Title 26: Oil and Gas

Part 2: STATEWIDE RULES AND REGULATIONS (Order No. 201-51)

Part 2 Chapter 1

RULE 1.1 SCOPE OF RULES. The rules and regulations hereby adopted and hereinafter set out are general rules of statewide application and shall apply to all fields; provided, however, special rules, applicable to particular areas or subject matter, shall prevail over these general rules only to the extent that they are in conflict therewith.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.2 DEFINITIONS. Unless the context otherwise requires, the words hereinafter defined shall have the following meaning when found in these rules, to-wit:

(a) "Board" shall mean the State Oil & Gas Board created by Chapter 256 of the Laws of 1948.

(b) "Person" shall mean any individual, corporation, partnership, association, or any state, municipality, political subdivision of any state, or any agency, department, or instrumentality of the United States, or any other entity, or any officer, agent, or employee of any of the above.

(c) "Oil" shall mean crude petroleum oil and all 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.

(d) "Gas" shall mean all natural gas, including casinghead gas, and all other hydrocarbons not defined as oil in subsection (c) above, or as condensate in subsection (f) below.

(e) "Casinghead Gas" shall mean any gas or vapor, or both gas and vapor, indigenous to an oil pool and produced from such pool with oil.

(f) "Condensate" shall mean liquid hydrocarbons which, at the time of discovery, existed in the gaseous state in the reservoir.

(g) "Barrel of Oil" shall mean forty-two (42) United States gallons of oil, computed at sixty (60) degrees Fahrenheit, with deductions for the full amount of basic sediment, water, and other impurities, present, ascertained by centrifugal or other recognized and customary test.

(h) For the purpose of reporting, a "Cubic Foot of Gas" shall mean volume of gas expressed in cubic feet and computed at a base pressure of ten (10) ounces per square inch above the average barometric pressure of 14.4 pounds per square inch (15.025 psia), at a standard base temperature of sixty (60) degrees Fahrenheit.

(i) "Gas Well" shall mean any well the production from which is predominantly gas or condensate, or both.

(j) "Oil Well" shall mean any well capable of producing oil and which is not a gas well as defined herein.

(k) "Bottom Hole Pressure" shall mean the pressure in pounds per square inch at or near the face of the producing pool which is measured by means of a pressure recording instrument or any other scientific instrument, recognized by the oil and gas industry, with readings corrected to a predetermined datum plane.

(l) "Day" shall mean a period of twenty-four (24) consecutive hours from 7 A.M. one day to 7 A.M. the following day.

(m) "Month and Calendar Month" shall mean the period of interval of time from 7 A.M. on the first day of any month of the calendar to 7 A.M. on the first day of the next succeeding month of the calendar.

(n) "Pool" shall mean an 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 included in the term "pool" as used herein.

(o) "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 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 (2) or more pools.

(p) "Owner" shall mean the person who has the right to drill into and produce from any pool, and to appropriate the production either for himself or for himself and another or others. "Royalty Owner" shall mean any person who possesses an interest in the production but who is not an "owner" as herein defined.

(q) "Producer" shall mean the owner of a well or wells capable of producing oil or gas or both.

(r) "Operator" shall mean any person who, duly authorized, is in charge of the development of a lease or the operation of a producing well.

(s) "Transporter" shall mean any person except a railroad company who transports oil or gas.

(t) "Pressure Maintenance" shall mean the introduction of gas or liquid for the purpose of maintaining the pressure of the reservoir.

(u) "Supervisor" shall mean the State Oil and Gas Supervisor of Mississippi.

(v) "Product" shall mean any commodity made from oil or gas and shall include refined crude oil, processed crude petroleum, residuum from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, casing head gasoline, natural gas gasoline, naphtha, distillate, gasoline, kerosene, waste oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or by-products derived from oil or gas, and blends or mixtures of two (2) or more liquid products or by-products derived from oil, condensate, gas or petroleum hydrocarbons, whether hereinabove enumerated or not.

(w) "Illegal Oil and Illegal Gas" shall mean oil or gas which has been produced within the State of Mississippi from any well during any time that the well has produced in excess of the amount allowed by law or any rule, regulation or order of the Board. "Illegal Product" shall mean any product derived, in whole or part, from illegal oil or illegal gas.

(x) "Waste" shall mean and include the following:

(1) The inefficient, excessive, or improper use of 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.

(2) 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.

(3) Abuse of the correlative rights and opportunities of each owner of oil or gas in a pool due to non-uniform, disproportionate, or unratable withdrawals causing undue drainage between tracts of land or resulting in one or more owners in such pool producing more than his just and equitable share of the production from such pool.

(4) Producing oil or gas in such manner as to cause unnecessary channeling of water or gas or both or coning of water.

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

(6) The drowning with water of any stratum or part thereof capable of producing oil or gas.

(7) The creation of unnecessary fire hazards.

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

(9) Permitting gas produced from a gas well to escape into open air.

(10) The use of gas from gas wells, except sour gas, for the manufacture of carbon black, except and unless the Board shall find that there are no adequate pipeline connections to otherwise market the gas.

(y) "Drainage Unit" or "Drilling Unit" shall mean the maximum area in a pool which may be drained efficiently by one (1) well so as to produce the reasonable maximum recoverable oil or gas in such area.

(z) "Developed Area" or Developed Unit" shall mean a drainage unit having a well completed therein which is capable of producing oil or gas in paying quantities.

(aa) A "Certificate of Compliance" shall mean a certificate issued by the Board showing compliance with the conservation laws of the State, and conservation rules, regulations and orders of the Board, prior to connection with a pipeline.

(bb) A "Certificate of Clearance" shall mean a permit for the transportation or the delivery of oil, gas or products, approved and issued or registered under the authority of the Board.

(cc) "Driller's Log" shall mean the written record progressively describing the strata, water, oil or gas encountered in drilling a well.

(dd) "Wildcat Well" shall mean a drilling well in an unproven area.

(ee) "Stratum" shall mean a layer of rock more or less similar throughout, a lithological unit.

(ff) "Seismograph Shot Holes" shall mean those holes used in reflection and refraction seismic exploratory work only.

(gg) "Core Drilled Holes" shall mean those holes used only for sub-surface mapping of shallow formation marker horizons.

(hh) "Stratigraphic Tests" shall mean those holes drilled to secure information regarding sedimentary strata (including potential oil and gas reservoir rocks) and structural conditions.

(ii) "Underground Injection Program" shall mean a program regulating the injection of any fluids produced or fluids associated with the exploration, storage and/or production of oil and/or gas and being among those other laws relating to the conservation of oil and gas as referred to in Section 53-1-17(a).

(jj) “Special Field Rules” shall mean rules, superseding statewide rules, adopted by the board, after notice and hearing, that promote development and production of oil and gas for a particular field, or portion thereof. These rules may include, but are not limited to, pool definitions, geographical limits, well spacing, drilling requirement, production unit sizing, allowable production rates and special permitting procedures.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.3 NAMING OF FIELDS. The Board will name all oil and gas fields in the State. Unless good reasons to the contrary appear, the Board will accept the recommendation of names made by the Mississippi Geological Society.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.4. APPLICATION TO DRILL.

(a) Before any person shall commence the drilling of any well in search of oil or gas, such person shall file in duplicate with the Board on Form 2 his application for a permit to drill, accompanied by a certified plat and by a fee of six hundred dollars ($600), payable to the State Oil and Gas Board. When two (2) or more separately owned tracts of land are embraced within the unit for which the permit is sought, the application shall affirmatively state whether or not there are separately owned tracts in the drilling unit for which the permit is sought, and if so, whether or not the person owning the drilling rights therein and the rights to share in the production therefrom have agreed to develop their lands as a drilling unit and to the drilling of the well, as contemplated by Section 53-3-7, Mississippi Code of 1972. If drilling operations have not commenced within twelve (12) months after date of issuance, the permit shall become void. If the application complies in all respects with the rules and regulations of the Board relating thereto, a permit shall be issued promptly by the Supervisor. The issuance of said permit shall constitute the establishment of the drilling unit as designated in said application and shall likewise constitute the approval of the well location set out in said permit. On good cause shown, the unit may be altered by the Board after notice and hearing.

If the application for permit does not comply in all respects with the rules and regulations of the Board relating thereto, said application shall be disallowed, and the Supervisor shall promptly notify the applicant of the reason or reasons for said disallowance.

(b) The operator of each well that has been permitted and drilled but not plugged and reported as plugged as required by Rule 28(B)(3)(d) shall, for each such well, pay an annual fee of $100.00 to the Emergency Plugging Fund of the Mississippi State Oil & Gas Board. The per well annual fee is due and payable by the operator of the well on July 1st of each year for each well which is then permitted and drilled but not plugged and reported as plugged as required by Rule 28(B)(3)(d). Any such payment of the annual fee provided for herein shall be accompanied by an attachment listing the field name, API #, and well name of each well covered by said payment.

In the event of non-payment of said annual fees by August 15th of any given year, the Board may, in addition to any other means of enforcement allowed under the statutes, rules and regulations of the Board, suspend the permit, suspend the Form 8 (Authorization to Transport Oil or Gas) and/or suspend the Form 9-A (Inactive Well Status) on the subject well and/or any other wells operated by the subject operator. Any such suspension may be carried out by the Supervisor without further action from the Board. After such suspension, reinstatement shall require payment by the subject operator of the delinquent fee plus five percent (5%) penalty per month for each month or portion of a month after July that the fee remains unpaid.

(c) FINANCIAL RESPONSIBILITY.

(1) As a prerequisite to any person or persons hereafter being issued a permit to drill under the provisions of this Rule, or upon filing of an Oil & Gas Board Form 2 requesting Change of Operator of any well, said person(s) shall file with the Board proof of financial responsibility in such form as is acceptable to the Supervisor in an amount as hereinafter set forth, in accordance with the rules, regulations, and orders of the Board and with the laws of the State of Mississippi. Likewise, the Operator of each unplugged well permitted by this Board prior to August 1, 1998 shall file with the Board such proof of financial responsibility. The amount of the financial responsibility instrument for these wells permitted prior to August 1, 1998 shall be in the amount required in this Rule 4. Failure to provide such proof of financial responsibility on or before January 1, 2009 for unplugged wells permitted prior to August 1, 1998, may subject such wells to immediate plugging. Such financial responsibility instrument shall be payable to the Emergency Plugging Fund of the Mississippi State Oil & Gas Board, for each such well, and shall be executed by such person(s) as principal, and by some surety approved by the Board or by the Supervisor. Each such financial responsibility instrument shall be conditioned that, if such well is drilled, such person(s) shall properly plug and abandon such well in accordance with the provisions of Rule 28 of the Statewide Rules & Regulations, all other statutes, rules, regulations, permits and orders of the Board.

(2) The amount of such financial responsibility instrument shall be in accordance with the following relationship of footage:

Depth in feet	Amount required
Zero to 10,000	$20,000
10,001 to 16,000	$30,000
16,001 or more	$60,000

Provided, further, the Board, in its reasonable discretion for good cause, after notice and hearing, on its own motion or on motion of any interested party, may require proof of a different amount of surety because of environmentally sensitive conditions at the drill site or for other justifiable reasons and may determine any existing financial responsibility instrument to be inadequate and may require the filing of a new and different instrument or an appropriate amendment to a previously filed instrument. The amount of such instrument required may be more or less than hereinabove set forth, the hearing upon such matter shall be conducted in the same manner as any other hearing before the Board.

Any such financial responsibility instrument filed with the Board, including any amendment thereto, must set forth the correct legal name and address of the principal and the surety thereto and must be countersigned by a Mississippi agent of such surety, setting forth the correct legal name of such agent and such agent's company affiliation and correct business address.

(3) Provided further, however, the Board may allow the filing of a blanket financial responsibility instrument by an operator in the amount of One Hundred Thousand Dollars ($100,000.00) in a form acceptable to the Supervisor. Such application for blanket coverage shall be accompanied by an attachment listing field name, API# and well name for each well covered by said blanket bond. The Board, after notice and hearing, may in its reasonable discretion for justifiable and good cause, require the filing of a blanket financial responsibility instrument of a different amount superseding any previous order by the Board. Any such blanket financial responsibility instrument shall have the same requirement as set forth hereinabove for single wells except that blanket financial responsibility instruments may apply to more than one well and the amount of such blanket coverage may not be required to be in accordance with the aforesaid relationship of footage.

(d) Before any person shall commence the drilling of a stratigraphic test or any well below the freshwater level (other than an oil or gas well or an injection well), such person shall file in duplicate with the Board on Form 2 his application for permit to drill, accompanied by a fee of six hundred dollars ($600), payable to the State Oil and Gas Board. If the application complies in all respects with the rules and regulations of the Board relating thereto, a permit shall be issued promptly by the Supervisor. If drilling operations have not commenced within twelve (12) months after date of issuance, the permit shall become void.

If the application for permit does not comply in all respects with the rules and regulations of the Board relating thereto, said application shall be disallowed, and the Supervisor shall promptly notify the applicant of the reason or reasons for the disallowance.

(e) Before any person shall commence the drilling of, or conversion to, an injection well, such person shall file in duplicate with the Board on Form 2 his application for permit to drill, accompanied by a fee of six hundred dollars ($600), payable to the State Oil and Gas Board. If the application complies in all respects with the rules and regulations of the Board relating thereto, a permit shall be issued by the Supervisor upon approval by the State Oil and Gas Board, after notice and hearing. If drilling operations have not commenced within twelve (12) months after date of issuance, the permit shall become void.

(f) Before any person shall commence operations to reenter an abandoned well or to convert it to an injection well, such person shall file in duplicate with the Board on Form 2 his application to rework, accompanied by a fee of six hundred dollars ($600), payable to the State Oil and Gas Board. If the application complies in all respects with the rules and regulations of the Board relating thereto, a permit shall be issued by the Supervisor upon approval by the State Oil and Gas Board, after notice and hearing. If workover operations have not commenced within twelve (12) months after date of issuance, the permit shall become void.

(g) Before any person shall commence operations to rework an operating well or injection well to recomplete to another zone, formation or reservoir, such person shall file in duplicate with the Board on Form 2 his application to rework, accompanied by a fee of one hundred dollars ($100), payable to the State Oil and Gas Board. If the application complies in all respects with the rules and regulations of the Board relating thereto, a permit shall be issued by the

Supervisor. If workover operations have not commenced within six (6) months after date of issuance, the permit shall become void.

Source: MCA Section 53-1-17(3) (1972) Effective February 21, 2021

RULE 1.5 TRANSFER OF PERMIT.

(a) Each person who succeeds to the rights under a permit shall, within ten (10) days after the rights are acquired, notify the Board in writing thereof.

(b) Wells approved for unit operations under a designated operator after notice and hearing by the Board shall be exempt from payment of a second permit fee.

(c) In the event a change of operators from that listed in the drilling permit is desired, the operator so listed and the proposed new operator shall apply to the State Oil and Gas Board for authority to change operators on Form 2. This can be designated on separate Form 2's or both may sign the same Form 2. The change of operator fee of one hundred dollars ($100) shall be paid by either party. If the administration of the operation of a well is by an agent or other person(s), then all reports must be filed in the name of the Oil and Gas Board designated owner or operator. A letter to the supervisor of the Oil and Gas Board verifying the authority of the person(s) filing the report to act as the agent of or on behalf of the Oil and Gas Board designated owner or operator is required. The foregoing letter must be filed with the supervisor and shall be either notarized or witnessed by not less than two subscribing witnesses. The Oil and Gas Board designated owner or operator is responsible for the operation of the well and filing of all reports.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.6 WELL SIGNAGE – IDENTIFICATION OF WELL AND RESTRICTIONS TO ACCESS.

1. Every well permitted by the Oil and Gas Board shall have posted at the entrance to the location during drilling, in a conspicuous place near the well bore after completion, a sign in reasonably large and clear lettering with the following information:

a) DANGER (in white lettering on a red background)
b) NO TRESPASSING
c) AUTHORIZED PERSONNEL ONLY
d) Operator of Record as carried at the Oil and Gas Board;
e) API number as assigned by the Oil and Gas Board;
f) Field name as designated by Oil and Gas Board and/or designation as a wildcat;
g) Section, Township and Range;
h) Well name and number as carried at the Oil and Gas Board;
i) Currently active telephone number answering 24 hours a day, 7 days a week for any emergency associated with the well and/or facility
j) The latitude and longitude of the well location expressed in decimal degrees (carried out to five (5) decimal places) utilizing NAD 83 coordinates

2. If not located on a well location, each tank and/or tank battery (both active and inactive), if equipped with a staircase or ladder, and each compressor station shall have posted at a conspicuous place at the location of such facility a sign in reasonably large and clear lettering with, at a minimum, the following information (Operator may add additional lettering it deems appropriate):

a) DANGER (In white lettering on a red background)
b) NO TRESPASSING
c) AUTHORIZED PERSONNEL ONLY
d) Currently active telephone number answering 24 hours a day, 7 days a week for any emergency associated with the tank and/or tank battery or compressor station
e) Operator of Record as carried at the Oil and Gas Board
f) The latitude and longitude of the tank and/or tank battery or compressor station expressed in decimal degrees (carried out to five (5) decimal places) utilizing NAD 83 coordinates

Additionally, in the event a tank battery serves multiple wells producing from a fieldwide unit, the name of such fieldwide unit (not individual well names) shall be indicated on the sign applicable to such tank battery.

3. An additional road sign and/or signs must be posted at the nearest exit or turn-off from either a public road and/or private, field or lease road leading to or providing entry and access to a well location, tank and/or tank battery or compressor station, such additional sign(s) to be in reasonably large and clear lettering with, at a minimum, the following information (Operator may add any additional lettering it deems appropriate):

a) DANGER (In white lettering on red background)
b) NO TRESSPASSING
c) AUTHORIZED PERSONNEL ONLY
d) Currently active telephone number answering 24 hours a day, 7 days a week for any emergency associated with the well, tank and/or tank battery, compressor station or facility
e) Operator of Record as carried at the Oil and Gas Board
f) The latitude and longitude of such road sign(s) placed at the nearest exit or turn off from the public, private, field or lease road expressed in decimal degrees (carried out to five (5) decimal places) utilizing NAD 83 coordinates

4. All flow lines (i. e., pipelines which transport liquids or gas from a well location to a storage tank, tank battery or other storage facility or from any facility to a well (oil, gas or SWD) shall have posted along said flow lines signs in reasonably large and clear lettering with the following information:

(a) WARNING (no color requirements since many Operators already have signs/ markers in various colors)

(b) High pressure, flammable, saltwater, etc. (as appropriate)

(c) Operator of Record as carried at Oil and Gas Board

(d) Currently active telephone number answering 24 hours a day, 7 days a week for any emergency associated with such flow line

Such signs shall be placed along all flow lines at such intervals as to insure that each sign is clearly visible from the next nearest sign. Spacing between signs may vary depending upon such factors as terrain, vegetation and other obstructions but in no event may such signs be located more than 500.0 feet apart. Such signs shall at all times be maintained clear of vegetation or any other obstructions which would prevent each sign from being clearly visible from the next nearest sign.

5. Any changes and/or corrections in the sign information required to be posted in accordance with this rule shall be made to such sign(s) within sixty (60) days after the change occurs, or in the case of a transfer of ownership, within sixty (60) days after a change of operator is approved by the Oil and Gas Board.

6. The operator's field personnel shall be charged with the duty of observing the signs posted in accordance with this rule on a regular basis to ensure they are in place and in compliance with the rule.

7. All stairways and ladders leading to storage tanks shall be equipped with a gate restricting access. A sign shall be posted on the gate which contains, at a minimum, the following (Operator may add any additional lettering it deems appropriate):

DANGER
NO TRESSPASSING
AUTHORIZED PERSONNEL ONLY

All gates on stairways and ladders leading to storage tanks shall remain locked at all times except when such facility is manned.

8. Wells, tanks and/or tank batteries, compressor stations and related facilities in existence at the time of passage of this rule shall be brought into compliance with this rule within 180 days of passage.

9. Perimeter Fencing and Restricted Access

(a) No oil or gas wells, tanks, tank batteries or related oil and gas exploration and production facilities shall have restricted access, locked gates or entrances, or shall be enclosed or otherwise encompassed or restricted by perimeter fencing with or without locked gates or entrances except upon the approval of the Supervisor or where otherwise required by other rules and regulations.

(b) This rule is promulgated for the purpose of insuring that this agency's Field Inspectors and other agency personnel have unrestricted access to all oil and gas wells, tanks, tank batteries and related oil and gas exploration and production facilities on a 24-hour a day, 7-day a week basis for inspection and regulatory enforcement purposes, as well as insuring that first-responders (fire, sheriffs, emergency medical personnel, etc.) have ready access to such facilities in the event of emergencies (fires, explosions, etc.) and that oil and gas field and contractor personnel have a ready means of egress or escape from such facilities in the event of emergencies.

(c) The Supervisor is authorized, on a case-by-case basis, with the approval of the Mississippi State Oil and Gas Board, to require or permit restricted access, or the installation of locked gates or entrances, or perimeter fencing with or without locked gates or entrances around oil and gas wells, tanks, tank batteries and related oil and gas exploration and production facilities where such perimeter fencing is deemed by the Supervisor to be in the public interests and necessary to effectively enforce other laws relating to the conservation of oil and gas.

Source: MCA Section 53-1-17(3) (1972) Eff. July 15, 2015

RULE 1.7 SPACING OF OIL WELLS.

1. With respect to each pool occurring in the discovery well, the top of which is encountered below a measured depth of 12,000 feet below the surface, and in the Pennsylvanian and older formations with respect to each pool occurring in the discovery well, the top of which is encountered below a measured depth of 3,500 feet below the surface, every oil well:

(a) Shall be located on a drilling unit consisting of eighty (80) contiguous surface acres, or two (2) contiguous governmental quarter-quarter sections containing not less than seventy-two (72) acres or more than eighty-eight (88) acres, upon which no other drilling or producible well is located. The word "contiguous" as used herein shall mean bordering each other at more than one point;

(b) Any drilling unit not composed of two (2) governmental quarter-quarter sections must be completely encompassed by the perimeter of a rectangle 1600 feet by 2725 feet. Provided, however, no unit shall be permitted which will create island acreage;

(c) The well shall be located at least 1,000 feet from every other drilling well or well completed in or producing from the same pool located in conformity with this rule; and

(d) The well shall be located at least 500 feet from every exterior boundary of the drilling unit.

2. However, with respect to each pool occurring in the discovery well, the top of which is encountered below a measured depth of 12,000 feet below the surface, the State Oil and Gas Supervisor may permit 160 acre units for such pools if such unit size will promote and encourage the orderly development of the pool. Every oil well drilled in such pool:

a) Shall be located on a drilling unit of four (4) contiguous quarter-quarter sections containing not less than 144 nor more than 176 acres upon which no other well drilling to or producing from same pool is located.
b) Any drilling unit not composed of four (4) contiguous quarter-quarter sections shall contain 160 surface acres which must be completely encompassed by perimeter of a rectangle 2640 feet by 3500 feet provided, however, no unit shall be permitted which will create island acreage.
c) Each well shall be located at least 1500 feet from every drilling or producible well from the same pool and not less than 750 feet from every exterior boundary of the drilling unit.

3. With respect to all other pools, every oil well:

(a) Shall be located on a drilling unit consisting of forty (40) contiguous surface acres, or a governmental quarter-quarter section containing not less than thirty-six (36) acres or more than forty-four (44) acres, upon which no other drilling or producible well is located. The word "contiguous" as used herein shall mean bordering each other at more than one point.

(b) Any drilling unit not a governmental quarter-quarter section must be completely encompassed by the perimeter of a rectangle 1810 feet by 1445 feet. Provided, however, no unit shall be permitted which will create island acreage.

(c) The well shall be located at least 660 feet from every other drilling well or well completed in or producing from the same pool located in conformity with this rule; and

(d) The well shall be located at least 330 feet from every exterior boundary of the unit.

4. No portion of the drilling unit upon which a well is located shall be attributed, in whole or in part, to any other drilling or producible well in the same pool.

5. If any well drilled in conformity with the provisions of this rule, or as an exception thereto, is completed as a gas well, it shall not be produced except for a test period of not exceeding forty-five (45) days, or in compliance with applicable special field rules, or until authorization has been granted by the Board after notice and hearing.

6. The drilling unit that is established for an oil well under this rule or any other applicable Statewide Rule or special field rule shall remain in existence and effect for the period of time set forth below, unless an earlier alteration (reformation) or termination of the unit occurs pursuant to an order of the Board:

(a) The unit shall automatically terminate if and when the drilling permit for the well terminates.

(b) The unit shall automatically terminate if and when the well is plugged or converted to a Class II well.

(c) This rule shall not apply to any unit that is established under Miss. Code Ann. Section 53-3-101 through -119.

(d) For good cause shown, the Board may alter, reform or dissolve units or grant exception(s) to the foregoing rules, after notice and hearing.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.8 SPACING OF GAS WELLS.

1. With respect to each pool occurring in the discovery well, the top of which is encountered below a measured depth of 12,000 feet below the surface, and in the Pennsylvanian and older formations with respect to each pool occurring in the discovery well, the top of which is encountered below a measured depth of 3,500 feet below the surface, every gas well:

(a) Shall be located on a drilling unit consisting of (1) 640 contiguous surface acres; or (2) a governmental section containing not less than 600 acres or more than 680 acres; or (3) sixteen (16) contiguous governmental quarter-quarter sections whose total acreage is not less than 600 acres or more than 680 acres. In any case, no other well producing from the same pool shall be located on any such unit. The word "contiguous" as used herein shall mean bordering each other at more than one point.

(b) Any gas drilling unit formed under section 1(a) of this rule must be completely encompassed by the perimeter of a rectangle 5580 feet by 6245 feet. Provided, however, no unit shall be permitted which will create island acreage.

(c) The well shall be located at least 3,000 feet from every other drilling well or well completed in or producing from the same pool located in conformity with this rule; and

(d) The well shall be located not less than 1,500 feet from every exterior boundary of the drilling unit.

