall consider, among other things, whether the well will significantly increase production from the unit, will extend the duration of production from the unit, and whether the second well is an unnecessary well. Any drainage or production unit established by the board shall constitute a developed unit as long as a well is located thereon, which is capable of producing oil or gas in paying quantities, or until the board shall determine and order otherwise after notice and hearing. It is provided, however, that the board shall have no authority to establish a drainage or production unit in excess of either 160 acres or one governmental quarter section plus 10 percent tolerance for any pool deemed by the board to be an oil reservoir or in excess of either 640 acres or one governmental section plus 10 percent tolerance, for any pool, deemed by the board to be a gas reservoir, the said 10 percent tolerance provided for so as to allow for irregular sections; provided, however, that the board may, after notice and hearing, establish drainage or production units for oil and gas in excess of the aforesaid limitations when it is affirmatively demonstrated that one well can efficiently and economically drain the proposed area and that a larger unit is justified because of technical, economic, environmental or safety considerations, or other reasons deemed valid by the board. To insure protection of coequal and correlative rights, the board may, after notice and hearing, establish drainage or production units for oil and gas pools by a quantum not to exceed 50 percent greater than the aforesaid limitation provided such action is justified by sufficient technical evidence, indicating that the acreage or land in excess of the aforesaid maximum limitations is being drained or is in imminent danger of being drained and that the owners of the excess acreage or lands that the persons owning any interest or combination of interests in the excess acreage or lands cannot otherwise receive their just and equitable share of production from the pool being so drained; provided, however, in the event the excess lands or interests are integrated or pooled by order of the board, then the provisions of Section 9-17-13 shall be applicable to the owners of tracts or interests in the acreage or land in excess of the aforesaid maximum limitations so that the operator of the drainage or production unit in which the tracts or interests are included shall have the right to charge against the interest of each other owner in the production from the wells drilled by the designated operator the actual expenditures required for that purpose, not in excess of what are reasonable, including a reasonable charge for supervision; and the operator shall have the right to receive the first production from the wells drilled thereon which otherwise would be delivered or paid to the other parties jointly interested in the drilling of the well so that the amount due by each of them for his or her share

of the expense of drilling, equipping, and operating the well may be paid to the operator of the well out of production, with the value of production calculated at the market price in the field at the time production is received by the operator or placed to his or her credit.

Notwithstanding the provisions of this section, all persons entitled to share in the production of oil or gas from a tract or interest or tracts or interests in land may voluntarily agree to the creation or establishment of a drainage or production unit, or may authorize one or more of the persons entitled to share in such production to create or establish a drainage or production unit, containing as much or more acreage or land than drainage or production units established by the board for the same pool, but not in excess of 160 acres or one governmental quarter section, plus 10 percent tolerance, in the case of oil and 640 acres or one governmental section, plus 10 percent tolerance, in the case of gas; subject to the qualifications in this section and up to 50 percent greater, as provided hereinabove; a drainage or production unit so created or established shall, subject to the approval of the board, be valid and binding for all purposes even though the drainage or production unit contains more acreage or land than the board has included, or is authorized by this section to include in a drainage or production unit established by it for the same pool.

(2) The acreage limitations set forth in this section for drainage or production units for oil reservoirs shall not apply to horizontal wells drilled into oil reservoirs. The board shall determine the size and configuration of drilling units and drainage or production units for horizontal oil wells. Notwithstanding the foregoing, the board shall not have authority to establish a drilling unit or a drainage or production unit in excess of either 640 acres or one governmental section or two contiguous half sections, plus 10 percent tolerance for any horizontal well drilled in any oil reservoirs, the 10 percent tolerance provided to allow for irregular sections.

(3) The acreage limitations set forth in this section for drainage or production units for oil reservoirs and for gas reservoirs shall not apply to offshore wells, and the board shall determine the size and configuration of drilling units and drainage or production units of offshore wells.

(c) Each well permitted to be drilled upon any drilling or production unit to a pool in a field with respect to which the board has promulgated special rules shall be drilled at a location on the unit authorized by the special rules, and each well permitted to be drilled upon any drilling or production unit where the location thereof is not prescribed by special rules shall be drilled at a location on the unit authorized by rules of statewide application promulgated by the board, with the exceptions as may be reasonably necessary, where it is shown, after notice and hearing, and the board finds, that the unit is partly outside the pool, or, for some other reason, that a well located in accordance with applicable rules would be nonproductive, would not be at the optimum position in the drilling or production unit for the most efficient and economic drainage of the unit, or where topographical conditions are such as to make the drilling at an authorized location on the unit unduly burdensome or where an exception is necessary to prevent the confiscation of property. Whenever an exception is granted, the board shall take such action as will offset any advantage which the person securing the exception may have over other producers by reason of the drilling of the well as an exception, and so that drainage from developed units to the tract with respect to which the exception is granted will be prevented or minimized and the producer of the well drilled as an exception will be allowed to produce no more than his or her just and equitable share of the oil and gas in the pool, as such share is set forth in this section.

(d) Subject to the reasonable requirements for prevention of waste and to the reasonable adjustment because of structural position, a producer's just and equitable share of the oil and gas in the pool (also sometimes referred to as a tract's just and equitable share) is that part of the authorized production for the pool (whether it be the total which could be produced without any restriction on the amount of production or whether it be an amount less than that which the pool could produce if no restriction on amount were imposed) which is substantially in the proportion that the quantity of recoverable oil and gas in the developed area of his or her tract or interest or tracts or interests in the pool bear or bears to the recoverable oil and gas in the total developed area of the pool, insofar as these amounts can be practically ascertained; and to that end, the rules, regulations, permits, and orders of the board shall be such as will prevent or minimize reasonably avoidable net drainage from each developed unit (that is, drainage which is not equalized by counterdrainage), and will give to each producer the opportunity to use his or her just and equitable share of the reservoir energy. In determining each producer's just and equitable share of the authorized production for the pool, the board is authorized to give due consideration to the productivity of the well or wells located thereon, as determined by flow tests, bottom hole pressure tests, or any other practical method of testing

wells and producing structures, and to consider such other factors and geological or engineering tests and data as may be determined by the supervisor to be pertinent or relevant to ascertaining each producer's just and equitable share of the production and reservoir energy of the field or pool. *(Acts 1945, No. 1, p. 1, § 12; Acts 1956, 2nd Ex. Sess., No. 83, p. 374, § 1; Acts 1979, No. 79-760, p. 1356, § 1; Acts 1990, No. 90-104, p. 114, § 3; Act 2000-714, p. 1517, § 1; Act 2008-450)*

Section 9-17-13. Integration of interests; cycling operations; orders of the board; procedures.

(a) When any mineral or other related interests deriving from two or more separately owned tracts of land are embraced within an established or a proposed drilling or production unit, or when there are separately owned interests in all or a part of an established or proposed drilling or production unit, or any combination of such, the persons owning the interests therein may validly agree to integrate or pool the interests and to develop the interests and associated lands as a drilling or production unit. Where, however, the owners have not agreed to so integrate or pool the interests, the board shall, for the prevention of waste or to avoid the drilling of unnecessary wells, require the persons owning such interests to do so and to develop their interests and the associated lands as a drilling or production unit.

(b) The board, in order to prevent waste and avoid the drilling of unnecessary wells, may permit or require the cycling of gas in any pool or portion thereof and is also authorized to permit or require the introduction of gas or other substance into an oil or gas reservoir for the purpose of repressuring the reservoir, maintaining pressure or carrying on enhanced recovery operations. The board may require pooling or integration of all the interests in or associated with the tracts, when reasonably necessary in connection with cycling operations.

(c) All orders requiring integration, pooling, cycling, repressuring, pressure maintenance or enhanced recovery operations shall be made after notice and hearing and shall be upon terms and conditions that are just and reasonable and which will afford to the person owning each such interest associated with each tract the opportunity to recover or receive his or her just and equitable share of the oil and gas in the pool without unnecessary expense and will prevent or minimize reasonably avoidable drainage from each developed unit which is not equalized by counterdrainage. The portion of the production allocated to each tract or interest included in an integrated or pooled unit formed by an integration or pooling order shall, when produced, be considered as if it had been produced from the tract or interest by a well drilled thereon; and any operations conducted within or with respect to the pooled or integrated unit pursuant to the pooling or integration order shall be deemed for all purposes to be the conduct of operations for the production of oil or gas or both from each tract or interest within the unit. All orders requiring pooling or integration shall, among other things, provide all of the following:

(1) That the actual and reasonable costs of developing and operating the pooled integrated unit (including a reasonable charge for supervision) and, if applicable, a risk compensation fee (as hereinafter provided) shall be charged to the separately owned tracts or interests in the unit in the same proportion that such tracts or interests share in production from the unit.

(2) That such costs and fee (if any) chargeable to a tract or interest shall be paid by the person or persons not entitled to share in production free of development and operating costs and who, in the absence of the pooling or integration order, would be responsible for the expense of developing and operating the tract or interest and that person's or persons' interest in the separately owned tract or interest shall be primarily responsible therefor.

(3) That, if any nonconsenting owner shall fail or refuse to pay the costs and/or fee (if any) chargeable to his or her tract or interest, the costs and/or fee shall be recoverable solely out of the production allocable to the tract or interest, provided, however, that this limitation shall not apply to a nonconsenting owner who has furnished the operator with a notarized statement agreeing to pay his or her proportionate share of the drilling and completion costs for a unit well as hereinafter provided.

(4) That, when the full amount of any charge made against a separately owned tract or interest is not paid when due by the person or persons primarily responsible therefor, as provided above, then 13/16ths (or if said tract or interest is leased, the working interest fraction or percent if it is greater) of the oil and gas production allocated to the separately owned tract or interest may be appropriated by the operator and marketed and sold for the payment of the charge, but that a 3/16ths part (or the actual landowner royalty if it is less) of the unit production allocated to each separately owned tract or interest shall in all events be regarded as royalty and shall, if there be no reasonable question as to good and merchantable title, be distributed to and among, or the proceeds thereof paid to, the person or persons

owning royalty or unleased mineral interests (as the case may be) in the tract or interest free and clear of the development and operating costs and of any risk compensation fee and free and clear of any lien for the payment of the costs and fee.

(5) That any person owning any overriding royalty, oil and gas payment, royalty in excess of 3/16 of production, or other interests, who is not primarily responsible for payment of the development and operating costs or risk compensation fee (if any), shall, to the extent of any payment or deduction therefor from his or her share, be subrogated to all the rights of the operator with respect to the interest or interests primarily responsible for the payment.

Additionally, if the operator, or the operator together with the consenting owners, shall own a majority in interest of the drilling and operating rights in the integrated or pooled unit, and the operator has made a good faith effort to (i) negotiate with each nonconsenting owner to have the owner's interest voluntarily integrated or pooled into the unit, (ii) notify each nonconsenting owner of record of the names of all owners of drilling rights who have agreed to integrate or pool any interests in the unit, (iii) ascertain the address of each nonconsenting owner, (iv) give each nonconsenting owner written notice of the proposed operation, specifying the work to be performed, the proposed location, proposed depth, objective formation and the estimated cost of the proposed operation, and (v) to offer each nonconsenting owner the opportunity to lease or farm out on reasonable terms or participate in the cost and risk of developing and operating the unit well involved on reasonable terms, then the pooling or integration order shall, if the operator so requests, also provide that, if any nonconsenting owner (a) does not pay his or her proportionate share of the drilling and completion costs for any unit well within 30 days after commencement of actual drilling operations, or prior to reaching total depth, whichever is earlier, or at such other time as may be contracted between the parties, or, alternatively, (b) does not, on or before commencement of actual drilling operations, provide the operator with a notarized statement agreeing to pay the costs, then there shall be charged to the tract or interest of the nonconsenting owner a risk compensation fee equal to 150 percent of the tract's or interest's share of the actual and reasonable costs of drilling, reworking (prior to initial commercial production), testing, plugging back, deepening (but not below that depth specified in the permit for the well), and completing (through the wellhead) said well; provided, however, that no risk compensation fee shall be chargeable against the tract or interest of any nonconsenting owner who owned of record a tract or interest in the unit prior to the time notice was given unless, at the pooling or integration hearing, it is shown, by a United States mail certified mail return receipt card or by other evidence deemed sufficient by the board, that the nonconsenting owner was given actual notice of the pooling or integration hearing and unless it is also shown that the notice given to the owner specifically stated that the operator was requesting that the board impose a risk compensation fee in accordance with the provisions of this section. Provided, further, that, if after diligent search and inquiry, the operator is unable to locate and give the required notice to any nonconsenting owner, the risk compensation fee shall not be imposed as to the interest of that nonconsenting owner, however, the operator may request that a risk compensation fee be imposed as to the interests of all other nonconsenting owners in the unit who received the required notice in accordance with the provisions of this section. In the event that a nonconsenting owner who has provided the operator with a notarized statement agreeing to pay his or her proportionate share of the drilling and completion costs for a unit well does not fully pay the costs within 30 days after commencement of actual drilling operations or prior to reaching total depth, whichever is earlier, or on or before such other time as may be contracted between the parties, then any unpaid balance of the costs shall bear interest at the rate of one and one-half percent per month, and the nonconsenting owner shall be personally liable for the unpaid balance together with interest thereon and also for any attorney's fees, court costs, or other expenses incurred by the operator in attempting to collect the unpaid balance and interest thereon; and, additionally, the operator shall have the right, if the well is a producer, to appropriate, market, and sell the nonconsenting owner's share of production for the payment of the amounts due by that owner. The value of any production appropriated by the operator under the authority of any integration or pooling order shall be calculated at the market price in the field (after deduction for taxes and for cleansing, transportation, compression, and processing costs) at the time such production is received by the operator or placed to his or her credit. Unless the pooling or integration order (or an amendment thereto) shall specify otherwise or unless the affected parties shall agree otherwise, production from any pooled or integrated unit formed by a pooling or integration order shall be allocated to each separately owned tract or interest in the unit in the proportion that the acreage of each tract or interest bears to the total acreage of the unit; and under the circumstances allocation of production on this basis shall be considered as a just and reasonable allocation which will afford to each person owning each tract or interest within the unit the opportunity to recover or receive his

or her just and equitable share of the oil and gas produced from the unit. Nothing herein or in any order issued pursuant hereto shall be construed to subject any nonconsenting owner who is subject to a risk compensation fee, as hereinabove provided, to any personal liability for any damages caused by or resulting from any negligent act or other tort committed by the operator or by any consenting owner in the course of developing and operating a pooled or integrated unit; nor shall anything herein or in any order issued pursuant hereto prevent the operator and any other owner or owners in the unit from entering into any agreement that contains provisions respecting the pooling, integration, or development of their tracts or interests in the pooled or integrated unit that differ from the above provisions or from the provisions contained in any pooling or integration order. As used herein, the term "operator" shall mean the person designated by the board to be in charge of developing and operating a drilling or production unit; the term "nonconsenting owner" shall mean an owner who owns a tract or interest in a drilling or production unit and who has not, on or before the date a pooling or integration order is entered with respect to such unit, reached an agreement with the operator relative to the terms and conditions which will govern the manner in which his or her said tract or interest shall be developed and operated; the term "consenting owner" shall mean an owner who has so reached such an agreement with the operator; the term "owner" shall mean a person who, if a pooling or integration order had not been entered, would be an owner as that term is defined elsewhere in this article; the terms "costs of developing" and "development costs" shall include, among other things, the costs of drilling, equipping, reworking, testing, plugging back, deepening, and completing the initial unit well and any subsequent unit well but shall not include any costs incurred in connection with the acquisition of any oil and gas leases covering tracts or interests in the unit; and the term "actual and reasonable costs" means actual expenditures not in excess of what are reasonable.

Subsection (c) shall apply only to unitization of interests within a drilling unit and shall not apply to fieldwide or poolwide units, which are authorized and governed under the provisions of Article 3 of this chapter.

(d) Should the owners of separate tracts or interests embraced within a drilling or production unit fail to agree upon the integration or pooling of the tracts or interests associated with the tracts and the drilling of a well on that unit, and should it be established that the board is without authority to require integration or pooling as provided for in this section, then subject to all other applicable provisions of this article, the owner of the interest or interests associated with each tract embraced within the drilling or production unit may drill on his or her tract; but the allowable production from that tract or interest shall be such proportion of the allowable production for the full drilling or production unit as the area of the separately owned tract associated with the separately owned interest bears to the full drilling or production unit.

(e) Agreements made in the interest of conservation of oil or gas, or both, or for the prevention of waste, between and among owners or operators, or both, owning separate interests in the same oil or gas pool, or in any area that appears from geological or other data to be underlain by a common accumulation of oil or gas, or both, and agreements between and among the owners or operators, or both, and royalty owners therein of the pool or area or any part thereof as a unit for establishing and carrying out a plan for the cooperative development and operation thereof, when the agreements are approved by the board, are hereby authorized and shall not be held or construed to violate any of the statutes of this state relating to trusts, monopolies, or contracts and combinations in restraint of trade. *(Acts 1945, No. 1, p. 1, § 13; Acts 1979, No. 79-621, p. 1101, § 1; Acts 1989, No. 89-916, p. 1810, § 1; Acts 1990, No. 90-104, p. 114, § 3; Act 2000-714, p. 1517, § 1; Act 2017-297.)*

Section 9-17-14. Limitations upon rules, regulations or orders establishing limits on production allowable within state or from separate pools; production of more than established allowable production or production in unauthorized manner.

(a) Whenever the board limits the total amount of oil or gas which may be produced in this state, the limit so fixed shall not be less than the aggregate of the allowables fixed for each separate pool in this state for the prevention of waste in accordance with the foregoing definition of waste, plus the production from unrestricted pools, and it shall allocate or distribute the allowable so fixed among the separate pools. Such allocation or distribution among the pools of the state shall be made on a reasonable basis, giving to each pool with small wells of settled production an allowable production which will not accelerate or encourage a general premature abandonment of the wells in the pool.

(b) Whenever the board limits the total amount of oil or gas which may be produced in any pool in this state to an amount less than that amount which the pool could produce if no restriction were imposed (which

limitation may be imposed either incidentally to or without a limitation of the total amount of oil or gas which may be produced in the state), the board shall prorate or distribute the allowable production among the producers in the pool on a reasonable basis so as to prevent or minimize reasonably avoidable drainage from each developed unit which is not equalized by counterdrainage and so that each producer will have the opportunity to produce or receive his just and equitable share, as set forth in this article, subject to the reasonable requirements for the prevention of waste.

(c) After the effective date of any rule, regulation or order of the board fixing the allowable production of oil or gas or both for any pool, no person shall produce from any well, lease or property more than the allowable production which is applicable, nor shall such amount be produced in a different manner than that which may be authorized. *(Acts 1945, No. 1, p. 1, § 14.)*

Section 9-17-15. Judicial review of rules, regulations or orders.

