STATE OIL AND GAS BOARD OF ALABAMA GOVERNING ONSHORE LAND OPERATIONS ADMINISTRATIVE CODE

CHAPTER 400-1-9 SAFETY AND ENVIRONMENT

TABLE OF CONTENTS

- 400-1-9-.01 Notification Of Fire, Spill, Leak, Or
- Blow Out
- 400-1-9-.02 Operations Involving Hydrogen Sulfide
- 400-1-9-.03 Transportation Of Wastes Associated With
- 0il And Gas Operations 400-1-9-.04 Hydraulic Fracturing

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. Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq. History: Filed September 30, 1982. Amended: Filed January 8, 1992. Repealed and New Rule: Filed April 11, 2000; effective May 16, 2000.

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 S) at all operations where hydrogen sulfide 2concentrations 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;

Chapter 400-1-9

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.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq. History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-9-.03 <u>Transportation Of Wastes Associated With Oil And</u> 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 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.

Author: State Oil and Gas Board Statutory Authority: <u>Code of Ala. 1975</u>, §§9-17-1, <u>et seq</u>. History: New Rule: Filed April 11, 2000; effective May 16, 2000. Amended: Filed April 11, 2011; effective May 16, 2011.

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

Chapter 400-1-9

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 <u>Code of Ala.</u> 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.

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.

Author: S. Marvin Rogers

Statutory Authority: Code of Ala. 1975, §§9-17-1 et seq. History: New Rule: Filed August 5, 2013; effective September 9, 2013.

Previous Chapter 400-1-9 (Rule 400-1-9-.01) Repealed and New Chapter (Rules 400-1-9-.01 through 400-1-9-.03) adopted in lieu thereof: Filed April 11, 2000.