2. With respect to each pool occurring in the Oligocene and younger Formations, the top of which is encountered in the discovery well above a measured depth of 5,000 feet below the surface, the State Oil and Gas Supervisor may permit one hundred sixty (160) acre units for such pools if such unit size will promote and encourage the orderly development of the pool. Every gas well drilled in such pool:

a) shall be on a drilling unit consisting of (1) one hundred sixty (160) contiguous surface acres, or (2) a governmental quarter section containing not less than one hundred forty-four (144) acres or more than one hundred seventy-six (176) acres. In any case, no other well producing from the same pool shall be located on any such unit. The word "contiguous" as used herein shall mean bordering each other at more than one point.

b) Any gas drilling unit formed under Section 2(a) of this Rule must be completely encompassed by the perimeter of a rectangle 2640 feet & 3500 feet. Provided, however, no unit shall be permitted which will create island acreage;

c) The well shall be located at least fifteen hundred (1500) feet from every other drilling well or well completed in or producing from the same pool located in conformity with this Rule; and

d) The well shall be located not less than seven hundred fifty (750) feet from every exterior boundary of the drilling unit.

3. With respect to all other pools, every gas well:

(a) Shall be located on a drilling unit consisting of (1) 320 contiguous surface acres; or (2) a governmental half-section containing not less than 300 acres or more than 340 acres; or (3) eight (8) contiguous governmental quarter-quarter sections whose total acreage is not less than 300 or more than 340 acres. In any case, no other well producing from the same pool shall be located on any such unit. The word "contiguous" as used herein shall mean bordering each other at more than one point.

(b) Any gas drilling unit formed under section 3(a) of this rule must be completely encompassed by the perimeter of a rectangle 3735 feet by 5380 feet. Provided, however, no unit shall be permitted which will create island acreage.

(c) The well shall be located at least 1,980 feet from every other drilling well or well completed in or producing from the same pool located in conformity with this rule; and

(d) The well shall be located not less than 990 feet from every exterior boundary of the drilling unit.

4. No portion of the drilling unit upon which a well is located shall be attributed, in whole or in part, to any other well drilling in or producing from the same pool.

5. If any well is completed as a gas well in the gas cap of a pool productive of oil, or if any well drilled as a gas well is productive from or completed in an oil pool, it shall not be produced except for a test period not exceeding forty-five (45) days, or in compliance with applicable special field rules, or until authorization has been granted by the Board after notice and hearing. During the test period the well may not be produced in excess of its allowable unless permitted by the Board after notice and hearing.

6. The drilling unit that is established for a gas well under this rule or any other applicable Statewide Rule or special field rule shall remain in existence and effect for the period of time set forth below, unless an earlier alteration (reformation) or termination of the unit occurs pursuant to an order of the Board:

(a) The unit shall automatically terminate if and when the drilling permit for the well terminates.

(b) The unit shall automatically terminate if and when the well is plugged or converted to a Class II well.

(c) This rule shall not apply to any unit that is established under Miss. Code Ann. Section 53-3-101through – 119.

(d) For good cause shown, the Board may alter, reform or dissolve units or grant exception(s) to the foregoing rules, after notice and hearing.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.9 EXCEPTIONS TO SPACING RULES. The Board may grant an exception to any spacing rule whenever the Board shall determine, after notice and hearing, and the facts clearly support the determination, that the unit is partly outside the pool, or, for some other reason, a well so located on the unit would be non-productive or topographical conditions are such as to make the drilling at such location unduly burdensome. Application for an exception on Form 2 shall be accompanied by a plat or sketch drawn to the scale of not smaller than one (1) inch equaling 1000 feet, accurately showing to scale the property on which the permit is sought, all other completed, drilling and permitted wells on this property, and all adjoining surrounding properties and wells. The application shall be verified by some person acquainted with the facts.

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 any 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 just and equitable share of the oil and gas in the pool. If the drilling unit is of less acreage than that prescribed by the applicable spacing rule as a regular drilling unit, such special unit shall be allowed to produce only in the proportion that the acreage content of such special unit bears to the acreage content of the regular prescribed unit.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.10 SEALING OFF STRATA.

(a) No stratum upon being penetrated shall be drilled or left open, except at the direction of the Supervisor, without the application of mud-laden fluid or other means to prevent the escape of oil or gas while further drilling in or through such stratum.

(b) All fresh waters and waters of present or probable future value for domestic, commercial, or stock purposes shall be confined to their respective strata and shall be adequately protected.

(c) Before any oil or gas well is completed as a producer, all oil, gas and water strata above and below the producing horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.11. SURFACE CASING. The minimum amount of surface or first-intermediate casing to be set shall be determined from the following table:

Proposed Total Depth-Feet	**Minimum Casing Requirements-Feet**
0-2500	200’
2500-6000	200’ + 8% of proposed depth in excess of 2500’
6000-7000	480’ + 10% of proposed depth in excess of 6000’
7000-8000	580’ + 15% of proposed depth in excess of 7000’
8000-9000	730’ + 20% of proposed depth in excess of 8000’
9000-Deeper	930’ + 25% of proposed depth in excess of 9000’

The proposed surface casing and cement program for each well shall be presented with the filing of Form No. 2, “Application to Drill”. The information shall include length of surface casing, anticipated grade, weight, connection and anticipated cementing program. Except for a dry hole completion where no production casing is set and the well is subsequently plugged, in all other instances, casing shall be cemented to the surface and pressure tested as provided below regardless of the mud disposal option.

The proposed mud disposal program for each well shall be presented with the filing of Form No. 2, “Application to Drill”. In cases where drilling mud is to be disposed of down hole, the casing shall be set a minimum of 100 feet below the base of fresh water as determined using an induction resistivity log from the nearest well when possible or by other scientific methods approved by the Supervisor. The anticipated pressure authorized for any down hole disposal method of mud shall be presented in the mud disposal program and determined using the casing pressure test calculation as described below.

At a minimum, casing shall be pressure tested subsequent to the hole being drilled for the production casing or the first-intermediate casing. Provided no testing pressure shall be less than 300 psig, the minimum pressure applied shall be determined using the following calculation: 0.22 psi/ft. x true vertical depth of casing shoe. The well shall have passed the test if there is a pressure loss of no greater than five per cent (5%) for a duration of one-half (1/2) hour as

determined using a pen recording device. Any leaks in excess of five per cent (5%) pressure loss over one-half (1/2) hour shall be considered a significant leak and require remedial action in order to pass the pressure test. All casing pressure tests charts will be reviewed by the field inspector or his designee immediately following the test and subsequently forwarded to agency for processing.

Exceptions to the above minimum requirements upon may be granted by the Board after notice and hearing and upon submission of proper evidence along with a statement on affidavit affirming all fresh water bearing zones will be adequately protected.

In case an operator decides to drill deeper after drilling to his initial proposed total depth, he may secure relief to the above minimum casing requirements just as though his original intent was to drill the well as an exception to the minimum casing requirements, provided, however, that such exception is approved by the Supervisor.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.12 PRODUCING CASING. All oil and gas wells shall be completed with a string of casing which shall be properly cemented at a sufficient depth adequately to protect the oil- or gas-bearing pool. In every case no less cement shall be used than the calculated amount necessary to fill the annular space to a point 500 feet above the shoe. Cement shall be allowed to stand at least a total of twenty-four (24) hours before drilling plug.

Before drilling the cement plug in the string of casing of any well, the casing shall be tested at a pressure in pounds per square inch calculated by multiplying the length in feet of a producing string by two-tenths (.2) with the maximum test pressure required, unless otherwise ordered by the Board, not to exceed fifteen hundred (1500) pounds per square inch.

If at the end of thirty (30) minutes the pressure gauge shows a drop of ten percent (10%) of the test pressure or more, such corrective measures must be taken as will insure that the producing string of casing is so set and cemented that it will hold the pressure for thirty (30) minutes without a drop of more than ten percent (10%) of the test pressure on the gauge.

The Board may, at its discretion, require that the operator give sufficient notice prior to conducting casing tests so that a Board representative may be present at such time as either the surface or producing casing is tested in any well.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.13 - <u>BLOWOUT PREVENTERS AND WELL CONTROL</u>

On all wells being drilled, completed or recompleted and on any production work when tubing is to be pulled from the well, all proper and necessary precautions shall be taken for keeping the well under control, including the use of blowout preventers (BOPs) and auxiliary equipment. The minimum BOP stack shall be one set of hydraulically-operated pipe rams to fit the work string being used and one set of hydraulically-operated blind rams. An annular

preventer may be used in lieu of rams to run casing, etc. or when an annular preventer would be more practical. In addition to the BOP stack, an inside BOP or safety valve to fit the drill pipe or tubing shall be kept on the rig floor at all times. This rule applies to all work described above whether using a drilling rig, conventional workover rig, coil tubing unit or snubbing unit. Once a well is completed, sufficient valves shall be installed on all wellheads to insure control of the well. It is always the responsibility of the Operator to maintain control of the well.

1. When to install BOPs
   (a) On drilling operations, BOPs must be installed before drilling out from under surface casing.

   (b) On completion operations, BOPs must be installed before entering the wellbore with any tubing. For wireline work prior to running tubing, a manual valve may be used in lieu of the BOP stack.

   (c) On recompletions and production work, BOPs must be installed as soon as the well conditions permit and before pulling any tubulars from the well.

2. When to test the BOPs
   (a) On drilling operations and completion operations:
      1. Upon installation
      2. Not less than once every twenty-one (21) days
      3. Following any repairs which require disconnecting a pressure seal

   (b) On recompletion and production operations:
      1. A stump test may be made on location prior to installing the BOPs where a test plug cannot be utilized (Coil tubing and snubbing units must test BOPs before entering the wellbore)
      2. Not less than once every twenty-one (21) days
      3. Following any repairs which require disconnecting a pressure seal

3. Reporting/Recording BOP Tests
   (a) Operator will notify the MSO&GB Field Inspector prior to testing BOPs in order that the test may be witnessed by MSO&GB personnel

   (b) BOP tests will be recorded on a pen recorder and chart or a copy shall be furnished to the MSO&GB Field Inspector.

4. Testing Requirements
   (a) BOPs must be tested to the maximum pressure rating of the BOPs or to 80% of the burst rating of the casing, whichever is less.

5. Waivers to Rule 13

(a) A waiver of the requirements of Rule 13 may be obtained by requesting the waiver on the Form 2 which permits the work in question. If the Form 2 is approved with the waiver requested, then the waiver is also granted.

(b) The Supervisor or Field Director may grant a waiver to the requirements of Rule 13, or to any part of Rule 13, and may convey the granting of the waiver verbally to the Operator or through other MSO&GB personnel. Such waiver may only be granted by the Supervisor or Field Director upon his or her determination that such waiver will not materially or adversely affect the Operator's ability to maintain well control at all times.

(c) The granting to an Operator of a waiver of any of the requirements of Rule 13 does not in any way relieve the Operator of the duty to maintain well control at all times.

6. Well Control Certification

(a) Operators shall have present and available on all drilling, completion and recompletion locations an Operator's representative who is certified in "Well Control" by an industry-accepted institution of training or who has a minimum of not less than five (5) years experience in the supervision of well work.

Source: Miss. Code Anno. Section 53-1-17(3)

Effective Date: June 16, 2014

RULE 1.14 DEVIATION OF HOLE AND DIRECTIONAL SURVEY.

(a) Each operator shall file on Form No. 3 a record of all deviation tests taken.

(b) No well shall cross drilling unit lines unless permit is obtained from the Board after notice and hearing.

(c) Except as set forth in paragraphs (d), (e) and (f) hereof, no well may be directionally deviated from its normal course unless authorization so to do is first obtained from the Board after notice and hearing.

(d) Intentional deviations of short distances necessary to straighten the hole, sidetrack junk, or correct other mechanical difficulties may be accomplished without the issuance of a permit, but the operator shall immediately notify the Board by letter, facsimile or e-mail (followed by letter)of the fact thereof.

(e) Intentional deviations may be accomplished without notice and hearing where the application for permit and location plat duly filed with the Board verifies that the unit configuration, surface location, proposed bottomhole location and all perforations in between, comply with the spacing requirements in Rules 7 and 8 or any special field rules adopted for the field in which said well is located.

(f) In the event an operator in good faith commences and proceeds with the drilling of a properly permitted well and thereafter, for reasons acceptable to the operator, desires to directionally deviate the well from its normal course, he may do so at his own risk, first notifying the Board by letter or fax or e-mail of the fact thereof. On the completion of such well as a producer, the operator must immediately apply for a permit from the Board on notice and hearing for approval of such intentional deviation. Pending such approval, the Board may assign a temporary allowable only to such well.

(g) In cases of directionally deviated drilling, the Board shall have the right to assess appropriate allowable penalties to prevent undue drainage from offset properties and to adjust possible inequities caused by the directional drilling.

(h) When a well is directionally deviated from its normal course for any reason, a complete angular deviation and directional survey of the finished hole shall be made at the expense of the operator and a certified copy of such survey shall be filed with the Board within thirty (30) days.

(i) The Board shall have the right to make or to require any operator to make a directional survey of any hole at such operator's expense. The Board shall also have the right to require an operator to make a directional survey of any hole at the request of an offset operator, if, in the Board's opinion, such is necessary, but at the expense and risk of said offset operator unless it is found that such well is completed at a point outside the operator's drilling unit.

(j) All producible wells drilled which are an exception to the spacing rules under Statewide Rule 9 shall have directional surveys made to the total depth of the hole before setting the final string of casing. A certified copy of such directional survey shall be filed with the Board by the operator within thirty (30) days from the making thereof. This requirement may be waived by the State Oil and Gas Supervisor, with the concurrence of the Chief Engineer, upon acceptable proof filed by the operator, whether by inclination survey or otherwise, that the bottomhole location did not cross any unit boundaries.

(k) For purposes of this rule, the term “deviation” shall mean any intentional directional change in a well’s normal course of any degree, including, but not limited to, those which are horizontal.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.15 MULTIPLE AND DUAL COMPLETIONS.

(a) No well shall be permitted to produce either oil or gas from different pools through the same string of casing and no well shall be completed with the casing open to one (1) pool and the tubing open to another, unless a permit is obtained from the Board after notice and hearing.

(b) No well shall be permitted to produce from different pools until the pools have been defined and a permit is obtained from the Board after notice and hearing. When an application for a permit is filed to multiply complete after the pools have been so defined, the Supervisor shall have the authority, in his discretion, to issue a temporary permit which shall be good for a period of forty-five (45) days or until a permit shall be authorized or denied by the Board after notice and hearing.

(c) After the pools have been defined, applications to multiply complete may be presented on affidavit unless there is an objection to such procedure by the Board or any interested party. If such an objection is not filed with the Supervisor at least five (5) days prior to the date for hearing, the applicant shall have the right to a continuance until the next regular meeting of the Board.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.16 FIRE HAZARDS.

(a) Anything that might constitute a fire hazard and which is not used, or useful, in the operation of the well, tanks, separator or other equipment shall be removed to a distance of at least 100 feet from the well location, tanks and separators. All heaters, treaters and other fired vessels shall be located at least 100 feet from all vessels handling or storing crude oil.

(b) All open hole drill stem tests shall be completed in the daylight hours before sunset. Completed shall mean the closing of the drill stem test tool valve. No well shall be swabbed into production except during daylight hours, except in known low pressure areas or except where reasonable safety precautions have been taken to prevent fire or blowout.

(c) Oil shall not be stored in earthen reservoirs or in open receptacles.

(d) The well location and the surface area surrounding all production/processing equipment shall be kept clear of overgrowth (grass, bushes, trees, etc.).

Source: MCA Section 53-1-17(3) (1972)

RULE 1.17 FIRES, LEAKS & BLOWOUTS. All persons operating any oil, gas or injection well or pipeline, or receiving tank, storage tank, or receiving and storage receptacle into which produced fluid is produced, received or stored, or through which produced fluid is piped or transported, shall immediately notify the Board by letter giving full details concerning all fires which occur at such oil, gas or injection well or tank or receptacle on their property, and all such persons shall immediately report all tanks or receptacles struck by lightning and any other fire which destroys oil or gas, and shall immediately report any breaks or leaks in or from tanks or receptacles and pipelines from which produced fluid or gas is escaping or has escaped. In all such reports, the location shall be given by section, township, range and property. Such report shall likewise specify what steps have been taken or are in progress to remedy the situation reported; and shall detail the quantity of produced fluid or gas lost, destroyed, or permitted to escape. In case any tank or receptacle is permitted to run over, the amount running over shall be

reported as in the case of a leak. The report hereby required as to produced fluid losses shall be necessary only in case such loss exceeds one (1) barrel in the aggregate.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.18 WELL HEAD CONNECTIONS. Well head connections of flowing wells shall have a test pressure at least equivalent to 125% of the calculated pressure in the reservoir from which production is expected.

Each flowing oil well shall be equipped with and be produced through tubing not larger than two and one-half (2-1/2) inches in nominal diameter and four (4) inches for gas wells and shall be equipped with master valve.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.19 SEPARATORS. Each flowing well must be produced through an oil and gas separator or treater of a type generally used in the industry.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.20 CHOKES. Each flowing well shall be equipped with adequate choke or bean to control properly the flowing of the well.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.21

A. MEASUREMENT OF PRODUCTION.

(1) The operator of each producing well shall maintain proper separators and stock tanks or metering devices and such connections thereto as are necessary to measure the total production from such producing well. Where metering devices are used, as herein provided, the production may be commingled in a common storage system and if, upon a sale therefrom, a variance exists between the measurement from the common storage system and the total measurement of the production of all the producing wells commingled in such common storage system, then such variance shall be allocated back to each of the wells being commingled in the common storage system proportionately to the production measured from each well.

(2) Where ownership is the same (working interest and royalty interest), in lieu of maintaining separate separators and stock tanks or metering devices for each well, well test results as outlined in paragraph B, below may be used to allocate production for reporting purposes from two or more producing wells commingled in a common storage system.

Source: MCA Section 53-1-17(3) (1972)

B. EQUIPMENT FOR TESTS:

(1) Each producing well shall be so equipped that gas/oil ratio tests and bottom hole or other pressure tests may be made.

(2) The operator of two or more producing wells having the same ownership (working interest and royalty interest) shall maintain proper separators and stock tanks or metering devices and such connections thereto as will permit the adequate testing of each individual well under usual operating conditions without the necessity of closing in any other well for more than a 24 hour period. Such separators, stock tanks or metering devices and connections thereto shall be subject to approval by the Supervisor.

Source: MCA Section 53-1-17(3) (1972)

C. USE OF METERS:

The use of meters for testing and for measurement of well production shall be subject to and in accordance with the following provisions:

(1) Only a volume displacement type metering device or vessel which registers the volume of oil passed through it in barrels or multiples thereof may be used.

(2) All meters shall be downstream of the necessary separating or treating vessels. All meters shall be designed and installed in conformance with recognized metering practices and shall be subject to the approval of the Supervisor of the Oil and Gas Board.

(3) No meter used for oil production measurement shall be directly or indirectly bypassed in such manner as to permit oil to pass into common storage without first being measured.

(4) All meters and equipment affecting meter accuracy shall be kept in good working order. Each meter shall be calibrated at least once a month by means of a calibrated tank, a calibrated meter prover or a master meter. When a meter is found to deviate in its recording by more than two percent (2%), it must be adjusted to conform to the said tolerance limitation of two percent (2%) or the meter calibration factor corrected.

(5) The meter reading and meter calibration factor in use at 7:00 a.m. on the first day of each month for each meter shall be reported on the bottom of the Form 9 reporting the monthly production from the wells being measured by such meter.

Source: MCA Section 53-1-17(3) (1972)

D. AUTOMATIC CUSTODY TRANSFER SYSTEMS AUTHORIZED:

Automatic custody transfer systems which automatically test, sample, measure and transfer the production from the operator to the purchaser are hereby authorized. Such systems may be used to transfer production from individual wells or from common storage facilities as authorized in Rule 21 A above. In the event the transfer is from such a common storage facility, the allocation of production to the wells being produced into such common storage system will be on the basis of the relationship of the measured production from each well to the total measured production transferred by the automatic custody transfer system.

Each such system will be equipped with a sampling device which will take a representative sample of the total production passing through the system in order that the specific gravity and the basic sediment and water content can be determined.

Each such system will be equipped with a volume displacement type metering device which registers the volume of oil passed through it in barrels or multiples thereof. In addition to meeting all of the requirements set out in Rule 21 C above which deals with the use of meters, said metering device will be compensated for temperature, will be so equipped as to provide a cumulative total of all oil transferred by such system and will have an accuracy standard equivalent to the accuracy obtained in the measurements made in calibrated stock tanks.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.22 VACUUM PUMPS AND AIR LIFTS.

The use of vacuum pumps or other devices for the purpose of putting a vacuum on any gas- or oil-bearing pool is prohibited. Air lift devices shall be used only on order of the Board and after notice and hearing.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.23 WELL COMPLETION AND RECOMPLETION.

(a) Within thirty (30) days after the completion or recompletion of a well drilled for oil or gas, a completion report on Form No. 3 shall be filed with the Board. Immediately thereafter the Board shall, if such well is a producer, designate the well as an oil or a gas well.

(b) The detail of formations penetrated information on the reverse side of Form 3 shall be completed prior to submission of the Form 3 provided, however, that required core analysis data, of the type normally furnished by commercial laboratories, and drill stem test data may be submitted under separate cover and requested to be held confidential, provided, however, such core analysis data and drill stem test data obtained on stratigraphic tests shall be filed with the Board within six (6) months of well completion. Such request shall be noted on the reverse of the Form 3. Such data will be kept confidential for a period of six (6) months from the date the Form 3 is filed, or should have been filed. If subsequently requested by the person filing said data, the Supervisor shall extend the period of confidentiality an additional six (6) months or for stratigraphic tests, from the date the data is filed. The Board may, after notice and hearing, grant an additional extension of the confidentiality period.

(c) No well permitted as a stratigraphic test or core hole drilled below freshwater level shall be completed as a producing well until an application is filed and a permit is granted in the same manner and form as provided by applicable rules and regulations for applications and permits for drilling for oil and gas with proper indication being made on said application and permit that the well in question has been drilled as a stratigraphic test or core hole below freshwater level. The well shall be subject to all rules and regulations applicable to wells drilled in search of oil and gas.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.24 WELL LOGS.

(a) At least one electric log shall be run in each well and shall be filed with the Board within thirty (30) days of completion of the well, with Form 3, or within 60 days after log is run, whichever is the earlier date. This will include an electrical correlation log consisting of the spontaneous potential or gamma ray and induction resistivity surveys, or equivalent, and covering that portion of the wellbore from total depth to the base of the surface casing, specifically displayed on a one inch: one hundred foot scale, a two inch: one hundred foot scale and a five inch: one hundred foot scale. One copy of all additional open hole electrical, mechanical and radioactive logs run in the well shall be filed with the Board within said filing period, provided, however, that logs obtained on stratigraphic tests shall be filed with the Board within six (6) months. This shall not include any interpretative, computer-analyzed or computer-interpreted logs run in the well. It shall, however, include the raw data curves from a dipmeter if run in the well. The Supervisor of the Board may, for good cause and at the discretion of the Supervisor, waive the requirement that one electric log be run from total depth to the base of the surface casing.

(b) If requested by the person filing, the data filed in accord with subsection (a) above shall be kept confidential for a period of six (6) months from the date on which it should have been filed. If subsequently requested in writing by the person filing said data, the Supervisor shall extend the period of confidentiality an additional six (6) months, for a total period of confidentiality not to exceed one (1) year from the date it should have been filed. The Board may, after notice and hearing, grant an additional extension of the confidentiality period.

(c) At the expiration of time in which any log or logs shall be held as confidential by the Board as provided under subsection (b) above, said log or logs shall be placed in the open files of the Board and any party or firm shall have the right to examine and/or request copies of said logs or surveys to be reproduced by photography or other means not injurious to said logs or surveys. Any party or firm requesting reproduced copies of logs or surveys shall file a written request with the Supervisor specifying the logs or surveys to be copied. Upon written approval from the Supervisor, the reproduction work shall be done by proper employees of the State Oil and Gas Board. The cost of reproduction shall be established by the Board on a per page, per inch, per foot, or other established and published cost basis. Under no circumstances shall the Board's file copies of logs or surveys be allowed to be removed from the Board files by any party or firm who is not an employee of the Board. Use and reproduction of logs and surveys shall be in accordance with the statement of general policy in effect at that time.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.25 REWORK AND RECOMPLETION. After a well has once been completed, it shall not be deepened or plugged back, except for ordinary maintenance operations, without first giving five (5) days written notice to the Supervisor of the character of the work proposed and the time when it will begin, except in an emergency as set out in these rules. The application shall be given on Form No. 2 prepared by the Board. The Supervisor shall notify the applicant in writing whether the contemplated work is approved or disapproved. In the case of an emergency, the application may be made orally or by telegraph, and the Supervisor may orally or

by telegraph authorize the work; however, written application must be filed within five (5) days after emergency authorization is given, even though the work has already been commenced or completed, and a written permit shall be issued which shall contain the emergency authorization.

Source: MCA Section 53-1-17(3) (1972)

Rule 1.26 - Requirements for Hydraulic Fracture Stimulation –Report of Shooting or Treating

1. Definitions

For the purposes of this Rule, the following definitions shall apply:

a. "Board" means the Mississippi State Oil and Gas Board.

b. "Additive" means any substance or combination of substances, including proppants, having a specified purpose which is intentionally combined with the Base Fluid as hereinafter defined.

c. "Base Fluid" means the continuous phase fluid, such as water, which is used in a particular Hydraulic Fracturing Treatment.

d. "Chemical Abstract Service" or "CAS" means the chemical registry which is the authoritative collection of disclosed chemical substance information.

e. "Chemical Constituent" means a discrete chemical with its own specific name or identity (such as, but not necessarily, a CAS number) which is contained in an Additive.

f. "Chemical Family" means a group of elements in the Periodic Table or, more commonly, compounds which share certain physical and chemical characteristics and which have a common name.

g. "Hydraulic Fracturing Fluid" means the Base Fluid and Additives utilized in a particular Hydraulic Fracturing Treatment.

h. "Hydraulic Fracturing Treatment" means stimulating a well by the application of Hydraulic Fracturing Fluids with force in order to create artificial fractures in the formation for the purpose of improving the capacity of the well to produce hydrocarbons.

i. "Supervisor" means the State Oil and Gas Supervisor of the Mississippi State Oil and Gas Board.