Any interested person aggrieved by any rule, regulation or order made or promulgated by the board under this article and who may be dissatisfied therewith shall, within 30 days from the date said order, rule or regulation was promulgated, have the right, regardless of the amount involved, to institute a civil action by filing a complaint in the circuit court of the county in which all or part of the aggrieved person's property affected by any such rule, regulation or order is situated to test the validity of said rule, regulation or order promulgated by the board. Such civil action shall be advanced for trial and be determined as expeditiously as feasible, and no postponement or continuance thereof shall be granted except for reasons deemed imperative by the court. In such trials the validity of any rule, regulation or order made or promulgated under this article shall be deemed prima facie valid, and the court shall be limited in its consideration to a review of the record of the proceedings before the board, and no new or additional evidence shall be received.

The reviewing court shall limit its consideration to the following:

(1) Whether the rule, regulation or order is constitutional;

(2) Whether the rule, regulation or order was without or in excess of jurisdiction;

(3) Whether the rule, regulation or order was procured by fraud;

(4) Whether the rule, regulation or order is reasonable; and

(5) Whether the rule, regulation or order is unsupported by the evidence. (*Acts 1945, No. 1, p. 1, § 15; Acts 1957, No. 575, p. 798, § 1; Acts 1965, 2nd Ex. Sess., No. 81, p. 111, § 1.*)

Section 9-17-16. Injunctions—Issuance against board, etc.

(a) No temporary restraining order or injunction of any kind shall be granted against the board or the members thereof or against the Attorney General or any district attorney or against any agent, employee or representative of the board restraining the board or any of its members or any of its agents, employees or representatives or the Attorney General or any district attorney, from enforcing any of the provisions of this article or any rule, regulation or order made under this article, except after due notice to the members of the board and to all other defendants and after a hearing at which it shall be clearly shown to the court that the act done or threatened is without sanction of law and, if enforced against the complaining party, will cause an irreparable injury. The judgment or order of the court granting temporary injunctive relief shall state the nature and extent of the probable invalidity of any provision of this article or of any rule, regulation or order made under this article involved in such suit and shall also contain a clear statement of the probable damage relied upon by the court as justifying the temporary relief.

(b) No temporary injunctive relief of any kind, including a temporary restraining order, against the board or the members thereof or its agents, employees or representatives or the Attorney General or any district attorney shall become effective until the plaintiff shall execute a bond to the state with sufficient surety in an amount to be fixed by the court, reasonably sufficient to indemnify all persons who may suffer damage by reason of the violation pendente lite by the complaining party of the provisions of this article or of any rule, regulation or order complained of. Such bond shall be approved by the judge of the court in which the civil action is pending, and the court may, from time to time on motion and with notice to the parties, increase or decrease the amount of the bond and may require new or additional sureties as the facts may warrant. Such bond shall be for the use and benefit of all persons who may suffer damage by reason of the violation pendente lite of this article or of any provision, rule, regulation or order complained of in such civil action, and any person so suffering damage may bring a civil action on such bond before the expiration of six months after any provision of this article or of any rule, regulation or order complained of shall be finally

held to be valid in whole or in part or such civil action against the board or the members thereof shall be finally disposed of. *(Acts 1945, No. 1, p. 1, § 16.)*

Section 9-17-17. Injunctions—Issuance against persons violating, etc., provisions of article, rules, etc.

Whenever it shall appear that any person is violating or threatening to violate any provision of this article or any rule, regulation or order made under this article and unless the board without litigation can effectively prevent further violation or threat of violation, then the board, through the Attorney General, who may call to his assistance the district attorney of the circuit in which civil action is instituted, shall bring in the name of the State of Alabama against such person in the circuit court in the county of the residence of the defendant or, if there is more than one defendant, in the circuit court of the county of the residence of any of them or in the circuit court of the county in which such violation is alleged to have occurred, a civil action to restrain such person from continuing such violation or from carrying out the threat of violation. In such civil action the board, in the name of the State of Alabama, may obtain such injunctions, prohibitory and mandatory, including temporary restraining orders and preliminary injunctions, as the facts may warrant, including, when appropriate, an injunction restraining any person from moving or disposing of illegal oil, illegal gas or illegal product, and any or all such commodities may be ordered to be impounded or placed under the control of an agent appointed by the court if, in the judgment of the court, such action is advisable. *(Acts 1945, No. 1, p. 1, § 17.)*

Section 9-17-18. Injunctions—Appeals.

In any civil action where the board, in the name of the state, seeks enforcement of this article or of any rule, regulation or order issued under this article, as provided in Section 9-17-17 or in any civil action where an interested party seeks to test the validity of or enjoin the enforcement of this article or any rule, regulation or order issued under this article as provided in Section 9-17-16, either party shall have the right of an immediate appeal to the Supreme Court from any judgment or order therein granting or refusing an injunction, whether temporary restraining order, preliminary injunction or permanent injunction, or other character of injunctive relief, or from any order granting or overruling a motion to dissolve such injunction. The manner of presenting any appeal as provided for in this section shall be governed by the provisions of the rules and laws of the State of Alabama regulating appeals in injunction proceedings. *(Acts 1945, No. 1, p. 1, § 18.)*

Section 9-17-19. Civil actions for damages for violations of provisions of article, rules, etc.; actions by private parties to enjoin violations of provisions of article, rules, etc.

(a) Nothing contained or authorized in this article and no civil action by or against the board and no penalties imposed or claimed against any person for violating any provision of this article or any rule, regulation or order issued under this article and no forfeiture shall impair or abridge or delay any cause of action for damages which any person may have or assert against any person violating any provision of this article or any rule, regulation or order issued under this article. Any person so damaged by the violation may institute a civil action for and recover such damages as he may show that he is entitled to receive.

(b) In the event the board should fail to bring a civil action to enjoin any actual or threatened violation of any provision of this article or of any rule, regulation or order made under this article, then any person or party in interest adversely affected by such violation or threat thereof and who has requested the board to institute a civil action in the name of the state may, to prevent any or further violation, bring a civil action for that purpose in any court in which the board could have brought a civil action. If, in such civil action, the court holds that injunctive relief should be granted, then the state shall be made a party and shall be substituted by order of the court for the person who brought the action, and the injunction shall be issued as if the state had at all times been the complaining party. *(Acts 1945, No. 1, p. 1, § 19.)*

Section 9-17-20. Repealed.

Section 9-17-21. Illegal oil, gas or product—Sale, acquisition, processing, handling, etc.

(a) The sale, purchase or acquisition or the transportation, refining, processing or handling in any other way of illegal oil, illegal gas or illegal product is hereby prohibited.

(b) Unless and until the board provides for certificates of clearance or tenders or some other method so that any person may have an opportunity to determine whether any contemplated transaction of sale, purchase or acquisition or of transportation, refining, processing or handling in any other way involves illegal

oil, illegal gas or illegal product, no penalty shall be imposed for the sale, purchase or acquisition or the transportation, refining, processing or handling in any other way of illegal oil, illegal gas or illegal product, except under circumstances stated in this section.

Penalties shall be imposed by the board for each transaction prohibited in this section when the person committing the same knows that illegal oil, illegal gas or illegal product is involved in such transaction or when such person could have known or determined such fact by the exercise of reasonable diligence or from facts within his knowledge. However, regardless of lack of actual notice or knowledge, penalties as provided in this article shall apply to any sale, purchase or acquisition and to the transportation, refining, processing or handling in any other way of illegal oil, illegal gas or illegal product where administrative provision is made for identifying the character of the commodity as to its legality. It shall likewise be a violation for which penalties shall be imposed for any person to sell, purchase or acquire or to transport, refine, process or handle in any other way any oil, gas or any product without complying with any rule, regulation or order of the board relating thereto. *(Acts 1945, No. 1, p. 1, § 22.)*

Section 9-17-22. Illegal oil, gas or product—Seizure, condemnation and sale.

Apart from and in addition to any other remedy or procedure which may be available to the board or any penalty which may be sought against or imposed upon any person with respect to violations relating to illegal oil, illegal gas or illegal product, all illegal oil, illegal gas and illegal products shall, except under such circumstances as are stated in this section, be contraband, forfeited to the State of Alabama and shall be seized and sold and the proceeds applied as provided in this section. When any such seizure shall have been made, it shall be the duty of the Attorney General of the state to institute at once condemnation proceedings in the circuit court of the county in which such property is seized by filing a complaint in the name of the state against the property seized, describing the same, or against the person or persons in possession of such illegal property, if known, to obtain a judgment enforcing the forfeiture. Any party claiming a superior right may intervene in said action by filing a complaint and have his claim adjudicated. The judge presiding in said circuit court may superintend and make all proper orders as to the method and manner of notice to be given to any party claiming any right in the property so seized to come in and assert his right thereto. The said court shall have authority to frame all orders of procedure so as to regulate the proceedings whereby persons may have an opportunity to come in and propound their claim to the seized property sought to be condemned.

The proceeds of the sale of any such property forfeited to the state shall, after paying all expenses of seizing, holding and selling such property, including the costs of court, be paid into the Oil and Gas Fund. The property sold shall be treated as legal oil, legal gas or legal product, as the case may be, in the hands of the purchaser, but the purchaser and the commodity shall be subject to all applicable laws, rules, regulations and orders with respect to further sale or purchase or acquisition and with respect to the transportation, refining, processing or handling in any other way of the commodity purchased. Nothing in this section shall deny or abridge any cause of action which a royalty owner or a lien holder or any other claimant may have because of the forfeiture of the illegal oil, illegal gas or illegal product against the person whose act resulted in such forfeiture. *(Acts 1945, No. 1, p. 1, § 23.)*

Section 9-17-23. Owners not to allow wells to get out of control, etc.; rights of board upon failure of owners to control wells; powers, etc., of board to secure payment by owners of costs and expenses of controlling or plugging wells.

In order to protect further the natural gas fields and oil fields in this state, it is hereby declared to be unlawful for any owner to allow a well to go wild or to get out of control. The owner of any such well shall, after 24 hours written notice by the board given to him or to the person in possession of such well, make reasonable effort to control such well. In the event of the failure of the owner of such well within 24 hours after service of the notice above provided for to control the same, if such can be done within the period, or to begin in good faith, upon service of such notice, operations to control such well or upon failure to prosecute diligently such operations, then the board shall have the right to take charge of the work of controlling such well, and it shall have the right to proceed, through its own agents or by contract with a responsible contractor, to control the well or otherwise to prevent the escape or loss of gas or oil from such well, all at the reasonable expense of the owner of the well. In order to secure to the board in the payment the reasonable cost and expense of controlling or plugging such well, the board shall retain the possession of the same and shall be entitled to receive and retain the rents, revenues and incomes therefrom until the costs and expenses incurred by the board shall be repaid. When all such costs and expenses have been

repaid, the board shall restore possession of such well to the owner; provided, that in the event the income received by the board shall not be sufficient to reimburse the board as provided for in this section, the board shall have a lien or privilege upon all of the property of the owner of such well, except such as is exempt by law, and the board shall proceed to enforce such lien or privilege by a civil action brought in any court of competent jurisdiction, the same as any other like civil action, and the judgment so obtained shall be executed in the same manner now provided by law for execution of judgments. Any excess over the amount due the board which the property seized and sold may bring, after payment of court costs, shall be paid over to the owner of such well. *(Acts 1945, No. 1, p. 1, § 24.)*

Section 9-17-24. Notification prior to drilling wells; hearing; fees; Alabama Oil and Gas Board Special Fund.

(a) Any person desiring or proposing to drill any well in search of oil or gas or any person proposing to drill a Class II injection well as defined in the Federal Safe Drinking Water Act, 42 U.S.C. 300f et seq., before commencing the drilling of any such well, shall notify the State Oil and Gas Supervisor upon the form as the State Oil and Gas Supervisor may prescribe and shall pay to the State Treasurer a fee of three hundred dollars ($300) for each well. The drilling of any well is hereby prohibited until notice is given and the fee has been paid as herein provided. The State Oil and Gas Supervisor shall have the power and authority to prescribe that the form indicate the exact location of the well, the name and address of the owner, operator, contractor, driller, and any other person responsible for the conduct of drilling operations, the proposed depth of the well, the elevation of the well above sea level and such other relevant information as the State Oil and Gas Supervisor may deem necessary or convenient to effectuate the purposes of this article.

(b) Any person filing a petition or notice of such petition with the State Oil and Gas Board requesting a public hearing before the State Oil and Gas Board shall pay to the State Treasurer a fee of one hundred fifty dollars ($150) for filing the petition. Any person who desires to file a petition with the board in forma pauperis shall file with the board a motion for leave so to proceed together with an affidavit, showing his or her inability to pay the filing fee therefor and his or her belief that he or she is entitled to redress before the board. If the motion is granted, the person may proceed without payment of the filing fee. If the motion is denied, the board shall state in writing the reasons for the denial.

(c) Any person proposing to fracture a coal group shall notify the State Oil and Gas Supervisor. The notification shall be in a form prescribed by the State Oil and Gas Supervisor and shall be accompanied by a fee paid to the State Treasurer not to exceed two hundred fifty dollars ($250) for each coal group to be fractured. All fees for a proposal to fracture a coal group paid pursuant to this section shall be deposited into the State Oil and Gas Board Special Fund and disbursed by the State Treasurer upon warrants drawn by the state Comptroller for the purpose of defraying the expenses incurred by the State Oil and Gas Board in the performance of its duties pursuant to this subsection.

(d) All well permit fees, filing fees for petitions, and other fees paid to the State Treasurer pursuant to this section shall be paid into the Alabama State Oil and Gas Board Special Fund and disbursed by the State Treasurer upon warrants drawn by the state Comptroller for the purpose of defraying expenses incurred by the State Oil and Gas Board in the performance of its duties.

(e) There is hereby created a separate fund in the State Treasury to be known as the Alabama State Oil and Gas Board Special Fund. This fund shall consist of well permit fees, filing fees for petitions, and other fees. All moneys deposited in this fund shall be used for the purpose of defraying expenses incurred by the State Oil and Gas Board in the performance of its duties. The fund shall be paid out only by warrant of the Comptroller upon the Treasurer, upon itemized vouchers, approved by the State Oil and Gas Supervisor; provided, that no funds shall be withdrawn or expended except as budgeted and allotted according to the provisions of Sections 41-4-80 through 41-4-96 and Sections 41-19-1 through 41-19-12, and only in amounts as stipulated in the general appropriation or other appropriation bills, provided further, that any funds unspent and unencumbered at the end of any state fiscal year shall not be transferred into the General Fund. *(Acts 1945, No. 1, p. 1, § 25; Acts 1975, No. 1094, p. 2163, § 1; Acts 1979, No. 79-425, p. 666 § 1, 2; Acts 1988, No. 88-576, p. 893, § 1; Act 2000-714, p.1517, § 1; Act 2002-425, p.1092, § 1)*

Section 9-17-25. Tax for expenses of administration and enforcement of article—Levied; exemptions; payment.

(a) For the purpose of defraying the expenses connected with the administration and enforcement of this article, including the expense of the inspections, tests, analyses and all other expenses connected with

the supervision and protection of crude petroleum oil and natural gas in the State of Alabama, there is hereby levied on the producer a tax equal in amount to two percent of the gross value, at the point of production, of the crude petroleum oil or natural gas produced for sale, transport, storage, profit or for use from any well or wells in the State of Alabama. Provided, however, that natural gas lawfully injected into oil or gas pools or reservoirs in the soil or beneath the soil or waters of the State of Alabama is exempt from this tax. Provided, further, that natural gas lawfully injected into the earth for the purpose of lifting oil or gas in the State of Alabama is exempt from this tax. However, if any gas so injected into the earth is sold for such purposes or injected into underground storage facilities as defined in Section 9-17-150 et seq., then the gas so sold or injected shall not be exempt from this tax. Natural gas lawfully vented or flared in connection with the production, treatment, or processing of oil or gas is exempt from the tax. The tax shall be paid to the Department of Revenue directly by the purchaser when authorized in writing by the producer, and, when so paid, the producer or person in charge of production shall be relieved of any further liability.

(b) For any well for which the initial permit issued by the Oil and Gas Board is dated on or after July 1, 1996, and before July 1, 2002, except a replacement well for a well for which the initial permit was issued by the Oil and Gas Board is dated before July 1, 1996, the applicable rate of tax levied pursuant to subsection (a) shall be one percent for a period of five years commencing with commercial production, after which subsection (a) shall apply. *(Acts 1945, No. 1, p. 1, § 26; Acts 1953, No. 453, p. 558; Acts 1984, No. 84-661, p. 1325, § 1; Acts 1994, No. 94-367, p. 615, § 1; Acts 1996, 2nd Ex. Sess., No. 96-877, p. 1688, § 1; Act 99-584, p. 1332, § 1.)*

Section 9-17-26. Tax for expenses of administration and enforcement of article—Records, returns and remittances of producers; determination of gross value at point of production; rules and regulations.

(a) It shall be the duty of every person producing or in charge of production of crude petroleum or natural gas from any well or wells in the State of Alabama for sale, transport, storage, profit or for use to keep and preserve such records of the amount of all such crude petroleum oil or natural gas produced for sale, transport, storage, profit or for use as may be necessary to determine the amount of the tax for which he is liable under the provisions of Section 9-17-25.

(b) It shall be the further duty of every such person to file with the Department of Revenue, not later than the fifteenth day of the second calendar month following the month of production, a return, subscribed by the person who completes such return, which must contain a printed declaration that it is made under the penalty of perjury, showing the amount of crude petroleum oil or natural gas produced for sale, transport, storage, profit or for use during the second preceding month, to compute on the return the amount of tax charged against him in accordance with the provisions of Section 9-17-25 and to transmit to the Department of Revenue with such return a remittance covering the tax chargeable against him. The return shall contain such other information and shall be in such form as the Department of Revenue shall designate.

(c) The Department of Revenue is authorized to determine the gross value at the point of production in accordance with customary practice.

(d) The Department of Revenue is hereby authorized to promulgate reasonable rules and regulations relating to the administration and enforcement of this article provided, however, that no rule or regulation adopted or promulgated by the department shall alter, limit, extend or be out of harmony with any of the provisions of this article. *(Acts 1945, No. 1, p. 1, § 27; Acts 1981, No. 81-703, p. 1180, § 1; Acts 1991, 1st Ex. Sess., No. 91-798, p. 193, § 3.)*

Section 9-17-27. Tax for expenses of administration and enforcement of article—Recovery of tax improperly collected.

In the event that any collection of tax is improperly made in an effort to enforce the provisions of Section 9-17-25, either as a result of a mistake of law or fact, the amount so paid may be recovered in the same manner as is provided by law for the recovery of other taxes erroneously paid directly to the Department of Revenue. *(Acts 1945, No. 1, p. 1, § 28.)*

Section 9-17-28. Repealed.

