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Sequence Number: 10-09-11
 Rule ID(s): 5037-5066
 File Date: 10/17/2011
 Effective Date: 01/15/2012

Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. TCA Section 4-5-205

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Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only ONE Rule Number/Rule Title per row)

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(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <http://tn.gov/sos/rules/1360/1360.htm>)

Chapter 1040-01-01
Definitions

Amendment

Chapter 1040-01-01 Definitions is deleted in its entirety and replaced with the new Chapter 1040-01-01 to read as follows:

Chapter 1040-01-01
Definitions

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1040-01-01-.01 Definitions of Terms

1040-01-01-.01 Definitions of Terms

For the purpose of rules contained in Chapter 1040-01-01 the terms set out herein shall have the meaning indicated.

- (1) "Abandoned well" shall mean either of the following:
 - (a) A well that was not adequately plugged or closed at conclusion of operations such that it constitutes or may constitute a threat to public health or the environment; or
 - (b) A well that has no owner, operator or other responsible person (hereinafter called "responsible party") who can be located, or such responsible party has failed or refused to undertake actions, where required by law, to abate the threat.
- (2) "Access Road" shall mean any road built and used exclusively by the operator (except public roads) which provides access to and/or ends at a wellhead, tank, pit or other facility related to oil and gas exploration and/or production.
- (3) "Active Work Area" as it pertains to a well site, shall mean that portion of the initially disturbed area necessary for production-related equipment, materials, and facilities, as determined by the supervisor.
- (4) "Automatic Custody Transfer" shall mean that the liquid hydrocarbons is automatically measured as it is transferred from the producer to the carrier.
- (5) "Barrel (or, Barrel of Oil or Condensate)" shall mean the amount of forty-two (42) standard United States liquid measure gallons of 231 cubic inches per gallon, computed at a temperature of sixty degree (60) Fahrenheit.
- (6) "Blow-Out" shall mean an uncontrolled escape of oil, gas and/or water from the well.
- (7) "Blow-Out Preventer" shall mean a properly selected casinghead control fitted with special gates or discs which may be closed around the drill pipe, or which completely closes the top of the casing if the pipe or tools are withdrawn.
- (8) "Board" shall mean the State Oil and Gas Board as authorized and created by Title 60, Tennessee Code Annotated. It is composed of the following:
 - (a) The Commissioner of Environment and Conservation, or his or her designee who shall act as chairperson,
 - (b) The head of the Division of Energy of the Department of Economic and Community Development,

- (c) The chairperson of the Conservation Commission,
- (d) A member from the oil or gas industry appointed by the Governor.
- (e) An owner of oil and gas property appointed by the Governor, and
- (f) A member from the mineral industry appointed by the Governor.

The Commissioner of Environment and Conservation shall be ex officio the State Oil and Gas Supervisor, and shall also serve as Supervisor of the Mineral Test Hole Regulatory Act, Part 5 of Title 60, Chapter 1.

- (9) "Bonding Agent" shall mean any entity that issues a bond for an operator to submit to the state to assure the plugging of a well or reclamation of a well site.
- (10) "Bottomhole Pressure" shall mean the pressure in pounds per square inch of an oil and/or gas well determined at the face of the producing horizon by means of a pressure-recording instrument, adopted and recognized by the oil and gas industry.
- (11) "Brush and Rock Plug" shall mean an obstruction, made of wood and stone, and placed in the well bore to form an effective base for plugging material.
- (12) "Casing Pressure" shall mean the pressure built up between the casing and the tubing when the casing and tubing are packed off at the top of the well.
- (13) "Casinghead Gas" shall mean any gas or vapor, or both, indigenous to an oil stratum and produced from such stratum with oil. It shall be treated as gas, if sold, for the purpose of paying privilege tax.
- (14) "Christmas Tree" shall mean an assembly of valves and fittings at the head of the casing of a well to control the flow. Also spoken of as "wellhead connections".
- (15) "Circulation" shall mean the passing of approved fluid down through the drill stem and up to the surface, in the process or rotary drillings or in setting casing.
- (16) "Common Source of Supply" shall comprise and include the area, which is underlain or that, from geological or other scientific data or from drilling operations or other evidence, appears to be underlain by a common accumulation of oil or gas or both; provided, that if any such area is underlain or appears from geologic or other scientific data or from drilling operations or other evidence to be underlain by more than one common accumulation of oil or gas, or both, separated from each other by strata of earth and not connected with each other, then such area, as to each said common accumulation of oil or gas, or both, shall be deemed a separate common source of supply.
- (17) "Condensate" shall mean liquid hydrocarbons that were in the gaseous phase in the reservoir at initial reservoir condition. It shall be treated as oil for the purpose of paying privilege tax.
- (18) "Conservation" shall mean conserving, preserving, guarding, or protecting the oil and gas resources of the State by obtaining the maximum efficiency with minimum waste in the production, transportation, processing, refining, treating, and marketing of the un-renewable oil and gas resources of the State.
- (19) "Correlative Rights or Equally" shall mean that action or regulation by the Board, which affords a reasonable opportunity to each person entitled thereto to recover or receive the oil and/or gas under his tract or tracts without being required to drill unnecessary wells or incur other unnecessary expense to recover or receive such oil or gas or its equivalent.
- (20) "Cubic Foot of Gas" shall mean the volume of gas contained in one cubic foot of space at a standard pressure base of 14.73 psi and a temperature base of 60 degrees Fahrenheit.
- (21) "Developed Area" shall mean acreage assigned by the Board to a drilling or production unit on which a well has been completed that is capable of producing oil or gas.