2. The provisions of this Rule shall apply to oil and gas wells which are proposed to undergo a temporary or intermittent hydraulic fracturing procedure to improve the productive

capacity of such oil and gas wells utilizing Hydraulic Fracturing Treatment as hereinabove defined.

3. Before an operator shall commence the hydraulic fracturing of any oil and gas well, including the application of Hydraulic Fracturing Treatment ashereinabove defined, such operator shall file with the Mississippi State Oil and Gas Board a duly executed **FORM 2** indicating in the narrative portion of such FORM 2 the nature of the hydraulic fracturing procedure proposed to be conducted. No such hydraulic fracturing procedure shall commence prior to the approval of such permit application. Operator shall provide the Mississippi State Oil and Gas Board Field Inspector with not less than forty-eight (48) hours notice in advance of the commencement of any Hydraulic Fracturing Treatment.

4. Operators applying for a permit to commence Hydraulic Fracturing Treatment of any oil or gas well shall state clearly such intent on the FORM 2 submitted to the Mississippi State Oil and Gas Board in accordance with Paragraph 5 below.

5. The permit application described in the preceding paragraphs shall, at a minimum, include:

   (A.) The following information on the existing or proposed casing program, demonstrating that the well will have steel alloy casing designed to withstand the anticipated maximum injection pressures to which the casing will be subjected in the well:

      (1) Whether the well is or will be a vertical well, a directional well or a horizontal well; and

      (2) The estimated true vertical and measured production casing setting depths in the well; and

      (3) The casing grade and minimum internal yield pressure for the existing or proposed production casing used in the well; and

      (4) The surface casing shall be set at least 100.0 feet below the Base Underground Source of Drinking Water ("BUSDW") and cemented to the surface or the intermediate or production string casing shall have cement to the surface starting 100.0 feet below the BUSDW or the operator shall use tubing and packer to perform the Hydraulic Fracturing Treatment.

   (B.) The following information demonstrating that the well has or will have sufficient cement volume and integrity to prevent the movement of Base Fluids and Additives up-hole into the various casing or well bore annuli:

      (1) The existing or proposed cement minimum compressive strength; and

      (2) The known or estimated top of cement for the production casing string.

(C.) The anticipated surface treating pressure range for the proposed Hydraulic Fracturing Treatment. The production casing described in subparagraph 5.(A.) above shall be sufficient to contain the maximum anticipated treating pressure of the proposed Hydraulic Fracturing Treatment which shall not exceed the API minimum internal yield pressure for such production casing.

6. Within thirty (30) days following the completion of the Hydraulic Fracturing Treatment, the operator shall, for the purpose of disclosure, report the following information to the Supervisor regarding such procedure utilizing a duly executed

7.

FORM 3 ("Completion Report"):

(A.) The maximum pump pressure measured at the surface during each stage of the Hydraulic Fracturing Treatment unless reasonable grounds for confidentiality exist in which event a request for confidentiality maybe submitted to the Supervisor who shall be authorized to waive the disclosure of such data for a period of six (6) months and for an additional six (6) months upon written request to the Supervisor at the Supervisor's sole discretion; and

(B.) The types and volumes of the Base Fluids and Additives used for each stage of the Hydraulic Fracturing Treatment expressed in gallons or pounds; and

(C.) The calculated fracture height as designed to be achieved during the Hydraulic Fracturing Treatment and the estimated TVD to the top of the fracture; and

(D.) A list of all Additives used during the Hydraulic Fracturing Treatment specified by general type, such as acids, biocides, breakers, corrosion inhibitors, cross-linkers, demulsifiers, friction reducers, gels, iron controls, oxygen scavengers, pH adjusting agents, scale inhibitors, proppants and surfactants; and

(E.) For each additive type listed under subparagraph 6.(D.) above, the specific trade name and suppliers of all the Additives utilized during the Hydraulic Fracturing Treatment; and

(F.) If the operator causes any Additives to be used during the Hydraulic Fracturing Treatment not otherwise disclosed by the person performing such treatment, the operator shall disclose a list of all Chemical Constituents and associated CAS numbers contained in such Additives that are subject to the requirements of 29 CFR 1910.1200(g)(2); and

(G.) A list of Chemical Constituents intentionally added to the Base Fluids which are subject to the requirements of 29 CFR Section 1910.1200(g)(2) and their associated CAS numbers; and

(H.) The maximum ingredient concentrations within the Additive expressed as a percent by mass for each chemical ingredient listed under subparagraph 6.(G.) above; and

(I.) The maximum concentration of each chemical ingredient listed under subparagraph 6.(G.) above expressed as a percent by mass of the total volume of Hydraulic Fracturing Fluids utilized.

8. Notwithstanding subparagraph 6.(G.) above, if the specific identity of a Chemical Constituent and the Chemical Constituent's associated CAS number are claimed to be a trade secret, or have been finally determined to be entitled to protection as a trade secret under 29 CFR Section 1910.1200(i), the entity entitled to make such a claim may withhold the specific identity of the Chemical Constituent and the Chemical Constituent's associated CAS number from the list required to be reported by subparagraph 6.(G.) above. If the entity entitled to make such a claim elects to withhold the information, the report must:

(A.) Disclose the Chemical Family associated with the ingredient; and

(B.) Include a statement that a claim of trade secret protection has been made by the entity entitled to make such a claim.

9. An operator will not be responsible for reporting information that is not provided to them due to a claim of trade secret protection by the entity entitled to make such a claim.

10. Nothing contained in Paragraph 7 above shall authorize any person to withhold information which is required by state or federal law to be provided to a health care professional, a doctor or a nurse for the purpose of diagnosis or treatment of a medical condition and it is further stated that any health care professional, a doctor or a nurse receiving such information is required to maintain it as confidential.

11. In lieu of submitting to the Supervisor on the FORM 3 (Completion Report) the information regarding the Hydraulic Fracturing Treatment prescribed in Paragraph 6 of this Rule, the operator of an oil and gas well may furnish to the Supervisor a FORM 3 containing a statement signifying that the required information has been submitted to the Ground Water Protection Council Hydraulic Fracturing Chemical Registry (http://fracfocus.org) or any other similar registry, in accordance with their requirements. In any event, the operator shall submit to the Supervisor on a FORM 3 a list of the chemicals used in the Hydraulic Fracturing Treatment.

Authority: MCA Section 53-1-17(3) (1972)
Approved: January 16, 2013
Effective Date: March 4, 2013

RULE 1.27 APPLICATION TO PLUG. Any drilling well completed as a dry hole, from which the rig is to be moved away, shall be mudded and cemented, provided, however, that authorization to the contrary has not been given by the Board.

Before any work is commenced to abandon any well drilled for the discovery of oil or gas, the owner or operator thereof shall give written notice to the Board of his intent to abandon such well on Form No. 6, along with a proposed procedure for plugging said well, prior to beginning operations of plugging said well. Upon receipt of such notice, the Board may issue plugging permit and may send a duly authorized representative to the location specified to be present at the time indicated in such notice, to witness the plugging of such well. In the case of an emergency, the application may be made orally or by telegraph, and the Supervisor may orally or by telegraph authorize the work; however, written application must be filed within five (5) days after emergency authorization is given even though the work has already been commenced or completed and a written permit shall be issued which shall contain the emergency authorization.

Plugging operations shall begin within 120 days of approval of the Form 6 and shall proceed with due diligence until completed, however, an extension of time may be granted by the Board for good cause shown upon public notice and hearing.

No surface or production casing shall be pulled from any abandoned well without first filing Form No. 6 and upon completion of said work, report on Form No. 7 the manner in which the well was plugged and the amount of pipe pulled.
Source: MCA Section 53-1-17(3) (1972)

RULE 1.28. PLUGGING AND ABANDONMENT. Each abandoned hole or well shall be plugged by or on behalf of the owner, operator or producer who is in charge of the well and responsible therefore.

A. Schedule of Abandonment and Reporting on Form No. OGB 9-12-15-Z and Form No. 9-A.

1. Dry Holes

All wells drilled for oil or gas and found to be dry prior to or after the effective date of this order shall be plugged within one hundred twenty (120) days after operations have been completed thereon or one hundred twenty (120) days after the effective date of this order, whichever is later, unless an extension of time is granted by the Mississippi State Oil and Gas Board following notice and hearing. A petition for inactive well status for a dry hole shall be accompanied by a duly executed "Inactive Well Status Report" (Form No. 9-A) requesting that the inactive well status of such well be extended for an additional period of time not to exceed twelve (12) months. Any such extension of inactive well status for a dry hole may only be approved by the Board for such additional period as the Board, in its discretion, may deem appropriate but in no event for longer than twelve (12) months. Any petition filed by an operator with the Board to extend a dry hole's inactive status must state the grounds for such extension (e.g., proof of the well's future utility.)

2. All Other Wells

a. All wells wherein production operations or use as a service well have ceased on or after the effective date of this order shall continue to be reported on Form No. OGB 9-12-15-Z with the appropriate notation that the well is off production or no longer in use as a service well along with the date of last production or date the service well ceased to be used. After twelve (12) months, if such a well has not been restored to production or use as a service well, the operator shall either: (i) properly plug and abandon the well in accordance with all applicable rules and regulations concerning same; or, (ii) return the well to production operations or use as a service well; or, (iii) file a petition with the Mississippi State Oil and Gas Board, accompanied by a duly executed "Inactive Well Status Report" (Form No. 9-A) requesting that the inactive status of such well be extended for an additional period of time not to exceed twelve (12) months. Any such extension of inactive well status for a well may only be approved by the Board, following notice and hearing, for such additional period as the Board, in its discretion, may deem appropriated but in no event for longer than twelve (12) months. Any petition filed by an operator with the Board to extend a well's inactive status must state the grounds for such extension (e. g., proof of the well's future utility). Any well granted "Inactive Well" status must continue to be reported on Form No. OGB 9-12-15-Z showing the date of last production or the date the well ceased to be used as a service well, together with a notation showing the well is carried on Form No. 9-A, "Inactive Well Status Report" until the well is plugged and abandoned. The extension of Inactive Well status shall not affect the extension or dissolution of the unit as provided in Rule 7 and Rule 8 hereof.

b. The "Inactive Well Status Report" shall list the field, well name, well number and other pertinent data and provide an appropriate column to classify such well as having either (1) future utility, or (2) no future utility. If the well is classified as having future utility, the operator shall specify such utility by completing the appropriate column on the form. Wells so classified shall be reviewed periodically by the Supervisor who, at his or her discretion, may require an operator to supply additional information to justify the classification.

c. All such wells classified on the "Inactive Well Status Report" (Form No. 9-A) by either the operator or the Supervisor as having no future utility shall be plugged within one hundred twenty (120) days from the date of such classification unless an extension of time is otherwise granted by the Mississippi State Oil and Gas Board, following notice and hearing.

d. Notwithstanding anything above to the contrary, all such wells within designated secondary and tertiary recovery projects do not have to be reported on the "Inactive Well Status Report" if the designated secondary or tertiary recovery project is listed on the Form No. OGB 9-12-15-Z beside each inactive well reported therein.

3. Administrative Interpretation

For purposes of administering the heretofore mentioned paragraphs, it is understood that:

a. A wellbore which is completed in more than one common source of supply (multiple completions) shall not be considered as ceasing to produce and shall not be reported on the

"Inactive Well Status Report" as long as there is production from or operations in any completion in the wellbore.

b. Failure to file the "Inactive Well Status Report" and to indicate the date the well was last produced or utilized may subject the well to immediate plugging.

c. Any interested party at any time shall have the right to review by the Board upon notice and hearing with respect to the administration of any provision hereof.

d. A designated secondary or tertiary recovery project shall be considered to be a fieldwide unit approved by the Board for operation pursuant to Mississippi Code Annotated Section 53-3-101, et seq., and which is currently being operated under Special Field Rules which provide for secondary recovery, pressure maintenance, cycling operations, water flood, tertiary recovery, or any combination thereof.

B. Procedure For Plugging

Plugging shall be in accordance with the permit issued as provided for in the preceding rule and unless the permit or Form No. 6 sets forth the method and procedure of plugging the well, the following shall be applicable:

1. With reference to the following, mud shall mean a mud fluid or weighted salt water fluid of sufficient weight to offset the hydrostatic pressure of any of the formations penetrated and cement shall mean cement or a proper cement-admix recognized by and of accepted use in industry.

2. All holes in which no casing was run shall be plugged as follows:

a. The hole shall be filled with mud, and cement plugs of not less than one hundred (100) feet in length shall be placed to protect each producible pool and a cement plug of not less than one hundred (100) feet must be place approximately fifty (50) feet below all freshwater-bearing strata, together with additional cement plugs to properly protect all uncased freshwater-bearing sands. Further, a cement plug of not less than one hundred (100) feet shall be placed at the bottom of the surface pipe (50 feet in and 50 feet out). A cement plug of at least twenty-five (25) feet shall be placed inside the casing near the surface of the ground, the casing cut off in such a manner so as not to interfere with soil cultivation, and a steel plate welded to the top of the casing stub.

b. Such other plugs as are deemed necessary by the Board to properly plug the well.

c. Placement of all plugs shall be verified by tagging in a manner acceptable to the Board. In lieu of tagging the placement of plugs, the operator may double the size of the plug set forth in Paragraph (a) above.

d. The operator shall notify the Board's representative 48 hours prior to setting the plugs to afford him the opportunity to witness the placement, tagging (if applicable) and testing (if applicable) of all plugs.

3. All wells, excluding those classified as Class II injection wells, in which production casing has been set shall be plugged as follows:

a. If the production casing is not to be immediately pulled, a cement plug of not less than one hundred (100) feet or bridging plug with cement on top shall be placed near the bottom of the casing string at a depth equal to at least 0.9 times the top open perforation and in such position as to protect any producible pool. A cement plug of not less than one hundred (100) feet in length shall be placed inside the production casing at approximately fifty (50) feet below all freshwater-bearing strata. A cement plug of at least twenty-five (25) feet shall be placed inside the smallest string of casing and in all annular spaces near the surface of the ground, the casing(s) cut off in such a manner so as not to interfere with soil cultivation, and a steel plate welded to the top of the casing stub(s).

b. Where the production casing is to be pulled, a cement plug of not less than one hundred (100) feet or bridge plug with cement on top shall be placed near the bottom of the production string at a depth equal to at least 0.9 times the top open perforation so as to properly protect any producible pool and the hole filled with mud up to the point where the production casing is severed. The hole shall be filled with mud and a cement plug of not less than one hundred (100) feet in length shall be placed at approximately fifty (50) feet below all freshwater-bearing strata, together with additional cement plugs to properly protect all uncased freshwater-bearing sands. Further, if the base of surface casing is exposed by pulling the production casing a cement plug of not less than one hundred (100) feet shall be placed at the bottom of the surface pipe (50 feet in and 50 feet out). A cement plug of at least twenty-five (25) feet shall be placed inside the casing near the surface of the ground, the casing cut off in such a manner so as not to interfere with soil cultivation, and a steel plate welded to the top of the casing stub.

c. Such other cement plugs and testing of plugs as is deemed necessary by the Board to properly plug the well.

d. The placement, tagging and testing, if any, of all cement plugs shall be witnessed by a representative of the Board. If the option of a bridge plug is chosen for plugging, or if a cement retainer is used for cementing, tagging of the plug will not be required. Also, in lieu of tagging the cement plugs, the operator may double the size of any cement plug set forth in Paragraphs (a) and (b) above.

e. The operator shall notify the Board's representative 48 hours prior to setting the plugs to afford him the opportunity to witness the placement, tagging (if applicable) and testing (if applicable) of all plugs.

4. All wells classified as Class II injection wells shall be plugged under the procedure included in Rule 63.

5. After the well is plugged and abandoned and prior to releasing the well to the landowner for unrestricted use, a NORM survey shall be run pursuant to Rule 69 and a Form 21 must be filed with the Board within sixty (60) days after plugging.

6. The operator shall have the option as to the method of placing cement or cement-admix in the hole by (1) dump bailer, (2) pumping through tubing, casing, or drill pipe, (3) pump and plug, or (4) other method approved by the Board.

7. Within thirty (30) days after the plugging of any well, the owner, operator, or producer responsible therefore who plugged, or caused to be plugged, the well shall file an affidavit on Form No. 7 with the Board, setting forth in detail the method used in plugging the well and a record of any casing removed.

C. Restoration of Location

1. Whenever a well location is abandoned, for whatever reason (including the plugging of the well), all materials, debris, equipment and machinery, including, but not limited to, drill pipe, casing, tubing, treaters, separators, tanks, concrete bases and all other drilling production, processing, injection, and plant equipment and above-ground pipelines and related facilities, shall be removed from such location, as well as from any associated oil and gas exploration, production, processing and/or storage sites or locations which have likewise been abandoned. All wastes and other materials, including petroleum-contaminated soil, shall be removed from the location and associated sites and 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. In conjunction with the restoration and clean-up of such location(s) and associated site(s), all underground or buried lines shall be flushed and capped at both ends. The removal and disposal of all materials, debris, equipment, etc. from such locations and associated sites shall be conducted in compliance with all applicable Statewide Rules and Regulations, including but not limited to Statewide Rule 68 and Statewide Rule 69 relating to NORM-contaminated wastes.

2. Any excavations shall be filled and the overall location graded or contoured to prevent erosion.

3. All water source wells drilled in connection with the operation shall be properly plugged and abandoned unless future utilization of such well(s) is desired by the landowner, in which event the operator must obtain the written consent of the landowner to leave the water source well(s) open. A copy of such written request by the landowner must be filed with the Supervisor.

4. In any event, the location must be restored within ninety (90) days of the date of plugging and/or abandonment in a manner to be approved by the Supervisor.

Source: MCA Section 53-1-17(3) (1972)

EXHIBIT "A"

RULE 1.29 PLUGGING SEISMIC SHOT HOLES, CORE DRILLED HOLES, AND STRATIGRAPHIC TESTS. Before any hole is abandoned which was drilled for seismic, core, and other exploratory purposes, and which penetrated below all freshwater strata, it shall be the duty of the owner or driller of any such hole to plug it in such manner as to protect properly all freshwater-bearing strata and to file with the Board within sixty (60) days after the plugging well, on Form No. 7, a record of the manner in which the well was plugged to protect the freshwater-bearing strata.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.30 PLUGGING TO PERMIT USE OF FRESHWATER. When any well to be plugged may safely be used as a freshwater well and such utilization is desired by the landowner, the well need not be filled above the required sealing plug set below freshwater; provided that written authority for such use is secured from the landowner and filed with the Board.
Source: MCA Section 53-1-17(3) (1972)

RULE 1.31 PERMITS-CASING PULLERS AND BONDS, TANK CLEANERS.

(a) Before any person shall hereafter engage in the business of pulling casing from any oil or gas well in this state for compensation, or shall hereafter engage in the business of purchasing abandoned wells, with intention of salvaging casing therefrom, such person shall apply for and obtain from the Board a permit to engage in such business. Before the Board shall issue any such permit, such person shall be required to file with the Board a bond executed by such person, as principal, and some surety company satisfactory to the Board as surety in the principal sum of $10,000.00 conditioned that such sum shall be paid the State of Mississippi for the use and benefit of the Board, in the event the principal shall fail to plug an oil or gas well from which the principal pulls casing in the state without complying with the rules of the Board.

The Board shall issue said permits for a term not less than one (1) year, nor more than three (3) years, and the bond shall be for a term co-extensive with the term of the permit. No permit shall be transferable.

The Board shall revoke the permit of any person if, after notice and hearing, it is ascertained by the Board that such person has failed to comply with the statutes of the state, or the rules and regulations of the Board.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.32 REGULATION OF PRODUCTION. As soon as practicable, the production of oil and gas in all common sources of supply will be controlled or regulated as the facts may warrant, as provided for in Chapter 256 of Laws of 1948. The Board on its own motion may, or at the request of any interested party shall, call hearings to determine the maximum efficient rate at which the several pools in the state can produce oil and gas without waste.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.33 ALLOWABLE HEARINGS. Except in those fields where special rules provide otherwise, hearings to establish or change the allowable production of oil in any field shall be held whenever called by order of this Board and also whenever any interested party may petition the Board for such a hearing; provided, however, that no such hearing for such purpose shall be held until at least thirty (30) days' notice.

Hearings to establish allowable production of gas shall be held semi-annually.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.34 RATE OF OIL AND GAS PRODUCTION.

A. **Oil:** The daily oil allowable per drilling unit, as determined by the Board, must be produced on a monthly basis from the well to which said allowable is allocated, and in the event the well does not have the capacity to produce its total allowable, then it may produce such amount of oil less than its allowable that it is able to produce.

No oil well shall produce during any 24-hour period more than twice its daily allowable except during prescribed testing periods. In recognition of the difficulty of producing the allowable to the exact number of barrels, the allowable production may be exceeded for any month by an amount equal to not more than three (3) days' allowable production, provided that the cumulative amount of such excess production shall not exceed three (3) days' current allowable production at the end of any month.

B. **Gas:** The Mississippi State Oil and Gas Board shall set the maximum allowable gas withdrawal rates from each gas-producing pool. The allocation of allowables to all wells in a non-associated gas pool will be determined from the maximum efficient rate of production from such pool as established by the State Oil and Gas Board, after notice and hearing, whether called by order of this Board or upon petition filed by any interested party. It is the intent and purpose of this rule to permit each and every gas pool in the state to be produced up to its maximum efficient rate of production, subject to the prohibition of waste and the protection of the co-equal and correlative rights of the owners of a common source of supply.

Semi-annual gas deliverability tests will be made by the operator of each gas well as required by Statewide Rule 41. Opportunity to witness the deliverability tests must be given to the State Oil and Gas Board by filing written notice with the Board at least five (5) days in advance of the testing. The results of these tests shall be furnished the Board on Form No. 4-A on or before February 20 and on or before August 20 of each year. Semi-annual gas allowables will be established for each gas well each March and September taking into consideration (1) the rate at which each gas pool can be efficiently produced as determined from deliverability tests, and (2) all other facts that are pertinent for the purpose of preventing waste and protecting correlative rights of owners. No well shall produce at a rate higher than its maximum efficient rate. Allowables less than the maximum deliverability may be assigned by the State Oil and Gas Board.

An operator completing a new gas well or placing an old well on production after recompletion, rework, or stimulation shall test the well and file the results of such test with the Board on Form No. 4-A and obtain a temporary allowable prior to producing said well for any

purpose other than the well test. The well will be assigned a new allowable on the next gas allowable schedule.

The daily gas allowable allocated to a gas producing unit may not be transferred to another gas producing unit. In the event the well does not have the capacity to produce its total allowable, then it may produce such amount of gas less than its allowable that it is able to produce.

In addition to the allowable assigned each gas well in each pool in the field, it shall be permitted to produce that quantity of gas necessary for use as fuel and light in lease operations in the field.

Any gas well whose cumulative production status is below the cumulative allowable for such well in any pool on the last day of March of any year, as shown by the Production Status Report prepared during the month of May covering production through the month of March of each year, shall have the next ensuing six (6) months, beginning April 1 of each year, in which to produce such cumulated underproduction in addition to its regular monthly allowables. At the end of such six (6) months' makeup period, any cumulative underproduction which has not been made up shall be cancelled.

In making up such underproduction, no well shall be produced at a rate in excess of the amount shown on the latest deliverability test filed with the Board for said well, or produced in such manner that waste is occasioned thereby or that may be detrimental to the well or the pool or field as a whole.

In like manner, any gas well whose cumulative production status is in excess of the cumulative allowables for such well on the last day of March of any year, as shown by the Production Status Report prepared during the month of May covering production through the month of March of each year, shall cut its production for the next ensuing six (6) months, beginning April 1 of each year, below the regular monthly allowables so as to bring its production in balance with its allowables at the end of such makeup period. If, however, such overproduction is not made up by the end of such makeup period, effective December 1 of each year, the well shall be closed in until all overproduction is in balance with the allowed production.

When a well's overproduction or underproduction equals three (3) times its current monthly allowable, the Board may, after notice and hearing, take such action as it deems necessary and proper to protect the co-equal and correlative rights of producers and owners in the field.

Upon proper showing of emergency contemplated in and provided by Section 53-1-23, Mississippi Code of 1972, the Board may, without notice and hearing, by entry of appropriate emergency order, increase, decrease, suspend, or eliminate the allowable assigned to a well or pool, taking such action in connection therewith as it deems necessary and proper to protect the co-equal and correlative rights of producers and owners in the field and to prevent waste.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.35 ADJUSTED OIL WELL ALLOWABLE.

(a) If a newly completed oil well comes into production during any allowable period, or if any oil well is placed back into production after having been removed from the allowable schedule, such well may produce, during the remainder of such allowable period, only an allowable equivalent to that assigned, for the remainder of such allowable period, to any regular allowable unit in the field; provided, however, if such well is located on a unit smaller than the regular drilling unit prescribed by the Board for the field, such well shall be permitted to produce during the remainder of such allowable period, only that proportion of the allowable assigned, for the remainder of such allowable period, to such a regular allowable unit as the acreage in the smaller unit bears to the acreage in a regular allowable unit. The Board reserves the right to adjust such allowable, and, if such allowable is reduced, to charge the overproduction against the future production of such well.