Section 9-17-29. Repealed.

Section 9-17-30. Repealed.

Section 9-17-31. Tax for expenses of administration and enforcement of article—Disposition and expenditure.

All funds collected pursuant to the two percent tax levied on the producer of crude petroleum oil or natural gas produced for sale, transport, storage, profit or for use, from any well or wells in the State of Alabama, as is provided in Section 9-17-25, shall be deposited in the State Treasury to the credit of the General Fund and shall be expended only in the manner provided by appropriation by the Legislature. *(Acts 1961, Ex. Sess., No. 95, p. 2008, § 1.)*

Section 9-17-32. Penalty for violations of provisions of article, rules, etc.; penalty applicable to each prohibited transaction relating to illegal oil, gas or product; penalty for aiding or abetting violations of provisions of article, rules, etc.; payment of fine not to abridge private causes of action for damages for violations of rules, etc.

(a) Any person who knowingly and willfully violates any provision of this article, or any rule, regulation or order of the board made under this article shall, in the event a penalty for such violation is not otherwise provided for in this article, be subject to a fine not to exceed $10,000.00 a day for each and every day of such violation and for each and every act of violation, such fine to be recovered by a civil action in the circuit court of the county where the defendant resides, or in the county of the residence of any defendant if there is more than one defendant, or in the circuit court of the county where the violation took place. The place of the civil action shall be selected by the board, and such civil action, by direction of the board, shall be instituted and conducted in the name of the board by the attorney for the board or by the Attorney General or under his direction by the district attorney for the county where the civil action is instituted.

(b) The payment of any fine as provided for in this section shall not have the effect of changing illegal oil into legal oil, illegal gas into legal gas or illegal product into legal product; nor shall such payment have the effect of authorizing the sale, purchase or acquisition or the transportation, refining, processing or handling in any other way of such illegal oil, illegal gas or illegal product, but, to the contrary, the fine shall be imposed for each prohibited transaction relating to such illegal oil, illegal gas or illegal product.

(c) Any person knowingly and willfully aiding or abetting any other person in the violation of any statute of this state relating to the conservation of oil or gas or the violation of any provision of this article or any rule, regulation or order made under this article shall be subject to the same penalty prescribed in subsection (a) of this section for the violation by such other person.

(d) The payment of any fine shall not impair or abridge any cause of action which any person may have against the person violating a rule, regulation or order by reason of an injury resulting from such violation. *(Acts 1945, No. 1, p. 1, § 21; Acts 1990, No. 90-104, p. 104, § 3.)*

Section 9-17-33. Disposition of proceeds derived from sale of oil or gas production.

(a) As used in this section, the following terms shall have the following meanings:

(1) CHECK STUB. The financial record attached to a check, included with a check, or mailed separately at or near the time the check is mailed.

(2) DIVISION ORDER. A contract between the interest owner and the purchaser, operator, or the owner of the right to drill and to produce, directing the distribution of the value from the sale of the oil, gas, and other liquid hydrocarbons in the proportions set out in the division order, which division order is prepared by the purchaser, operator, and/or the owner of the right to drill and to produce on the basis of the ownership shown in a title opinion prepared after examination of abstracts or based on other generally acceptable legal ownership documentation and which is executed by the interest owners or others having an interest in the production.

(3) INTEREST OWNER. A person owning a royalty interest or a working interest in an oil or gas well or unit.

(b) Whenever payment is made for oil or gas production to an interest owner, whether pursuant to a division order, lease, servitude, or other agreement, all of the following information shall be included on or

ascertainable from the check stub or on an attachment to the form of payment, unless the information is otherwise provided on a regular basis:

(1) Lease, property, or well identification number, if any, or reference to appropriate agreement with identification of the well or unit from which production is attributed.

(2) Month and year of sales or purchases included in the payment.

(3) Total barrels of crude oil or MCF of gas purchased or sold.

(4) Owner's final realizable price per barrel MCF, long ton, or other appropriate measurement.

(5) Total amount of severance and other production taxes, with the exception of windfall profit tax.

(6) Net value of total sales from the property after taxes are deducted.

(7) Interest owner's interest, expressed as a decimal fraction, in production from subdivision (1) above.

(8) Interest owner's share of the total value of sales prior to any tax deductions.

(9) Interest owner's share of the sales value less the share of the production and severance taxes, as applicable.

(c) The proceeds derived from the sale of oil or gas production from any oil or gas well shall be paid to persons legally entitled thereto, commencing no later than six months after the date of the first sale, and thereafter no later than 60 days after the end of the calendar month within which subsequent production is sold. The payment shall be made to persons legally entitled thereto by the first purchasers of the production by tender to the person's designated agents or at their last known address. The purchasers may remit to the persons entitled to the proceeds from production annually where the aggregate of one year's accumulation of monthly proceeds does not exceed one hundred dollars ($100). However, the purchaser may hold accumulated proceeds of less than ten dollars ($10) until production ceases or the purchaser's responsibility for making payment for production ceases, whichever occurs first. On the request of the person legally entitled to the proceeds, the purchaser shall remit payment of accumulated proceeds annually to the person if the purchaser owes the person less than ten dollars ($10). On the request of the person legally entitled to the proceeds, the purchaser shall remit payment of the proceeds to the person monthly if the purchaser owes the person more than twenty-five dollars ($25), but less than one hundred dollars ($100). In addition, before the purchaser accumulates proceeds greater than twenty-five dollars ($25), the purchaser shall provide notice to the persons entitled to the proceeds that there is an option to be paid monthly for proceeds greater than twenty-five dollars ($25). The notice to the person entitled to the proceeds shall also provide directions for requesting monthly payment and shall constitute notice to all heirs, successors, representatives, and assigns of the person entitled to the proceeds. As used herein, "first purchase" shall mean the first commercial purchaser of production after completion of the well and shall not include purchasers of oil or gas during initial testing prior to completion of the well; further provided, that any delay in determining the persons legally entitled to an interest in the proceeds from production caused by unmarketable title to the interest shall not affect payment to persons whose title is marketable. In those instances where the proceeds derived from oil or gas produced and sold after May 4, 1982, cannot be paid within the time allowed by this section because the title thereto is not marketable, the purchasers of the production shall remit to the parties ultimately determined to be the legal owners of the production, the full amount of the proceeds plus interest at the rate on a per annum basis equal to the Federal Reserve Discount Rate in effect as of the first day of each month during which interest on the proceeds is payable, the interest to accrue from the date that proceeds were due to persons with marketable title as hereinabove specified. Marketability of title shall be determined in accordance with the then current legally recognized real property law governing title to oil and gas interest. The first purchaser shall be exempt from this subsection and the operator and/or the owner of the right to drill and to produce under an oil and/or gas lease shall be substituted for the first purchaser therein where the operator and/or the owner and purchaser have entered into an arrangement where the proceeds are paid by the purchaser to the operator and/or the owner who assumes responsibility of paying the proceeds to persons legally entitled thereto. Where the operator and/or the owner of the drilling rights are substituted herein for the purchaser, the period of time set forth herein under which the parties must account to persons entitled to the production shall be determined as of the date of receipt of the proceeds for the production as opposed to the date of first sale applicable to the purchaser.

(d) Any first purchaser of production or operator and/or owner of the right to drill substituted for the first commercial purchaser as provided herein, that violates this section shall be liable to the persons legally

entitled to the proceeds from production for the unpaid amount of the proceeds plus interest at the rate of 12 percent per annum, the interest accruing from the date at which the proceeds were due as specified herein.

(e) The circuit court for the county or counties in which the oil or gas well is located shall have jurisdiction over all proceedings brought pursuant to this section. *(Acts 1982, No. 82-557, p. 917, §§ 1-3; Acts 1991, No. 91-681, p. 1324, § 1; Act 99-396, p. 657, § 1.)*

Section 9-17-34. Additional Definitions.

In addition to the definitions contained in Section 9-17-1, which shall apply for the purpose of computing the tax as provided in Section 9-17-35, except to the extent there is a conflict with the definitions contained herein, the following definitions shall apply for the purpose of computing the tax as provided in Section 9-17-35:

(1) Gross Proceeds. The gross proceeds for a month shall be the sum of the month's market proceeds and non-market proceeds. No adjustments or deductions may be taken from the market proceeds or the non-market proceeds in computing gross proceeds.

(2) Market Proceeds. The market proceeds for a month shall be the sum of the amounts due under all market sales transactions during the month. The amount due under each market sales transaction shall be determined by multiplying the unit sales price by the volume of severed oil or gas sold in each transaction.

(3) Market Sales Transaction. An agreement or contract for the sale of offshore production produced from depths greater than 8,000 feet below mean sea level that has been entered into by or on behalf of a producer or its related party and an unrelated party, regardless of the place of sale, regardless of any interim sales to parties that are not unrelated, and regardless of any processing, treating, or transportation done prior to the point of sale.

(4) Non-Market Proceeds. The non-market proceeds for a month shall be the cash and other consideration that would have been due if all non-market taxable volumes for the month had been sold for the same unit sales price due under the market sales transactions occurring during that month, using weighted averages if two or more market sales transactions occurred during the month; provided, however, that if less than 10% by volume of the total taxable offshore production produced during a month is sold in market sales transactions, then the non-market proceeds shall be deemed to be the cash and other consideration, as reasonably determined by the department, that would have been generated if the non-market taxable volumes had been sold in a market sale transaction, considering the unit sales price for offshore production of like quality if such data is available; otherwise, considering published data from recognized market centers for trading oil and/or gas, in both cases adjusted for location and quality to the point at which the first market sale would likely have occurred. Taxpayers seeking to use the published selling prices in calculating their monthly non-market proceeds may request a determination from the department approving the market center data and the manner of making the calculations. The calculations must be made in the same manner from month to month, except as approved by the department.

(5) Non-Market Taxable Volumes. The non-market taxable volumes for a month shall be the total volumes of offshore production not disposed of pursuant to a market sales transaction, excluding volumes taken in-kind by other producers in accordance with Section 40-20-22(g). The total volumes include all offshore production used or consumed in operations, but do not include natural gas lawfully vented or flared in connection with the production, treatment, or processing of oil or gas in the State of Alabama, or natural gas lawfully injected into the earth for the purpose of lifting oil or gas in the State of Alabama. Provided, however, that if any gas so injected into the earth is sold for such purposes or injected into underground storage facilities as defined in Section 9-17-150 et seq., then the gas so sold or injected shall be included in the total non-market taxable volumes for the month.

(6) Producer. Producer shall have the same meaning for purposes of calculating the tax under Section 9-17-35 as it has for purposes of calculating the tax under Section 9-17-25.

(7) Offshore Production. Offshore production shall have the same meaning as it has in Section 40-20-1.

(8) Transportation Charges. The actual cash amount paid to an unrelated party by a producer or seller of severed gas for transporting pipeline quality gas to the point of a market sales transaction. Transportation charges may include amounts paid to a related party if the related party is a regulated entity operating an open access natural gas pipeline. The transportation charges are limited to the lesser of the actual fees

paid or the maximum allowable firm transportation tariff amount approved by the Federal Energy Regulatory Commission, or other appropriate governmental authority.

(9) Unit Sales Price. The total cash or other consideration due for each unit of offshore production, sold under the terms of a market sales transaction, including any and all premiums, bonuses, or other amounts received. If allowable actual transportation charges were paid by the producer or seller for transporting pipeline quality gas to the point of sale, the unit sales price may be adjusted to remove the transportation charge. No other adjustments or deductions may be taken from the actual amounts due in determining the unit sales price.

(10) Unrelated Party. A person or entity with opposing economic interests to the producer or seller of severed oil or gas. No producer's parent company, subsidiary company, sister company, or other company affiliated through common ownership of greater than 5% or control will be considered an unrelated party. In addition, no producer's principal owners, management, members of their immediate families, or companies owned or controlled by any of them will be considered unrelated parties. *(Act 2009-147, p. 284, §2.)*

Section 9-17-35 Tax Based on Gross Proceeds for Offshore Production.

(a) The tax levied upon the producers of offshore production, produced from depths greater than 8,000 feet below mean sea level, shall be computed at the rate of one and sixty-six one hundredths percent (1.66%) of the gross proceeds attributable to the offshore production.

(b) The gross proceeds for offshore production required to be calculated under this section shall be reported and allocated in accordance with Section 40-20-22. *(Act 2009-147, p. 284, §2.)*

ARTICLE 2. LEASES.

DIVISION 1. GENERAL PROVISIONS.

Section 9-17-50. Cancellation on records of lapsed optional leases; liability of lessees for failure or refusal to mark leases cancelled on records, etc., upon request of lessors.

(a) Whenever by reason of the termination of the full period within which an optional gas and oil lease which is of record may be kept alive by the payments of rentals or by reason of the termination of any of the options in such lease by reason of failure on the part of the lessee to comply with the condition therein for the prevention of forfeiture such lease shall lapse, the lessee must, on request in writing by the lessor, mark same cancelled on the records or must furnish the lessor with an instrument, duly acknowledged, directing the cancellation of such lease on the records.

(b) Any lessee failing or refusing to supply the lessor with such an instrument or failing or refusing to cancel any lease on the records within 30 days after receiving written demand as above shall be liable to such lessor for a reasonable attorney's fee incurred by the lessor in bringing suit to have such forfeiture and cancellation adjudged and, in addition thereto, shall be liable to the lessor for all damages suffered by the lessor by reason of his inability to make any lease on account of the first lease not having been cancelled. *(Acts 1945, No. 3, p. 26. §§ 1-2.)*

DIVISION 2. LEASES BY STATE.

Section 9-17-60. Authorization for leasing of certain state lands for exploration, development and production—Lands of Department of Conservation and Natural Resources.

The Commissioner of Conservation and Natural Resources, on behalf of the state, is hereby authorized to lease any lands or interest therein under the jurisdiction of the Department of Conservation and Natural Resources for the exploration, development and production of oil, gas and other minerals or any one or more of them, on, in and under such lands. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 1.)*

Section 9-17-61. Authorization for leasing of certain state lands for exploration, development and production—Lands of other state departments, institutions or agencies.

The Commissioner of Conservation and Natural Resources, on behalf of the state, is hereby authorized, upon the written request of the head of any state department, institution or agency, to lease any land or interest therein owned by such department, institution or agency or in which such department, institution or agency has the beneficial interest for the exploration, development and production of oil, gas and other

minerals or any one or more of them, on, in and under such lands. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 2.)*

Section 9-17-62. Authorization for leasing of certain state lands for exploration, development and production—Lands under navigable streams, waters, etc.

The Commissioner of Conservation and Natural Resources, on behalf of the state, is hereby authorized to lease, upon such terms as he may approve, any lands or any right or any interest therein under any navigable streams or navigable waters, bays, estuaries, lagoons, bayous or lakes and the shores along any navigable waters to high tide mark and submerged lands in the Gulf of Mexico within the historic seaward boundary of this state, which is hereby declared to extend seaward six leagues from the land bordering the gulf, for the exploration, development and production of oil, gas and other minerals or any one or more of them, on, in and under such lands, and such lands or interests therein for such purposes shall be supervised and managed by the Department of Conservation and Natural Resources. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 4.)*

Section 9-17-63. Leases may authorize pooling or unitization.

Any lease executed under the provisions of this division may authorize the lessee to pool or unitize the lease, the lands or minerals covered thereby or any part thereof with other lands, leases or mineral estates or parts thereof upon such terms as the Commissioner of Conservation and Natural Resources may approve. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 3.)*

Section 9-17-64. Execution of pooling or unitization agreements or amendments to leases to authorize same.

The Commissioner of Conservation and Natural Resources is hereby authorized to execute upon such terms as he may approve:

(1) Pooling or unitization agreements affecting oil, gas and other minerals or any one or more of them, on, in or under lands within the jurisdiction of the Department of Conservation and Natural Resources so as to pool or unitize such interests in oil, gas and other minerals or any one of them with similar interests in other lands; and

(2) Agreements with lessees amending existing leases so as to authorize lessees to pool or unitize the leases, the lands or minerals covered thereby or any part thereof with other leases, lands or mineral estates or parts thereof, and to add to or change any other provisions thereof in order to make such existing lease(s) similar on those points with the lease form then being used by the Commissioner of Conservation and Natural Resources in making leases of similar state-owned property, except that no such change or addition may be made which changes the number of years stated as the primary term, or the lease bonuses, delay rentals, royalties, or any other compensation to be paid under the terms of such existing leases.

All pooling or unitization agreements or agreements amending existing leases or any part thereof executed under the provisions of this section by the Commissioner of Conservation and Natural Resources must be approved in writing by the Governor. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 5; Acts 1982, No. 82-622, p. 1177, § 1.)*

Section 9-17-65. Lands to be leased upon basis of competitive bids; invitations for bids; opening of bids; acceptance or rejection of bids.

All lands proposed to be leased under the provisions of this division shall be leased only upon the basis of competitive bids. The Commissioner of Conservation and Natural Resources shall obtain written, sealed competitive bids on every proposed lease of each tract of such land. Invitations for bids shall be published in The Montgomery Advertiser, Montgomery, Alabama, at least 25 days before the final date for submitting bids. Invitations for bids shall contain a statement as to the final date for submitting bids; the time and place at which the bids will be opened; and a legal description of the location and the approximate acreage of the tract of land proposed to be leased. Publication of the invitations for bids shall also be placed in a newspaper published in the county or counties in which the land is located; however, if a typographical error appears in such ad or ads, same shall not invalidate the sale; provided, that no tract of land containing more than 5,200 acres shall be leased or advertised for lease under the provisions of this division.

Bids shall be opened publicly in the office of the Commissioner of Conservation and Natural Resources at the time stated in the invitations for bids.

The lease of any tract of land shall be awarded to the highest responsible bidder making the most advantageous offer to the state, and the Commissioner of Conservation and Natural Resources must either accept the most advantageous offer or reject all bids within five days from the date said bids were opened. The Commissioner of Conservation and Natural Resources may reject all bids on any tract of land when, in his opinion, the public interest will be served thereby, but such tract of land shall not thereafter be leased except in accordance with the provisions of this division. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 6; Acts 1957, No. 611, p. 877, § 1; Acts 1969, No. 479, p. 935, § 1.)*

Section 9-17-66. Parties requesting advertisement of lands for lease purposes to pay for necessary legal advertisement.

All persons requesting the Commissioner of Conservation and Natural Resources to advertise state lands for oil and gas lease purposes shall be required to pay for the necessary legal advertisements for such sales. *(Acts 1963, No. 529, p. 1141, § 1.)*

Section 9-17-67. Charges for oil and gas lease tract charts.

