

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

CHAPTER 400-1-4
DRILLING

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400-1-4-.01 Identification Of Wells. A sign shall be posted and maintained in a legible state in a conspicuous place near the well. Such sign shall be posted before spudding or reentry and shall remain posted until the well is plugged and abandoned and the location restored. The sign shall include the name of the operator, the permit number, the well name and number, and the section, township, range, and county in which the well is located.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Amended:** Filed September 13, 1991. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

400-1-4-.02 **Protection Of Freshwater Resources.** An operator shall conduct all oil and gas operations in a manner so as to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock, or agricultural purposes shall be confined to their respective strata and shall be adequately protected. Special precautions shall be taken to guard against any loss of artesian water from the strata in which it occurs, and the contamination of fresh water by objectionable water, oil, condensate, gas, or other deleterious substance to such fresh water.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Amended:** Filed March 11, 1986. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

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

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

coring operations for said well. This information shall be submitted on the appropriate Form OGB-6, OGB-7, and OGB-8.

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

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

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

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

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

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000. **Amended:** Filed August 5, 2005; effective September 9, 2005.

400-1-4-.04 Directional Surveys. If required by this rule, a directional survey, which may include logging while drilling (LWD) or measurement while drilling (MWD) logs, shall be run and one (1) copy thereof filed by the operator with the Supervisor within thirty (30) days after completion of a well. Directional surveys shall be run from total depth to base of surface casing or the kickoff point, whichever is shallowest, unless otherwise approved by the Supervisor. However, directional surveys to total depth shall be unnecessary in cases where the interval below the survey is less than five hundred (500) feet. In such an instance, a projection of the latest survey shall satisfy Board requirements. In the event the proposed or final location of the producing interval of the directionally controlled well is not in accordance with spacing or other rules of the Board applicable to the reservoir, proper applications shall be made to obtain approval of exceptions to such rules. Such approval shall be granted, or denied, at the discretion of the Board, after notice and hearing. Directional surveys shall be run when:

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

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

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

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

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000. **Amended:** Filed August 5, 2005; effective September 9, 2005.

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

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

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

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

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

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

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

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

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

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

sign shall depict the trefoil radiation symbol with a radioactive warning.

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

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

400-1-4-.06 **Operations Involving Radioactive Material.** An operator shall obtain approval from the Supervisor, the Alabama Department of Public Health (Division of Radiation Control) and any other agency that has jurisdiction before introducing any radioactive material, exclusive of radioactive logging devices, into the substrata for the purpose of conducting a tracer survey or for any other reason.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

400-1-4-.07 **Rubbish Or Debris.** Wells shall not be chemically treated or fractured until the approval of the Supervisor is obtained. Each well shall be treated or fractured in such manner

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

400-1-4-.08 **Report Of Well Treatment.** Within thirty (30) days after the chemical treating or fracturing of a well, a report shall be filed with the Board in triplicate by the operator on Form OGB-6 setting forth in detail the method used in treating the well.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

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

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

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

(b) prevent contamination of freshwater-bearing strata;

(c) support unconsolidated sediments; and

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

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

optimum well control while drilling and to assure safe operations for the life of the well.

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

TABLE 1

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

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

(b) **Intermediate Casing.** Intermediate or protective casing shall be set when required by abnormal pressure, mud weights, sediments, and other well conditions. A quantity of cement sufficient to cover and isolate all hydrocarbon zones and to isolate abnormal pressure intervals from normal pressure intervals shall be used. If a liner is used as an intermediate string, the cement shall be tested by a fluid entry or pressure test to determine whether a seal between the liner top and next larger casing string has been achieved. The test shall be

recorded in the driller's log. When such liner is used as production casing, it shall be extended to the surface and cemented to avoid surface casing being used as production casing.

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

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

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

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

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

(b) Upon conclusion of the drilling of the well, or prior to the setting of either intermediate or protective, or

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

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

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

(5) **Recording Test Pressures.**

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

(b) Unless witnessed by an agent of the Board, all pressure tests and re-tests shall be documented with a properly calibrated continuous pressure recorder or other pressure

recording device acceptable to the Supervisor. A representative of the operator shall sign the pressure test record(s) following completion of each pressure test.

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

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

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

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

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

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

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

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

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

(6) Operators shall prevent materials that are not exempt under the Resource Conservation and Recovery Act from

entering the pit during drilling, completion, or workover operations.

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: Filed September 30, 1982. **Repealed and New Rule:** Filed April 11, 2000; effective May 16, 2000.

400-1-4-.11 Recycling Or Disposal Of Pit Fluids And Pit Closure.

(1) Recycling or Disposal of Pit Fluids.

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

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

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

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

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

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

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

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

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

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-4-.12 **Drilling Mud.** In drilling operations in which mud is used, the operator shall continuously maintain drilling fluid in the hole, from top to bottom, of sufficient weight to control any pressure which may be encountered. Provided, however, an operator may use other appropriate methods to control any pressure which may be encountered, without the use of drilling fluids, upon the approval of the Supervisor.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-4-.13 **Blow-Out Prevention.** Adequate blow-out preventers and high pressure fittings for keeping the well under control shall be attached to properly anchored and cemented casing strings. The blow-out preventers must be installed and tested in accordance with this rule. The results of such tests shall be recorded in the daily operations report maintained at the well site. Upon request, such test records must be made available to the Supervisor.

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

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

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

(4) During drilling and completion operations, the ram-type blow-out preventer shall be function tested by closing on the drill pipe once every seven (7) days. Independently powered accumulators or accumulators and pumps shall maintain a

pressure capacity reserve at all times to provide for repeated operation of hydraulic preventers.

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

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

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

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

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000. **Amended:** Filed August 5, 2005; effective September 9, 2005.