(b) Pending the fixing of the maximum efficient rate of production for an oil well completed in a non-allocated pool, unless the Board, after notice and hearing, either heretofore or hereafter, expressly finds that allowables shall not be imposed on a particular pool, the allowable shall be based upon the depth of the completion zone and shall be as follows:

Depth			**Maximum Allowable**
0	- 7,000	feet	150 BOPD
7,000	- 8,000	feet	200 BOPD
8,000	- 9,000	feet	250 BOPD
9,000	- 10,000	feet	300 BOPD
10,000	- 12,000	feet	350 BOPD
12,000	- 14,000	feet	400 BOPD
Below	- 14,000	feet	500 BOPD

However, in order to prevent waste and protect co-equal and correlative rights of all parties, the depth of the zone in which the discovery well of a pool is completed shall be used in determining the depth allowable of additional wells in that pool until an MER is established by the Board after notice and hearing.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.36 CANCELLATION OF OIL ALLOWABLE. When any oil well shall go off production for any reason and as a result thereof becomes incapable of producing its allowable for any monthly period, or when any oil well becomes incapable of producing its full daily allowable on a monthly basis, same shall be reported to the Board within ten (10) days and a letter of cancellation or adjustment of allowable for that well shall be issued to the operator, a copy thereof to be mailed to the transporter.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.37 CERTIFICATE OF COMPLIANCE.

(a) Each producer or operator of any well shall execute under oath, in triplicate, and file with the Board a "Producer's Certificate of Compliance and Authorization to Transport," Form No. 8, for each well.

(b) Whenever there shall occur a change in operating ownership of any drilling unit within the state, or whenever there shall occur a change of transporter from any drilling unit within the state, or there shall occur a change in the producing pool, a new Form No. 8 shall be executed and filed in accordance with the instruction appearing on such form, except that in the case of temporary change in transporter involving less than the production of one (1) month, the producer may, in lieu of filing a new certificate, notify the Board and the transporter then authorized by certificate on file with the Board, by letter, of the estimated amount to be moved by the temporary transporter and the name of such temporary transporter, and a copy of such notice shall also be furnished such temporary transporter.

(c) In no instance shall the temporary transporter move any greater quantity than the estimated amount shown in said notice.

(d) The certificate, when properly executed and approved by the Board, shall constitute authorization to the pipeline or other transporter to transport from the drilling unit named therein; provided this section shall not prevent the production or transportation in order to prevent waste, pending execution and approval of said certificate. Permission for the transportation of such production shall be granted in writing to the producer and transporter at the discretion of the Board.

(e) The certificate shall remain in force and effect until:

1. The operating ownership of the drilling unit changes, or

2. The transporter is changed, or

3. The producing pool is changed, or

4. The permit is cancelled by the Board.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.38 BOTTOM HOLE PRESSURE TESTS. The Board may require bottom hole pressure surveys of the pools within the state at such times as it may designate, and such surveys shall be reported to the Board.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.39 REPORT OF WELL STATUS. Each producer or operator of an oil or gas well shall furnish for each month a "Monthly Individual Well Status Report," setting forth complete information and data indicated thereon. Such report for each month shall be prepared and filed,

according to the instructions on Form No. OGB 9-12-15-Z, on or before the first day of the second month following the month during which the production was made.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.40 GAS-OIL RATIOS. Any oil well producing with a gas-oil ratio in excess of two thousand (2000) cubic feet of gas per barrel of oil produced shall be allowed to produce daily only that volume of gas obtained by multiplying the normal unpenalized daily oil allowable by two thousand (2000) cubic feet. The gas volume thus obtained shall be known as the daily gas limit of such well. The daily oil allowable of such well shall then be determined by dividing its daily gas limit, obtained as herein provided, by its producing gas-oil ratio in cubic feet per barrel of oil produced.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.41 DELIVERABILITY AND ROUTINE PRODUCTION TESTS.

(a) A deliverability test of each producing gas well shall be made in conformity with schedules issued by the Board. Such test shall be an actual test to determine whether or not the well is capable of producing efficiently any allowable that may reasonably be expected to be assigned to it, and, if the well is not found to be capable, then the test shall determine the maximum rate at which the well may efficiently be produced. The method of testing used shall be one acceptable to the Board. A report of each test so required shall be furnished to the Board upon Form No. 4-A within fifteen (15) days after the test is completed. Any operator may make such additional deliverability tests at any time and report such tests to the Board in the same manner as required tests are reported. Deliverability shall be determined by the latest test information furnished to the Board.

(b) Each oil well and each oil completion of a multiply- completed well shall be tested by the operator once during each calendar month during each calendar year in a calibrated stock tank.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.42 PRODUCER'S MONTHLY REPORT. Each operator or producer of oil or gas shall furnish for each month a "Producer's Monthly Report," setting forth complete information and data indicated thereon. Such report for each month shall be prepared and filed with the Board on Form No. OGB 9-12-15-Z, according to the instructions on said form, on or before the first day of the second month following the month during which the production was made.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.43 TAKER'S REPORT OF GAS. All gas produced from gas wells within the state which is taken into a fuel system, transmission system or other system (except gas taken into a gasoline cycling or other extraction plant gathering system which is required to be represented on the "Gasoline or Other Extraction Plant Monthly Report," Form No. 11) shall be reported monthly on Form No. 12, "Monthly Gas Report," by the person taking such gas from the well.

Such report shall be filed on or before the first day of the second month following the month during which the production was made. Casinghead gas taken from the lease shall be reported by the taker on said Form No. 12.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.44 PLANT PROJECTS, CYCLING PLANTS, ETC. No pressure maintenance plant, cycling plant, gas-return plant, salt water disposal system, or similar plant or project shall operate until authorized by the Board after notice and hearing.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.45 WASTE BY POLLUTION OF AIR, SURFACE WATERS AND SOILS PROHIBITED.

I. Scope and Policy:

Pursuant to Chapter 301, General Laws of 1970, these rules and regulations are hereby promulgated to prevent waste by pollution of air, fresh waters and soils. These rules shall be effective throughout the State of Mississippi and are for the purpose of prevention of waste by pollution of air, fresh waters and soils.

II. Definitions:

A. Fresh water for the purpose of administering of these rules and regulations shall mean surface or subsurface water in its natural state useful for domestic, livestock, irrigation, industrial, municipal, and recreational purposes.

B. Soil shall mean any substance on which trees, grass, crops, or other vegetation may grow, down to not less than the depth of the water table.

C. Fresh water stratum shall mean a stratum from which fresh water may be produced in known sufficient quantities and at a cost making its use feasible as fresh water.

D. Deleterious substance shall mean any chemical, salt water, oil field brine, waste oil, waste emulsified oil, basic sediment, and injurious substances produced or used in the drilling, development, producing, refining, and processing of oil, gas, sulphur, and other minerals.

III. Prevention and Elimination of Waste by Pollution:

A. Waste by pollution of air, fresh waters, and soils is prohibited as hereinafter set out.

B. Crude oil, waste oil, oil sludge, oil-water emulsion, or oil-bearing mixtures of any kind, and all other liquid, gaseous, solid, radioactive, or other deleterious substances which may pollute or tend to pollute the air, soils, or any waters of the state shall be disposed of in such a manner as to prevent, eliminate or reduce waste by pollution to acceptable levels.

C. All produced gas recovered at separators, heater-treaters, storage tanks, or similar separation vessels not sold, used as fuel, or serving any other useful purpose, that is being vented and the emissions exceed applicable standards, shall be flared through a flare stack, with a permanent pilot, if necessary, to insure continuous burning, or processed in a manner so that emissions do not exceed applicable standards. Flare stacks shall extend no less than six (6) feet above ground level and shall be located no less than one hundred (100) feet from all well locations, vessels handling or storing crude oil, or other combustible substances, or any other potential fire hazard.

D. All produced non-combustible gas recovered at separators, heater-treaters, storage tanks, or similar separation vessels, such as carbon dioxide (CO2), etc., which is not being used for a useful purpose, in lieu of flaring shall be returned to the subsurface stratum from which it was originally produced or to a stratum approved by the Supervisor if emissions to the atmosphere would exceed applicable standards.

E. Earthen Pits:

1. The use of earthen pits shall be phased out and discontinued except as hereinafter provided. All earthen pits abandoned during the three (3) years prior to the adoption of this Rule by the Mississippi State Oil and Gas Board shall be emptied of fluids, in a manner that will not violate water quality standards, backfilled, leveled and compacted by January 1, 1978. All other earthen pits upon abandonment or at the time of the expiration of a valid permit or extension thereof covering same, shall immediately be emptied of all fluids, backfilled, leveled and compacted. These provisions do not apply to any earthen pit which has been abandoned and not in use for more than three (3) years prior to the adoption of this Rule by the State Oil and Gas Board.

Penalties as provided for in Section 53-1-47 of the Mississippi Code of 1972 may be assessed for using any earthen pit without a valid permit issued by the Supervisor of the State Oil and Gas Board being currently in effect.

2. The Supervisor of the State Oil and Gas Board may issue permits for the use of certain earthen pits, but no permit shall be valid for a period of more than two (2) years from the date of issuance, unless renewed by the Supervisor. Regardless of the type of permit issued, it must be renewed at least every two (2) years, or more often if so stated on the permit, or provided for by the Rules and Regulations promulgated by this Board.

A general plan for disposal of pit contents shall accompany the application for any pit permit including a drilling reserve pit.

All permits now in existence issued by the Supervisor for the use of earthen pits shall expire within two (2) years from the date of the adoption of this rule by the State Oil and Gas Board, unless so provided otherwise, and must then be renewed by the Supervisor.

The Supervisor of the State Oil and Gas Board may issue a permit for the construction of certain earthen pits. Permits may be issued for five (5) types of earthen pits, as follows:

Temporary Salt Water Storage Pits:

This type of pit is temporary and is permitted only if no other means of storing or disposing of salt water is available. For example, a new discovery well might be located in an area remote from possible salt water disposal wells.

Emergency Pits:

This type of earthen pit is intended for emergency conditions, including the rupture or failure of other facilities.

Burn Pits:

This type of pit is intended for use as a place to burn tank bottoms and other refuse products that cannot be handled practicably in any other way.

Well Test Pits:

This type of pit is contemplated as a small pit used to test a producing well for a short period of time.

Drilling Reserve Pits (Mud Pits):

A special permit is not required for Drilling Reserve Pits, because an approved Form No. 2 (Permit to Drill) constitutes the permit for the Drilling Reserve Pits. This type of pit is subject to strict stipulations as to backfilling when drilling is completed. (See below).

3. The following conditions govern Temporary Salt Water Storage Pits:

(a) The pit shall be lined with an impervious material acceptable to the Supervisor or his field representative and so constructed that salt water stored will not cause waste by pollution of fresh waters or contamination of soils beyond the confines of the pit. The pit shall be protected from surface waters by dikes and by drainage ditches, where needed, and no siphons or openings shall be placed in the walls or dikes.

(b) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(c) The fluid level shall never rise to within one (1) foot of the top of the pit walls or dikes and shall be kept below this level by emptying the pit of fluids in a manner compatible with Section III-E-9.

(d) Only produced water shall be intentionally placed in the pit. Such water shall contain no more than the traces of oil remaining after separation with normal field facilities.

(e) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(f) When the use of the pit is to be discontinued, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

4. The following conditions govern Emergency Pits:

(a) The pit shall be protected from surface waters by dikes and by drainage ditches, where needed, and no siphons or openings shall be placed in the walls or dikes that would permit the escaping of the contents of the pit so as to cause waste, pollution or contamination.

(b) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(c) The fluid level shall never rise to within one (1) foot of the top of the pit walls or dikes.

(d) No produced water shall be intentionally placed in the pit except as provided in (g) below. Its intended use is for emergencies only.

(e) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(f) When the use of the pit is to be discontinued, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

(g) Said pits may be used in the event of a salt water disposal or water injection system failure, but each such use shall not exceed a period of sixty (60) days. The operator shall advise the Supervisor or his field representative within seventy-two (72) hours after commencement and completion of such emergency use. Within two (2) weeks after the emergency period, the pit shall be emptied so as to contain not more than two (2) feet of water and inspected by a representative of the State Oil and Gas Board for future emergency use.

5. The following conditions govern Burn Pits:

(a) Shall be constructed in such a manner as to limit fire hazard to a minimum, and in no case shall they be located less than one hundred (100) feet from a well location, tank battery, separator, heater-treater, or any and all other equipment that may present a fire hazard.

(b) Shall be constructed so as to prevent the escape of any of the contents and to prevent waste, pollution or contamination of fresh water, either surface or subsurface, or soils or property beyond the confines of the pit.

(c) Shall have a continuous embankment surrounding the pit sufficiently above the surface to prevent surface water from running into the pit.

(d) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(e) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(f) Any burning process shall be carried out in conformance with the Mississippi Air Quality Regulations. Notification, as required by said regulations, shall be made to the Mississippi State Oil and Gas Board.

(g) No brine-water, radioactive material, except industry-accepted and license-approved radioactive material utilized in oil field operations, and radioactive material naturally occurring in the produced fluids, or other noncombustible waste products shall be placed in the pit, except water or emulsion which may be associated with crude oil swabbed or otherwise produced during test operations, or during tank cleaning operations.

(h) The fluid level shall never rise to within two (2) feet of the top of the pit walls or dikes.

(i) When a pit is to be abandoned, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

(j) In between uses as a burn pit, the fluid level shall be kept at a suitable low level by periodically emptying the pit fluids in a manner compatible with Section III-E-9 (below).

6. The following conditions govern Well Test Pits:

(a) Shall be constructed in such a manner as to limit fire hazard to a minimum, and in no case shall they be located less than one hundred (100) feet from a well location, tank battery, separator, heater-treater, or any and all other equipment that may present a fire hazard.

(b) Shall be constructed so as to prevent the escape of any of the contents and to prevent waste, pollution or contamination of fresh water, either surface or subsurface, or soils or property beyond the confines of the pit.

(c) Shall have a continuous embankment surrounding the pit sufficiently above the surface to prevent surface water from running into the pit.

(d) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(e) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(f) Any burning process shall be carried out in conformance with the Mississippi Air Quality Regulations. Notifications, as required by said regulations, shall be made to the Mississippi State Oil and Gas Board.

(g) The fluid level shall never rise to within two (2) feet of the top of the pit walls or dikes.

(h) When a pit is to be abandoned, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

7. Conditions Governing Reserve Pits for Drilling Operations:

(a) Mud Pits used in connection with drilling operations shall be sited and constructed so as to prevent the escape of any of the pit contents.

(b) The pit shall be protected from surface waters by dikes and drainage ditches.

(c) No siphons or openings shall be placed in the walls or dikes that would permit the escaping of the pit contents.

(d) The fluid level shall never rise to within two (2) feet of the top of the pit walls or dikes.

(e) Upon completion of drilling operations, mud pits shall be emptied of fluids, backfilled, leveled and compacted within three (3) months. Extensions may be granted by the Supervisor where warranted.

(f) Pit fluids may be discharged to the land surface and/or streams, after notifying the Oil and Gas Board field representative, if mud contents meet the criteria below and proper approval is secured from the Department of Natural Resources:

Chlorides	500 mg/l or less
PH	Between 6.0 and 9.0
Suspended Solids	100 mg/l or less
Specific Conductance	1000 Micromhos/cm or less
COD	250 mg/l or less
Zinc	5.0 mg/l or less
Chromium (total)	0.5 mg/l or less
Phenol	0.1 mg/l or less

(g) Mud Pits may be used as well test pits upon compliance with Section 6, above, and with the concurrence of the field representative of the Oil and Gas Board.

8. Revocation of Pit Permits:

Should the Supervisor of the State Oil and Gas Board determine that the continued operation of a pit or pits would result in waste by pollution of fresh water or water courses, or contamination of soils outside the confines thereof, he may prohibit further use of the pit or pits until the conditions causing or likely to cause such waste by such pollution have been corrected. If corrective measures are not satisfactorily completed within thirty (30) days, the

Supervisor may revoke the pit permit. Penalties as provided for in Section 53-1-47 of the Mississippi Code of 1972 may be assessed.

When a pit permit is revoked, the pit shall be emptied of fluids within two (2) weeks and backfilled, leveled, and compacted within thirty (30) days or additional penalties may be assessed.

9. Disposal During Drilling Operations:

Drilling muds and fluids and other waste products and deleterious substances used in conjunction with drilling operations may be disposed of by injection into sub-surface strata containing a dissolved solids content greater than 10,000 ppm, or as approved by the Supervisor, and void of oil, gas and fresh water, during the progress of or following drilling operations only, provided authorization is granted by the Supervisor of the State Oil and Gas Board.

10. Waiver of Pit Backfilling Requirements:

In those instances wherein the owner of the surface lands and the operator of a producing well, an abandoned well, or a drilled well have reached agreement for payment in lieu of restoration of the premises, and when in such cases it is established that all potential contaminants have been removed, leaving only the earthen pit, then after examination by a representative of the State Oil and Gas Board, the Supervisor of said Board is authorized to waive requirements for backfilling and compacting upon receipt by the Supervisor of an agreement executed by the surface owner(s) assuming all responsibility and liability for the pit.

F. Impervious Containers:

Impervious containers shall be used in lieu of pits in areas where it is impossible or impractical to construct a pit, or to protect waters used for public water supply, shellfish harvesting, recreation, or fish and wildlife. Where impervious containers are used, the contents shall be removed and properly disposed of within ninety (90) days following usage.

G. Penalty.

Any operator failing to comply with the provisions of this rule shall be subject to the penalty provided for violation of the rules of the Oil and Gas Board.

IV. Suspension of Operations:

Should the Supervisor of the State Oil and Gas Board determine that the continued operation of a well, wells or associated treating, handling or storage facilities would cause waste, pollution or contamination of air, surface water, a USDW or soils, he will immediately prohibit further operation of the well, wells or associated facilities and may suspend the operator's Certificate of Compliance (Form 8) to transport oil, gas or other products until such time as it is determined by the Supervisor that the operator is in compliance with all rules and regulations of the Board.

V. Validity:

Should any section, subsection or other provision of this rule be declared by a court of competent jurisdiction to be invalid, that decision shall not affect the validity of the rule as a whole or any part thereof, other than the part so declared to be invalid, this Board hereby declaring that it would have adopted those parts of this rule which are valid and omitted any

parts which may be invalid, if it had known that such part or parts were invalid at the time of the adoption of this rule.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.46 EXTRACTION PLANT REPORTS. Each operator of a gasoline plant, cycling plant or any other plant at which gasoline, butane, propane, condensate, kerosene, oil or other liquid products are extracted from gas within the state shall furnish for each calendar month a "Gasoline or Other Extraction Plant Monthly Report," Form No. 11, containing the information indicated by such form respecting gas and products involved in the operation of each plant during each month.

Such reports for each month shall be prepared and filed, according to instructions on the form, on or before the first day of the second month following the month during which the production was made.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.47 FLUID INJECTION REPORTS. Every person injecting gas or fluid into the earth shall make a monthly report to the Board on Form No. 14, provided by the Board, showing the quantities of all oil, gas and water injected during the month covered by the report, the injection pressure and injection rate for each injection well, and identifying the underground reservoir or reservoirs into which the injection is made.

In addition, those injection wells operating pursuant to Subsection 63(7)(B) shall also report the tubing-casing annulus pressure.

Such reports for each month shall be prepared and filed according to instructions on the form on or before the first day of the second month following the month for which the report is being filed.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.48 RATABLE TAKE. Each person now or hereafter engaged in the business of purchasing oil or gas from owners, operators, or producers shall purchase without discrimination in favor of one owner, operator, or producer against another in the same common source of supply.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.49 LEGAL STOCK. Each producer or operator is prohibited from delivering illegal oil to any transporter, and each transporter is prohibited from removing any illegal oil. Each transporter shall maintain necessary records of lease allowables and quantities of oil removed from the leases to which he is connected, whereby he can determine the calculated quantity of legal oil on hand at the close of each calendar month with respect to such leases. The calculated quantity of legal oil on hand with respect to any lease shall be determined for each succeeding

month by adding to the quantity of legally produced oil on hand at the first of the month, the scheduled allowable quantity of oil for the respective lease for the current month, as established by the Board, less the quantity of oil removed from the respective lease tanks during the current month. If the calculated balance so determined is less than the actual gauged quantity on hand as reported in "Producer's Monthly Report," Form No. OGB 9-12-15-Z, the transporter shall not remove during the month any oil in excess of the calculated legal balance so established plus the allowable for the month. If the actual quantity of oil on hand with respect to a particular lease equals or is less than the quantity of legal oil established by the above method, the transporter may remove any part of all of such quantity of oil during the current month. Where the actual quantity of oil on hand with respect to a particular lease is less than the calculated quantity of legal oil established by the above method, the transporter, in determining the quantity of legal oil for the next succeeding month, shall substitute the actual quantity on hand for the calculated quantity on hand.

Where there is more than one transporter moving oil from the same lease, the producer or operator and transporters are required to furnish to each other information as to the quantity of oil on hand, the quantity transported from lease tanks and any additional information necessary to establish to the satisfaction of each person involved the legal status of the oil produced.

Where transporter disconnects from a particular lease or ceases to remove oil therefrom and another transporter connects to such lease or begins to take oil therefrom, during a month, the transporter who ceases to take oil shall furnish the connecting transporter a certified statement, under oath, showing the legal quantity of oil on hand 7:00 A.M. the first day of such month, the scheduled allowable to the date disconnected, and the quantity of oil moved from the particular lease during the current month. In such case, the producer or operator shall furnish to the connecting transporter a certified statement, under oath, showing the lease stock on hand 7:00 A.M. the date of new connection. No connecting transporter shall move oil from any such lease until after it shall have received such statements, except with the written permission of the Board.

In cases where crude oil is transported from lease to final destination by a combination haul, that is, truck and pipeline, the responsibility of securing the certificate of compliance and authorization to transport oil from lease shall be determined by which of the two carriers takes custody of the oil at the lease tankage. Custody of the oil shall have been accomplished when the transporter issues a receipt ticket for the oil at the lease tankage. The carrier issuing the receipt ticket at the lease tank shall be the carrier named in the certificate of compliance.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.50 TRANSPORTER'S & STORER'S REPORT. Each transporter of oil within the state shall furnish for each calendar month a "Transporter's and Storer's Monthly Report," Form No. 10, containing complete information and data indicated by such form respecting stocks of oil on hand and all movements of oil by pipe line, within the state, and all movements of oil by watercraft or by trucks or other conveyances except railroads, from leases to storers or refiners; between transporters within the state; between storers within the state; between refiners within the state; and between storers and refiners within the state. Each storer of oil within the state shall furnish for each calendar month a "Transporter's and Storer's Monthly Report," Form No.

10, containing complete information and data indicated by such form, respecting the storage of oil within the state. The Transporter's and Storer's Reports shall be filed on or before the first day of the second month following the month for which the report is being filed.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.51 REFINER'S REPORT. Each refiner of oil within the state shall furnish for each calendar month a "Refiner's Monthly Report," Form No. 13, containing the information and data indicated by such form respecting oil and products involved in such refiner's operations. Such report shall be filed on or before the first day of the second month following the month for which the report is being filed.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.52 NOTICE TO TRANSPORTER OF VIOLATIONS. The Board shall notify in writing any transporter of oil, gas or condensate of the failure of any producer or operator to comply with any Statewide or Special Field Rule and such transporter so notified shall refrain thereafter from transporting oil, gas or condensate from the property in question until notified in writing by the Board of such producer's or operator's compliance.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.53 SERVICE COMPANY REPORT. When a service company, other than the drilling contractor, cements, perforates, or acidizes, either before or after completion of a well, the service company shall furnish the Board with legible exact copies of reports furnished the owner of the well. The Board may require that it be furnished with copies of reports of other services performed.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.54 ORGANIZATION REPORT. Every person acting as principal or as agent for another or who is independently engaged in the production, storage, transportation (except by railroads), refining, reclaiming, treating, marketing, processing of, or scientific exploration for crude oil or natural gas shall immediately file on Form No. 1 under oath with the Board a statement giving the following information: The name under which such business is being operated or conducted; the name and post office address of such person and the business or businesses in which he is engaged; the plan or organization and, in case of a corporation, the law under which it is chartered; and the names, titles and post office addresses of the principal officers thereof, including the manager or agent, and the names and the post office addresses of all directors thereof; of a partnership, the names, titles and post office addresses of the partners.

Immediately after any change occurs as to facts stated in the report filed, a supplementary report, under oath, shall be filed with the Board with respect to such change. In any event, from and after the effective date of this rule, every person identified above shall file a Form 1 with current and accurate information on an annual basis and no less than one year from the date of the last Form 1 filed by such person. After the initial Form 1 is filed with the Board, annual

filings thereafter may be made by indicating that the information on the previously filed form has not changed or by indicating only such information as has changed since the last form was filed. All such persons identified above who have previously filed a Form 1 shall file a new Form 1 within one year of the effective date of this rule and shall make annual filings thereafter in accordance with the provisions set forth above.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.55 IDENTIFICATION OF FACILITIES. Every person owning, operating or controlling any refinery, tank farm, cycling plant, re-pressuring or pressure maintenance facilities, extraction plant or pipeline pumping station shall, at all times, during the operation thereof, maintain on the premises near each such facility a sign, in reasonably large and clear lettering, showing the name of the person owning and operating such facility.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.56 RECORDS. All producers, transporters, storers, refiners, gasoline or other extraction plant operators and initial takers of gas within the state shall make and keep appropriate books and records covering their operations in the state from which they may be able to make and substantiate the reports required by the Board. Such books, records and copies of said reports and notices required by the Board shall be kept on file and available for inspection by the Board for a period of at least two (2) years.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.57 ADOPTION OF FORMS. The forms hereinafter listed and attached to these rules as exhibits 1 to 19 and Form Z, inclusive, are hereby adopted and made a part of these rules for all purposes and the same shall be used and the information required thereby shall be furnished as directed by the Board's rules in the giving of notice and in making of reports and requests to the Board, said amended forms being numbered and entitled as follows:

Form No.	**Title**
1	Organization Report
2	Application for Permit to Drill, Workover or Change Operator
3	Well Completion or Recompletion Report and Well Log
4-A	Gas Well Deliverability Test
6	Notice of Intention to Plug and Abandon
6-a	Application for Multiple Completion
6-b	Packer Setting Report
6-c	Packer Leakage Test
7	Plugging Record
8	Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Drilling Unit
9-12-15-Z	Producer's Monthly Report for Oil & Gas Wells
10	Transporter's and Storer's Monthly Report

11 Gasoline Plant or Pressure Maintenance Plant Monthly Report
12 Gas Purchaser's Monthly Report
13 Refiner's Monthly Report
14 Monthly Report on Fluids Injected
16 Permit to Clean Tank
17 Well Test Report
18 Application for Earthen Pit
19 Certificate of Compliance for Hydrogen Sulfide Operations

Copies of printed forms will be supplied upon request.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.58 SPECIAL FIELD RULES NOT REVOKED. The adoption of these rules shall not revoke any special field rules now in force and which are applicable to particular fields or pools.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.59 REVOCATION OF PRIOR RULES. Upon the effective date of these rules, all statewide rules now in force shall be revoked and these rules shall govern; provided, however, such revocation of rules heretofore in force shall not validate any prior violation.