The Department of Conservation and Natural Resources is hereby authorized to provide for a reasonable charge for its oil and gas lease tract charts, such charge to be based upon the cost of printing, handling and mailing by the Department of Conservation and Natural Resources. *(Acts 1963, No. 529, p. 1141, § 2.)*

Section 9-17-68. Revenues from leases—Disposition.

The revenues that shall accrue under the provisions of this division from rentals, royalties and all other sources subject to the cost of administration shall be the property of the department or institution to which said lands belong or in which said department or institution shall own the beneficial interest. All revenue accruing from the lease of the bed of any navigable streams, waterways, bays, estuaries, lagoons, bayous, lakes and any submerged lands in the Gulf of Mexico within the historic seaward boundary of this state, subject to the cost of administration, shall be paid by the Commissioner of Conservation and Natural Resources to the State Treasurer to become a part of the General Funds of the State of Alabama. The Division of Lands of the Department of Conservation and Natural Resources shall be entitled to 10 percent of all revenues, including royalty, bonus and rentals, derived under the provisions of this division as cost of administration. Such cost of administration shall be covered into the State Treasury by the Commissioner of Conservation and Natural Resources to the credit of the State Lands Fund. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 7; Acts 1969, No. 479, p. 935, § 1.)*

Section 9-17-69. Revenues from leases—Expenditure.

No such revenues shall be expended from such funds unless and to the extent appropriated by law. *(Acts 1956, 1st Ex. Sess., No. 158, p. 224, § 8.)*

ARTICLE 3. UNIT OPERATIONS.

Section 9-17-80. Enhanced recovery methods.

The phrase "enhanced recovery methods" as used herein shall mean the increased recovery from a pool of oil or gas achieved by artificial means or by the application of energy extrinsic to the pool, including repressuring, cycling, pressure maintenance, injection, or any other enhanced recovery methods of producing hydrocarbons recognized by the oil and gas industry and approved by the board. *(Acts 1957, No. 352, p. 461, § 9; Act 2000-714, p. 1517, § 1.)*

Section 9-17-81. Meeting of board to consider need for unit operation.

In order to promote the conservation of oil and gas resources, prevent waste, avoid the drilling of unnecessary wells, allow the drilling of wells at optimum geologic locations, and protect correlative rights, the State Oil and Gas Board of Alabama upon its own motion may, or upon the petition of any interested person shall, hold a hearing to consider the need for the operation as a unit of an entire field or of any pool or pools or of any portion of a pool or combinations thereof within a field for the production of oil or gas or both in order to increase the ultimate recovery by enhanced recovery methods or any other method of cooperative development and operation calculated to increase the ultimate recovery of oil or gas. *(Acts 1957, No. 352, p. 461, § 1; Act 2000-714, p. 1517, § 1.)*

Section 9-17-82. Order requiring unit operation—When issued.

The board shall issue an order requiring such unit operation if it finds that:

(1) Unit operation of the field or of any pool or pools or of any portion of a pool or combinations thereof within the field is reasonably necessary to prevent waste, to increase the ultimate recovery of oil or gas, to avoid the drilling of unnecessary wells, to allow the drilling of wells at optimum geologic locations, and to protect the correlative rights of interested parties.

(2) The proposed plan for unit operations will increase the ultimate recovery of oil or gas by enhanced recovery methods or any other method of cooperative development and operation calculated to increase the ultimate recovery of oil or gas.

(3) The estimated additional cost incident to conduction of such operation will not exceed the value of the estimated additional recovery of oil or gas. *(Acts 1957, No. 352, p. 461, § 2; Act 2000-714, p. 1517, § 1.)*

Section 9-17-83. Order requiring unit operation—Contents.

The order shall be fair and reasonable under all the circumstances, shall protect the rights of interested parties and shall include:

(1) A description of the area embraced, termed the unit area, and a description of the pool or pools or portions thereof affected and lying within the unit area, termed the unit pool.

(2) A statement of the nature of the operations contemplated.

(3) An allocation among the separately owned interests derived from or associated with tracts in the unit area of all the oil or gas, or both, produced from the unit pool within the unit area, and not required in the conduct of such operation or unavoidably lost, such allocation to be based on the relative contribution which each such tract or interest is expected to make during the course of such operation, to the total production of oil or gas, or both, so allocated.

(4) A provision for adjustment among the owners of the unit area (not including royalty owners, except as otherwise hereinafter provided) of their respective investment in wells, tanks, pumps, machinery, materials, equipment and other things and services of value attributable to the unit operations. The amount to be charged unit operations for any such items shall be determined by the owners of the unit area (not including royalty owners, except as otherwise hereinafter provided); provided, that, if said owners of the unit area are not able to agree upon the amount of such charges, or to agree upon the correctness thereof, the board shall determine them after due notice and hearing thereon, upon the application of any interested party. The net amount charged against the owner of a separately owned tract or separately owned interest derived from or associated with a tract within the unit shall be considered expense of unit operation chargeable against such tract or interest. The adjustments provided for in this subdivision may be treated separately and handled by agreements separate from the unitization agreement.

(5) A provision that the costs and expenses of unit operation, including investment, past and prospective be charged to the separately owned tracts or interests in the same proportions that such tracts or interests share in unit production, as provided in subdivision (3) of this section. The expenses chargeable to a tract or interest shall be paid by the person or persons not entitled to share in production free of operating costs and who, in the absence of unit operation, would be responsible for the expense of developing and operating such tract or interest, and such person or person's interest in the separately owned tract or interest shall be primarily responsible therefor.

(6) The designation of, or a provision for the selection of, a unit operator. The conduct of all unit operations by the unit operator and the selection of a successor to the unit operator designated by the board shall be governed by the terms and provisions of the unitization agreement.

(7) A provision that when the full amount of any charge made against a separately owned tract or interest is not paid when due by the person or persons primarily responsible therefor, as provided in subdivision (5) of this section, then seven-eighths of the oil and gas production allocated to such separately owned tract or interest may be appropriated by the unit operator and marketed and sold for the payment of such charge, together with interest at the rate of five percent per annum thereon. A one-eighth part of the unit production allocated to each separately owned tract or interest shall in all events be regarded as royalty to be distributed to and among, or the proceeds thereof paid to, the royalty owners, free and clear of all unit expense and free and clear of any lien therefor. The owner of any overriding royalty, oil and gas payment, royalty in excess of one-eighth of production, or other interests, who is not primarily responsible therefor

shall, to the extent of such payment or deduction from his share, be subrogated to all the rights of the unit operator with respect to the interest or interests primarily responsible for such payment; provided, however, such right of subrogation shall not apply, inure to or exist for the benefit of the owner of any overriding royalty, oil and gas payment, royalty in excess of one-eighth of production, or other interest, who is not primarily responsible therefor, in any oil production unit from the lower cretaceous geological formation between depths of 10,500 feet and 11,500 feet subsea in which tertiary recovery methods are utilized. The owner of such overriding royalty, oil and gas payment, royalty in excess of one-eighth of production, or other interest in any oil production unit from the lower cretaceous geological formation between depths of 10,500 feet and 11,500 feet subsea in which tertiary recovery methods are utilized shall bear his fair share of all capital and operating costs incurred by a unit operator from the first day of the month next succeeding the month during which such tertiary recovery methods are initiated and implemented in the production unit, and the owner of such interest shall continue to bear his share of both capital and operating cost so long as such unit is producing oil or gas utilizing tertiary recovery methods. The term "tertiary recovery methods" as used herein shall include, but shall not be limited to, the maintenance or partial maintenance of reservoir pressures by any method recognized by the industry as a tertiary method of recovery and approved by the board, recycling, injecting or flooding a pool, or pools, or parts thereof, with air, gas, water, hydrocarbons, carbon dioxide (CO2) or any other substance, or any combination or combinations thereof, the use of polymers, steam flooding or fire flooding, or any other tertiary method of producing hydrocarbons recognized by the industry and approved by the board. Any surplus received by the operator from any such sale of production shall be credited to the person or persons from whom it was deducted in the proportion of their respective interest.

(8) The time the unit operation shall become effective and the manner in which and the circumstances under which the unit operation shall terminate. *(Acts 1957, No. 352, p. 461, § 3; Acts 1978, No. 724, p. 1043, § 1; Acts 1979, No. 79-622, p. 1103, § 1.)*

Section 9-17-84. Order requiring unit operation—When effective; when automatically revoked.

An order requiring unit operation shall not become effective unless and until agreements incorporating the provisions of Section 9-17-83 have been signed or in writing ratified or approved by the owners of at least 66 2/3 percent in interest as costs are shared under the terms of the allocation formula established by the board in the order pursuant to Section 9-17-83(3) and by 66 2/3 percent in interest of the royalty owners in the unit area as revenues are distributed under the terms of the allocation formula established by the board in the order pursuant to Section 9-17-83(3), and the board has made a finding to that effect either in the order or in a supplemental order. In the event the required percentage interests have not signed, ratified, or approved the order or agreements within six months from and after the date of the order it shall be automatically revoked. *(Acts 1957, No. 352, p. 461, § 4; Acts 1965, 2nd Ex. Sess., No. 80, p. 110, § 1; Act 2000-714, p. 1517, § 1.)*

Section 9-17-85. New or amending orders.

(a) The board, by entry of new or amending orders, may from time to time add to unit operations portions of pools not theretofore included and may add to unit operations new pools or portions thereof and may extend the unit area as required. Any such order, in providing for allocation of production from the unit pool of the unit area, shall first allocate to the pool or pools or portion thereof so added a portion of the total production of oil or gas or both from all pools affected within the unit area as enlarged, (and not required in the conduct of unit operations or unavoidably lost), the allocation to be based on the relative contribution which such added pool or pools or portion thereof is expected to make during the remaining course of unit operations to the total production of oil or gas or both so allocated. The production so allocated to the added pool or pools or portions thereof shall be allocated to the separately owned tracts which participate in the production on the basis of the relative contribution of each tract as provided in subdivision (3) of Section 9-17-83. The remaining portion of unit production shall be allocated among the separately owned tracts within the previously established unit area in the same proportions as those specified in the previous order. Orders promulgated under this paragraph shall become operative at 7:00 A.M. on the first day of the month next following the day on which the order becomes effective under the provisions of subsection (b) of this section.

(b) An order promulgated by the board under subsection (a) of this section shall not become effective unless and until the following occur:

(1) All of the terms and provisions of the unitization agreement relating to the extension or enlargement of the unit area or to the addition of pools or portions thereof to unit operations have been fulfilled and satisfied and evidence thereof has been submitted to the board.

(2) The extension or addition effected by the order has been agreed to in writing by the owners of at least 66 2/3 percent in interest as costs are shared under the terms of the allocation formula established by the board in the area or pools or portions thereof to be added to the unit operation by the order and by 66 2/3 percent in interest of the royalty owners as revenues are distributed under the terms of the allocation formula established by the board in the area or pools or portions thereof to be added to the unit operations by such order, and evidence thereof has been submitted to the board.

In the event both of the above requirements are not fulfilled within six months from and after the date of such order, it shall be automatically revoked.

(c) After the operative date of an order promulgated under this section, costs and expenses of operation of the unit as enlarged shall be governed by subdivision (5) of Section 9-17-83. Adjustment among the owners of the unit area as enlarged (not including royalty owners) of their respective investments in wells, tanks, pumps, machinery, materials, equipment and other things and services of value attributable to the operation of the unit as enlarged shall be governed by subdivision (4) of Section 9-17-83. *(Acts 1957, No. 352, p. 461, § 5; Acts 1965, 2nd Ex. Sess., No. 80, p. 110, § 1; Acts 1969, No. 733, p. 1287, § 1; Act 2000-714, p. 1517, § 1.)*

Section 9-17-86. Alteration of contribution of separately owned tract.

When the contribution of a separately owned tract with respect to any unit pool has been established pursuant to subdivision (3) of Section 9-17-83, such contribution shall not be subsequently altered, unless the board shall find, after notice and hearing, that such contribution was erroneous because shown to be erroneous by subsequently discovered data or by subsequently discovered errors in the data upon which the original contribution was established. No change or correction of the contribution of any separately owned tract shall be given retroactive effect; provided, that appropriate adjustment shall be made for the investment charges as provided for in subdivision (4) of Section 9-17-83. *(Acts 1957, No. 352, p. 461, § 6.)*

Section 9-17-87. Production and operations deemed to be those of separately owned tracts.

The portion of unit production allocated to a separately owned tract within the unit area shall be deemed for all purposes to have been actually produced from such tract, and operations with respect to any unit pool within the unit area shall be deemed for all purposes to be the conduct of operations for the production of oil or gas or both from each separately owned tract in the unit area. *(Acts 1957, No. 352, p. 461, § 7.)*

Section 9-17-88. Applicability of article.

This article shall apply only to field or pool units and shall not apply to the unitization of interests within a drilling unit as may be authorized and governed under the provisions of Article 1 of this chapter. *(Acts 1957, No. 352, p. 461, § 8.)*

ARTICLE 5. COALBED METHANE GAS WELL PLUGGING FUND.

Section 9-17-130. Legislative findings and declaration.

The Legislature of the State of Alabama finds and declares that the protection of Alabama's environment is vital to the economy of this state; that coalbed methane gas wells are an important source of natural gas for use in industry and by consumers thereof in Alabama and are becoming increasingly common in Alabama as the technology for such wells advances; that the broadest possible promotion of public and private interests requires that coalbed methane gas wells be properly plugged when abandoned; that delays therein may affect the environment or public health, safety and welfare; that adequate financial resources be readily available to provide for the expeditious plugging of such wells and to provide a means for doing so without delay; that the Legislature has heretofore authorized the State Oil and Gas Board of Alabama to require that operators of such wells provide evidence of financial responsibility to cover the costs of plugging such wells; that performance bonds so required and obtained for such purpose may not be adequate in amount or even obtainable in the present insurance market; and that the health, safety, and welfare of the citizens of the State of Alabama will be enhanced and protected by the provisions of this article. *(Acts 1990, No. 90-635, p. 1164, § 1.)*

Section 9-17-131. Short title.

This article may be cited as the "Alabama Coalbed Methane Gas Well Plugging Fund Act." *(Acts 1990, No. 90-635, p. 1164, § 2.)*

Section 9-17-132. Definitions.

For the purposes of this article, unless otherwise indicated, the following terms shall have the meanings respectively ascribed to them by this section:

(1) BOARD. The State Oil and Gas Board created in Section 9-17-3.

(2) FUND. The Alabama Coalbed Methane Gas Well Plugging Fund established in Section 9-17-133.

(3) COALBED METHANE GAS WELL. A well capable of producing occluded natural gas from a coalbed or coalbeds.

(4) PLUGGING FEE. The fee authorized by Section 9-17-137.

(5) OPERATOR. Any person who notifies the supervisor pursuant to Section 9-17-24 of such person's desire or proposal to drill a coalbed methane gas well.

(6) PERSON. Any natural person, firm, corporation, association, partnership, joint venture, receiver, trustee, guardian, executor, administrator, fiduciary, representative of any kind or any other group acting as a unit.

(7) SUPERVISOR. The state oil and gas supervisor. *(Acts 1990, No. 90-635, p. 1164, § 3.)*

Section 9-17-133. Alabama Coalbed Methane Gas Well Plugging Fund.

There is hereby created the Alabama Coalbed Methane Gas Well Plugging Fund to be held by the State Treasurer and administered by the supervisor. The fund shall be used for carrying out the purposes of this article. To the fund shall be credited all the plugging fee revenues levied, collected and credited thereto pursuant to Section 9-17-137. Charges against and disbursements from the fund shall be made only in accordance with the provisions of this article. *(Acts 1990, No. 90-635, p. 1164, § 4.)*

Section 9-17-134. Determination by board of coalbed methane gas wells requiring plugging.

Whenever, in the determination of the board, after reasonable notice to the operator of a coalbed methane gas well and a hearing held by the board and pursuant to such notice:

(1) The failure of the operator of a coalbed methane gas well to plug such well may pose a threat to the environment or to the public health, safety or welfare,

(2) The operator of said Well shall have failed or refused to plug such coalbed methane gas well within a period deemed reasonable by the board, and

(3) The bond or other security filed by such operator under Section 9-17-6(c)(5) is or is expected to be inadequate to provide for the payment of the costs of plugging said well, the board shall undertake to provide for the proper plugging of said well through the use of moneys in the fund, provided that moneys adequate for such purpose, taking into account the aforesaid bond or other surety, shall then be on deposit in the fund. *(Acts 1990, No. 90-635, p. 1164, § 5.)*

Section 9-17-135. Action authorized to be taken by board.

Upon making the determination described in Section 9-17-134, the board shall first collect the proceeds of the bond or bonds or the blanket bond of the operator filed as security under Section 9-17-6(c)(5), and shall forthwith apply the proceeds of such bond or bonds to the expense of causing such well or wells with respect to which such determination shall have been made to be plugged, which action the board is hereby authorized to take either directly or through contracts therefor entered into by the board with private persons or with other governmental agencies. Should the board determine that the proceeds of such bond or bonds are in fact insufficient to cover the entire expense of causing such well or wells to be plugged, the supervisor shall be authorized to execute and verify itemized vouchers to be submitted to the state Comptroller for the withdrawal from the fund of amounts equal to such expenses as may be incurred by the board in connection therewith in excess of bond coverage. Upon the presentation of such vouchers, there is hereby appropriated from moneys in the fund such amount as shall be necessary for the payment of such expenses, and the state Comptroller is authorized to issue appropriate warrants on the State Treasurer for reimbursement to the board of such expenses incurred by it in taking the aforesaid action to plug coalbed methane gas wells or for payment of such private persons or governmental agencies as shall have been engaged by the board to take such action pursuant to the provisions hereof. *(Acts 1990, No. 90-635, p. 1164, § 6.)*

Section 9-17-136. Liability of owners and operators.

Whenever costs of plugging a coalbed methane gas well shall have been incurred by the board pursuant to this article and the board shall have authorized the expenditure of moneys from the fund pursuant to Section 9-17-135 for the purpose of plugging a coalbed methane gas well, the operator thereof and each and every owner of a working interest in the well bore of such well shall be jointly and severally liable to the state for repayment of the amount of such moneys, and the board is authorized to institute appropriate civil actions in the courts in the name of the state to recover such amounts. Any amounts so recovered shall be paid into the fund. Further, nothing in this article shall be construed to relieve any operator or owner of a working interest in the well bore of any coalbed methane gas well of any liability to any third party for damages incurred because of failure to plug any coalbed methane gas well. *(Acts 1990, No. 90-635, p. 1164, § 7.)*

Section 9-17-137. Plugging fees payable into fund; investment and use of fund.

(a) In addition to the requirements and fees provided for in Section 9-17-24(a), any person desiring, after April 25, 1990, to drill any coalbed methane gas well in this state shall pay to the state a plugging fee of $150.00 respecting each such well desired to be drilled, such plugging fees to be deposited with the State Treasurer in the fund; provided, however, that no plugging fees shall be required to be paid during any time when the unobligated balance of the fund shall exceed the sum of $1,000,000. Any provisions of law to the contrary notwithstanding, no permit for the drilling of any coalbed methane gas well shall be issued by the board until the fee provided for in this section shall be paid, if due.