400-1-4-.14 Plugging And Abandonment Of Wells. Any nonproductive well shall be plugged within thirty (30) days of completion unless said well has been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17. Any productive well that has not produced in six (6) months or any Class II injection well or underground reservoir storage well that has ceased operation for six (6) months shall be plugged within thirty (30) days unless said well has been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17. Before any work is commenced to plug and abandon any well drilled in search of oil and gas or utilized as a Class II injection well or utilized as an underground reservoir storage well the operator shall provide the Supervisor with the proposed method and procedure to plug and abandon such well. Such method and procedure may be required in writing by the Supervisor. Also, the Supervisor may require that well records, including logs, be made available to determine if the proposed depths and lengths of plugs are adequate. Operations to plug and abandon a well shall not begin until approval of procedures has been obtained from the Supervisor. Unless otherwise allowed by the Supervisor, the operator shall notify the Supervisor at least twenty-four (24)

hours prior to the commencement of plugging operations so that said operation may be witnessed by an agent of the Board. The cement in all plugs shall meet American Petroleum Institute (API) standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Unless specified otherwise by the Supervisor, the operator shall comply with the following requirements which apply to all wells drilled in search of oil and gas or utilized as Class II injection wells or underground reservoir storage wells.

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

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

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

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

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

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

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

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

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-4-.15 Report Of Well Plugging. Within thirty (30) days after the plugging of any well, an operator shall file Form OGB-11, Report of Well Plugging, with the Supervisor setting forth in detail the method used in plugging such well. A schematic showing the down-hole construction of the well, including the depths and lengths of plugs, shall accompany Form OGB-11.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-4-.16 Restoration Of Location. When a location is abandoned, all material, debris and equipment, such as drill pipe, casing, tubing, treaters, separators, tanks, and other production, processing, injection, plant, and above-ground pipeline equipment and materials shall be removed from the location. All wastes and other material including petroleum contaminated soil shall be removed from the location and disposed of in a lawfully approved facility, or recycled or disposed of in accordance with appropriate permit(s) or regulation(s); provided, however, that petroleum contaminated soil may be approved by the Supervisor for on-site remediation. All wastes being removed from location shall comply with the requirements of Rule 400-1-9-.03, Transportation of Wastes Associated with Oil and Gas Operations. Adequate measures shall be taken to stabilize the location and silt fences or other erosion preventative measures shall be used to minimize erosion, unless otherwise approved by the Supervisor. In any event, the location shall be restored within ninety (90) days in a manner approved by the Supervisor. All water supply wells drilled in connection with the operation shall be properly plugged and abandoned unless future utilization of such well is desired by the landowner, in which case the operator must obtain written consent from the landowner to leave the well open. A copy of such request must be filed with the Supervisor.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-4-.17 Request To Classify Wells As Temporarily Abandoned Or Shut-In.

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

(2) **Shut-in Status.** An operator may request that a well be placed in a shut-in status by submitting a written statement to the Supervisor stating that the well is capable of producing hydrocarbons but must remain shut in until connected to a gathering system, pipeline or processing facility, or for some other reason. A request to classify a well as shut-in will not be considered until the official test results have been received by the Board on Form OGB-9, First Production or Retest Report. Such request must be submitted in writing to the Supervisor stating why the well is shut in and the date when production is expected to commence. Upon approval by the Supervisor, the well will be placed in a shut-in status for a period of not more than one (1) year. The operator must submit a subsequent request to the Supervisor prior to the end of such period in order to extend the shut-in status for an additional period of time of not more

than one (1) year. Such request for an extension must describe the progress that has been made toward placing the well on production and when production is expected to commence. Upon approval of the request by the Supervisor, the shut-in status will be extended for a period of not more than one (1) year. Thereafter, the Board may, after notice and hearing, extend further the shut-in status for a well. The Supervisor or Board may require the operator to temporarily or partially plug the well, to verify the mechanical integrity of the casing in the well, and to implement a monitoring system before approving a request to classify a well as shut-in. The well location shall be maintained in accordance with Rule 400-1-4-.01, relating to Identification of Wells, and Rule 400-1-6-.10, relating to Site Maintenance. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.

Author: Kirk McQuillan

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000. **Amended:** Filed September 22, 2009; effective October 27, 2009.

400-1-4-.18 **Abandoned Wells.** A well is considered abandoned when it has not been used for six (6) consecutive months, and has not been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17, and cannot be operated, whether because it was drilled as a dry hole or has ceased to produce, or operations have not been conducted thereon, or for some other reason.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-4-.19 **Wells Used For Freshwater.** When a well to be plugged may safely be used as a freshwater well and such utilization is desired by the surface owner, the well need not be filled above the required sealing plug set below freshwater; provided, the surface owner demonstrates to the Supervisor that the well is being utilized as a freshwater well or agrees to take full responsibility for the well and acquires a two thousand dollar (\$2,000.00) surety bond acceptable to the Board and files such bond with the Board on Form OGB-3. The Supervisor may later release the bond upon proper demonstration that the well is being utilized as a freshwater well.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

400-1-4-.20 **Seismic, Core, And Other Exploratory Holes To Be Plugged.** Before any hole is abandoned which is drilled for seismic, core, or other exploratory purposes, it shall be the duty of the owner or driller of any such hole to plug the same in such manner as to properly protect all freshwater-bearing strata.

Author: State Oil and Gas Board

Statutory Authority: Code of Ala. 1975, §§9-17-1, et seq.

History: New Rule: Filed April 11, 2000; effective May 16, 2000.

Ed. Note: Previous Chapter 400-1-4 (Rules 400-1-4-.01 through 400-1-4-.10) **Repealed and New Chapter** (Rules 400-1-4-.01 through 400-1-4-.20) **adopted in lieu thereof:** Filed April 11, 2000.