The Board may, after notice and hearing, repeal, amend or supplement these statewide rules.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.60 EFFECTIVE DATE. These rules and regulations shall be in full force and effect on and after January 1, 1952.

ORDERED this the 19th day of November, 1951.

STATE OIL AND GAS BOARD
/s/ James McClure, Chairman

Source: MCA Section 53-1-17(3) (1972)

RULE 1.61. FIREWALLS.

(a) Each permanent oil and/or saltwater tank or battery of oil and/or saltwater tanks now or hereafter located in the State of Mississippi shall be surrounded by a dike (or firewall) or retaining wall of sufficient height and size so that the volume enclosed shall be equal to one hundred fifty percent (150%) of the capacity of the largest tank in said battery OR the total volume of fluids produced into the said battery during any twenty-four (24) hour period,

whichever is the greater. The dike (or firewall) or retaining wall shall be constructed of impermeable material approved in advance by the Field Inspector or Energy Resource Director. If there is more than 150% of the volume of the largest vessel in the tank battery produced into the battery in a twenty-four (24) hour period, the Operator may, in lieu of extending the size of the firewall to accommodate the excess of the 150% of the volume of the largest vessel in the tank battery, install a high level shutdown device or system inside the firewall that would, in the event of a spill, shut down all production coming to the tank battery at a level that would not allow the fluid level to reach within six (6) inches of the top of the firewall.

(1) Each permanent oil tank or battery of oil tanks, or any vessel or tank which is protected by a dike (or firewall) or retaining wall and which has installed a drain line for the purpose of discharging rainwater, must have in the drain line a valve on the outside of the firewall and a bull plug installed downstream of the valve.

(2) Firewall drain valves may be open and bull plugs removed only when the operator or his representative is present to observe the discharge. Discharges may consist of rainwater only.

(3) Firewall drain valves being open or bull plugs being removed from firewall drain lines when no operator personnel are on the location shall be deemed a violation of Statewide Rule 61.

(4) The discharge of any fluids or other materials other than rainwater through a firewall drain may constitute a violation of Statewide Rule 16, Statewide Rule 17, Statewide Rule 45 or Statewide Rule 61.

(b) In water, swamp or marsh areas where the building of firewalls is impractical or impossible, and the requirement thereof has been waived by the Supervisor upon proper written application, permanent tanks shall be placed on an impervious base and surrounded by an impervious gutter to catch all of the oil and other waste products which, upon escape, may cause a fire hazard or pollution. A sump shall be provided to catch the runoff from the gutters.

(c) Tanks for the accumulation of liquid hydrocarbons not falling into the above categories (A and B above) and all facilities for the loading and transportation of liquid hydrocarbons by truck must be surrounded by a retaining wall or must be suitably ditched to a collecting sump, either to be of sufficient capacity to contain the potential spillage to prevent the possibility of pollution of surrounding areas.

(d) The Mississippi State Oil and Gas Board may, following notice and public hearing, grant appropriate exceptions to any of the provisions of this rule upon a finding by the Board that alternative construction or operating procedures proposed by the operator will provide an equivalent level of protection to the public and the environment.

(e) With respect to oil and/or saltwater tanks, tank batteries and loading facilities in existence on June 17, 2015, the date of approval of amendments to this rule to impose new

construction and operating requirements on such facilities, the operator shall have six (6) months from that date in which to comply with said new requirements.

Source: MCA Section 53-1-17(3) (1972)

Effective Date: December 17, 2015

RULE 1.62 STORAGE TANKS, SOUR CRUDE OIL. On all storage tanks or batteries of storage tanks where there is stored, either permanently or temporarily, crude oil, distillate or condensate produced from an oil well or a gas well where any hydrogen sulphide (H2S) is produced in conjunction with the fluid such that the vapor or fumes from such liquid, when measured in the free gas space inside the tank, has a hydrogen sulphide (H2S) concentration in excess of twenty (20) ppm, as measured using a hydrogen sulphide (H2S) detection device of a type capable of measuring hydrogen sulphide concentrations ranging from zero (0) to fifty (50) ppm, the following safety provisions shall pertain, in addition to all other applicable statewide or special field rules:

A. All access hatches to the tanks capable of being readily operable shall be kept closed securely at all times except when necessary for such hatches to be open for inspection and gauging.

B. All stairways or ladders leading from ground level to the top of each of such tank or tanks shall have installed thereon a gateway or doorway permanently affixed in such a manner as to impede further ascent of such ladder or gangway to the top of such tank or tanks except through the open gate or door. The gateways or doorways shall be kept securely locked except when necessary to gauge or inspect such tanks.

C. All fumes and vapor in such tank or tanks shall be suitably recovered in a vapor recovery unit or flared to the atmosphere. If flared to the atmosphere, fumes and vapor shall be flared through a flare stack with a permanent pilot attached thereon so that the emissions do not exceed applicable air quality standards.

D. Vapor recovery units shall be suitably provided with standby facilities for flaring of fumes and vapors to the atmosphere in the event of an upset. Such standby venting and flaring facilities shall be the same as those provided for in Paragraph C above.

E. A self-contained breathing apparatus shall be worn and used by all personnel passing through the gateway or doorway provided in Paragraph B above at all times while on the ladder or on top of the tank or tanks.

F. All such storage tanks and the nearby surrounding area shall be conspicuously marked and posted in a manner advising of the presence of potentially lethal fumes and vapors.

G. This rule shall take effect on and after July 1, 1971; provided, however, that owners and operators of existing installations shall have sixty (60) days from said date in which to comply with these rules without incurring any penalty.

H. Penalty: Any person, firm or corporation willfully violating any of these rules and regulations shall be punished as provided by law.

I. Provided, however, that storage tank or tanks within the boundaries of a petroleum refinery or petrochemical plant shall be exempt from the provisions of this rule.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.63 UNDERGROUND INJECTION CONTROL.
Definitions

Unless the context otherwise requires, the words hereinafter defined shall have the following meaning when found in this rule, to wit:

(a) "Area of review" means the area surrounding an injection well described according to the criteria set forth in EPA Underground Injection Control program regulations, 40 C.F.R. Section 146.06 (1984) or in the case of an area permit, the project area plus a circumscribing area the width of which is either 1/4 of a mile or a number calculated according to the criteria set forth in EPA Underground Injection Control program regulations, 40 C.F.R. Section 146.06 (1984).

(b) "Confining zone" means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.

(c) "Exempted aquifer" means an aquifer or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been exempted according to the procedures set forth in EPA Underground Injection Control program regulations, 40 C.F.R. Section 144.7(b) (1983).

(d) "Fluid" means material or substance which flows or moves whether in a semisolid, liquid sludge, gas, or any other form or state.

1. Prohibition of Unauthorized Injection

A. Any underground injection, except as authorized by permit or rule issued under this Class II Program is prohibited. The construction or conversion of any well required to have a permit is prohibited until the permit is issued. Injection fluids authorized for injection under this Class II Program include those:

1) which are brought to the surface in connection with conventional oil and natural gas drilling and production and may be commingled with waste waters from gas processing plants which are an integral part of production operations, unless those fluids are classified as hazardous waste at the time of injection;

2) for enhanced recovery of oil and natural gas; and

3) for storage of hydrocarbons which are liquid at standard temperature and pressure.

B. Underground injection permits shall be issued only when the operator shows that there will be no endangerment of an underground source of drinking water.

1) Underground injection endangers drinking water sources if such injection may result in the presence of any contaminant in underground water, which supplies or can reasonably be expected to supply any public water system, and if the presence of such contaminant may result in such system's not complying with any National Primary Drinking Water Regulation or may otherwise adversely affect the health of persons.

2) "Underground Source of Drinking Water (USDW)" shall mean an aquifer or its portion:

a) which currently supplies any public water system(s); or

b) 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 (10,000 ppm); and

c) which is not an exempted aquifer.

C. Existing enhanced recovery injection, produced fluid disposal or liquid hydrocarbon storage wells operating under permits issued by the State Oil and Gas Board (Board) are authorized by rule and not required to reapply for a new permit. However, these wells are subject to the mechanical integrity, confinement of fluids, operating, monitoring and reporting, pressure limitation, casing, cementing, plugging and abandonment, and financial responsibility requirements of this rule (63) or Rule 64 as applicable. The State Oil and Gas Board can require that individual wells be permitted on a case by case basis.

D. The provisions and requirements of this rule shall apply to underground injection by Federal Agencies, State Agencies, or any other party, whether or not occurring on property owned or leased by the United States.

E. Financial Responsibility

1) New Permits

Upon the effective date of this rule, no new permit for an enhanced recovery injection well, produced fluid disposal well or liquid hydrocarbon storage well shall be issued to an operator until the requirements of this Sub-Part E (Financial Responsibility) are met.

2) Existing Permits

All existing holders of permits issued by the Board for operation of enhanced recovery injection wells, produced fluid disposal wells or liquid hydrocarbon storage wells shall be required to show cause why the permit should not be revoked by the Board after notice and hearing, unless the holder of the permit meets the requirements of this Sub-Part E (Financial Responsibility) by May 31, 1989.

3) Proof of Financial Responsibility

All applicants for enhanced recovery injection wells, produced fluid disposal wells or liquid hydrocarbon storage wells must submit evidence to assure that the resources necessary to close, plug and abandon the injection wells are available. This surety must be in a form approved by the Supervisor, and must provide assurance of financial responsibility in the amount of the total estimated plugging costs. If the surety is in the form of a Letter of Credit or Surety Bond, it shall be issued by a financial institution approved by the Supervisor. Evidence of financial responsibility accepted by the Board must be maintained by the operator on an annual basis.

2. Notice and Hearing

A. The applicant shall give notice to all parties in interest and the surface owner, without having to name such parties or surface owner, (applicant shall identify and submit on a list with the Permit application, the names and addresses of all owners of record of land within the AOR), by publishing notice of the application in a newspaper of general circulation in this state and also in a newspaper of general circulation in the county where the well will be located and in the manner and form approved by the Board. If the application is for the initial application for fluid injection into a producing reservoir (pool), such notice by publication shall also be given to all operators of wells in the producing reservoir (pool) without having to name such operators. The applicant shall file proof of publication prior to the hearing or administrative approval. See Rules of Order and Procedure for Hearings Before Board.

B. A hearing shall be held on all applications provided, however, that where said application is not contested when called for hearing, then sworn affidavits, exhibits and Board forms may be received in evidence at the hearing as to the manner in which the injection well, or wells, which are the subject of the application, are to be completed and regardless of whether or not the Board has previously approved, after notice and hearing of witnesses, a similar application for the pool or field.

Applications requesting exceptions to this rule (63) shall require testimony before the Board to justify such exceptions. Any exception(s) granted and allowed by the Board after notice and hearing shall provide that the operator must show that such exception(s) shall not endanger any USDW.

3. Duration of Permits

A. Permits authorizing injection into enhanced recovery injection, produced fluid disposal and liquid hydrocarbon storage wells shall remain valid for the life of the well unless revoked by the Board for cause, after notice and hearing, or unless mechanical integrity is lost as prescribed in Part 7 of this rule (63). Loss of mechanical integrity will automatically suspend permit authorization. If mechanical integrity is not restored and a concurrent or subsequent mechanical integrity test passed within ninety (90) days, after written notice from the Supervisor, the operator shall be required to show cause at a hearing before the Board why the permit should not be cancelled and the well be plugged and abandoned in accordance with Part 10 of this rule (63).

B. A permit authorizing underground injection may be modified, revoked and re-issued after modifications, or cancelled during its term for cause after notice and hearing.

This may be at the request of any interested person or at the Board's initiative. All requests shall be in writing and shall contain facts or reasons supporting the request.

C. A permit may be modified, revoked and re-issued, or terminated after notice and hearing, if:

1) there is a substantial change of conditions in the enhanced recovery injection, produced fluid disposal or liquid hydrocarbon storage operations, or there are substantial changes in the information originally furnished; or

2) information as to the permitted operation indicates that the cumulative effects on the environment are detrimental, such as endangerment of USDW's; or

3) there are violations of the terms and provisions of the permit; or

4) the operator has misrepresented any material facts during the permit issuance process.

4. Transfer of Permits

Permits authorizing enhanced recovery injection, produced fluid disposal or liquid hydrocarbon storage wells may be transferred from one operator to another, without notice and hearing, upon the filing of the Oil and Gas Board Form No. 2, Change of Operator, with the appropriate fee, proof of financial responsibility of new operator as stated in Part 1 (E)(3) of this rule (63), and approval by the Supervisor. All permit conditions shall apply to the new operator including financial responsibility as stated in Part 1(E) of this rule (63), and approval by the Supervisor. All permit conditions shall apply to the new operator.

5. Application Requirements (Individual Well or Project) for New Enhanced Recovery Injection or Produced Fluid Disposal Wells (Note: liquid hydrocarbon storage well requirements are detailed in Rule 64). [A new injection well is any well not presently permitted as a Class II Well, regardless of whether it has ever been permitted as such.]

A. The application for a new enhanced recovery injection or produced fluid disposal well shall be made on Oil and Gas Board Form No. 2 and the proposed plan of work attached, and which shall contain the following information:

1) name of operator, field name and well name and number, section, township and range;

2) geologic name, depth interval and lithologic description of the injection zone;

3) geologic name and lithologic description of the confining zone or zones and depth interval(s);

4) size, grade and length of all casing strings and amount, type and grade of cement used to cement each string in place and hole size;

5) size, grade and length of tubing and packer setting depth;

6) estimated average and maximum injection pressure;

7) estimated average and maximum injection rate;

8) source of the injected fluid, and an analysis of the injected fluid;

9) depth and geologic name of the deepest underground source of drinking water in the field and all other underground sources of drinking water;

10) depth and geologic name of shallowest zone in the field commercially productive of hydrocarbons;

11) a schematic drawing depicting surface and down-hole equipment and construction features;

12) area of review

a) calculations shall be made and filed with the Board showing calculated radius of pressure influence for the well's expected injection parameters, using the methods proposed in the U. S. Department of Commerce National Technical Information Service, P. 680-100498 titled Radius of Pressure Influence of Injection Wells. A map shall be submitted with the individual well or project permit application for which the permit is sought which shows the applicable area of review within the calculated radius (for individual wells - calculated radius from the well; for an area permit for enhanced recovery projects - the project area plus a circumscribing area the width of which is the calculated radius); or

b) a map shall be submitted with the individual well or project permit application for which the permit is sought which shows the applicable area of review (for individual wells - one-quarter (1/4) mile radius; for an area permit for enhanced recovery projects - the project area plus a circumscribing area the width of which is one-quarter (1/4) mile).

c) a topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, and other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within a quarter mile of the facility property boundary."

d) the application for the approval of an enhanced recovery injection or disposal well shall include the following information:

i) within the area of review, the map must show location, well name and number of any existing producing wells, injection wells, abandoned wells and dry holes;

ii) identification of each operator of a producing well within the area of review;

iii) only information of public record is required to be included on the map.

iv) corrective action for wells which are improperly sealed, completed, or abandoned, the applicant shall also submit a plan consisting of such steps or modifications as are necessary to prevent movement of fluid into underground sources of drinking water ("corrective action").

13) for produced fluid disposal wells, a certification from the applicant that the proposed injection zone is non-productive of oil or gas and is not an underground source of drinking water; a sample of formation fluid shall be obtained and an analysis of such fluid sample supplied to the Board upon completion of the well;

14) whether the system is open or closed;

15) information submitted with the application showing that injection into the proposed zone will not initiate fracturing in the confining zone or cause any movement of fluids into any USDW; the proper demonstration by the applicant that the pressure in the well at the depth of injection will not exceed seventy-five per cent (75%) of the calculated fracture pressure of the formation or upon proper demonstration and submission of evidence, that a sufficient thickness of overlying strata exists between the injection zone and the lowermost USDW to prevent fracturing into the USDW. Calculations shall accompany this submission of evidence that demonstrate that the maximum injection pressure will not initiate fracturing in the designated confining zone of a Class II Well.

16) a copy of an electric log or radioactive log of the well, if available; in the case of an undrilled well, submit a geologic description of the zone to be used for injection, the approximate depth of the proposed zone and an electric log or radioactive log of the nearest well available.

B. A plan for plugging and abandoning the well in compliance with Part 10 of this rule (63) and the estimated cost of such plugging and abandoning operation shall be submitted along with the proof of financial responsibility required in Part 1:E of this rule (63).

6. Construction Requirements for New or Converted Enhanced Recovery Injection and Produced Fluid Disposal Wells

A. Each new enhanced recovery injection or produced fluid disposal well shall be completed, equipped, operated and maintained in a manner designed to assure confinement of fluids to the interval(s) approved.

B. All new enhanced recovery injection or produced fluid disposal wells shall be sited in such fashion that they inject into a formation which is separated from any USDW by a confining zone that is free of known open faults or fractures within the area of review that are potential flow conduits.

C. All newly drilled enhanced recovery injection or produced fluid disposal wells shall be cased with surface or intermediate casing and cemented to a point at least one hundred feet (100') into the first confining unit immediately below the lowermost USDW, or through the entire thickness of the confining unit, whichever is less, unless long-string casing has cement circulated to the surface, to prevent the movement of fluids into or between underground sources of drinking water. The surface or intermediate casing shall have cement circulated to the surface with uncontaminated returns. If cement is not circulated to the surface, a cement evaluation log acceptable to the Board shall be run to evaluate cement adequacy. If the cement is not adequate after setting, additional cement shall be block-squeezed or added to top off the casing to surface. The circulation of cement or cement evaluation log must be witnessed and attested to by the operator and the cementing company. The operator shall file Oil and Gas Board Form 3 (Well Completion Report) documenting the circulation of uncontaminated cement or adequacy of cement. The long-string casing shall also have cement behind it through a confining zone for at least one hundred feet (100') in an interval between the lowermost USDW and the injection zone. The casing and cement used in the construction of each newly drilled well shall be designed to comply with all requirements of this rule for the life expectancy of the well.

D. The requirements of Part 6:C shall not apply to existing or newly converted wells if:

1) the wells were cased and cemented in compliance with existing rules of the Oil and Gas Board in existence at the time the well was originally drilled; and

2) injection will not result in the movement of fluids into an underground source of drinking water as defined in this rule (63) Part 1(B)(2).

E. Each new or converted enhanced recovery injection or produced fluid disposal well shall be equipped with tubing set on a mechanical packer. The packer shall be set below the lowermost USDW and at least 100 feet below the top of competent cement behind the long string casing. In addition, the packer shall be set no more than 150 feet above the top perforations.

F. The wellhead shall be equipped so that tubing and annulus pressures can be recorded for monthly monitoring reports (obtained from monitored pressure data) by having above-ground pressure observation valves on the tubing and for each annulus of the well; said valves shall be equipped with operable one-half inch (1/2") female fittings.

G. The operator shall not proceed with any down-hole work on a new enhanced recovery injection or produced fluid disposal well until the operator has notified the State Oil and Gas Board and has received written permission from the Supervisor. No work shall commence until the Oil and Gas Board Field Inspector has been given adequate notification in order to be able to witness the work.

H. Logging Requirements

1) For new wells drilled as enhanced recovery injection or produced fluid disposal wells,

a) if open-hole logs of a nearby well that would reasonably be expected to depict the same lithology were not run through the lowermost USDW, the new well shall be logged from the surface to total depth before casing is set; or

b) if logs exist from a nearby well that would reasonably be expected to depict the same lithology, the new well need only be logged below the surface casing before long string casing is run; and

c) appropriate logs as approved by the Board and other tests shall be conducted during the drilling and construction of new enhanced recovery injection or produced fluid disposal wells and shall be submitted to the Supervisor along with a descriptive report interpreting the results of that portion of those logs and tests which specifically relate to (1) a USDW and the confining zone adjacent to it, and (2) the injection formation and adjacent formations prepared by a knowledgeable log analyst.

2) For existing wells or dry holes converted to enhanced recovery injection or produced fluid disposal wells,

a) copies of all logs not on file with the State Oil and Gas Board shall be submitted with the permit application, where available;

b) copies of Gamma Ray Correlation Logs and Cement Bond Logs shall be submitted, including Gamma Ray Correlation and Cement Bond Log for intervals squeeze cemented, where required.

3) For all enhanced recovery injection wells and produced fluid disposal wells,

a) other logs such as Temperature Logs, Porosity Logs, Fracture Finder Logs or Density Logs shall be submitted, if available or required by the Board;

b) a portion of the Dual Induction Log shall be annotated to show:

i) the base of the lowermost USDW;
ii) the top and bottom of the injection zone;
iii) the perforated interval;
iv) the upper and lower confining zones;
v) the top of cement behind the injection casing (verified by appropriate log(s) or calculations); and
vi) the location of the packer.

I. Testing Requirements:

Before operating any new or converted enhanced recovery injection or produced fluid disposal well, the tubing/casing annulus or the long string casing shall be tested under the supervision of the Oil and Gas Board at a pressure of 500 psig or the maximum authorized injection pressure, whichever is less, provided no testing pressure shall be less than 300 psig.

The well shall have passed the Mechanical Integrity Test if there is a pressure loss of no greater than three per cent (3%) for a duration one-half (1/2) hour. Any leaks in excess of three per cent (3%) pressure loss over one-half (1/2) hour shall be considered a significant leak.

7. Mechanical Integrity

A. An injection well has mechanical integrity if:

1) there is no significant leak in the casing, tubing or packer as defined in Part 6:I of this rule (63);
2) there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the well bore.

B. One of the following methods must be used to evaluate the absence of significant leaks as defined in Part 6:I under Part 7:A(1) above:

1) pressure test with liquid;
2) Monitoring of annulus pressure.

C. Unless cement was circulated to the surface with uncontaminated returns and documented by a Form No. 3, Well Completion Report, filed with the Mississippi State Oil & Gas Board, one of the following methods must be used to demonstrate the absence of significant fluid movement under Part 7:A.(2) above:

1) cementing records, including cement squeezes acceptable to the Board, demonstrating the presence of adequate cement to prevent such migration; and a Cement Bond Log demonstrating the presence of adequate cement and adequate bonding to prevent such migration; or

2) the results of a Radioactive Tracer Survey (RTS) witnessed, after adequate notification, by a representative of the Board will be accepted in conjunction with cementing records which demonstrate the presence of adequate cement to prevent migration.

D. Each enhanced oil recovery injection or produced fluid disposal well shall demonstrate mechanical integrity at least once every five (5) years. The Supervisor shall prescribe a schedule and mail notification to the operator to allow for orderly and timely compliance with this requirement.

E. The operator shall notify the Supervisor at least forty-eight (48) hours prior to any testing. Testing shall not commence before the end of the forty-eight (48) hour period unless authorized by the Supervisor.

F. A complete record of all Mechanical Integrity Tests shall be made out, verified and placed on file with the Oil and Gas Board within thirty (30) days after testing.

8. Operating Requirements

A. Injection shall not commence in any Class II Well until all permit requirements have been reviewed and approved by the Supervisor of the State Oil and Gas Board or his designee.

B. Injection pressure at the well head shall not exceed the maximum pressure allowed by the permit. All wells shall not exceed calculated fracture pressure (enhanced recovery wells can be excepted after notice and hearing).

C. Injection between the outermost string of casing protecting underground sources of drinking water and the well bore (borehole) is prohibited.

D. If the operator or the Supervisor determines that operation may cause fluid to enter an unauthorized stratum or escape to the land surface, the operator shall shut in the well immediately. The operator shall notify the Supervisor by telephone within twenty-four (24) hours of such occurrence. Injection into the well shall not be resumed until the Supervisor has determined that the well is in compliance with all material permit conditions. If such compliance is not achieved within ninety (90) days, after written notice by the Supervisor, the operator shall be required to show cause at a hearing before the Board why the permit should not be cancelled and the well be plugged and abandoned in accordance with Part 10 of this rule (63).

E. After the completion or recompletion of any well as an enhanced recovery injection or produced fluid disposal well, the operator shall file Form No. 3 (Well Completion Report) setting forth all pertinent information. Actual information shall be submitted for those items that were estimated or approximated in the permit application.

9. Monitoring and Reporting Requirements

A. The operator shall monitor the nature of the injected fluids at time intervals sufficiently frequent to yield data representative of their characteristics and observe injected pressure, flow rate, and cumulative volume at least with the following frequencies:

i) weekly for produced fluid disposal operations;
ii) monthly for enhanced recovery operations; with the results of (i) and (ii) being reported monthly on Oil and Gas Board Form 14.

B. All reports submitted to the Oil and Gas Board shall be signed by a duly authorized representative of the operator and notarized when indicated on the form.

C. The operator of a new enhanced recovery injection or produced fluid disposal well shall give written notification to the Supervisor within thirty (30) days after injection or disposal is commenced.

D. The operator shall notify the Supervisor of permanent cessation of injection if an injection well or project is to be removed from service for a period of six (6) months or more and give reasons or justification for such cessation of injection. Said permission shall not exceed one (1) year. After one (1) year, the well, or wells in a project, shall be plugged and abandoned

as outlined in Part 10 of this rule (63). The operator may request a hearing for an extension exceeding one (1) year. Wells required for standby service, provided they pass a mechanical integrity test and meet all requirements for wells in active service, are exempt from the plugging requirements of this paragraph.