(b) The moneys in the fund shall be invested by the State Treasurer of Alabama in the same manner as state funds generally; provided, however, that only 50 percent of all interest and earnings accruing thereon shall be credited to the State General Fund and the remainder shall be credited to the fund; said moneys and the interest and earnings credited to the fund shall be used only for the purposes set forth in this article and for no other purposes, and no portion thereof shall be available for loan to any agency or branch of state government, it being the intent of the Legislature that the fund shall remain intact and inviolate for the purposes set out in this article or until terminated as provided herein.

(c) Moneys in the fund shall be paid out only by warrant of the state Comptroller upon the State Treasurer, upon itemized vouchers executed by the supervisor as provided in Section 9-17-135, and in the event of termination of the fund as provided herein. *(Acts 1990, No. 90-635, p. 1164, § 8.)*

Section 9-17-138. Termination of fund.

Should the board determine that all coalbed methane gas wells in the State of Alabama have been plugged and abandoned, or should the board determine, after notice and hearing, that the fund is no longer necessary in order to carry out the purposes of this article, then the supervisor shall so certify this determination to the state Comptroller and the State Treasurer and all moneys in the fund shall, promptly following the filing with the state Comptroller and the State Treasurer of such certification, be disbursed and are hereby appropriated to all counties in the State of Alabama where coalbed methane gas wells shall have been permitted pursuant to the provisions of this chapter, to be divided among such counties based on the number of coalbed methane gas wells permitted in each such county, for deposit into the general funds of such counties, and to be used for those purposes for which said general funds were established. *(Acts 1990, No. 90-635, p. 1164, § 9.)*

Section 9-17-139. No liability of state, board or supervisor to third parties.

Nothing in this article shall establish or create any liability or responsibility on the part of the board, the supervisor or the State of Alabama to pay any costs incurred or damages incurred or damages suffered by any person or to pay any third party claims from any source arising from the failure of any coalbed methane gas well to be properly plugged, nor shall moneys in the fund be used to make any payments of such costs or damages. *(Acts 1990, No. 90-635, p. 1164, § 10.)*

ARTICLE 6. UNDERGROUND GAS STORAGE.

DIVISION 1. GENERAL PROVISIONS

Section 9-17-150. Definitions.

Unless the context otherwise requires, the following words and terms defined in this section shall have the following meanings in this article:

(1) CODE. The Code of Alabama 1975, as amended.

(2) GAS. All natural gas, casinghead gas, carbon oxides, ammonia, hydrogen, nitrogen, noble gases, and occluded natural gas found in coal beds, and all other hydrocarbons not defined as oil in Section 9- 17-1, except and not including liquid petroleum gas.

(3) STATE OIL AND GAS BOARD or BOARD. The State Oil and Gas Board of Alabama.

(4) STORAGE FACILITY. Any underground reservoir used or to be used for the underground storage of gas and all surface and subsurface rights and appurtenances necessary or useful in the operation of the facility for the underground storage of gas, including any necessary or reasonable buffer zone as designated by the board for the purpose of insuring the safe operation of the storage of gas and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, together with any and all subsequent extensions thereof.

(5) STORAGE OPERATOR. Any company, person, corporation, partnership, limited partnership, association of persons, municipality, association of municipalities, public utility, gas district, or other entity, authorized by the State Oil and Gas Board pursuant to Section 9-17-152 to operate any storage facility as defined in this section.

(6) UNDERGROUND RESERVOIR. Any subsurface sand, stratum, formation, aquifer, or cavity, cavern or void (whether natural or artificially created), suitable for or capable of being made suitable for the injection and storage of gas therein and the withdrawal of gas therefrom.

(7) UNDERGROUND STORAGE. Storage in an underground reservoir. *(Acts 1992, No. 92-564, p. 1172, §1; Act 2022-40, §1.)*

Section 9-17-151. Legislative declaration; jurisdiction.

(a) (1) The underground storage of gas which promotes the conservation thereof, which permits the accumulation of large quantities of gas in reserve for orderly withdrawal in periods of peak demand, making gas more readily available to commercial, industrial or residential consumers, or which provides more uniform withdrawal from various gas or oil fields, is in the public interest and welfare of this state and is for a public purpose.

(2) The underground storage of carbon oxides, ammonia, hydrogen, nitrogen, and noble gases is in the public interest and welfare of this state and is for a public purpose.

(b) The State Oil and Gas Board shall have jurisdiction and authority over all persons and property necessary to administer and enforce effectively the provisions of this article concerning the underground storage of gas. In exercising such jurisdiction and authority, the board shall have and may exercise all powers and authorities granted to it pursuant to Article 1, of this chapter with respect to holding hearings and adopting and enforcing rules, regulations, and orders.

(c) In addition to any other authority of the board, the board shall have jurisdiction and authority to regulate the operation and abandonment of underground storage facilities. The board may require reasonable bond, with good and sufficient surety, or other financial security approved by the board, conditioned on compliance with any rules or orders of the board relating to underground storage facilities, including the abandonment of underground storage facilities.

(d) The board may adopt rules providing fees and charges to defray expenses of the board in the regulation of the operation and abandonment of underground storage facilities. *(Acts 1992, No. 92-564, p. 1172, §2; Act 2022-40, §1.*)

Section 9-17-152. Board approval; recordation of order; certificate of effectiveness; dissolution of fields and units; determination of commercial reserves; creation of cavities.

(a) The use of an underground reservoir as a storage facility for gas is hereby authorized, provided that the board shall first enter an order, after notice and hearing pursuant to the provisions of Sections 9-17-3

to 9-17-8, inclusive, approving such proposed underground storage of gas and designating the horizontal and vertical boundaries of the storage facility, such boundaries to include within them any necessary or reasonable buffer zone for the purpose of insuring the safe operation of the storage facility and to protect the storage facility against pollution, invasion, and escape or migration of gas therefrom, upon finding as follows:

(1) That the storage facility is suitable and feasible for the injection, storage and withdrawal of gas and has a greater value or utility for the storage of gas than for the production of any remaining volumes of presently commercially recoverable hydrocarbons and its use for such purpose is in the public interest;

(2) That the underground reservoir to be used for underground storage of gas does not contain proven commercially producible accumulations of oil or gas or both; or, in the alternative, if the underground reservoir to be used for underground storage of gas includes any pool (or portion thereof) that contains proven commercially producible accumulations of oil or gas or both, that a majority in interest, as calculated on a surface acre basis, of all owners (as owner is defined in Section 9-17-1(7), to be "The person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another or others.") in the pool has or have consented to such use in writing;

(3) That the use of the storage facility for the underground storage of gas will not contaminate other formations containing fresh water or containing oil, gas or other commercial mineral deposits; and

(4) That the proposed storage will not unduly endanger lives or property.

(b) Upon the board's issuing an order of approval as set forth above, said order, or a certified copy thereof, shall be filed for record in the probate court of the county or counties in which the storage facility is to be located.

(c) Prior to commencing injection of gas, the storage operator shall file for record in the probate court of the county or counties in which the storage facility is located, and with the board, a certificate, entitled a certificate of effectiveness, which shall contain a statement that the storage operator has acquired by eminent domain or otherwise all necessary ownership rights with respect to the storage facility, and the date upon which the storage facility shall be effective.

(d) If any pool (or portion thereof) for any previously established field(s) or producing unit(s) is contained within the boundaries of the storage facility, the board's order of approval for such storage facility shall provide that such field(s) or unit(s) shall be dissolved as to such pool(s) as of the effective date of the storage facility (as set forth in the certificate of effectiveness).

(e) If an underground reservoir that contains commercially recoverable oil and/or gas has been approved, as hereinabove provided, for use as a storage facility, the board shall, after notice and hearing pursuant to the provisions of Sections 9-17-3 through 9-17-8, inclusive, determine the amount of remaining commercially recoverable oil and/or gas in said reservoir and shall set forth its determination in an order supplemental to its order of approval. As a part of the board's determination contained in such supplemental order, the board shall determine a period of time which encompasses the remaining natural production capability of the underground reservoir to produce such commercially recoverable gas and then determine an apportionment of the total volume of such gas withdrawn from the storage facility between (i) injected gas withdrawn from storage and (ii) production of said remaining commercially recoverable gas in said reservoir. All volumes of such gas deemed production under clause (ii) herein shall be subject to the levy of applicable severance taxes under Article I, Chapter 20 of Title 40.

(f) Nothing herein shall be construed to limit or restrict the right of anyone to create, for the purpose of later use as an underground reservoir for underground storage of gas, a cavity in a salt dome even though the board has not issued an order of approval under subsection (a) above for the storage of gas in said cavity, provided that actual injection of gas in said cavity shall not be commenced until such an order of approval shall have been issued by the board and provided further that such cavity and the operations for the creation thereof do not violate the provisions of any rule, regulation, or order issued by the board under Section 9-17-153(a) for the protection of any previously approved storage facility. *(Acts 1992, No. 92-564, p. 1172, § 3.)*

Section 9-17-153. Protection against pollution and escape of gas; property rights.

(a) The board shall issue such orders, rules and regulations as may be necessary for the purpose of protecting any such storage facility against pollution, invasion, and the escape or migration of gas

therefrom, including such necessary orders, rules and regulations as may pertain to the drilling into or through such storage facility.

(b) Any and all hydrocarbons which are within the storage facility on May 21, 1992 and at all times thereafter and which have been acquired by the storage operator by condemnation or otherwise and any and all gas injected into said facility by the storage operator shall be deemed the property of the storage operator, his heirs, successors and assigns, and in no event shall such hydrocarbons or injected gas be subject to the right of the owner of the surface of the lands or of any mineral interest therein under which such storage facility shall lie or be adjacent to or of any person other than the storage operator, his heirs, successors and assigns, to produce, take, reduce to possession, waste or otherwise interfere with or exercise any control thereover. *(Acts 1992, No. 92-564, p. 1172, § 4.)*

Section 9-17-154. Eminent domain.

(a) Any storage operator is hereby empowered, after obtaining approval of the board as herein required, to exercise the right of eminent domain in the manner provided by law, to acquire all surface and subsurface rights and interests necessary or useful for the purpose of operating the storage facility (including easements and rights-of-way across lands for transporting, by pipeline or otherwise, gas to and from said facility) and to exercise eminent domain rights to acquire any hydrocarbons therein, pursuant to the provisions hereof. Such power shall be exercised under the procedure provided by Chapter 1A, Title 18.

(b) No rights or interests in storage facilities acquired for the injection, storage and withdrawal of gas by a party who has eminent domain rights under this act and who has obtained an order from the board under the provisions of Section 9-17-152, shall be subject to the exercise of any eminent domain rights; and no portion of any salt dome (including any cavity therein) and no portion of any lands within a radial distance of 1500 feet from the outer wall of a salt dome may be acquired, by exercise of the eminent domain rights granted hereunder, for use as an underground reservoir for storage of gas unless the storage operator has first obtained the consent, in writing, to such use from: (a) at least a 75% in interest (as calculated on a surface acre basis) of the owners of the salt in that portion of the salt dome that is to be acquired or that is within a radial distance of 1500 feet of the proposed underground reservoir, and (b) if said portion of the salt dome is subject to a salt lease, at least 75% in interest (as calculated on a surface acre basis) of the owners of the lessee's rights under said lease. *(Acts 1992, No. 92-564, p. 1172, § 5.)*

Section 9-17-155. Right of landowner to drill and make other use of land.

The right of eminent domain granted by Section 9-17-154 shall be without prejudice to the right of the owner of said land or of other rights or interests therein to drill or bore through the storage facility so appropriated in such manner as shall comply with orders, rules and regulations of the board issued for the purpose of protecting the storage facility against pollution or invasion and against the escape or migration of gas therefrom, and shall be without prejudice to the rights of the owners of said lands or other rights or interests therein as to all other uses not acquired for the storage facility. *(Acts 1992, No. 92-564, p. 1172, § 6.)*

Section 9-17-156. Exemption from taxation and certain gas deemed injected.

No storage operator shall be subject to any privilege or other tax on production, severance, extraction or withdrawal of gas that has been injected into a storage facility when such gas is extracted or withdrawn from such storage facility, and, specifically, no such gas shall be subject to taxation under the provisions of Sections 9-17-25 through 9-17-31 or under the provisions of Article 1, Chapter 20 of Title 40. All hydrocarbons extracted or withdrawn from the underground reservoir which were not injected, including any oil, condensate or natural gas liquids, shall be subject to applicable severance taxes under Sections 9-17-25 through 9-17-31 and under Article I, Chapter 20 of Title 40. *(Acts 1992, No. 92-564, p. 1172, § 7.)*

Section 9-17-157. Secondary or tertiary operations.

Nothing in this article shall apply to the conduct of gas storage operations as a part of or in conjunction with any secondary or tertiary recovery methods being utilized with respect to a unit pool in a unit area heretofore or hereafter established by the board pursuant to Article 3,of this chapter; and the board shall not allow the creation or operation of a storage facility pursuant to this article within any underground reservoir where such secondary or tertiary recovery methods are being utilized. *(Acts 1992, No. 92-564, p. 1172, § 8.)*

DIVISION 2. GEOLOGIC STORAGE OR SEQUESTRATION OF CARBON DIOXIDE

Section 9-17-160. "Pore Space" Defined.

For the purposes of this division, the term "pore space" means subsurface space that can be used for the geologic storage or sequestration of carbon dioxide and incidental substances that are part of the carbon dioxide capture, transportation, or storage process. *(Act 2024-325, §2.)*

Section 9-17-161. Possessory Right to Pore Space; Conveyance of Surface Ownership of Real Property; Approval to Operate Carbon Dioxide Storage Facility.

(a) The ownership of pore space in all strata below the surface lands and waters of this state is vested in the owners of the surface rights above the underlying strata where the pore space exists, unless the ownership interest in the pore space has previously been severed from the surface ownership or is explicitly excluded or reserved in a conveyance.

(b) A conveyance of the surface ownership of real property shall be a conveyance of the pore space in all strata below the surface of the real property unless the ownership interest in the subsurface pore space has previously been severed from the surface ownership or is explicitly excluded or reserved in the conveyance. The ownership of pore space in strata may be conveyed in the manner provided by law for the transfer of surface interests in real property.

(c) No previous agreement conveying or reserving oil, gas, or other mineral interests in real property shall act to convey or reserve ownership of any pore space or carbon dioxide storage rights in the stratum unless the agreement explicitly conveys or reserves subsurface space to be used for the geologic storage or sequestration of carbon dioxide.

(d) No agreement conveying the right to use or occupy a storage facility, pore space, and potentially the surface or subsurface of the land incident thereto shall convey any other right of real property use, including oil, gas, or other minerals, within the same instrument. Any agreement that violates this subsection is void; provided, however, this subsection shall not apply to any agreement executed before October 1, 2024.

(e) The owner of any pore space right shall have no right to use the surface estate beyond that set out in a properly executed instrument nor in any manner that will adversely affect any existing easement, whether public or private.

(f) Nothing in this section shall alter, amend, diminish, or invalidate any right to the use of pore space that was acquired by contract or lease prior to October 1, 2024.

(g) In considering whether to approve a storage facility to be used for the storage and sequestration of carbon dioxide pursuant to this division, the board shall consider both of the following:

(1) Any competing rights of all separately owned estates in lands potentially affected by the storage facility, giving due consideration of competing rights to existing or future uses by pore space, surface, and mineral owners that may be affected.

(2) The distance of the storage facility from any current or future underground mining operation or other underground operation designed and operated for the extraction of minerals and the potential impact on the safety of these operations.

(h) Other than a claim to an ownership interest in pore space, nothing in this division shall be construed to change, alter, diminish, or in any way affect the statutory or common law as of October 1, 2024, as it relates to the rights belonging to surface and mineral estates. *(Act 2024-325, §2.)*

Section 9-17-162 Requirements for Storage Facilities.

For a storage facility that is used for the storage and sequestration of carbon dioxide, all of the following shall apply:

(1) A storage operator shall adhere to all rules adopted by the board relating to the underground storage of carbon dioxide.

(2) A storage operator shall make a good faith effort to obtain the consent of all persons that own a storage facility's pore space and storage rights for carbon dioxide.

(3) A storage operator shall obtain the consent of persons that own not less than 66 and two-thirds percent of a storage facility's pore space and storage rights for carbon dioxide.

(4) Upon a storage operator obtaining the consent of persons that own not less than 66 and two-thirds percent of a storage facility's pore space and storage rights for carbon dioxide, the board, after providing notice and a public hearing, may enter an order to amalgamate and pool the pore space and storage rights for carbon dioxide owned by nonconsenting owners into the storage facility on terms that are just and reasonable as determined by the board.

(5) All nonconsenting owners of a storage facility's pore space and storage rights for carbon dioxide shall be fairly and equitably compensated.

(6) A storage operator shall use commercially reasonable efforts to limit the adverse surface-use impact upon the lands of nonconsenting owners of a storage facility's pore space and storage rights.

(7) A storage operator seeking approval to operate in the Blue Creek or Mary Lee coal seams in Jefferson, Tuscaloosa, or Walker counties or within a 10-mile radius of any coal mine operation shall obtain the written consent of the coal mine operator and mineral owner with an operation or mineral interest in the seams or within the radius; provided, however, that the consent shall not be unreasonably withheld or delayed. *(Act 2024-325, §2.)*

Section 9-17-163. Underground Carbon Dioxide Storage Facility Administrative Fund; Underground Carbon Dioxide Storage Facility Trust Fund.

(a) (1) The Underground Carbon Dioxide Storage Facility Administrative Fund is created in the State Treasury. The fund shall consist of all administrative fees for the geologic storage of carbon dioxide as determined by the board pursuant to Section 9-17-151(d).

(2) All monies in the fund shall be used only for the purpose of defraying expenses incurred by the board in the performance of its administrative and regulatory duties relative to the geologic storage of carbon dioxide.

(3) Monies in the fund shall be invested by the State Treasurer for the sole benefit of the fund and in a manner to obtain the highest return possible while preserving the principal. Any interest earned on the fund shall be deposited into the fund.

(4) The fund shall be paid out only by warrant of the Comptroller upon the State Treasury, upon itemized vouchers, approved by the State Oil and Gas Supervisor, provided, no funds shall be withdrawn or expended except as budgeted and allotted according to the provisions of Sections 41-4-80 through 41-4-96 and Sections 41-19-1 through 41-19-12, and only in amounts as stipulated in the general appropriation or other appropriation bills, and provided further, any funds unspent and unencumbered at the end of any state fiscal year shall not be transferred into the State General Fund.

(b) (1) The Underground Carbon Dioxide Storage Facility Trust Fund is created in the State Treasury.

(2) The fund shall consist of any fees levied by the board pursuant to Section 9-17-151(d) and all monies received by the board to measure, monitor, and verify underground carbon dioxide storage facilities following the plugging and abandonment of all injection wells in accordance with board rules, issuance of a certificate of project closure and completion, and release of all financial assurance instruments for a storage facility. The board shall adopt rules as necessary to collect monies for the fund in an amount reasonably calculated to pay the costs of measuring, monitoring, and verifying the sites.

(3) Monies in the fund shall only be used for the following purposes:

a. Testing, monitoring, and long-term inspection of underground carbon dioxide storage facilities.

b. Remediation of mechanical problems associated with remaining wells and infrastructure.

c. Plugging and abandoning monitoring wells.

d. All costs associated with the release of carbon dioxide from underground carbon dioxide storage facilities following the issuance by the board of a certificate of project closure and completion and release of financial assurance instruments.

e. Other operations and activities deemed necessary by the board or the State Oil and Gas Supervisor to protect underground sources of drinking water and for public health and safety following the issuance of a certificate of project closure and completion by the board and release of all financial assurance instruments.

(4) Monies in the fund shall be invested by the State Treasurer for the sole benefit of the fund and in a manner to obtain the highest return possible while preserving the principal. Any interest earned on the fund shall be deposited into the fund.

(5) The fund shall be paid out only by warrant of the Comptroller upon the State Treasury, upon itemized vouchers, approved by the State Oil and Gas Supervisor, provided, no funds shall be withdrawn or expended except as budgeted and allotted according to the provisions of Sections 41-4-80 through 41-4-96 and Sections 41-19-1 through 41-19-12, and only in amounts as stipulated in the general appropriation or other appropriation bills, and provided further, any funds unspent and unencumbered at the end of any state fiscal year shall not be transferred into the State General Fund. *(Act 2024-325, §2.)*

Section 9-17-164 Certificate of Project Closure and Completion.

(a) A storage operator has title to all carbon dioxide injected and stored in a storage facility. A storage operator is liable for any damages attributed to its operations while holding title to the injected carbon dioxide.

(b) Upon all carbon dioxide injections into a storage facility ending and application by a storage facility operator, the board may issue a certificate of project closure and completion for the storage facility.

(c) A certificate of project closure and completion shall only be issued after all of the following have been satisfied:

(1) Notice and a public hearing on the issuance of the certificate are provided pursuant to Section 9-17-152(a).

(2) The board has consulted with the Alabama Department of Environmental Management regarding issuing the certificate.

(3) Ten or more years have passed from the date carbon dioxide injection into the storage facility ended.

(4) The storage operator has demonstrated all of the following to the satisfaction of the board:

a. The storage facility is in full compliance with all governing laws and rules.

b. The storage facility is reasonably expected to retain the carbon dioxide.

c. The carbon dioxide in the storage facility is stable. For purposes of this paragraph, carbon dioxide is stable if it is essentially stationary or, if it is migrating or may migrate, migration is unlikely to cross the underground reservoir boundary and is not expected to endanger any underground source of drinking water.

d. All wells, equipment, and facilities to be used in the post-closure period are in good condition and retain mechanical integrity.

e. All injection wells have been plugged, all related equipment and facilities used during the pre-closure period not necessary for long-term monitoring have been removed, and all reclamation work required by the board has been completed.

(d) Upon the issuance of a certificate of project closure and completion, all of the following shall occur:

(1) Title to equipment and facilities necessary for long-term monitoring and all carbon dioxide injected into the storage facility, without payment of any compensation, shall transfer to the state. Title acquired by the state includes all rights and interests in, and all responsibilities and liabilities associated with, all equipment and facilities used for long-term monitoring and the stored carbon dioxide within the storage facility. A storage operator may not transfer to the state, and the state may not accept, any property interests or rights that the storage operator does not own or have the authority to transfer.

(2) The storage operator and all persons that generated any injected carbon dioxide shall be released from all regulatory requirements associated with the storage facility.

(3) The storage operator shall be released from all bonds and other security posted by the storage operator.

(4) Monitoring and managing the storage facility shall become the responsibility of the state and be administered by the board unless an agency of the federal government assumes responsibility for the long-term monitoring and management of the storage facility. *(Act 2024-325, §2.)*

Section 9-17-165 Authorization to Lease Pore Space of Certain Lands for Underground Storage of Carbon Dioxide.

The Commissioner of Conservation and Natural Resources, on behalf of this state, is authorized to lease pore space for any lands under the jurisdiction of the Department of Conservation and Natural Resources for underground storage of carbon dioxide on, in, and under the lands. *(Act 2024-325, §2.)*

Section 9-17-166 Rulemaking Authority.

The board may adopt rules as necessary to implement and administer this division. *(Act 2024-325, §2.)*

OIL AND GAS LAWS OF ALABAMA

CODE OF ALABAMA 1975

TITLE 40 – REVENUE AND TAXATION

CHAPTER 20 – OIL AND GAS

ARTICLE 1. PRIVILEGE TAX ON PRODUCTION.

Section 40-20-1. Definitions.

For the purpose of this article, the following terms shall have the respective meanings ascribed by this section:

(1) DEPARTMENT. The state Department of Revenue.

(2) ANNUAL. The calendar year or the taxpayer's fiscal year, when permission is obtained from the department to use a fiscal year as a tax period in lieu of a calendar year.

(3) VALUE. The sale price or market value at the mouth of the well. If the oil or gas is exchanged for something other than cash, if there is no sale at the time of severance or if the relation between the buyer and the seller is such that the consideration paid, if any, is not indicative of the true value or market price, then the department shall determine the value of the oil or gas subject to the tax hereinafter provided for, considering the sale price for cash of oil or gas of like quality.

(4) OIL. Crude petroleum oil and other hydrocarbons regardless of gravity which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves the well.

(5) GAS. All natural gas, including casinghead gas, and all other hydrocarbons not defined as oil in subdivision (4) above.

(6) SEVERED. The extraction or withdrawing from the soil or water or from below the surface of the soil or water of any oil or gas, whether such extraction or withdrawal shall be by natural flow, mechanically enforced flow, pumping, or any other means employed to get the oil or gas from the soil or water or from below the surface of the soil or water.

(7) PERSON. Any natural person, firm, copartnership, joint venture, association, corporation, estate, trust, and any other group or combination acting as a unit, and the plural as well as the singular number.

(8) PRODUCER. Any person engaging or continuing in the business of oil or gas production, which, for the purpose of this article, includes the owning, controlling, managing, or leasing of any oil or gas property or oil or gas well, and producing in any manner any oil or gas by taking it from the soil or waters, or from beneath the soil or waters, of the State of Alabama, and further includes receiving money or other valuable consideration as royalty or rental for oil or gas produced or because of oil or gas produced, whether produced by him or by some other person on his behalf, either by lease, contract or otherwise, and whether the royalty consists of a portion of the oil or gas produced being run to his account or a payment in money or other valuable consideration.

(9) SUBMERGED LANDS. All lands within the territorial jurisdiction of the State of Alabama that are continuously or intermittently covered by marine or marine influenced waters and are below the mean high tide mark on all islands and land adjacent to the Mississippi Sound, Mobile Bay, Bon Secour Bay, Wolf Bay, Arnica Bay, Bay La Launch, and Perdido Bay; and excludes all areas upstream of the confluence of the Mississippi Sound, Mobile Bay, Wolf Bay and Perdido Bay with their natural tributaries.

(10) OFFSHORE DRILLING OR PRODUCTION FACILITIES. Barges, platforms or other drilling or production facilities located on submerged lands to drill or to produce oil or gas.

(11) OFFSHORE PRODUCTION. Gas or oil produced from offshore drilling or production facilities from wells located on submerged lands within the territorial jurisdiction of the State of Alabama.

(12) DISCOVERY WELL. Any well capable of producing oil and/or gas from a single pool in which a well has not been previously completed as a well capable of producing.

(13) DEVELOPMENT WELLS. All oil and/or gas producing wells other than discovery wells and replacement wells.

(14) ONSHORE WELL. Any oil or gas well that is drilled in an area other than submerged lands as defined herein.

(15) REPLACEMENT WELLS. A well drilled on a drilling and/or production unit to replace another well which is drilled in the same unit and completed in the same pool.

(16) COMMENCED. A well shall be deemed to have commenced when the well is spudded.

(17) COMPLETION. A well shall be deemed to be completed for purposes of this article when drilling and logging operations have ceased.

(18) POOL. As used herein, pool shall mean a single underground reservoir containing a common accumulation of oil or gas or both. Each zone of a general structure which is completely separated from any other zone in the structure is a single pool as that term is used herein.

(19) ENHANCED RECOVERY PROJECT. An oil or gas recovery project which is approved by the State Oil and Gas Board of Alabama employing one or more of the following methods:

a. Recycling, injecting or flooding a pool, or pools, or portion thereof, with air, gas, water, hydrocarbons, carbon dioxide (CO2), or any other substance, or any combination or combinations thereof; or

b. The use of polymers, steam flooding or fire flooding.

(20) SUPPLEMENTAL ENHANCED RECOVERY PROJECT. An enhanced recovery project in which injection of substances into a unitized area was initiated prior to January 1, 1985, and thereafter is improved by expanding or otherwise changing the unit operations associated with the project as approved by the State Oil and Gas Board of Alabama for the purpose of increasing the ultimate recovery of hydrocarbons.

(21) INCREMENTAL OIL OR GAS PRODUCTION. The amount of oil or gas which will be produced as a result of a qualified enhanced recovery project and which is in excess of the amount of oil or gas which could have been produced economically and efficiently from a pool or pools or portion thereof by production methods being utilized prior to said qualified enhanced recovery project being approved by the State Oil and Gas Board of Alabama.

(22) QUALIFIED ENHANCED RECOVERY PROJECT. A qualified enhanced recovery project shall mean an enhanced recovery project or supplemental enhanced recovery project that meets all of the following criteria:

a. That the area where the enhanced recovery project or supplemental enhanced recovery project is employed has been unitized in accordance with the provisions of Article 3, Chapter 17 of Title 9, as amended.

b. That injection of substances associated with the enhanced recovery project or supplemental enhanced recovery project has been or will be implemented as an integral part of the operations of the unitized area.

c. That the enhanced recovery project or supplemental enhanced recovery project be certified by the State Oil and Gas Board of Alabama as capable of incremental oil or gas production.

d. That the enhanced recovery project or supplemental enhanced recovery project be implemented on or after January 1, 1985. *(Acts 1945, No. 2, p. 20, § 1; Acts 1983, 4th Ex. Sess., No. 83-889, § 1; Acts 1984, No. 84-328, p. 749, § 1; Acts 1985, 2nd Ex. Sess., No. 85-911, p. 182, § 1.)*

Section 40-20-2. Levy and amount of tax upon business of producing or severing oil or gas from soil, etc., generally.

(a) (1) There is hereby levied, to be collected hereafter, as herein provided, annual privilege taxes upon every person engaging or continuing to engage within the State of Alabama in the business of producing or severing oil or gas, as defined herein, from the soil or the waters, or from beneath the soil or the waters, of the state for sale, transport, storage, profit or for use. The amount of such tax shall be measured at the rate of eight percent of the gross value of said oil or gas at the point of production except as provided in subsequent subdivisions of this subsection.

(2) Effective May 1, 1985, and thereafter, the incremental oil or gas production produced during a given year resulting from a qualified enhanced recovery project shall be taxed at the rate of four percent of gross value at the point of production of said incremental oil or gas production. The State Oil and Gas Board of Alabama shall approve the qualified enhanced recovery project and the determination of the projected annual oil or gas production that could have otherwise been produced without the benefit

of the initiation of said qualified enhanced recovery project at a hearing held pursuant to Section 9-17-7, as amended, and shall notify the Alabama Department of Revenue thereof.

(3) All wells producing 25 barrels or less of oil per day or producing 200,000 cubic feet or less of gas per day shall be taxed at the rate of four percent of gross value of said oil or gas at the point of production.

(4) All oil and gas produced from onshore discovery wells, all oil and gas produced from onshore development wells on which drilling commenced within four years of the completion date of the discovery well and producing from a depth of 6,000 feet or greater, and all oil and gas produced from onshore development wells on which drilling commenced within two years of the completion date of the discovery well and producing from a depth less than 6,000 feet shall be taxed at a rate of six percent of the gross value of said oil and gas at the point of production for a period of five years from the date production begins from said discovery and development wells, provided, that all production to receive a six percent tax rate, which is produced from discovery wells, must be from discovery wells permitted by the State Oil and Gas Board of Alabama after July 1, 1984, and that all production to receive a six percent tax rate from development wells on which drilling commenced within the required time of completion of a discovery well, which was permitted after July 1, 1984, and said development well must also have been permitted after July 1, 1984; provided however, that the six percent tax rate applicable to a discovery well or development well shall be applicable to any replacement well drilled to replace the discovery well or the development well during the six percent five-year, tax rate period for only the remainder of the said tax rate period.

(5) All oil or gas produced by offshore production, as defined herein, at depths greater than 18,000 feet below mean sea level, shall be taxed at the rate of six percent of the gross value of said oil or gas production at the point of production.

(6) [Expired by Acts 1984, No. 84-672, p. 5, § 2. See Code Commissioner's Note]

(7) For any well for which the initial permit issued by the Oil and Gas Board is dated on or after July 1, 1988, except a replacement well for a well for which the initial permit issued by the Oil and Gas Board is dated before July 1, 1988, the rates provided in subdivisions (1) and (5) of this subsection shall be reduced by 2 percent.

(8) For any well for which the initial permit issued by the Oil and Gas Board is dated on or after July 1, 1996, and before July 1, 2002, except a replacement well for a well for which the initial permit issued by the Oil and Gas Board is dated before July 1, 1996, the applicable rate shall be reduced by 50 percent for a period of five years commencing with commercial production after which subdivision (7) shall apply.

(b) The tax is hereby levied upon the basis of the entire production in this state, including what is known as the royalty interest, on which production the amount of such tax shall be a lien, regardless of the place of sale or to whom sold, or by whom used, or the fact that the delivery may be made to points outside the state; and the tax shall accrue at the time such oil or gas is severed from the soil or the waters, or from beneath the soil or the waters, and in its natural, unrefined or unmanufactured condition. Provided, however, that natural gas lawfully injected into oil or gas pools or reservoirs in the soil or beneath the soil or waters of the State of Alabama is exempt from this tax. Provided, further, that natural gas lawfully injected into the earth for the purpose of lifting oil or gas in the State of Alabama is exempt from this tax. However, if any gas so injected into the earth is sold for such purposes or injected into underground storage facilities as defined in Section 9-17-150 et seq., then the gas so sold or injected shall not be exempt from this tax. Natural gas lawfully vented or flared in connection with the production, treatment, or processing of oil or gas is exempt from this tax.

(c) A county, city, town or municipality of the State of Alabama shall not establish, levy, impose or collect, as a condition of doing business or otherwise, any tax, fee, license or charge whatsoever, directly or indirectly, on or with respect to the production, treating, processing, ownership, sale, storage, purchase, marketing or transportation on any oil or gas produced in the State of Alabama and on which severance taxes have been paid to the State of Alabama, or upon the business of producing, treating, processing, owning, selling, buying, storing, marketing or transporting such oil or gas, or upon the ownership, operation or maintenance of plants, facilities, machinery, pipelines, gathering lines or any equipment whatsoever, which are, or may be, necessary or convenient to the production, treating, processing, ownership, storage, sale, purchase, marketing or transportation of such oil or gas; provided, that nothing herein shall be

construed to prohibit, limit or restrict a county, city, town or municipality from imposing and collecting ad valorem taxes on any property, real or personal, not otherwise now exempted by law; further, the limitation herein imposed upon counties, cities, towns and municipalities shall not apply to any county, city, town or municipality which does not receive a share of the severance tax levied upon production other than offshore production as defined in Section 40-20-1 under the provisions of this article. Said limitation herein imposed upon counties, cities, towns and municipalities shall remain in full force and effect in regard to offshore production as defined in Section 40-20-1.

(d) Nothing contained herein shall be deemed to limit or to enlarge the authority of a county, city, town or municipality to levy taxes or licenses on oil refining facilities located therein or on the suppliers of services or goods not including oil or gas to those persons engaging in the business of producing, treating, processing, owning, selling, buying, storing, marketing or transporting such oil or gas. Provided, however, no such taxes or licenses shall be levied on offshore drilling or production facilities as defined in Section 40-20-1.

(e) In all cases of production of oil from unit operations as authorized and approved by the State Oil and Gas Board of Alabama, for purposes of computing the per well production aforesaid, the aggregate production of oil from the entire unit shall be divided by the number of wells within the unit, including injection, disposal and other wells utilized in unit operations, and the quotient thereof shall be deemed and declared to be the number of barrels of oil produced from each well in such unit regardless of the actual amount of oil per day produced from the well, if any. *(Acts 1945, No. 2, p. 20, § 2; Acts 1971, No. 2057, p. 3317, § 1; Acts 1979, No. 79-434, p. 687, § 1; Acts 1980, No. 80-708, p. 1438; Acts 1983, 1st Ex. Sess., No. 83-39, p. 39, § 1; Acts 1983, 4th Ex. Sess., No. 83-889, p. 116, § 2; Acts 1984, No. 84-328, p. 749, § 2; Acts 1984, No. 84-660, p. 1323; Acts 1984, No. 84-672, p. 5; Acts 1985, 2nd Ex. Sess., No. 85-911, p. 182, § 1; Acts 1988, No. 88-601, p. 935, § 2; Acts 1994, No. 94-367, p. 615, § 1; Acts 1996, 2nd Ex. Sess., No. 96-877, p. 1688, § 1; Act 99-584, p. 1332, § 1.)*

Section 40-20-3. Tax levied upon producers in proportion to ownership at time of severance; by whom tax paid; lien.

(a) The privilege tax hereby imposed is levied upon the producers of such oil or gas in the proportion of their ownership at the time of severance, but, except as otherwise herein provided, the tax shall be paid by the person in charge of the production operations, who is hereby authorized, empowered, and required to deduct from any amount due to producers of such production at the time of severance the proportionate amount of the tax herein levied before making payments to such producers. The tax shall become due and payable as provided by this article and such tax shall constitute a first lien upon any of the oil or gas so produced when in the possession of the original producer or any purchaser of such oil or gas in its unmanufactured state or condition. In the event the person in charge of production operations or the purchaser fails to pay the tax, then the department shall proceed against the producer or the purchaser to collect the tax in the manner hereinafter provided by this article.

(b) When any person in charge of production operations shall sell the oil or gas produced by him, the purchaser shall account for the tax.