E. The operator shall, within thirty (30) days, notify the Supervisor of the date injection into an enhanced recovery injection or produced fluid disposal well or project is permanently terminated and the reason therefor. The permit authorizing the well or project shall expire at this time. Notification of project termination must be accompanied by an individual well status report for all project injection wells.

F. Mechanical failures or down-hole problems which indicate an enhanced recovery injection or produced fluid disposal well is not directing fluids into the authorized injection zone may be cause to shut in the well. If this condition may endanger a USDW, the operator shall orally notify the Supervisor within twenty-four (24) hours.

Written notice of this failure shall be submitted to the Supervisor within five (5) days of the occurrence, additionally a plan for testing and/or repairing the well shall be submitted within thirty (30) days of the occurrence. Any mechanical down-hole well work performed on the well shall be witnessed by an oil and gas inspector unless such witnessing is waived by the Supervisor. Mechanical failures will be treated as loss of mechanical integrity, and provisions of Part 3:A of this rule (63) will apply.

G. The operator shall retain records of all monitoring information for a period of three (3) years.

H. The operator shall monitor the nature of the injected fluids to obtain data representative of their characteristics at least once
within the first year of the authorization and, thereafter, when changes in the fluid occur.

10. Plugging and Abandoning

A. Prior to abandoning an enhanced recovery injection or produced fluid disposal well, the well shall be plugged in a manner which will not allow the movement of fluids either into or between underground sources of drinking water by:

1) isolating the injection zone from the well bore by the use of cement plugs; and
2) such other cement plugs as are deemed necessary by the Board to properly plug the well.

B. Placement of the cement plugs shall be accomplished by one of the following:
1) the Balance-Plug Method;
2) the Dump Bailer Method;
3) the Two-Plug Method; or

4) an alternative method, approved by the Supervisor, which will reliably provide a comparable level of protection to underground sources of drinking water.

C. The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Supervisor, prior to the placement of the cement plug(s).

11. Notification of Down-hole Work

When any produced fluid disposal well permit has been issued by the Board, the operator shall not proceed with any down-hole work on such well or the reworking of any existing produced fluid disposal well, including, but not limited to, any cementing, setting of packer, the running or pulling of tubing or any work involving subsurface equipment, until the operator has notified the Supervisor of the State Oil and Gas Board and has received from the Supervisor written permission to proceed with any such work. The Supervisor may, in his discretion and in lieu of such written permission, have his representative present to observe and inspect any such work, in which event the representative shall file a written report thereof. Notification as to the time, date and place of the work must be given at least forty-eight (48) hours prior to commencing the work, unless waived by the Supervisor.

12. Annular Disposal

The Board may approve annular disposal of produced fluids for a period of not more than one (1) year, after notice and hearing provided that the outermost casing is properly cemented through the lowermost USDW. The applicant shall provide the Board a Radioactive Tracer Survey (accompanied by an interpretation of the survey by the company which performed the test) to prove that the injected fluid is entering the permitted zone and there are no leaks in the casing. The applicant shall furnish the Board an economic study of the well and the economics of alternative methods of disposal of the produced fluids. No permit for annular injection will be granted where a viable economic alternative is found to exist.

13. Exemption of Aquifers

After notice and opportunity for public hearing, the Board may identify (by narrative description, illustrations, maps or other means) and describe in geographic and/or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite, all aquifers, or parts thereof, which the Board proposes to designate as exempted aquifers for purpose of Class II Underground Injection. In order to be designated as an exempted aquifer, the following criteria must be met:

A. The aquifer does not currently serve as a source of drinking water; and

B. The aquifer cannot now, and will not in the future, serve as a source of drinking water because:

1) It is mineral producing, hydrocarbon producing or geothermal energy producing or can be demonstrated by a permit applicant, as part of a permit application for a Class II operation, to contain minerals or hydrocarbons that, considering their quantity and location, are expected to be commercially producible; or

2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical; or

3) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or

4) It is located over a Class III Well mining area subject to subsidence or catastrophic collapse; or

C. The total dissolved solids content of the ground water is more that 3000 and less that 10,000 mg/l and it is not reasonably expected to supply a public water system;

D. the aquifer exemption is approved with the concurrence of the Mississippi Department of Natural Resources and the Mississippi State Board of Health.

14. Suspension of Operations

Should the Supervisor of the State Oil and Gas Board determine that the continued operation of a well, wells or associated treating, handling or storage facilities would cause waste, pollution or contamination of air, surface water, a USDW or soils, he will immediately prohibit further operation of the well, wells or associated facilities and may suspend the operator's Certificate of Compliance (Form 8) to transport oil, gas or other products until such time as it is determined by the Supervisor that the operator is in compliance with all rules and regulations of the Board.

15. Penalty

Any person, firm or corporation violating any of these rules and regulations shall be punished as provided by Section 53-1-47 of the Mississippi Code Annotated, 1972.

16. Exceptions

The Board, after notice and hearing, may grant an exception to any construction or operating provision of this rule upon proof of good cause. The operator must clearly demonstrate that this exception will not endanger a USDW. No exception shall be granted by the Board which would be a violation of any Federal Regulation and/or State of Mississippi Statute.

17. Effective Date

This order supersedes Order No. 395-87 of the State Oil and Gas Board, dated September 17, 1987, and these rules and regulations shall take effect and be in force from and after April 20, 1989, except where otherwise provided.

18. Validity

Should any section, subsection or other provision of this rule be declared by a court of competent jurisdiction to be invalid, that decision shall not affect the validity of the rule as a whole or any part thereof, other than the part so declared to be invalid, this Board hereby declaring that it would have adopted those parts of this rule which are valid and omitted any parts which may be invalid, if it had known that such part or parts were invalid at the time of the adoption of this rule.

Source: MCA Section 53-1-17(3) (1972)

Rule 1.64 UNDERGROUND STORAGE WELLS OF LIQUEFIED COMPRESSED GASES, CRUDE OILS, REFINED HYDROCARBONS, COMPRESSED AIR AND NATURAL GASES IN RESERVOIRS DISSOLVED IN SALT BEDS.

Permits

1. The permit for the drilling, development and continued operation of artificially formed underground liquefied compressed gas, crude oils, refined hydrocarbons, compressed air or natural gas storage space, where such cavity is dissolved in salt beds, may be issued only after notice and hearing by the State Oil and Gas Board, in the form and manner required by statutes and rules of this Board. Storage of lubricating oils, hazardous materials, nuclear, and/or radioactive materials shall not be permitted. Oil and Gas Board Form 2 and 2A shall accompany each permit application.

General Design and Construction of Underground Storage Cavern

2. Prior to the design and construction of an underground storage cavern, an engineer and/or geologist experienced in the development and/or operation of a salt cavern storage facility shall perform an investigation to determine the feasibility of such a storage system at a particular site. The data obtained during the feasibility investigation shall be considered in the design of a solution mined underground storage system and such data filed with the Board.

3. Design shall be performed by or under the supervision of an engineer or geologist, as defined in paragraph 2, and shall include such factors, among others, as: type of storage use, location of the cavern(s), number of caverns, cavern capacity, and maximum development diameter of the cavern(s). The design shall assure that project development can be conducted in a reasonable, prudent and systematic manner; and shall stress physical and environmental safety and the prevention of waste. The design and solutioning shall be continually reviewed throughout the construction phase to take into consideration pertinent additional detailed subsurface information, and shall include provisions for protection from damage caused by hydraulic shock. The Board shall be advised of any test or surveys conducted during the construction phase and copies made available to the Board as soon as practicable.

4. Each solution mined storage cavern developed after the adoption of these rules shall be washed with a blanket material in place in order to prevent uncontrolled leaching of the cavern roof. Blanket material is defined as any non-corrosive material which is immiscible with water, and lighter than water, e.g. propane, diesel oil.

5. Storage operations utilizing fresh water to displace product shall be conducted in such a manner that the washing of the cavern will not result in uncontrolled increase of the cavern diameter or capacity, or washing the cavern roof.

Cavern Operating Pressures

6. The maximum and minimum operating pressure of a storage cavern shall be determined by an engineer, as defined in paragraph 2, after considering the geological characteristics of the dome. The maximum allowable operating pressure (gauge) at the production casing seat or cavern roof, whichever is the shallowest, shall not exceed 0.9 psi per foot of overburden.

7. The storage cavern shall not be subjected to pressures in excess of this maximum operating pressure even for short periods of time (including pressure pulsation peaks, abnormal operating condition, etc.).

Volume Verification

8. Each salt dome solution mined cavern developed after the adoption of these rules shall be washed to its initial design capacity, as approved by the Board. Such capacity shall be verified by a method approved by the Board, and such information shall be filed with the Board prior to the utilization of the cavern for storage of product. The cavern may be enlarged to a capacity equal to the maximum size approved by the Board and verified by a method approved by the Board and such information shall be filed with the Board within 30 days for continued operation.

9. All solution mined storage caverns in use at the time these rules are adopted shall have the capacity verified within one year from the effective date of these rules. In any event, each solution cavern shall have the capacity verified at least once every five (5) years. A copy of any and all surveys or tests run to verify capacity shall be filed with the Board within 30 days.

Location of Underground Storage Cavern

10. Each solution mined cavern developed after the adoption of these rules shall be located as follows:

(a) The wellhead and borehole shall be located so that the walls of the storage cavern at maximum development diameter shall be no less than 100 feet from the property boundary of the lands included in the storage project on which the caverns are located, and no less than 300 feet in any direction from the edge of the salt mass.

(b) The minimum separation of adjacent walls of storage caverns as measured in any direction shall be established by an engineer, as defined in paragraph 2, considering

(1) the salt properties,
(2) the elevation of the top and bottom of the adjacent caverns,
(3) their maximum development diameter relative to the spacing of the caverns, and

(4) other considerations deemed appropriate for the specific site; but, in no case shall such separation at any time be less than 200 feet.

In the event the separation of the adjacent walls of storage caverns becomes less than 200 feet, the Board will be advised and a variance requested. Proof that the caverns can be safely operated with less than a 200-foot minimum separation between caverns must be presented to justify the variance.

11. Storage caverns in use at the time these rules are adopted are subject to the following:

(a) The surface location measured from the wellhead of a solution cavern well shall be no less than 100 feet from the nearest property line.

(b) Caverns' extremities shall be no less than 50 feet from the property of others who have not consented to subsurface storage under their land nor from the side wall of any other cavern.

Casing Program

12. All casing strings shall be centralized throughout the interval to be cemented. Casing and cementing programs shall comply with appropriate provisions of Statewide Rules 10, 11 and 12, except as specifically provided below.

(a) Each new 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 final (production) cemented string.

(b) The intermediate cemented casing string shall have adequate tensile and collapse strengths for the setting depth. This string shall be cemented from casing seat (bottom of casing) set into the salt, to ground surface or 150% of calculated cement volume to fill the annular space; however, in every case it shall be cemented a sufficient distance to prevent migration of the stored products into zones of porosity or permeability in the overburden. Cement slurries shall be compatible with the salt formation and cementing shall be placed by the plug and displacement method. The casing cement job shall be documented by an affidavit from the cementing company showing the amount and type of cementing materials and the method of placement. If the casing string is to be installed by welding, it shall be of a weldable grade such as API 5L Grade B or an ASTM weldable grade.

(c) The final (production) cemented casing string shall have adequate tensile and collapse strengths for the setting depth. This string shall be cemented from casing seat (bottom of string) to ground surface and shall be set a minimum of 300 feet into the salt. A variance may be requested on cementing, but in every case sufficient cement shall be used to bring cement up into the intermediate casing. Cement slurries shall be compatible with the salt formation and cementing shall be placed by the plug and displacement method. The casing cement job shall be documented by an affidavit from the cementing company showing the amount and type of cementing materials and method of placement. All cementing and service reports shall be filed

with the Board within 30 days. If the casing string is to be installed by welding, it shall be of a weldable grade such as API 5 L Grade B or an ASTM weldable grade. Casing string welders shall be qualified under either Section 3 of API 1104 specification or Section IX of the ASTM Boiler and Pressure Vessel Code for the thickness to be welded. In addition to a visual inspection of the completed weld a x-ray or ultrasonic inspection shall be run on at least 10% of the string. The record of the inspection shall be available for review by the State Oil and Gas Board. Defective welds shall be ground, re-welded and re-inspected.

(d) The final (production) cemented casing string shall be hydrostatically pressure tested before drilling out the plug (shoe). The test pressure applied at the surface shall be a minimum of 200 psi. However, the test pressure when measured at the surface shall not cause pressure at the casing seat to exceed 0.9 psi per foot of depth. The test pressure shall be maintained for a minimum of one hour to verify casing integrity and absence of leaks.

(e) The casing seat and cement of final cemented casing string shall be hydrostatically tested after drilling out. At least 10 feet of salt below the casing shall be penetrated prior to this test. The test pressure calculated at the casing seat shall equal the maximum operating pressure at that point. However, the test pressure shall not exceed 0.9 psi per foot of depth. The test pressure shall be maintained for a minimum of one hour.

(f) All tests required by this section shall be prepared and supervised by an engineer, as defined in paragraph 2, and a report of these test results attested to and filed with the Board within 30 days.

Cavern Mechanical Integrity Test

13. Storage Caverns in use at the time these rules are adopted shall be tested for mechanical integrity within one year from the effective date of these rules, and at least every five years thereafter. Each new storage cavern shall be tested for mechanical integrity prior to storing product and at least every five (5) years thereafter.

14. Liquified Compressed Gas, Crude Oils or Refined Hydrocarbons Storage Cavern –

(a) prior to the test the cavern must approach stability with regard to cavern temperature and salt dissolution. For test purposes, the cavern can be considered stable and the test commenced when the shut-in brine pressure changes less than 10 psig in 24 hours.

(b) A natural gas or compressed air storage cavern shall be considered stable when the well head pressure variations can reasonably be shown to closely correlate to ambient temperature changes. Recording temperature gauges shall be used for both wellhead and ambient temperatures and shall be calibrated prior to use.

15. Prior to testing a cavern a detailed testing procedure shall be submitted to the Board for approval. The testing procedure used must be at least as stringent as the following:
The wellhead, cased borehole, and storage cavern shall be pressure tested as a unit using product, or a material with equivalent or lesser viscosity and density injected to a depth below the production casing seat. Test pressure at the wellhead shall be equal to:

(a) such pressure as will produce the expected maximum operating pressure at the production casing seat. Calculation of the expected maximum operating pressure shall consider the maximum depth to the product-brine interface and maximum flowing conditions; or,

(b) caverns used for storage of natural gas or compressed air under pressure shall demonstrate mechanical integrity of the cavern and casing by monitoring shut-in pressure at the surface for a minimum period of 24 hours after stabilization. Beginning and ending pressures shall vary no more than three (3%) percent, with adjustment made for temperature changes.

In no case shall the test pressure cause the pressure at the production casing seat to exceed the maximum allowable pressure of 0.9 psi/foot of overburden.

16. All cavern mechanical integrity tests shall be prepared and supervised by an engineer, as defined in paragraph 2, and reports filed with the Board within 30 days.

17. The operator shall give sufficient notice prior to conducting cavern integrity tests so that a Board representative may be present.

Wellhead and Flowlines

18. All wellhead components (casinghead, tubinghead, etc.), valves, and fittings shall be of steel having primary service pressure ratings sufficient to exceed maximum operating pressure conditions computed at the wellhead. Wellhead, flowlines, valves, and all related connections shall have a test pressure rating at least equivalent to 150% of the maximum operating pressure. All valves shall be periodically inspected and maintained in good working order.

19. Each flowline connected to the wellhead shall be equipped with a manually operated positive shut-off valve located on the wellhead. The water and brine side of the wellhead shall have the same pressure rating as the product side.

20. Each flowline connected to the wellhead shall be equipped with an automatic shut-in safety valve located within ten (10) feet of the positive shut-off manual wellhead valve. These automatic valves shall be configured for Fail-Safe Closed operation, i.e. valve will close automatically upon any of the following conditions:

(1) loss of control signal,
(2) loss of valve operator supply pressure,
(3) thermal (fire) activation (when fusible elements are used they should have a melting point not exceeding 250F),
(4) signal from safety control sensing device, or
(5) manual activation of emergency shutdown system.

21. (a) Liquified Compressed Gas, Crude oils and Refined Hydrocarbons - One or more safety control sensing device(s) shall be installed in the product flowline to prevent exceeding the maximum cavern operating pressure, and to prevent the escape of product due to flowline

rupture. One or more safety control sensing devices(s) shall be installed in the brine flowline to prevent exceeding the maximum cavern operating pressure, and to prevent the escape of product.

(b) Natural Gas and Compressed Air - One or more safety control sensing device(s) shall be installed in the product flowline to prevent exceeding the maximum cavern operating pressure, and to prevent the escape of product.

22. Flowlines connected to the wellhead which are used exclusively for water or brine injection for product displacement may be equipped with a check valve of adequate pressure rating in lieu of the automatic shut-in safety valve.

23. An alarm shall be installed to alert on-sight personnel whenever an automatic shut-in on any well occurs. Such a system shall be maintained in operable condition at all times.

24. For a liquified compressed gas or refined hydrocarbons storage cavern, a product/brine separation system and a continuous flare system shall be installed at or near each brine pit or any other location on the brine system where the uncontrollable escape of product may occur.

25. The safety control system, separation system, and flare system utilized shall be approved by the Supervisor of the State Oil and Gas Board (hereinafter referred to as the "Supervisor").

Metal Tanks and Impervious Containers

26. Metal tanks and impervious containers other than earthen pits used for storage or holding of brine water solutions shall be completely surrounded by a dike (or firewall) or retaining wall of sufficient height and size so that the volume enclosed shall be equal to 150% of the capacity of the largest tank or container inside the firewall; provided, however, that in areas where such dikes (or firewalls) or retaining walls would be impractical or impossible to construct and the operator has devised a plan which serves the same purposes, the Supervisor may, upon proper written application, waive in whole or in part the requirement of the construction of such walls.

Rework (Well Work)

27. An Application to Rework, Form No. 2, stating thereon the exact workover procedure, shall be filed with and approved by the Supervisor prior to the commencement of such work. A Completion Report, Form No. 3, shall be filed within thirty (30) days following completion of the well work.

28. No downhole or wellhead work shall be done prior to notifying the Board. Such notification shall allow sufficient time for the Supervisor, at his discretion, to have his representative present to observe the work. Verbal authorization from the Field Inspector of the area, Field Director, UIC Coordinator or the Supervisor, may be issued for work conducted under atmospheric or controlled pressure conditions.

Safety Practices

29. Personnel experienced and/or trained in the operation of salt cavern storage shall be present at the facility or other control site to monitor the operation when product is being injected or withdrawn from the storage cavern.

In the event that crude oil, containing in excess of 5 ppm of Hydrogen Sulfide, is stored in underground storage caverns, the site location will be adequately marked denoting the presence of Hydrogen Sulfide. Directional wind socks will be installed at all locations where the product has access to the atmosphere.

When injecting crude oil containing more than 5 ppm Hydrogen Sulfide into the underground storage cavern all applicable portions of Statewide Rule 66 shall apply, and the brine displaced will be discharged to brine storage through a flare system.

30. Appropriate safety precaution signs shall be displayed and unauthorized personnel kept out of the storage area. Each storage wellhead shall be visibly marked with an appropriate identifying sign.

31. The wellhead shall be protected from trespassers and accidental physical damage by a method approved by the Supervisor.

32. Each company operating a solution cavern storage well shall conduct a semi-annual safety inspection of such facility and file with the Board 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 Board at least five (5) days prior to such inspections so that a 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 including sounding or alarm devices
(c) Flare system installation (liquified compressed gas, crude oils, and refined hydrocarbons)
(d) Earthen brine pits, tanks, firewalls, and related equipment
(e) Flowlines, manifolds, and related equipment
(f) Warning signs, safety fences, etc.

33. Additional inspections may be made by the Supervisor or his representatives. All local operators' logs called for by this rule shall be subject to inspection at this time.

Financial Responsibility, Plugging and Abandonment.

34. Prior to commencement of plugging operations a Notice of Intention to Plug and Abandon, Form No. 6, shall be filed with and approved by the Supervisor. The Notice of Intention to Plug and Abandon shall state the exact method proposed to plug the well, and shall also provide the depth to the top of the cavern. If the proposed method to plug does not meet requirements at the discretion of the Supervisor, then the Supervisor shall specify the method in

which the well shall be plugged. After properly plugging and securing the well the Plugging Record, Form 7, shall be filed with the Board within 30 days.

35. In addition to the requirements of Statewide Rule 28B the plugging procedure shall include the following:

(a) Cavern shall be filled with water to remove product from the cavern.
(b) All suspended casing shall be removed from the well.
(c) Place a plug in the cemented casing string so that it is within the salt section near the cavern roof isolating the well from the cavern.
(d) Cement from the plug to a distance of fifty (50) feet above the top of the caprock. Allow the cement to set. Tag the top of the cement to determine the location of the top of the cement. Test casing to 1000 PSI (minimum) for a period of 30 minutes. Any leaks detected shall be repaired prior to continuing plugging operation. The Supervisor may grant an exception to the testing of the casing and allow the entire casing string to be cemented to the surface with the appropriate grade of cement.
(e) Cement from fifty (50) feet below the lowermost USDW to the surface.
(f) Cut all casing strings off at least three (3) feet below ground level. Weld a steel plate of at least three eighths (3/8) inch thickness over the top of the casing strings.
(g) Cover casing with soil and restore the location.
(h) The operator shall demonstrate Financial Responsibility acceptable to the Board in the amount of one hundred thousand dollars ($100,000) for each storage cavern. Refer to Oil and Gas Board, Rule 63 1E 3 for proofs of Financial Responsibility acceptable to the Board. This Financial Responsibility shall be provided to the Board at the time of permit application and/or change of operator.
(i) The operator shall within ninety (90) days of the adoption of this rule by the Board demonstrate Financial Responsibility acceptable to the Board in the amount of four hundred thousand dollars ($400,000) for each pit (brine or other) associated in any way with the operations of their storage cavern facilities. Refer to Oil and Gas Board Rule 63 1E 3 for Proof of Financial Responsibility acceptable to the Board. Any pit not properly permitted and/or used in the operation of the facility shall be properly closed within one hundred eighty (180) days of adoption of this rule by the Board.

36. All operators shall immediately notify the Supervisor by telephone and follow up with a letter giving full details concerning fires, leaks and blowouts that are directly related to the storage cavern.

37. In addition to the above, the following Statewide Rules with amendments or special requirements noted shall be in force and effect:

(a) Statewide Rule 4 Application to Drill
(b) Statewide Rule 5 Transfer of Permit
(c) Statewide Rule 6 Identification of Well

(d) Statewide Rule 24 Well logs

(e) Statewide Rule 45 Waste by Pollution of Air, Fresh Waters and Soils Prohibited.

(f) Statewide Rule 47 Fluid Injection Reports. Form No. 14A shall be filed each month stating thereon the following information for each individual well:

1. Saltwater Disposal Wells:
   a. Amount of saltwater (brine) injected during the month.
   b. Injection pressure, reservoir and depth data.

2. Liquefied Compressed Gas, Crude Oils, Refined Hydrocarbons, Compressed Air and Natural Gas Storage Cavern:
   a. Kind or type of product stored.
   b. Amount (barrels or MCF) of product injected into the well during the month.
   c. Amount (barrels or MCF) of product removed from the well during the month.
   d. Total amount (barrels or MCF) of product stored in the well at the end of the month.
   e. The estimated cavern capacity (barrels or cubic feet).

(g) Statewide Rule 54. Organization Report

(h) Statewide Rule 55. Identification of Facilities

(i) Statewide Rule 56. Records

(j) Statewide Rule 63. Underground Injection Control

(k) Statewide Rule 66. Operations Involving Hydrogen Sulfide

Suspension of Operations

38. Should the Supervisor of the State Oil and Gas Board determine that the continued operation of liquefied compressed gas, crude oils, refined hydrocarbons, compressed air or natural gas storage caverns or associated wellhead facilities (wellhead, valves, brine tanks or pits and flares) would cause unsafe operating conditions, waste, pollution or contamination to air, fresh water or soil, he may immediately prohibit further operation of the well or associated wellhead facilities until such time as it is determined by the Supervisor that the operator is in compliance with all rules and regulations of the Board.

Board Filings

39. All tests, surveys, and reports required by these rules shall be filed with the Board within 30 days after such tests and surveys are conducted.

Penalty

40. Any person, firm or corporation violating any of these rules and regulations shall be punished as provided by law.

Exceptions

41. The Board expressly reserves the right, after notice and hearing, to alter, amend, repeal, or grant exceptions to any or all of the foregoing rules and regulations.

Annual Facility Fees

42. For each facility an annual fee will be assessed in the amount of one hundred ($100) dollars plus fifty ($50) dollars per unplugged storage cavern and fifty ($50) dollars per unplugged bringing well associated with storage caverns. These fees shall be due each January beginning January 1991.

Validity

43. Should any section, subsection or other provision of this rule be declared by a court of competent jurisdiction to be invalid, that decision shall not affect the validity of the rule as a whole or any part thereof, other than the part so declared to be invalid, this Board hereby declaring that it would have adopted those parts of this rule which are valid and omitted any parts which may be invalid, if it had known that such part or parts were invalid at the time of the adoption of this rule.

Effective Date

44. These rules and regulations shall take effect and be in force from and after February 19, 1992, except where otherwise provided.

The Board expressly reserves the right, after notice and hearing, to alter, amend, or repeal said Rule 64 - Underground Storage Wells of Liquefied Compressed Gases, Crude Oils, Refined Hydrocarbons, Compressed Air, or Natural Gases in Reservoirs Dissolved in Salt Beds - of the Statewide Rules and Regulations as amended.