(c) When any person in charge of production operations shall use or dispose of the oil or gas for fuel or any other purpose, he shall withhold the tax imposed by this article; and, if he is required to pay other interest holders, he is hereby authorized, empowered, and required to deduct from any amounts due them the amount of tax levied and due under the provisions of this article before making payment to them.

(d) Every person in charge of production operations by which oil or gas is severed from the soil or waters, or from beneath the soil or waters, of the State of Alabama who fails to deduct and withhold, as required herein, the amount of tax from sale or purchase price, when such oil or gas is sold or purchased under contract or agreement, or on the open market, or otherwise, shall be liable to the state for the full amount of taxes, interest and penalties due the state; and the department shall proceed to collect the tax from the person in charge of production operations, under the provisions of this article, as if he were the producer of the oil or gas. *(Acts 1945, No. 2, p. 20, § 3; Acts 1953, No. 454, p. 559.)*

Section 40-20-4. Enforcement of article; collection of taxes; statements to be filed and records kept; inspection of records; hearings and compelling attendance of witnesses; rules and regulations.

(a) The department is hereby authorized and directed to administer and enforce the provisions of this article and to collect all of the taxes levied under the provisions hereof. Every person producing or in charge of production of oil and gas shall file a return with the department by the 15th day of the second calendar month following the month of production, on forms the department prescribes which must contain a printed declaration that the information being reported is made under the penalty of perjury, and which must be subscribed by the person who completes such forms, showing the location of each producing property operated or controlled by such producer during the reporting period; the number and kind of wells thereon; the kind of oil or gas produced; the gross quantity thereof produced; the actual cash value thereof at the time and place of production; including any and all premiums received from the sale thereof; the amount of tax due on the total gross production; the portion of gross production payable as royalty and such other information as the department may require.

(b) All persons engaged in the business of severing oil or gas are hereby required to keep full and complete records showing the nature, character, and volume of all such oil or gas severed, the value of such oil or gas at the point of production, the manner in which such oil or gas was disposed of, the prices or the consideration received for the sale thereof and the quantity or volume of such oil or gas stored anywhere within or without the State of Alabama; and such records shall at all reasonable times be open for inspection by representatives or agents of the department.

(c) The department or its duly authorized representative or agent shall have the power and authority to inspect all records required to be kept under the provisions of this article, to conduct hearings and to compel the attendance of witnesses for the purpose of determining the amount of taxes due under the terms and provisions of this article.

(d) The Department of Revenue is hereby authorized to promulgate reasonable rules and regulations relating to the administration and enforcement of this chapter, provided, however, that no rule or regulation adopted or promulgated by the department shall alter, limit, extend or be out of harmony with any of the provisions of this chapter. *(Acts 1945, No. 2, p. 20, § 4; Acts 1991, 1st Ex. Sess., No. 91-798, p. 193, § 1.)*

Section 40-20-5. When reports to be filed; payments to accompany reports.

All reports required under the provisions of this article shall be filed with the department on or before the fifteenth day of the second calendar month following the month of production and shall cover the second preceding calendar month. All producers are hereby required to pay to the department all taxes accruing under the provisions of this article for the period of time covered by the report herein required, and such payment shall accompany the required report. *(Acts 1945, No. 2, p. 20, § 5; Acts 1981, No. 810-704, p. 1181; Acts 1991, 1st Ex. Sess., No. 91-798, § 2; Acts 1992, No. 92-186, p. 349, § 59.)*

Section 40-20-6. Repealed.

Section 40-20-7. Deduction of appropriation for expenses of department.

Such amount of money as shall be appropriated for each fiscal year by the Legislature to the Department of Revenue with which to pay the salaries, the cost of operation and the management of the said department shall be deducted, as a first charge thereon, from the taxes collected under and pursuant to this article; provided, that the expenditure of said sum so appropriated shall be budgeted and allotted pursuant to Article 4 of Chapter 4 of Title 41, and limited to the amount appropriated to defray the expenses of operating said department for each fiscal year. The net remainder shall remain in the State Treasury for distribution as hereinafter provided. *(Acts 1945, No. 2, p. 20, § 7; Acts 1951, No. 838, p. 1469.)*

Section 40-20-8. Allocation and distribution of net taxes collected; property which consists of submerged lands and onshore lands; onshore lands defined; applicability of section; final determination establishing allocation base.

(a) Ninety percent of the net amount of all taxes herein levied and collected by the department on oil or gas produced from submerged lands as herein defined shall be deposited to the State General Fund. The remaining 10 percent on such net amount shall be allocated and distributed by the Comptroller to the county in which the oil or gas was produced for county purposes or to be expended at the discretion of the county governing body.

(b) Twenty-five percent of the net amount of all taxes herein levied and collected by the department except as provided herein in subsection (a) shall be deposited by the department to the General Fund of the state.

(c) Sixty-six and two-thirds percent of the remaining 75 percent of all taxes herein levied and collected by the department, after the same has been certified into the State Treasury, shall be allocated and distributed by the Comptroller to the credit of the General Fund of the state and to the county in which the oil or gas was produced and to the municipalities therein in the proportion set out in the following schedule:

(1) Twenty-five percent of all taxes herein levied and collected on oil and gas produced from oil or gas wells located within any county, shall be allocated and distributed to each such county for county purposes or to be expended at the discretion of the county governing body. In all counties having a population of not less than 34,875 nor more than 36,000, according to the 1970 Federal Decennial Census, such funds shall be allocated and distributed by the counties to the boards of education of the public schools in such counties on a pro rata basis as established by the number of children in net enrollment in the public schools during the prior school attendance year. In all counties having a population of not less than 16,000 nor more than 16,250, according to the 1970 Federal Decennial Census, such funds shall be allocated and distributed by the counties as follows: Each year the first $150,000 shall be paid to the custodian of the county school funds, and after the payment of said $150,000 each year, the balance of said funds shall be divided and paid one-third to the custodian of the county school funds and two-thirds to the county general funds.

(2) Ten percent of all taxes herein levied and collected on oil and gas produced from oil or gas wells located within the corporate limits or the police jurisdiction of any municipality shall be allocated and distributed to each such municipality; except that all wells within the corporate limits of police jurisdiction of any municipality where taxes are levied and collected at a rate of four percent, 10 percent of all said four percent taxes shall be distributed to each such municipality.

(3) Fifty percent of the first $150,000 remaining, or any part thereof, collected per year under the provisions of this article, shall be allocated and distributed to the state, 42 1/2 percent to the county and seven and one-half percent to municipalities therein on a population basis.

(4) Eighty-four percent of all remaining sums collected per year under the provisions of this article shall be allocated and distributed to the state, 14 percent to the county and two percent to municipalities therein on a population basis.

(d) Sixteen and two-thirds percent of the remaining 75 percent of all taxes herein levied and collected by the department shall be certified into the State Treasury to the credit of the State General Fund.

(e) Sixteen and two-thirds percent of the remaining 75 percent of all taxes herein levied and collected by the department on oil and gas produced from oil or gas wells located within any county shall be allocated and distributed to each such county for county purposes, to be expended at the discretion of the county governing body.

(f) For the purposes of this section, when part of the property within the drilling or production unit or within the unit area for any producing well(s) consists of submerged lands and part consists of lands other than submerged lands (herein called onshore lands), the following shall apply:

(1) Only that portion of production (oil or gas or both) from said Well(s) allocated (under or pursuant to an order of the State Oil and Gas Board) to the submerged lands shall be deemed to have been produced from submerged lands, regardless of where the actual well(s) from which said production was obtained is (are) located;

(2) The portion of said production allocated (under or pursuant to an order of the State Oil and Gas Board) to the onshore lands shall be deemed to have been produced from a well located on the onshore lands to which such production is allocated, and the portion of said production allocated (under or pursuant to such an order) to any onshore lands located within the police jurisdiction or the corporate limits of any municipality shall be deemed to have been produced from a well located within said corporate limits or police jurisdiction;

(3) If, because of common ownership or otherwise, no specific portion of the production from said well(s) has been separately allocated (under or pursuant to an order of the State Oil and Gas Board) to any or all of the onshore lands located within said drilling or production unit or within a designated tract in said unit area, then, for the purposes of this section, a portion of said production shall be deemed to have been allocated (under or pursuant to such an order) to the onshore lands in question, such

portion to be in the proportion that the acreage of said onshore land to which no specific portion of the production has been separately allocated bears to the total acreage included within the unit or designated tract (whichever is applicable); and

(4) Any production not allocated to or deemed to have been allocated to the onshore lands shall be deemed to have been allocated (under or pursuant to an order of the State Oil and Gas Board) to the submerged lands.

(g) Anything herein to the contrary notwithstanding, onshore lands shall mean all lands that are not submerged lands (as elsewhere herein defined); provided, however, if any submerged lands are located within the police jurisdiction or corporate limits of any municipality, those submerged lands shall, for the purposes of this section, be defined as, and deemed to be, onshore lands and not submerged lands.

(h) The provisions of this section shall apply only to the allocation and distribution of taxes and shall not apply to the levy and collection of taxes; and nothing contained in this section shall be construed to affect in any way the provisions of Section 40-20-2.

(i) A final determination establishing the allocation base shall be made within 90 days of April 23, 1990. *(Acts 1945, No. 2, p. 20, § 8; Acts 1971, No. 2057, p. 3317, § 1; Acts 1979, No. 79-434, p. 687, § 2; Acts 1983, 1st Ex. Sess., No. 83-39, p. 39, § 2; Acts 1983, 4th Ex. Sess., No. 83-889, p. 116, § 3; Acts 1984, No. 84-662, p. 1326; Acts 1990, No. 90-652, p. 1249.)*

Section 40-20-9. Reports to be made on blanks furnished by department; certificate and verification required.

All reports required to be filed under the provisions of this article shall be made on blanks, furnished by the department, which shall contain the following certificate: "I hereby certify under oath that I am duly authorized to make this tax return; that the information herein contained is true and correct and same is shown by the records of the identified producer; and that the amount of taxes accompanying this return is the true and correct amount of taxes due the State of Alabama by this producer." The same must be duly verified. *(Acts 1945, No. 2, p. 20, § 9.)*

Section 40-20-10. Repealed.

Section 40-20-11. Enjoining violation of article.

If it is brought to the attention of the department that any producer is guilty of violating any of the provisions of this article, the department is hereby authorized and required, through lawfully authorized counsel, to proceed in the courts of the state to obtain a writ of injunction, which writ shall be granted by the court when applied for in the manner prescribed by law. The department, however, is hereby relieved of the requirement to furnish bond of any character. *(Acts 1945, No. 2, p. 20, § 11.)*

Section 40-20-12. Exemption from ad valorem taxes.

(a) All oil or gas produced, all leases in production, including mineral rights in producing properties, and all oil or gas under the ground on producing properties within the State of Alabama shall be exempt from all ad valorem taxes now levied or hereafter levied by the State of Alabama or by any county or municipality. No additional assessment shall be added to the surface value of such lands by the presence of oil or gas thereunder or its production therefrom.

(b) For the purpose of this article, the area of a lease or leases, including oil and gas rights considered to be in production, or the area of any other producing property considered to be in production, shall include an oil or gas drilling unit as established by the State Oil and Gas Board of Alabama and shall be exempt from ad valorem taxation because of production from any one well. *(Acts 1945, No. 2, p. 20, § 12; Acts 1957, No. 600, p. 859.)*

Section 40-20-13. Collection and disbursement of additional taxes.

If the department is authorized by any other law to collect any further or additional taxes from producers, as herein defined, such taxes shall be collected in the same manner as the taxes herein provided, and the return of such taxes shall be included in the report for the taxes herein levied and provided. Such further or additional taxes shall be disbursed as authorized by such other law. *(Acts 1945, No. 2, p. 20, § 13.)*

Section 40-20-14. Credits against tax for manufacturers of direct reduced iron.

(a) *Findings.* The Legislature finds and declares as follows:

(1) Certain industries ought to be encouraged to consume gas produced in the state by permitting producers of gas to obtain a credit against severance tax to the extent that the value of such credit results in the reduction of the cost of the gas to such industries.

(2) The granting of such a credit will encourage certain industries that are major consumers of gas to purchase gas from producers or intermediate suppliers that extract or purchase gas from wells in Alabama subject to the severance tax.

(3) Due to the fungible nature of gas and the commingling of gas from various sources that typically occurs in the transportation of gas through a network of shared pipelines, a DRI manufacturer should not be required to trace gas from its source in order to benefit from a cost reduction based on the credit, provided that it can be shown that at least the amount of gas with respect to which the credit is granted has been produced by the taxpayer, at least the amount of gas with respect to which the credit is granted is supplied to the DRI manufacturer, and in the case of an intermediate supplier, that the intermediate supplier has purchased at least the amount of gas with respect to which the credit is granted from the taxpayer and the intermediate supplier has sold at least the amount of gas with respect to which the credit is granted to the DRI manufacturer.

(4) 7.4% of the deemed taxable value of the gas is a reasonable approximation of the severance tax that is levied, collected and distributed to the General Fund of the state, being the severance tax levied by Section 9-17-25 plus the severance tax levied by this article on gas produced from wells on submerged lands.

(b) *Definitions.* The following terms, as used in this section, are defined as stated below:

(1) CAPITAL COST. The cost for federal income tax purposes of the DRI plant determined upon plant completion, as certified by the DRI manufacturer to the department, determined without regard to depreciation or amortization of any kind.

(2) DEEMED TAXABLE VALUE. The gas amounts, as shown on the monthly tax forms O&G Production-2 or O&G Offshore-2, in the column labeled “PRODUCER'S NET TAXABLE VALUE” divided by the gas amounts in the column labeled “PRODUCER'S LIABILITY-VOLUME.”

(3) DRI. Direct reduced iron, being iron produced from iron ore by chemical reaction with gas.

(4) DRI MANUFACTURER. A manufacturer of DRI at a DRI plant in a process utilizing gas, provided that:

a. As of the date of plant completion, the manufacturing process takes place on a site owned by the Alabama State Docks Department;

b. As of the date of plant completion, the DRI manufacturer has engaged the Alabama State Docks Department to provide cargo handling services with respect to iron ore that provides the raw material for the production of the DRI; and

c. The production of DRI in the state by the DRI plant commenced no earlier than October 1, 1997.

(5) DRI PLANT. The land, buildings, facilities, equipment, leasehold improvements, and other tangible property, real or personal, owned or leased by the DRI manufacturer for the purpose of producing DRI.

(6) GAS. All natural gas, including casinghead gas, and all other hydrocarbons not defined as oil in Section 40-20-1(4).

(7) GAS CONSUMPTION VOLUME. For any reporting period, an amount, stated in mcf, equal to the lesser of the following:

a. The amount of gas consumed by the DRI manufacturer at the DRI plant, as certified by the DRI manufacturer to the taxpayer, or

b. Either

1. If gas is supplied by the taxpayer to the DRI manufacturer, the amount of gas supplied by the taxpayer to the DRI manufacturer, or

2. If gas is supplied by an intermediate supplier to the DRI manufacturer, the lesser of

(i) the amount of gas sold by the taxpayer to the intermediate supplier, or

(ii) the amount of gas supplied by the intermediate supplier to the DRI manufacturer.

(8) INTERMEDIATE SUPPLIER. Any person that a. purchases gas from a taxpayer or from another intermediate supplier that in turn purchased from a taxpayer and b. supplies gas to a DRI manufacturer.

(9) MCF. The volume of gas, measured in units of one thousand cubic feet, using the same temperature, pressure, and heating value as the gas reported on the producer's monthly severance tax returns.

(10) NET PRESENT VALUE. Discounted present value, determined as of plant completion, at an interest rate of 6% per annum, of reductions in the cost of gas as described in subdivision (8) of subsection (e) realized by a DRI manufacturer with respect to a DRI plant.

(11) PERSON IN CHARGE OF PRODUCTION OPERATIONS. The person in charge of the production operations, as such term is used in Section 40-20-3.

(12) PLANT COMPLETION. The date, as certified to the department by the DRI manufacturer, that a DRI plant is completed.

(13) REPORTING PERIOD. The period of time with respect to which severance taxes are calculated, returns are filed, and severance taxes are periodically paid, being each calendar month under current law.

(14) SEVERANCE TAX. The annual privilege tax levied by Section 40-20-2 on the production or severance of gas and the tax levied by Section 9-17-25 on natural gas produced for sale, transport, storage, profit or for use from any well or wells in the state.

(15) SEVERANCE TAX CREDIT. For any reporting period, 7.4% of the deemed taxable value multiplied by the gas consumption volume.

(16) TAXPAYER. Any producer or person in charge of production operations or any other person that is otherwise required to deduct, withhold, pay, or account for severance tax on gas produced and sold to an intermediate supplier or a DRI manufacturer, provided that with respect to any reporting period, such taxpayer:

a. Is obligated to pay severance tax, or would be so obligated but for the provisions of this section; and

b. Has entered into an agreement with a DRI manufacturer and/or an intermediate supplier, if applicable, to reduce the cost of gas sold by the taxpayer to the DRI manufacturer or, if applicable, the intermediate supplier by an amount equal to the severance tax credit for such reporting period.

(c) *Credits*. With respect to any DRI plant owned by a DRI manufacturer, a taxpayer shall be allowed a credit against severance tax otherwise owed with respect to the applicable reporting period equal to the severance tax credit. With respect to any DRI plant, this credit shall commence on the later of (1) June 1, 1998, or (2) plant completion, and shall continue until the net present value of the cost reductions of gas to the DRI manufacturer described in subdivision (8) of subsection (e) shall equal the lesser of (1) 4% of the capital cost of the DRI plant or (2) four million seven hundred thousand dollars ($4,700,000).

(d) *Certificate.* Upon request by a DRI manufacturer, the department shall provide the DRI manufacturer with a certificate, which shall be numbered and shall state (1) the lesser of a. 4% of the capital cost of the DRI plant or b. four million seven hundred thousand dollars ($4,700,000), as appropriate, as certified to the department by the DRI manufacturer, and (2) the completion date of the DRI plant certified by the DRI manufacturer to the department.

(e) *Returns.* Any taxpayer claiming the severance tax credit for a reporting period shall file a schedule with its severance tax returns for such reporting period stating the following:

(1) The number assigned by the department to the DRI plant.

(2) The name of the DRI manufacturer.

(3) The name of the intermediate supplier, if any.

(4) The amount of gas, measured in mcf, supplied by the taxpayer to the DRI manufacturer or the intermediate supplier, as applicable.

(5) The gas consumption volume certified to the taxpayer by the DRI manufacturer.

(6) The deemed taxable value of the gas.

(7) The amount of the severance tax credit.

(8) A certification that the cost of the gas sold to the DRI manufacturer or intermediate supplier, as applicable, has been reduced by an amount equal to the severance tax credit.