Source: MCA Section 53-1-17(3) (1972)

Rule 1.65 TRANSPORTATION OF CRUDE OIL OR ANY SUBSTANCE CONTAINING ANY QUANTITY OF CRUDE OIL. Any corporation, association, partnership or person in possession of crude petroleum oil or any substance containing any quantity of crude oil or any sediment, water or brine produced in association with the exploration and/or production of oil or gas, or both, being transported or for transporting from or to any storage, disposal, processing or refining facility shall possess specific documentation which substantiates the right to be in possession of such substance. Such documentation shall include the following:

(a) The identity of the operator and the location of the lease from which originated the crude petroleum oil or any sub- stance, including any sediment, water or brine produced in association with the exploration or production of oil or gas, or both, if it is purportedly being or to be transported from a lease;

(b) The identity of the operator and the location of the storage facility from which or to which the crude petroleum oil or any substance, including any sediment, water or brine produced in association with the exploration or production of oil or gas, or both, is being or is to be transported.

(c) The identity of the operator and the location of the disposal processing or refining facility to which the crude petroleum oil or any substance, including any sediment, water or brine produced in association with the exploration and production of oil or gas, or both, is being or is to be transported.

(d) The estimated percentage of crude petroleum oil in the substance, sediment, water or brine produced in association with the exploration or production of oil or gas, or both, which is being or is to be transported.

(e) The volume of crude petroleum oil being or to be transported; and

(f) Any additional information the Supervisor of the State Oil and Gas Board finds necessary or appropriate.

Any law enforcement officer or the Supervisor of the State Oil and Gas Board or his designated employees may at any time inspect and for probable cause impound oil or any substance containing any quantity of crude oil or any sediment, water or brine produced in association with the exploration and/or production of oil or gas, or both, and the vehicle transporting it, pending being furnished with the documentation as required above or other proof of ownership or right to possession, whenever

(a) he has reasonable cause to examine the documentation,
(b) the transporter lacks such documentation or the documentation is substantially at variance with the face, or
(c) the lawful severance and maintenance taxes have not been paid on any part of such product.

Any transporter who does not possess the proper documentation, on proof thereof, shall be assessed a penalty as provided by law.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.66 OPERATIONS INVOLVING HYDROGEN SULFIDE. Preventative measures shall be taken to control the effects of hydrogen sulfide (H_2S) at all operations where H_2S concentrations in the gas stream are equal to 100 ppm or more. Such operations shall include, but may not be limited to drilling, working over, testing, producing, gathering, metering, processing, storing, transporting, and injecting.

(1) Definitions.

In addition to the definitions set forth in State Oil and Gas Board Order No. 201-51, Rule 2, unless the context otherwise requires, the following words shall have the meanings indicated when used within this rule.

(a) Radius of exposure: That radius constructed with the point of escape as its starting point and its length calculated as provided for in Paragraph (10)(b).

(b) Area of exposure: The area within a circle constructed with the point of escape as its center and the radius of exposure as its radius.
(c) 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.
(d) Public road: Any federal, state, county, or municipal street or road owned or maintained for public access or use.
(e) Sulfide stress cracking: The cracking phenomenon which is the result of corrosive action of hydrogen sulfide on susceptible metals under stress.
(f) Facility modification: 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.
(g) Public infringement: A public area and/or a public road has been established within an area of exposure to the degree that such infringement would change the applicable requirements of this rule to those operations responsible for creating the area of exposure.
(h) Contingency plan: 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.
(i) Civil authorities shall include but not be limited to the following agencies:

Governor, Assistant to Governor, local Government Emergency Management/Civil Defense agency, Mississippi Adjutant General, Mississippi National Guard, Mississippi Emergency Management Agency, Bureau of Pollution Control, Red Cross, Mississippi State Department of Health, Department of Public Safety, and such other agencies as in the discretion of the Supervisor of Oil and Gas deems advisable.

(2) Operator Responsibility.

(a) It shall be the responsibility of each operator to conduct operations in accordance with Paragraph (3) through (8) below. Paragraph (9) requires each operator to file a Certificate Of Compliance For Hydrogen Sulfide Operations (Certificate) for each operation that handles or could reasonably be expected to encounter sour oil and/or gas.

(b) Exemptions to Paragraph (3) through (8) may be obtained by filing a Certificate with the Supervisor as directed under Paragraph (10) below.

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

(3) 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 H_2S, including physiological responses and the application of first aid to victims of H_2S exposure.

(4) Equipment and Materials.

All equipment and materials that will be exposed, or can reasonably be expected to be exposed to H_2S, shall be designed and maintained in accordance with specifications evolved through technology of the latest state-of-the-art to resist damage caused by hydrogen sulfide stress cracking, embrittlement, or corrosion.

(5) Warning Systems.

(a) Warning signs.

1. For above-ground and fixed surface facilities, the operator shall post, where permitted by law, clearly visible warning signs on public streets or roads which provide direct access to facilities.

2. On offshore facilities, 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 townsites 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, test, or plant facility shall have an H_2S monitoring system which activates visible alarms when the concentration of H_2S exceeds 10 parts per million (ppm) in air and audible alarms when the concentration of H_2S exceeds 20 parts per million (ppm) in the air. This system shall be capable of sensing a minimum of 5 ppm in the air.

(i) As a minimum, H_2S sensors for onshore drilling and workover rigs shall be located at the rig floor, bell nipple, shale shaker, and mud pits; for offshore drilling and workover rigs, the sensors 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 H_2S bearing zone in accordance with the time specified in the contingency plan and approved by the Supervisor. Said equipment shall be on site and operational prior to commencing all other operations involving H_2S.

2. As approved by the Supervisor, the operator of each gathering system, production well, and injection well shall install and maintain in operable condition safety devices to include automatic shut-down devices designed to prevent the undetected 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.

(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 H_2S becomes present in the atmosphere.

(d) Danger Signals.

1. 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:

(i) Possible danger - green - When the concentration of H_2S is less than 10 ppm in air;

(ii) Moderate danger - yellow - When the concentration of H_2S reaches 10 ppm in air. If the concentration of H_2S reaches 20 ppm in air, breathing apparatus shall be worn by all personnel and all nonessential personnel shall proceed to the safe briefing areas;

(iii) Extreme danger - red - When the concentration of H_2S reaches 50 ppm in air. All nonessential 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.

(6) 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.

(7) Personnel Safety Equipment.

(a) Breathing apparatus 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 H_2S concentrations in excess of 10 parts per million (ppm) in air.

(b) Where H_2S concentrations reach 20 ppm in air, a system of breathing air manifolds, hoses, and masks shall be provided. A rechargeable cascade air bottle system shall be provided to refill individual bottles of breathing air. Additional equipment such as a first aid kit, nose cups, ear plugs, spectacle kits, portable H_2S 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 Paragraphs (7)(a) and (7)(b) shall be on site and operational prior to penetrating the H_2S bearing zone in accordance with the time specified in the contingency plan and approved by the Supervisor. Said equipment shall be on site and operational prior to commencing all other operations involving H_2S.

(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 H_2S vapors.

(e) If H_2S is detected, frequent inspections of all areas of poor ventilation shall be made with an H_2S detector instrument, and personal H_2S detectors shall be made available to personnel.

(8) Contingency Plan.

(a) Operations that handle gas containing 100 ppm H_2S or more in the gas stream must formulate a contingency plan unless exempted under Paragraph (10). Unless otherwise approved, a contingency plan should be filed (in triplicate) with the Supervisor within 30 days of the approval of the drilling permit application.

The contingency plan must be approved by the Supervisor prior to commencing the following operations;

1. Penetrating the H_2S bearing zone during drilling operations.
2. Working over or recompleting a well in an H_2S bearing zone;
3. Testing or putting on permanent production a well that is completed in an H_2S bearing zone;
4. Producing hydrocarbons bearing H_2S into a pipeline or gathering system;
5. Starting up a plant or facility that will remove H_2S from production;
6. 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 a plat or aerial photograph covering the area of exposure or an area having a radius of one 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 H_2S might accumulate, the direction of prevailing winds, oil and gas wells, separators, heaters, corridors of gathering or pipeline systems, pumping stations, plants, refineries, transformer stations, and other manmade structures or features that may be of importance. 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 mile. The radius about the well, plant, or corridor may be extended beyond one mile if deemed necessary by the operator, or at the request of the Supervisor. The plan shall also include:

1. Information about the safety program established in Paragraph (3), the training requirements in Paragraph (6), the personnel safety equipment required in Paragraph (7), the location of briefing areas, and responsibilities of personnel during different operational conditions;

2. A description of the warning systems required in Paragraph (5) to include number, location, and detection limits of all monitors as well as the schedules for calibrating and testing said systems;

3. For drilling operations, a specification of the time at which the warning systems required in Paragraph (5) and the personnel safety equipment required in Paragraph (7) will be on site and operational;

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

5. 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;

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

7. 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;

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

9. Any other information that the operator deems appropriate;

10. Other information deemed necessary by the Supervisor.

(c) A new or amended contingency plan shall be filed with the Supervisor 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. Any updates, revisions, and/or amendments to a contingency plan shall be submitted to the Supervisor within 30 days of the plan's anniversary date or within 30 days of the date an operator becomes aware of the public infringement, as applicable. If there are no changes, an annual statement of review shall be filed with the Supervisor.

(d) The filing requirement may be waived if a current plan has previously been submitted and is in compliance with the requirements set forth herein. Plans filed prior to the effective date of this rule must be reviewed and modified, if necessary, to obtain compliance with this Paragraph within 180 days of said effective date.

(e) Unless previously provided, copies of the approved contingency plan shall be provided to local civil authorities prior to commencing any one of the operations set forth in Paragraph (8)(a) and be readily available at the drilling, workover, test, or plant facility.

(9) Certificate Of Compliance For Hydrogen Sulfide Operations.

(a) A Certificate shall be filed in triplicate with the Supervisor for each facility or operation subject to any requirement of this rule.

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

(c) For drilling operations, the Certificate shall be filed with the Supervisor as a part of the application to drill. For facilities involving other types of H_2S operation, as set forth in Paragraph (8)(a), the Certificate shall be filed with and approval granted by the Supervisor prior to commencing those operations.

(d) A Certificate shall be filed for existing facilities or operations within 180 days of the effective date of this rule.

(e) A new or amended Certificate 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 30 days after an operator becomes aware of such infringement.

(f) A new or amended Certificate 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 10 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.

(g) Each facility or operation for which a Certificate has been approved shall be recertified by the operator on an annual basis. The recertification shall be filed with the Supervisor within 30 days of the anniversary date of the most recently approved Certificate for that facility or operation.

(10) Rule Exemptions. Exemptions from Paragraphs (3) through (8) may be obtained by filing the Certificate 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 National Institute of Occupational Safety and Health (NIOSH) approved colormetric 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 .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 15.025 psia and 60^oF.

(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 mile shall be assumed. A lesser-assumed radius may be considered upon written request setting out the justification for same.

(e) Storage tanks which are utilized as part of a production operation and which are operated at or near atmospheric pressure are exempt from Paragraphs (3) and (5) through (8); however, where the vapor accumulation has a hydrogen sulfide concentration in excess of 500 ppm, the storage tanks shall be subject to the following:

1. Storage tanks are exempt from Paragraphs (5), 7b,c,d, and e), and (8) only;

2. A warning sign shall be posted on or within 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 townsite or city or where conditions cause the storage tanks to be exposed to the public.

(f) Operations with a radius of exposure less than 50 feet are exempt from Paragraphs (3) through (8) upon filing the Certificate.

(g) Provided no public area is included, operations with a radius of exposure greater than 50 feet and less than one-half mile are exempt from Paragraphs (5)(b) through (8) upon filing the Certificate.

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

Source: MCA Section 53-1-17(3) (1972)

RULE 1.67 UNDERGROUND STORAGE OF NATURAL GAS AND AIR IN RESERVOIRS.

1. Definitions

As used herein, unless the context clearly indicates otherwise:

A."Underground Storage" shall mean storage in an underground reservoir, stratum or formation of the earth;

B."Reservoir" shall mean a porous stratum of the earth or porous zone of a general structure which is completely separated from any other porous zone and is capable of being used for underground storage of natural gas and/or air;

C."Natural Gas" shall mean gas of a sufficient purity to be capable of use for residential purposes;

D."Native Gas" shall mean gas which has not been withdrawn from the earth, or which, having been withdrawn, is injected into a reservoir for purposes other than underground storage;

E. "Air" shall mean any non-hydrocarbon gas;

F. "Underground Storage Facility" or "Facility" shall mean the underground storage reservoir, the well bore tubular goods and the wellhead and related equipment to the last positive shut-off valve before the gathering line or flowline;

G. "Gathering Line" or "Flowline" 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;

H. "State Oil and Gas Board" or "Board" shall mean the State Oil and Gas Board of Mississippi;

I. "Supervisor" shall mean the duly appointed State Oil and Gas Supervisor;

J. "Cushion Gas" shall mean the volume of gas required as permanent storage inventory to maintain adequate reservoir pressure for meeting minimum gas deliverability demands throughout the withdrawal season (also called "base gas");

K. "Storage Area" shall mean the total surface area of the storage reservoir plus any buffer zone approved by the board as necessary to insure reservoir integrity; and

L. "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.

2. Permits

A. The permit for the drilling, development and continued operation of a facility for underground storage of natural gas or air may be issued only after notice and hearing by the State Oil and Gas Board, in the form and manner required by the statutes and rules of this Board. Storage of hazardous, nuclear and/or radioactive materials shall not be permitted. Oil and Gas Board Form 2 shall accompany each permit application.

3. General Design and Construction of Underground Storage Facility.

A. Prior to the design and construction of an underground storage facility, an engineer and/or geologist experienced in the development and/or 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.

B. Design shall be performed by or under the supervision of an engineer or geologist as defined in paragraph A, above and shall include such factors, among others, as: Type of storage use, location of storage wells, number of storage wells, number and location of observation wells, if any, number and location of plugged and abandoned 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 stress physical and environmental safety and the prevention of waste. The design and construction shall be continually reviewed throughout the construction phase to take into consideration pertinent additional subsurface data. The Board shall be advised of any tests or surveys conducted during the construction phase and copies made available to the Board as soon as practicable.

4. Underground Storage Operating Pressures

A.The maximum and minimum operating pressures of an underground storage facility shall be determined by an engineer as defined in Paragraph 3-A, after consideration of the geologic characteristics of the formation. The maximum allowable stabilized reservoir pressure (gauge) shall be no greater than 75% of the fracture pressure of the formation as determined by a step rate test or as calculated by a qualified engineer, by a method acceptable to the Board.

B. The storage reservoir shall not be subjected to pressures in excess of the calculated fracture pressure even for short periods of time.

5. Volume Verification

A. Each underground storage facility developed after adoption of this rule shall have the storage volume calculated using acceptable reservoir engineering methods and such information shall be filed with the Board as a part of the permit application. Storage volume shall include working gas, native gas, cushion gas and/or air.

B. Refinement of actual reservoir volumes determined after continued operation shall be filed with the Board.

6. Casing Program

A. All wells drilled for the purpose of storage after the adoption of this rule shall comply with the following casing program:

1) All casing strings shall be centralized throughout the interval to be cemented. Casing and cementing programs shall comply with appropriate provisions of Statewide Rules 10, 11 and 12, except as specifically provided below:

a) Surface casing shall be cemented with 150% of the calculated volume to circulate cement to the surface;

b) If the surface casing setting depth is below the lowermost Underground Source of Drinking Water, the final (production) casing shall be cemented with sufficient volume to fill the annular space to a point 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 be casing of appropriate API Standards for the pressures to be encountered and shall be new casing or reconditioned casing of new quality; and

d) Emplacement of cement in 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, after sufficient cement setting time (usually 24 hours) to a pressure equal to 1 psi per foot of casing set with a maximum test pressure of 1000 psi gauge measured at the surface.

3) All tests and logs required by this section shall be prepared and supervised by a qualified Engineer 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.

B. The requirements of Paragraph 6A shall not apply to existing or newly converted wells if:

1) The wells were cased and cemented in compliance with existing rules of the Oil and Gas Board in existence at the time the well was originally drilled; and

2) Injection will not result in the movement of fluids into an Underground Source of Drinking Water as defined in Rule 63, Part 1(B)(2).

C. Storage Well Mechanical Integrity Test:

1) Storage wells existing at the time this rule is adopted shall have mechanical integrity verified by a method approved by the Supervisor within two (2) years from the effective date of this rule and at least every five (5) years thereafter. Each new storage well shall be tested for mechanical integrity prior to storing gas or air and verified at least every five (5) years thereafter.

2) All storage well mechanical integrity tests and/or verifications shall be prepared and supervised by a qualified Engineer and reports filed with the Board within thirty (30) days.

3) The operator shall give sufficient notice prior to conducting a mechanical integrity test so a Board representative may be present.

D. All wells drilled through the storage reservoir within a storage area for any purpose other than storage after the adoption of this rule shall comply with the following casing program:

1) All surface and intermediate casing strings shall be centralized through the interval to be cemented. Casing and cementing programs shall comply with appropriate provisions of Statewide Rules 10, 11, and 12 except as specifically provided below or otherwise approved by the Supervisor.

a) Surface casing shall be cemented with 150% excess over calculated 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 100 feet below the base of the storage reservoir and cemented with sufficient volume of cement to fill the annular space to a point 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 be of appropriate API Standards for the pressures to be encountered and shall be new casing or reconditioned casing of new quality.

d) Emplacement of cement in the intermediate string shall be verified by Cement Bond Log, Cement Evaluation Log or other logs approved by the Supervisor.

2) All surface and intermediate casing strings shall be tested, after sufficient cement setting time (usually 24 hours), to a pressure equal to 1 psi per foot of casing set with a maximum test pressure of 1000 psi gauge measured at the surface.

3) All tests and logs required by this section shall be prepared and supervised by a qualified Engineer 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 upon notice and hearing before the Oil and Gas Board.

7. Wellhead and Flowlines

A. 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 150% of the maximum operating pressure. All valves shall be periodically inspected and maintained in good working order.

B. Each flowline connected to the wellhead shall be equipped with a manually operated positive shut-off valve located on the wellhead.

C. Each flowline or gathering line shall be constructed in conformance with the provisions of CFR Title 49, part 192 - Transportation of Natural and Other Gas by Pipeline.

8. Rework (Well Work)

A. An application for workover, Form No. 2, stating thereon the exact workover procedure for any down-hole work on tubular goods or the reservoir, shall be filed and approved by the Supervisor prior to the commencement of such work. A Completion Report, Form No. 3, shall be filed within thirty (30) days following completion of the well work.

B. No downhole work shall be done prior to notifying the Board. Such notification shall allow sufficient time for the Supervisor, at his discretion, to have his representative present to observe the work. Verbal authorization from the Field Inspector of the area, Field Director, UIC Coordinator or the Supervisor may be issued for work conducted under atmospheric or controlled pressure conditions.

9. Safety Practices

A. Personnel experienced and/or trained in the operation of Underground Storage Facilities shall monitor the facility or control site when natural gas or air is being injected or withdrawn from any storage well.

B. The wellheads and related equipment and controls shall be protected from trespassers and accidental physical damage by a method approved by the Supervisor.

C. Each company operating an underground storage facility shall conduct a semi-annual safety inspection of such facility and file with the Board 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 Board at least five (5) days prior to such inspections so that a representative of

the Supervisor may be present to witness the inspections. Inspections shall include, but not be limited to, the following:

1) operation of all manual valves,
2) operation of all automatic shut-in safety valves, if applicable,
3) wellheads and related equipment, and
4) warning signs, safety fences, etc., if applicable.

D. Additional inspections may be made by the Supervisor or his representatives. All operators logs called for by this rule shall be subject to inspection at this time.

E. All operators shall immediately notify the Supervisor by telephone and follow-up with a letter giving full details concerning fires, leaks and blowouts directly related to the storage facility.

10. In addition to the above, the following Statewide Rules, with amendments or special requirements noted, shall be in force and effect:

A. Statewide Rule 4 - Application to Drill, Workover, or Change Operator.
B. Statewide Rule 5 - Transfer of Permit.
C. Statewide Rule 6 - Identification of Well.
D. Statewide Rule 24 - Well Logs.
E. Statewide Rule 45 - Waste by Pollution of Air, Fresh Waters and Soils Prohibited.
F. Statewide Rule 47 - Fluid Injection Reports, Form No. 14B shall be filed each month stating thereon the following information for each facility:

1) Monthly maximum injection pressure.
2) Amount (MMCF at 15.025 psia & 60^{o}F) of gas or air injected during the month.
3) Amount (MMCF at 15.025 psia & 60^{o}F) of gas or air withdrawn during the month.
4) Total amount (MMCF at 15.025 psia & 60^{o}F) of gas or air in storage at end of month.
5) Estimated maximum reservoir storage capacity (MMCF at 15.025 psia and 60^{o}F).

G. Statewide Rule 54 - Organization Report
H. Statewide Rule 55 - Identification of Facilities
I. Statewide Rule 56 - Records
J. Statewide Rule 63 - Underground Injection Control if facility contains a Saltwater Disposal Well.

11. Suspension of Operations

Should the Supervisor of the State Oil and Gas Board determine that the continued operation of an Underground Storage Facility would cause unsafe operating conditions, waste or pollution of air, fresh water or soil, he may immediately prohibit further operation of a well or associated facilities until such time as it is determined by the Supervisor that the operator is in compliance with all rules and regulations of the Board.

12. Board Filings

All tests, surveys and reports required by these rules shall be filed with the Board within thirty (30) days after such tests and surveys are conducted.

13. Proof of Financial Responsibility

Proof of Financial Responsibility for each well in a storage facility shall be provided in the form and manner prescribed in Statewide rule 63, E, (3). Financial Responsibility for Storage Wells existing at the time this rule is adopted shall be provided to the Board within one hundred eighty (180) days of adoption of this rule.

14. Penalty

Any person, firm or corporation violating any of these rules and regulations shall be punished as provided by law.

15. Exceptions

The Board expressly reserves the right, after notice and hearing, to alter, amend, repeal or grant exceptions to any or all of the foregoing rules and regulations.

16. Annual Facility Fees

For each facility an annual fee will be assessed in the amount of one hundred ($100) dollars plus fifty ($50) dollars per unplugged storage well and fifty ($50) dollars for each unplugged salt water disposal well. These fees shall be due each July beginning July 1993.

17. Validity

Should any section, sub-section or other provision of this rule be declared by a court of competent jurisdiction to be invalid, that decision will not affect the validity of the rule as a whole or any part thereof, other than the part so declared to be invalid, this Board hereby declaring that it would have adopted those parts of the rule which are valid and omitted any parts which may be invalid, if it had known such part or parts were invalid at the time of adoption of this rule.

18. Effective Date

These rules and regulations shall take effect and be in force from and after March 17, 1993, except where otherwise provided.

The Board expressly reserves the right, after notice and hearing, to alter, amend or repeal said Rule 67 - Underground Storage of Natural Gas and Air in Reservoirs - of the Statewide Rules and Regulations, as amended.

Source: MCA Section 53-1-17(3) (1972)

RULE 1.68. DISPOSAL OF NATURALLY OCCURRING RADIOACTIVE MATERIALS (NORM) ASSOCIATED WITH THE EXPLORATION AND PRODUCTION OF OIL AND GAS

I. Definitions

For the purposes of this Rule

1. "Ambient Exposure Rate" shall mean an indication of the potential for a human to incur a radiation dose. Ambient exposure rates are measured in units of "millirem per hour" or "microroentgen per hour" at a height of one meter (three feet) above a horizontal land surface and 0.3 meter (one foot) from the midpoint of a horizontal or vertical equipment surface. A microR meter with an internal or external probe is generally used for this measurement.

2. "Board" shall mean the State Oil and Gas Board.

3. "Clean fill" shall mean soil with radiological characteristics that cannot be distinguished from background.

4. "Commercial oil field exploration and production waste disposal" shall mean storage, treatment recovery, processing, disposal or acceptance of oil field exploration and production wastes from more than one (1) generator or for a fee.

5. "Equipment" shall mean tanks, valves, tubing, rods, pumps, tools and other equipment commonly used at oilfield exploration/production sites.

6. "Landspreading" shall mean an action that involves blending of soil with NORM impacted scale or NORM impacted soil to achieve NORM concentrations that are at or below the release criteria. Landspreading does not include blending of soil with NORM impacted sludge, tank bottoms, drilling muds, drill cuttings or other materials. (See "Surface Landspreading" and "Subsurface Landspreading").

7. "Naturally occurring radioactive material" (hereinafter "NORM") shall mean any nuclide which is radioactive in its natural physical state (i. e., not man-made), but does not include byproduct, source or special nuclear material nor does it include radioactive materials continuously contained within the closed system of exploration and production of oil and gas, including but not limited to produced saltwater.

8. "Surface Landspreading" shall mean the raking or tilling of non-homogeneous surface NORM deposits within a discrete land area in order to achieve a homogeneous distribution of NORM over the top six (6) inches of soil within that land area.

9. "Subsurface Landspreading" shall mean the blending of NORM with clean fill prior to its placement in an impacted area in order to achieve a homogeneous distribution of

NORM throughout the blended volume. The impacted area is then covered with soil or other materials after placement of the blended volume.

10. "Personal Notice" shall mean the written notice of a proposed landspreading disposal activity sent by certified mail by a permit applicant to the affected surface land owner. Personal Notice shall include a statement of intent to apply for a permit for the landspreading of NORM including a description of the approximate amount of NORM material to be disposed, the general area of disposal and contact information where the landowner can obtain additional information. Personal Notice shall be deemed complete when the certified mail is received or attempted delivery is unclaimed by the affected surface landowner. The Personal Notice shall be sent in advance of the filing of an application for a permit for landspreading with the Board such that the applicant is able to provide copies of certified mail receipts, documentation of unclaimed notices, or other appropriate confirmation of notice delivery with the permit application submittal.The mailing address to be used in making the notice shall be the address shown in the appropriate county's most current ad valorem tax receipt records for the surface owner of the disposal site.

11. "Site of Origin" means the well location at which the NORM was generated from exploration and production activities.

12. Additional relevant definitions are as given in Rule 69.

II. General Provisions

1. Disposal of NORM will be handled in accordance with this Rule, Rule 28, Rule 69 and/or Rule 63 of the Statewide Rules and Regulations.

2. All necessary forms and any requested schematics shall be executed to show placement of NORM in the well bore of plugged back wells and abandoned wells and during surface/subsurface landspreading, also in accordance with other Statewide Rules and Regulations as they may apply.

3. Proper permitting for Radioactive Waste Transportation shall be obtained through the Mississippi Emergency Management Agency in accordance with its rules and regulations concerning the same.

4. Personal Notice to the land owner is required for all landspreading permits.

III. Information

1. Any property subject to a valid oil and gas lease, any surface property owned by operator or its joint operating participants, and/or any dry,
abandoned or plugged back oil and/or gas well may be considered as a potential disposal site for NORM, subject to the further provisions contained herein.

2. Each owner, operator and/or producer of a well shall be responsible for the proper disposal of NORM in accordance with all applicable rules and regulations of all appropriate state or federal authorities.

3. In order to qualify for disposal pursuant to this Rule, the NORM must have been derived from the exploration and production of oil and gas within the territorial limits of the State of Mississippi.

IV. Acceptable Methods of Disposal

1. Placement between cement plugs; or

2. Encapsulation in pipe then placed between cement plugs; or

3. Mixed with gel or mud (slurried) and placed between cement plugs; or

4. Slurried then placed into a formation; or

5. Surface landspreading; or

6. Subsurface landspreading; or

7. Disposal offsite at a licensed, low level radioactive waste or NORM disposal facility; or

8. Any options other than those listed above will be evaluated for possible approval by the State Oil & Gas Board Technical staff

V. Limitations and Conditions

1. General

1. The NORM to be disposed of in accordance with this Rule shall only be from oil and/or gas exploration and production activities carried out within the territorial limits of the State of Mississippi.

2. No person may dispose of oil and gas NORM waste without a permit. A NORM disposal permit shall be issued for a period of time that is reasonably necessary to complete the disposal activity not to exceed five (5) years.

3. No person may commercially dispose of NORM under this Rule from more than one (1) generator or for a fee. Any person seeking to operate a commercial oil field exploration and production_NORM waste disposal facility must comply with the requirements_of the Mississippi Department of Environmental Quality.

4. Disposal of NORM through landspreading shall only occur in areas where published literature or site-specific determinations indicate that the groundwater table is equal to or greater than five (5) feet below the bottom of the disposal area.

5. Locations utilized for NORM disposal through landspreading shall not be situated in 25-year flood plains as defined by published literature or determined through site-specific topographic surveys.

6. Locations utilized for NORM disposal through surface and subsurface landspreading shall not be situated within 300 feet of an inhabited dwelling.

7. The operator shall notify the Supervisor at least forty-eight (48) hours prior to beginning disposal operations, unless waived by the Supervisor, in order that his representative may be present to observe and inspect any such work, in which event the representative shall file a report thereof.

2. Downhole Disposal

1. Any NORM not continuously contained within the closed system of exploration and production of oil and gas shall be injected or placed into cased holes which have at least one hundred (100) feet of casing set below the base of the Underground Source of Drinking Water ("USDW") and properly cemented to protect the USDW and have at least two (2) sand sections behind the casing below the USDW. Any well in which the NORM is not encapsulated must meet all the criteria of Rule 63 of the Statewide Rules and Regulations and be properly permitted as a Class II UIC well before injection begins.

2. A minimum of a 100-foot plug shall be placed immediately below the USDW. Unless there is proof of adequate cement behind the casing, the casing shall be perforated 100 feet below the USDW and shall be squeezed with a sufficient amount of cement calculated to provide 100 feet of cement in the annulus and leave a 100-foot plug in the casing.

3. The cement plug immediately above and below the NORM shall be a minimum of 100 feet in length. A cast iron bridge plug may be utilized with a minimum of 20 feet of cement placed on top of the bridge plug. All abandoned wells which contain disposed NORM shall be permanently marked by a steel plate at the top of the casing. This marker shall contain the well name, API number, date of plugging and the fact that NORM waste exists in the well. All cement used in the well bore above NORM placement shall be standard color-dyed red with iron oxide.

4. The interval of well casing above the packer in which NORM is to be injected shall be pressure tested to a minimum of 500 psig for 30 minutes for integrity. More than 3% pressure loss in 30 minutes constitutes loss of integrity. Loss of integrity shall be treated as set forth in Rule 63, Part 3A. The injection tubing string shall be pressure tested to a minimum pressure of 1 ½ times (150%) the intended surface injection pressure. A test chart of the injection string testing shall be maintained by the operator. All tests shall be conducted under the supervision of the State Oil and Gas Supervisor or his representative.

5. NORM shall <u>not</u> be used as admixtures in cements used for well plugs.

6. The Plugging Report shall show the size, grade, weight per foot, outside diameter of impacted tubing, and the depth of the top and bottom of the tubing, the diameter of the coupling, and whether the tubing is free or secured in cement, a bridge plug or a retainer.

3. Landspreading

1. Shall not be performed with materials that exhibit ambient exposure rates in excess of 600 microR per hour above background.

2. Shall not be performed in areas where the general area exposure rate is significantly elevated above background due to the presence of equipment.

3. Is permitted only at the Site of Origin. The landspreading shall be limited to that portion of the surface of the land reasonably necessary, excluding lease roads, used for the conduct of producing operations of a well.

4. Shall require the performance of a pre- and post-landspreading survey of the impacted land area as described in Rule 69, with the results thereof submitted to the State Oil and Gas Board on Board Form 21 (or equivalent).

VI. Procedures

1. Downhole Disposal

1. Request for downhole disposal of NORM must be submitted by petition to the State Oil and Gas Board and shall include the following:

i. Source(s) of NORM identified by operator, field, well name(s) and, if known, the producing formation.

ii. Type(s) of NORM (pipe scale, contaminated soil, basic sediments, etc.).

iii. Volume of NORM to be disposed of reported in cubic feet, barrels, or length and diameter of tubing.

iv. Radiation level(s) in microroentgens per hour (uR/hr.).

v. Disposal methodology.

2. Accompanying the petition shall be a proposed well schematic showing the proposed work upon completion, along with a completed Form 6 and an affidavit concerning the proposed NORM disposal and its compliance with all applicable rules and regulations. This proposal should be a reflection of what will be submitted in the final plugging report. The petitioner must give public notice of the hearing on the petition and such notice shall state that the well will be utilized for the disposal of NORM produced with exploration and production waste.

3. If tubing is to be placed between plugs, but not secured in cement, then the top joint of the tubing string that contains NORM shall be left with a top coupling. All tubing shall be placed in the well and not dropped into the well.

4. The plug immediately above the NORM shall be tagged unless a bridge plug or cement liner is used.

2. Landspreading

1. In accordance with Rule 1.68.V.1.2, permits for landspreading may be issued upon filing of a Form 2 application with a plat of the proposed disposal area and a written plan for landspreading attached that complies in all respects with this rule. Personal Notice to the surface land owner is required for all landspreading permits in advance of the filing the Form 2 application with the Board. Certified mail receipts, documentation of unclaimed notices or other appropriate confirmation of notice delivery shall be provided by the applicant with the Form 2 application to the Board.

2. Surface Landspreading

a. Surface landspreading shall be performed by raking or tilling deposits of NORM within the top six (6) inches of soil.

b. The operator shall ensure that upon completion of the landspreading activity, the ambient exposure rate at any given point in the impacted area does not exceed eight (8) microR per hour above background and that the concentration of Radium 226

or Radium 228 does not exceed 5 pCi/g above background. The ambient exposure rate of eight (8) microR per hour above background is equivalent to a uniform concentration of 5 pCi/g of Radium 226 or Radium 228 (NORM) above background in a 100 square meter area. If at the completion of the landspreading activity the ambient exposure rate is demonstrated to exceed the prescribed limit, the operator shall take appropriate remedial or corrective action.

c. No disposal site shall exceed 3.0 acres in size, and a survey of the impacted land area shall be performed to demonstrate that the ambient exposure rate at any given point in the impacted area does not exceed the eight (8) microR per hour above background.

d. The completed Board Form 21 shall document conformance with Section V.1.4. and 5. ("Limitations and Conditions"), as well as with the requirements of Section VI.2.2.a., b. and c. ("Surface Landspreading").

3. Subsurface Landspreading

a. Subsurface landspreading shall be performed by blending NORM with clean fill prior to placing the blended volume into the area of interest or creating an area of subsequent layers.

b. The blended volume shall be placed in the area of interest in layers of not greater than six (6) inches, not to exceed three (3) feet of total blended volume thickness.

c. The operator shall ensure that upon completion of the landspreading activity, the ambient exposure rate at any given point in the impacted area does not exceed eight (8) microR per hour above background and that the concentration of Radium 226 or Radium 228 does not exceed 5 pCi/g above background. The ambient exposure rate of eight (8) microR per hour above background is equivalent to a uniform concentration of 5 pCi/g of Radium 226 or Radium 228 (NORM) above background in a 100 square meter area. If at the completion of the landspreading activity, the ambient exposure rate is demonstrated to exceed the prescribed limit, the operator shall take appropriate remedial or corrective action.

d. No disposal site shall exceed 3.0 acres in size, and a survey of the impacted land area shall be performed to demonstrate that the ambient exposure rate at any given point in the impacted area does not exceed the eight (8) microR per hour above background.

e. The impacted area shall be surveyed prior to the application of a final soil cover over the subsurface landspreading disposal area.

f. The completed Board Form 21 shall document conformance with Section V.1.4. and 5. ("Limitations and Conditions"), as well as with the requirements of Section VI.2.3.a.b.c. d.and e. ("Subsurface Landspreading").

4. The Board may require soil sample analysis at any given point in the impacted area to confirm that the concentration of Radium 226 or Radium 228 does not exceed 5 pCi/g above background.

5. The work duration for landspreading, using the operational methodology described above, shall not exceed 100 hours per calendar year for a single individual. If it is anticipated that extended stay times might occur, the operator shall complete one of the following:

a. Take actions to reduce the dose rate to which personnel are exposed (i. e., increase distance, shielding and/or dust controls); or

b. Establish a radiation protection program pursuant to Mississippi Department of Health Regulations.

VII. Exceptions

Exceptions to any of the above listed limitations, conditions and criteria may be allowed after consultation with the State Oil and Gas Board staff and upon proper Notice and Hearing of a petition filed with the Board requesting same.

VIII. Penalty for Violation

In accordance with State Statute 53-1-47, any person who violates any provision of this rule shall be subject to a penalty of not to exceed Ten Thousand Dollars ($10,000.00) per day for each day of such violation to be assessed by the Board.

IX. Effective Date

This Statewide Rule 68, Board Order Number 253-99, shall take effect and be in force from and after sixty days from being filed with the Secretary of State's Office.

X. Validity

Should any section, subsection or other provision of this rule be declared by a court of competent jurisdiction to be invalid, the decision shall not affect the validity of the rule as a

whole, or any part thereof, other than the part so declared to be invalid, this Board hereby declaring that it would have adopted those parts of this rule which are valid and omitted any parts which may be invalid, if it had known that such part or parts were invalid at the time of the adoption of this rule.

Source: MCA Section 53-1-17(3) (1972)

Effective: January 16, 2016

RULE 1.69 CONTROL OF OIL FIELD NATURALLY OCCURRING RADIOACTIVE MATERIALS (NORM).

1. Purpose and Scope

a. This rule provides regulations for control of oil field NORM to ensure that radiation exposures of workers and members of the general public resulting from oil field NORM are prevented, eliminated or reduced to acceptable levels in order to protect the public health, safety and environment.

b. No person shall receive, possess, use, transfer, own or acquire NORM as defined herein except as authorized in this section or as otherwise provided by State and Federal Regulations.

c. This rule applies to NORM that has been derived from the exploration and production activities of oil and gas operations within the territorial area of the State of Mississippi at oil and gas production facilities which, on or after July 1, 1995, were properly permitted by the Oil & Gas Board and which, on or after July 1, 1995, were active or properly reported as inactive on Oil & Gas Board Form 9-A.

d. It is the understanding of the Oil & Gas Board that the intent of the legislature is that location sites surrounding oil and gas production facilities which were abandoned prior to July 1, 1995 and/or not permitted by the Oil & Gas Board will continue to be regulated in the manner in which such sites were regulated prior to July 1, 1995.

2. Definitions

a. 29 CFR 1910 - Department of Labor, Title 29, Code of Federal Regulations, Section 1910.96, "Ionizing Radiation".

b. 49 CFR - Department of Transportation, Title 49, Code of Federal Regulations, Subchapter C, "Hazardous Materials Regulations".

c. Accessible Locations - Locations and areas at an exploration/production facility that can be readily occupied by a human.

d. Activity - Disintegration rate of a radioactive material stated in dps, becquerels, μCi, nCi, pCi, or other acceptable units.

e. ANSI-N323 - American National Standards Institute, ANSI-N323-1978, "Radiation Instrumentation Test and Calibration", 1978.

f. Approval - An act of endorsing or adding positive authorization or both.

g. Background - the ambient radiation field to which we are exposed daily, originating from cosmic rays, naturally-occurring radionuclides (^{40}K, etc.) and human endeavors (fallout, fuel cycle, etc.). This radiation field is variable and causes a survey meter to respond in the absence of NORM.

h. Board - The State Oil and Gas Board.

i. Caution Sign - Caution signs shall have the words "Caution - N.O.R.M. - Potential Health Risk" on the upper panel in three (3) inch upper-case yellow letters on a black background, and the words "No Trespassing - Authorized Personnel Only" on the lower panel in two (2) inch upper-case black letters on a yellow background.

j. Detector - A material or device that is sensitive to radiation and can produce a response signal suitable for measurement or analysis. A detector coupled to a ratemeter forms a radiation detection instrument.

k. Exploration/Production Site or Facility - A location where oil and/or gas production activities occur.

l. Exposure Rate - An indication of the potential for a human to incur a radiation dose. Exposure rates are measured in units of "microroentgen per hour" at a height of one meter (three feet) above a horizontal land surface and 0.3 meter (one foot) from the midpoint of a horizontal or vertical equipment surface. A microR meter with an internal or external probe is generally used for this measurement. For unrestricted release of equipment, the rates shall be measured at a distance of 2.5 centimeters (one inch) from the equipment surface.

m. Equipment - Tanks, valves, tubing, rods, pumps, tools, and other equipment commonly used at oil field exploration/production sites.

n. Gas - All natural gas, whether hydrocarbon or non-hydrocarbon or any combination or mixture thereof, including hydrocarbons, hydrogen sulfide, helium, carbon dioxide, nitrogen, hydrogen, casing-head gas, occluded natural gas from coal seams, compressed air and all other hydrocarbons not defined as "oil".

o. Location Site or Sites - The surface of a property in close proximity to production wells, production equipment, or the location of known releases of production scale or sludge containing NORM.

p. May - The word *may* is used to denote permission.

q. MEMA - Mississippi Emergency Management Agency Form RAD 5-2, Form RAD 5-3 and RAD 5-4.

r. Milliroentgen per hour (mR/hr) - A unit of gamma exposure rate. In the oil field, one mR/hr shall be equivalent to 1,000 microR per hour (μR/hr).

s. Millirem (mrem) - A unit of radiation dose. In the oil field, one mrem shall be equivalent to 1,000 microrem (μrem).

t. Mississippi Department of Health Regulations - Regulations for Control of Radiation in Mississippi, Part 801.

u. NORM - Technologically-enhanced naturally-occurring radioactive materials consisting, primarily, or ^{226}Ra (and daughter radiations) and ^{228}Ra (and daughter radiations) that are derived from the exploration and production activities of oil and gas operations within the territorial area of the State of Mississippi.

v. Oil - Crude petroleum oil and all other hydrocarbons which are produced at a well in liquid form by ordinary production methods and which are not the result of condensation of gas.

w. Operator - Any person who, duly authorized, is in charge of the development of a lease or the operation of a producing well.

x. Producer - An owner of drilling rights in property subject to this rule who has acquired its rights in said property for the purposes of developing, producing or otherwise utilizing the natural resources of oil and gas.

y. Property - Lands lying within an area recognized by the Oil and Gas Board as being within a "Field" as defined in Miss. Code. Ann. 53-1-3(f).

z. Radiation Detection Instrument - A device, consisting of a detector and a ratemeter, that detects and records the characteristics of ionizing radiation.

aa. Radiation Surveyor - An individual who has training and experience in the following: Radioactivity measurements, monitoring techniques, and the use of instruments; conducting radiological surveys and evaluating results; evaluating exploration/production facilities for proper operations from a radiological safety standpoint; and familiarity with Board rules and regulations.

bb. Ratemeter - A read-out device that, when used with a detector forms a radiation detection instrument.

cc. Radioactive Material - Any solid, liquid or gaseous substance which emits radiation spontaneously.

dd. Radioactive Material Storage Area - An area where radioactive materials are stored or handled and where working conditions in the general area normally include consideration of radiological constituents as described in 29 CFR 1910.96 and Mississippi Department of Health Regulations.

ee. Release criterion (criteria) - A level of exposure rate or surface count rate, below which an item, device or property may be released for unrestricted use.

ff. Restricted Use - Equipment, components, materials, land areas (property), and other items that, by virtue of their levels of fixed and/or removable NORM are maintained under the control of the operator or transferred to another producer for similar use.

gg. Rule 68 - Oil and Gas Board Statewide Rule 68, "Disposal of Naturally Occurring Radioactive Materials (NORM) Associated with the Exploration and Production of Oil and Gas".

hh. Shall - The word *shall* is to be understood as a requirement.

ii. Should - The word *should* is to be understood as a recommendation.

jj. Surface Disintegration Rate - An indication of the amount of radioactivity deposited on the surface of equipment. Surface disintegration rates are measured in units of "disintegrations per minute per 100 cm^2 area," with the window entrance of a Geiger counter radiation detector positioned approximately one (1) centimeter from the surface of interest. The surface disintegration rate is obtained by multiplying the count rate of the detector by the following correction factor:

$$CF = \frac{100}{(\text{eff})\ \text{Area}},$$

where "eff" is the detector counting efficiency, determined from instrument calibration, and "Area" is the active area of the detector in units of "square centimeter."

kk. Survey - Evaluation of the radiological conditions at location sites incident to the production, use, release or presence of NORM.

ll. Total Effective Dose Equivalent (TEDE) - The sum of the deep dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures). The TEDE is generally expressed in units of "millirem".

mm. Unrestricted Use - Equipment, components, materials, land areas (property), and other items that may be used, transferred, sold, or disposed of without regard for their radiological constituents.

3. Standard

a. Oil field exploration and production sites shall be operated and released in a fashion that ensures a TEDE of less than 100 millirem per calendar year due to exploration/production activities for workers and members of the general public.

b. Operations or operating site conditions that may cause workers or members of the general public to exceed 100 millirem TEDE in a calendar year due to exploration/production activities shall be controlled pursuant to Mississippi Department of Health regulations.

4. Surveys

a. Operators shall perform surveys of location sites, as necessary, to evaluate:

i. The magnitude of exposure rates in the vicinity of equipment;
ii. The magnitude of exposure rates above ground surfaces; and
iii. Radiological conditions in the event of non-routine circumstances including, but not limited to, equipment repairs, equipment maintenance, site maintenance, accidents and spills any of which result in release of production scales or sludges onto the surface.

b. All surveys shall be performed by a radiation surveyor.

c. Ground surface surveys shall be performed in accordance with generally accepted survey practices and, at a minimum, shall report the maximum readings for each 1 meter x 1 meter grid area over the well head, tank battery site, heater treater site, all surface pipe areas and other areas of the location site where contamination is likely to occur. Elsewhere on the location site, the maximum readings for each 10 meter x 10 meter grid area shall be reported.

d. All surveys shall be documented on Board Form No. 21 or on a form that contains equivalent information to Board Form No. 21.

e. Surveys shall be performed with a radiation detection instrument in accordance with the following requirements:

i. Radiation detection instruments shall be of sufficient sensitivity and accuracy to assess the radiation exposure rates from NORM found at exploration/production sites.

ii. Instruments shall be calibrated according to the guidelines of ANSI-N323 at least once every 12 months and following any repairs to the ratemeter and/or detector, with a radiation source traceable to the National Institute of Standards and Technology.

iii. The battery status and the response of the instrument to radiation from a check source shall be checked and recorded prior to the day's use.

f. If a survey documented on Board Form No. 21 (or equivalent) has not been performed at a location site, an initial survey shall be performed within one (1) year of the effective date of this Rule for wells permitted on or before the effective date of this Rule. For wells which are permitted after the effective date of this Rule, the initial survey shall be

performed prior to the start of exploration/production operations and again two (2) years after the start of exploration/production operations.

g. After the initial survey of location sites, routine surveys shall be performed every five (5) years during exploration/production activities if the maximum exposure rate recorded in the last survey exceeds 50 microR per hour above background. Otherwise, they shall be performed every ten (10) years.

h. Surveys shall also be performed as necessary to evaluate radiological conditions in the event of non-routine circumstances as described in Section 4.a.iii. above.

5. Criteria for Site Operations

a. Personnel performing work at an exploration/production facility shall be trained in the hazards of the workplace pursuant to 29 CFR 1910.96(i).

b. Site access shall be controlled as follows:

i. Access to an exploration/production site with exposure rates in excess of 250 microR per hour above background in accessible locations shall be controlled by posting Caution Signs at the perimeter of the property which shall be visible from any and all accessible locations.

ii. Access to an exploration/production site with exposure rates in excess of 700 microR per hour above background in accessible locations shall be controlled by fencing the immediate area with a five foot high field fence or chain-link fence and by posting Caution Signs on the fence. The fence shall be located to restrict maximum exposure rates to 250 microR per hour above background.

iii. Access to an exploration/production site with exposure rates in excess of 5,000 microR per hour above background in accessible locations shall be controlled by fencing the immediate area with a five foot high field fence or chain-link fence, posting Caution Signs on the fence, and posting signs as required in 801.D.903(c) of the Mississippi Department of Health Regulations and 29 CFR 1910.96 at the location(s) where 5,000 microR per hour is exceeded.

iv. The limits contained in subsections (i) through (ii) are based on limited stay times. If it is anticipated that extended stay times might occur, the operator shall complete one of the following:

(1) Take actions to reduce the dose rate to which personnel are exposed (e.g., time, distance, shielding); or

(2) Establish a radiation protection program pursuant to Mississippi Department of Health regulations.

v. Operators shall be responsible for notifying all contractor personnel of the dose rates present at the facility(ies) where work will be performed. Once notified, the contractor shall be responsible for compliance with this rule.

vi. An operator may request an exception to the fencing requirements set forth above. Any such request shall be in writing to the Supervisor. Upon good cause shown, the Supervisor, in his or her discretion, may grant such an exception. Such written request and any response thereto shall be made a part of the applicable well file(s).

c. Site maintenance shall be controlled as follows:

i. Maintenance activities at sites with a maximum exposure rate of less than 50 microR per hour above background shall require no controls.

ii. Maintenance activities at sites with a maximum exposure rate in excess of 50 microR per hour above background shall require the prudent use of dust masks, or water sprays or other dust control methods as appropriate.

iii. Land maintenance and equipment maintenance/repair that may cause workers or contract personnel to exceed 100 millirem TEDE in a calendar year shall require control/licensing pursuant to Mississippi Department of Health Regulations.

6. Release of Property

a. Transfer to another producer.

i. Property may be transferred to another producer without regard for its radiological constituents.
ii. Copies of the most recent radiation survey documents shall be transmitted by the operator to the new producer prior to the property transfer.

b. Release for unrestricted use.

i. A production site may be released for unrestricted use after:

(1) All equipment contaminated to levels above the release criteria in 7.b.i. and 7.b.ii. has been removed from the property;

(2) A survey of the location site surface demonstrating that the property does not exhibit an exposure rate at any discrete point in excess of 50 microR per hour above background has been completed, documented, and furnished to the site owner; and

(3) A survey on the location site of exposure rates in at least five (5) boreholes per acre, with a minimum of three (3) boreholes per site, showing a maximum exposure rate less than 200 microR per hour including background. At least one (1) borehole shall be drilled at the location of the maximum surface exposure rate measurement. All boreholes shall be at least one meter deep, and shall be measured at 0.15 meter intervals.

ii. Land area remediation may be performed by the following methodologies in order to achieve the release criteria listed in 6.b.i.(2):

(1) No action;
(2) Excavating and transferring discrete areas of soil to a radioactive material storage area or for disposal under Rule 68; or
(3) Other remedial actions as approved, in advance, by the Board.

7. Criteria for Release of Equipment

a. Equipment may be transferred to another producer without regard for its radiological constituents.

b. Equipment that is released for unrestricted use shall:

i. Exhibit a surface disintegration rate on accessible internal and external surfaces of no greater than an equivalent of 2,000 dpm per 100 cm^2 above background; and

ii. Exhibit an exposure rate at a distance of 2.5 centimeters (1 inch) from the equipment surface of no greater than 25 microR per hour above background.

8. Records

a. The following records shall be maintained by the operator at the local operations office for the duration of operations at the site:

i. Site survey records;
ii. Instrument calibration records;
iii. Material transfer records; and
iv. Records setting forth the qualifications of the radiation surveyor.

b. The form of records may be paper copy or film copy of an original paper form.

c. Electronic records shall have an associated paper copy.

d. All such records shall be maintained by the operator for a minimum of ten (10) years after a property has been released for unrestricted use.

9. Exceptions

Except where otherwise stated, exceptions to any part of the above rule may be allowed upon good cause shown and upon proper Notice and Hearing of a petition filed with the Board requesting same.

10. Effective Date

This Statewide Rule (Rule 69), Board Order Number 73-96 shall take effect and be in force from and after June 1, 1996.

11. Validity

Should any section, subsection or other provision of this rule be declared by a court of competent jurisdiction to be invalid, that decision shall not affect the validity of the rule as a whole or any part thereof, other than the part so declared to be invalid, this Board hereby declaring that it would have adopted those parts of this rule which are valid and omitted any parts which may be invalid, if it had known that such part of parts were invalid at the time of the adoption of this rule.

Source: MCA Section 53-1-17(3) (1972)