(9) A certification that the severance taxes calculated by the taxpayer have been determined on the deemed taxable value of the gas consumption volume without regard to the reduction in cost described in subdivision (8) of subsection (e), all in accordance with subsection (h).

(10) A certification signed by an officer of the DRI manufacturer under oath, stating:

a. The lesser of 1. the amount of gas consumed by the DRI manufacturer in the DRI plant and 2. the amount of gas supplied to the DRI manufacturer by the taxpayer or intermediate supplier, as applicable as certified by the DRI manufacturer to the taxpayer;

b. The dates and amounts of the cost reduction in gas otherwise subject to Alabama severance tax liability realized by the DRI manufacturer with respect to the DRI plant by virtue of the severance tax credit from plant completion through the end of the severance tax period in question;

c. The net present value of the deemed taxable value reductions to the end of the severance tax period in question;

d. A certification that a cost reduction in an amount equal to the severance tax credit has been or has been agreed to be given over to the DRI manufacturer or to the intermediate supplier and from the intermediate supplier to the DRI manufacturer, if applicable; and

e. The name of the intermediate supplier.

(11) The tax credit will be reported by the taxpayer as a one line reduction of the total severance taxes payable on the Department of Revenue, Sales, Use & Business Tax Division, Oil and Gas Offshore Producer's Tax Return forms, designated “O&G Offshore-1” and “O&G Production-1.” The taxpayer will not be required to report the tax credit on any other Department of Revenue Sales, Use & Business Tax Division forms, schedules, supplements, or worksheets.

(12) No additional forms will be required to be filed by the taxpayer with the Department of Revenue Sales, Use & Business Tax Division other than the schedule provided for in this subsection.

(f) *Multiple taxpayers or intermediate suppliers*. Should a DRI manufacturer or intermediate supplier acquire gas from more than one producer or person in charge of production that is otherwise subject to severance taxes, the DRI manufacturer may designate one or more than one such producer or person in charge of production as the taxpayer and may allocate gas consumption volume certified to the taxpayer by the DRI manufacturer among all such designated persons on any basis elected by the DRI manufacturer, provided, however, that the gas consumption volume allocated to any taxpayer in the applicable reporting period shall not exceed the lesser of (1) the amount of gas subject to severance tax supplied by the taxpayer during the reporting period to the DRI manufacturer or intermediate supplier, or (2) the amount of gas which the intermediate supplier has received from the taxpayer and which is otherwise subject to Alabama severance tax liability during the reporting period. Should a DRI manufacturer acquire gas from more than one intermediate supplier, the DRI manufacturer may allocate gas consumption volume among all such intermediate suppliers on any basis elected by the DRI manufacturer, provided, however, that the gas consumption volume allocated to any intermediate supplier in any reporting period shall not exceed (1) the lesser of the amount of gas supplied by the intermediate supplier to the DRI manufacturer during the reporting period or (2) the amount of gas the intermediate supplier received from the taxpayer, which amount is otherwise subject to the severance tax.

(g) *Effect on allocation and distribution*. The amount of the severance tax credit shall be charged against the net amount of tax revenues payable to the State General Fund under Sections 9-17-31 and 40-20-8 and shall not reduce the amount of severance tax revenues allocated and distributed to any county, municipality, school board, or custodian of school funds.

(h) *No effect on severance tax base*. In determining the amount of severance tax liability for any reporting period, no taxpayer shall reduce the taxable value of gas by the amount of the severance tax credit or the cost reduction to the DRI manufacturer or intermediate supplier, as applicable, resulting from the severance tax credit, but rather, the severance tax credit shall be allowed and calculated only after determination of the amount of the severance tax otherwise payable for the reporting period and before any cost reduction under this section.

(i) The provisions of this section shall expire as to DRI plants having a completion date after September 30, 2008, unless the provisions of this section shall be extended by further act of the Legislature.

(j) This section shall be construed liberally in favor of the DRI manufacturer, for the purpose of assuring that any qualifying DRI manufacturer receives the benefit of the cost reduction described in this section. *(Act 98–285, p. 463, §§1, 2, 5.)*

ARTICLE 2. MINERAL DOCUMENTARY TAX.

Section 40-20-30. Definitions.

For the purpose of this article, the following terms shall have the respective meanings ascribed by this section:

(1) OIL, GAS AND OTHER MINERALS. Oil, gas, petroleum, hydrocarbons, distillate, condensate, casing-head gas, other petroleum derivatives and all other similar minerals of commercial value which are usually produced by the drilling, boring or sinking of wells.

(2) MINERAL ACRE and ROYALTY ACRE. The number of acres obtained by multiplying the aggregate acreage described in the instrument involved by the fractional interest leased or conveyed thereby.

(3) PRIMARY TERM. In connection with any instrument affected by this article shall mean the period of time that the estate created by such instrument shall endure under the terms thereof in the absence of production of oil, gas or other minerals in paying quantities, the carrying on of drilling or reworking operations for the production of such oil, gas or other minerals, force majeure or laws, rules or regulations, federal or state, preventing such drilling operations. *(Acts 1957, No. 261, p. 332, § 1.)*

Section 40-20-31. Levied; applicability.

There is hereby levied and shall be paid and collected as herein set forth a documentary or transfer tax, to be known as the mineral documentary tax, upon the filing and recording of every lease and other writing hereafter executed whereby there is created a leasehold interest in and to any nonproducing oil, gas or other minerals in, on or under or that may be produced from any lands situated within the State of Alabama, or whereby any such interest is assigned or is extended beyond the primary term fixed by the original instrument, and upon every deed, instrument, transfer, evidence of sale or other writing whereby there is hereafter conveyed to a grantee or purchaser, or excepted or reserved to a grantor separately and apart from the surface, any interest in or right to receive royalty from any nonproducing oil, gas or other minerals in, on or under or that may be produced from any lands within the State of Alabama; provided, that the tax shall not apply to any mortgage or instrument creating a lien upon such interest, nor to the sale under foreclosure thereof. *(Acts 1957, No. 261, p. 332, § 2.)*

Section 40-20-32. Tax to be a lien; amount of tax.

Such tax shall be a lien upon the interest leased, assigned, conveyed, reserved, excepted or transferred, and the amount to be paid shall be determined as follows; provided, that the minimum tax shall be $1:

(1) Upon the filing and recording of each instrument creating, assigning or transferring a leasehold, or interest therein or any portion thereof, or conveying, transferring, excepting or reserving a mineral or royalty interest as above described, the primary term of which shall expire 10 years or less from the date of execution of the instrument, the tax shall be a sum equal to $.05 per mineral or royalty acre conveyed, leased, assigned, excepted, reserved or transferred therein.

(2) Such tax shall be $.10 per mineral or royalty acre if the primary term of such interest shall expire more than 10 years and not exceeding 20 years from the date of the execution of such instrument.

(3) Such tax shall be $.15 per mineral or royalty acre if the primary term of such interest may or shall extend more than 20 years from the date of the execution of such instrument. *(Acts 1957, No. 261, p. 332, § 3.)*

Section 40-20-33. When and by whom tax payable; effect of nonpayment.

Such tax shall be payable by the grantee or grantees named or the beneficiary or real party in interest under such lease, deed, conveyance, transfer, assignment or other writing; except, that as to any exception or reservation creating any such interest the same shall be payable by the grantor or grantors in such instrument. Said tax shall be due and payable upon the filing of such instrument for record. Any probate judge who accepts or records such an instrument upon which the tax is not paid to him in the amount required herein shall be liable to the county for the amount of tax shown to have been due upon the instrument. The amount shall likewise constitute a lien upon the interest so conveyed, reserved or accepted by such instrument, collectible as are other delinquent taxes due the county. If an insufficient amount is paid by such tax, the filing and recording of the instrument shall nevertheless be good and valid for all purposes as now provided by statute and shall be a valid exemption from ad valorem taxes.

The probate judge shall collect the said tax, shall duly record the instrument and make the hereinafter required notation of tax payment. *(Acts 1957, No. 261, p. 332, § 4; Acts 1961, No. 864, p. 1346, § 1.)*

Section 40-20-34. Tax payable to probate judge; entries on instrument and record.

Such tax shall be paid to the probate judge of the county in which the land affected by the sale, lease or reservation or other instrument of such oil, gas or other minerals is situated, and the said judge shall stamp or write the name of the county and the amount of tax paid on the face of the instrument when filed for recording and shall show upon the face or margin of the record thereof the amount of tax paid. *(Acts 1957, No. 261, p. 332, § 5; Acts 1961, No. 864, p. 1346, § 1.)*

Section 40-20-35. Tax to be in lieu of ad valorem taxes; exemption of nonproducing leasehold and other interests from ad valorem taxes.

The mineral documentary tax levied above shall be in lieu of all ad valorem taxes and all nonproducing leasehold interests upon all oil, gas and other minerals in, on or under lands lying within the State of Alabama, created or assigned after October 12, 1957, and also all nonproducing interests in such oil, gas and other minerals, including royalty interests therein, hereafter conveyed to a grantee or purchaser or excepted or reserved to a grantor separately and apart from the surface shall be exempt from all ad valorem taxes levied on or after October 1, 1957, by the State of Alabama, or any county, municipality, school district, or other taxing district within the state or becoming a lien on or after said date. Any sale for taxes of the surface or of the remainder of the fee shall not in any manner whatsoever affect the interest or interests hereby exempted.

For the same purpose and with like effect there is hereby likewise exempted from such ad valorem taxation all such interests created prior to October 12, 1957, which are owned separately and apart from the surface; provided, that as a condition precedent to obtaining such exemption upon existing interests the then owner or owners thereof shall make application for exemption of the interest then owned by him or them as hereinafter provided and pay a sum equivalent to the tax herein levied by this article on instruments hereafter executed creating, transferring or reserving corresponding or similar interests. As to any existing interests, if any such sum is paid after October 1, 1957, then such exemption shall apply only to taxes becoming a lien after such sum is thus paid. The number of years remaining before the expiration of the primary term of such previously created mineral interest shall be considered as the primary term of such interest for the purpose of determining the amount of such tax. *(Acts 1957, No. 261, p. 332, § 6; Acts 1961, No. 864, p. 1346, § 1.)*

Section 40-20-36. How exemption obtained upon existing interests.

Application for such exemption upon existing interests shall be made to the probate judge of the county wherein the land lies in which such interest is owned, by filing application in triplicate with the said judge, which shall contain the following information:

(1) Name of applicant;

(2) Address of applicant;

(3) Complete description of land affected, including aggregate acreage;

(4) Fractional interest for which exemption is applied and nature of such interest;

(5) Recording data concerning the instrument creating the interest including grantor or lessor, grantee or lessee, date of instrument, book and page of record, and date of filing;

(6) Length of primary term;

(7) Recording data on instruments divesting original party of any interest, including subsequent assignments thereof in a portion of original interest therein conveyed;

(8) Number of mineral, royalty or lease acres on which exemption sought; and

(9) Amount tendered therewith.

Upon receipt of such application, accompanied by the sum shown therein, the probate judge shall give it a serial number and mark it filed, showing the date received. The judge shall make a notation on the face of the application and on the record of the instrument described in the application showing the date of payment, amount of tax paid and the serial number of the application. After such notation is made, the original application shall be returned to the applicant by mailing it to him at the address shown on the application or delivered otherwise to the applicant; the first copy of the application shall be retained by the

judge as his permanent record, and the second copy of the application, together with a certificate of the amount of taxes paid thereon, shall be sent by the judge to the tax assessor of the county.

If it later is ascertained that an insufficient amount was paid with the application for the exemption provided herein, such exemption shall not be thereby rendered void, but the additional amount which should have been paid, together with a penalty of 25 percent and one percent interest per month thereon from the date of the application until paid shall be a lien on the interest exempted and a personal debt of the applicant collectible by civil action for appropriate personal judgment and to enforce the lien, which may be maintained by the county to which such sum should have been paid. *(Acts 1957, No. 261, p. 332, § 7; Acts 1961, No. 864, p. 1346, § 1.)*

Section 40-20-37. Fees of probate judge; disposition of remainder of tax.

From the taxes levied and collected under this article, there shall be paid into the county general fund, or to the judge of probate if he is on a fee basis, five percent as a cost of collection thereof. The remainder shall be distributed as follows: 35 percent to the county general fund; 35 percent to the county public school fund and 30 percent to the State General Fund. Such payment shall be made on or before the fifteenth day of the month next succeeding that in which collection may be made. *(Acts 1957, No. 261, p. 332, § 8.)*

ARTICLE 3. COUNTY OIL AND GAS SEVERANCE TAX TRUST FUNDS.

Section 40-20-50. Collection of severance taxes; deposit into fund; distribution of investment income; trustees; escrow agents; limitations.

Any laws or parts of laws to the contrary notwithstanding, any annual privilege tax levied upon persons engaging in the business of producing or severing oil or gas or other hydrocarbons from the soil or waters of this state measured by the gross value of such oil or gas or other hydrocarbons and which tax is applicable only in a particular county and under which collections were being made on January 1, 1987, or which shall hereafter be levied pursuant to legislative act, shall be continued and collected only as herein prescribed:

(1) All revenues collected from such local severance taxes shall, beginning the first day of the month following August 3, 1987, be paid into the general fund of the county exclusively for transfer and deposit into a trust fund hereby established until the total sum of $15,000,000 in severance tax revenues of the type described in this section, excluding any interest income on amounts deposited therein from such total sum, has been deposited into such trust fund. Upon the deposit into said trust fund of a county of a total of $15,000,000 in such severance tax revenues, any local law authorizing or levying such tax, including, without limitation, Act No. 2120, H. 2450, Regular Session 1971 (Acts 1971, Vol. V, p. 3399), shall stand repealed and no further taxes shall be levied thereunder. Any such local oil and gas severance tax revenues in excess of such $15,000,000 amount collected in any county after the time the total of such tax proceeds paid into such trust fund established hereby for such county shall reach $15,000,000, shall be refunded as promptly as shall be reasonably practicable to the payers thereof. The county governing body shall not be authorized to make any expenditure from any monies composing the corpus of said trust fund so long as it shall remain in existence. Said trust fund shall be designated in each county as the "county oil and gas severance tax trust fund," and is hereinafter referred to as the "trust fund."

(2) Commencing with the first year in which any trust fund provided for in this section shall receive deposits as required hereunder, and in each year thereafter, the county governing body shall take steps to ensure that the trust fund shall retain the total severance tax revenues paid therein plus ten percent of any net income or interest generated by the investment of such severance tax revenues, which sum shall be and become a part of the corpus of the trust fund. A sum, not to exceed 90 percent of the net income or interest thereby generated from said investments, shall be distributed quarterly, semiannually or annually, as designated by the trustees of the trust, to the general fund of the county for which a trust fund is established pursuant to this section.

(3) The county governing body shall constitute the trustees of the trust, provided, however, that the said governing body may in its discretion appoint one or more trustees or escrow agents for the trust, which trustees or escrow agents shall be trust companies or national or state banks having powers of a trust company within or without the State of Alabama. The trustees shall invest the corpus of the trust only in direct general obligations of, or obligations the payment of the principal of an interest on which are unconditionally and irrevocably guaranteed by, the United States of America. Provided, however, that

notwithstanding any legal limitation that might otherwise be applicable, the trustees shall further have the authority in their discretion to invest such trust fund in certificates of deposit of any savings and loan associations or banks, whether federally or state chartered, whose principal office is located in this state, provided that such funds so invested are fully secured by pledges of securities of the type described in the immediately preceding sentence hereof.

(4) Upon the deposit into a trust fund established pursuant to this section of the total sum of $15,000,000 in severance tax revenues of the type described in this section, excluding any interest as income in such total sum, and the consequent repeal of the local law authorizing or levying such tax, the county governing body of a county for which a trust fund established hereunder shall be in existence shall be thereafter prohibited from levying or collecting, directly or indirectly, any local county severance tax of the type described in this section that was in existence prior to January 1, 1987, or that may be established hereafter, and any act authorizing such county oil and gas severance tax shall thereafter stand repealed. *(Acts 1987, No. 87-629, p. 1128, § 1.)*

APPENDIX —
LIST OF STATE OIL AND GAS BOARD FORMS

PRINTED STATE OIL AND GAS BOARD FORMS ARE NOT INCLUDED IN THIS EDITION OF THE *STATE OIL AND GAS BOARD ADMINISTRATIVE CODE.* FILLABLE PDFS OF THE FORMS CAN BE ACCESSED ON THE STATE OIL AND GAS BOARD WEBSITE:

HTTPS://OGB.STATE.AL.US/OGB/FORMS

OGB-1	Application for Permit to Drill, Deepen, Convert, or Amend
OGB-1A	Application to Reenter
OGB-1B	Application for Permit to Directionally Drill
OGB-1C	Application for Permit to Inject Fluids
OGB-1D	Application for Permit to Inject Storage Gas
OGB-1E	Application for Change of Operator
OGB-2	Affidavit of Ownership or Control
OGB-2C	Affidavit of Ownership or Control, Underground Injection Control
OGB-2D	Affidavit of Ownership or Control, Natural Gas Storage Operations
OGB-3	Bond (Single Well)
OGB 3D	Bond for an Underground Storage Facility for a Solution-mined Cavity and Storage Well
OGB-4	Bond (Blanket)
OGB-5	Organization Report
OGB-6	Report of Well Treatment
OGB-7	Well Record and Completion or Recompletion Report
OGB-8	Electric Log, Sample, and Core Record
OGB-9	First Production or Retest Report
OGB-10	Multipoint Back-Pressure Test Report for Gas Wells
OGB-10A	One-Point Back-Pressure Test Report for Gas Wells
OGB-11	Report of Well Plugging
OGB-12	Operator's Certificate of Compliance and Authorization to Transport Oil, Gas, or Condensate from Well
OGB-13	Operator's Certificate of Compliance and Authorization to Transport Products from Plant
OGB-14	Operator's Monthly Report from Oil Wells
OGB-15	Operator's Monthly Report from Gas Wells
OGB-16	Transporter’s and Storer’s Monthly Report
OGB-17	Monthly Report of Fluids Injected
OGB-17D	Monthly Report of Gas Injected/Withdrawn for Natural Gas Storage Facilities
OGB-18	Monthly Report for Products from Processing, Cleansing, or Extraction Facilities
OGB-19	No Form
OGB-20	No Form
OGB-21	Authorization to Clean Tank
OGB-22	Well Capacity Test

OGB-23	Unit Reserve Calculation (required only if specified by special field rules)
OGB-24	Operator’s Certificate of Compliance for Operations Involving Hydrogen Sulfide
OGB-25	Transporter’s Certificate of Eligibility to Transport Wastes
OGB-26	Wastes Manifest
OGB-27	Notification of Fire, Spill, Leak, or Blow out Incident Report
OGB-28	Master Electronic Filing Certification

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