- (22) "Directional Drilling" shall mean the drilling of a well that deviated from the vertical by more than five (5) degrees.
- (23) "Disposal Well" shall mean a well drilled or converted for subsurface disposal of waste products or brine, and its related surface facilities.
- (24) "Drilling Mud" shall mean any approved mixture of water and clay or other material as the term is commonly used in the industry.
- (25) "Dry Hole or Dry Well" shall mean a well found incapable of producing either oil or gas in sufficient quantities to justify completion or continued production.
- (26) "Equitable Share of the Production" shall mean, as to each person, that part of the authorized production from the pool that is substantial in the proportion that the amount of recoverable oil and gas, or both, in the developed area of his tracts in the pool bears to the recoverable oil or gas, or both, in the total of the developed area in the pool.
- (27) "Exploitation Well" shall mean a well drilled or to be drilled to one or more pools of oil and/or gas with reasonable assurance of obtaining commercial production.
- (28) "Exploration Well" shall mean a well drilled in unproven or semi proven territory for the purpose of ascertaining the presence of commercial oil and/or gas accumulations.
- (29) "Field" shall mean the general area which is underlain or appears to be underlain by at least one (1) pool and including the pool or pools beneath the area.
- (30) "Forced-change of operator" shall mean any oil or gas well being taken over by a new operator without the signatures from the original permittee or previous operator of record.
- (31) "Gas" shall mean all natural gas and all other fluid hydrocarbons not defined as oil, including condensate because it originally was in a gaseous phase in the reservoir, but excluding helium and other rare gases.
- (32) "Gas/Oil Ratio (GOR)" shall mean the portion of a wellbore drilled laterally into a common source of supply for production or injection purposes.
- (33) "Gathering Line" means a pipeline that transports gas or oil from a well or current production facility to a transmission line, main meter, compressor station, or tank battery.
- (34) "Horizontal Drainhole" shall mean the portion of a wellbore drilled laterally into a common source of supply for production or injection purposes.
- (35) "Horizontal Drainhole End Point" shall mean the terminus of a horizontal drainhole.
- (36) "Horizontal (Lateral) Drilling" shall mean controlled directional drilling of wells with lateral penetration through productive reservoirs.
- (37) "Illegal Gas" shall mean gas that has been produced, transported, or sold in violations of any rule, regulation, or order of the Board.
- (38) "Illegal Oil" shall mean oil that has produced, transported, or sold in violation of any rule, regulation, or order of the Board.
- (39) "Illegal Product" shall mean any product derived in whole or in part from illegal oil or illegal gas.
- (40) "Interested Party" shall mean any person who owns an interest within the area of, or proximate to, the tracts directly affected by the application.
- (41) "Lease Tank" shall mean the tank or other receptacle into which the oil is produced either directly from a

well or from a well through gas separator, gun barrel, or similar equipment.

- (42) "Market Demand" shall mean the amount of oil reasonably needed for current consumption, use, storage, or working stocks, within and without the State, or the amount of gas of any type reasonably needed for current consumption, use, or storage, within and without the State.
- (43) "Mechanical Plug" shall mean a manufactured device to seal the well bore or inside diameter of casing.
- (44) "Multiple Completion" shall mean the completion of any well so as to permit simultaneous production from two or more common sources of supply with such common sources of supply completely segregated.
- (45) "Neet Cement" shall mean a complex, finely ground, kiln-fired calcium carbonate silicate which, when mixed with water, forms a slurry that will harden in the well bore and casing and effectively seal formations penetrated by the well bore.
- (46) "Nomination" shall mean the amount of oil or gas for which a purchaser has a definite and bona fide need during a given period.
- (47) "Non-producing well" shall mean any well shown on the annual well report that indicates production of 12 barrels or less of oil per year or 25 mcf or less of gas per month.
- (48) "Oil" shall mean crude petroleum that was originally in an oil phase in the reservoir.
- (49) "Operator" shall mean the person to whom the drilling permit has been issued, whether owner or not, supervising or responsible for drilling, operating, repairing, abandoning or plugging of wells subject to this act.
- (50) "Organization Report" shall mean the form required by Rule 1040-02-02-.01 to be submitted with a permit application that names the responsible parties for the well.
- (51) "Owner" shall mean the person who has the right to drill into and to produce from any pool, and to appropriate the production for himself or others.
- (52) "Person" shall mean any natural person, corporation, association, partnership, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, and includes any government or political subdivision or any agency thereof.
- (53) "Pool" shall mean an underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both. Each zone of the general structure which is completely separated from any other zone in the structure is covered by the term "pool" as used therein.
- (54) "Pooled Unit" shall mean two or more tracts of land, of which their ownership may be different, that are consolidated and operated as a single tract for production of oil and/or gas, either by voluntary agreement between the owners thereof, or by exercising of the authority of the Board under the statute. When such tracts are consolidated by Board authority, the size of the consolidation tract will not exceed the size, with permitted tolerance, of a "Drilling Unit" as herein defined. In no such case is there any actual change in the title or ownership of the original tracts.
- (55) "Pollution" shall mean damage or injury from the loss, escape or unapproved disposal of any substance at any well or structure installation subject to these rules.
- (56) "Pollution Control Structures" shall mean structures designed to prevent pollution, including but not limited to, berms, dikes, diversion drainage ditches, hay bales, pits, or tanks.
- (57) "Producer" shall mean the owner or operator of a well or wells capable of producing oil or gas, or both, in paying quantities.
- (58) "Producing Formation" shall mean a formation from which oil or gas is being or has been produced. In the context of plugging operations, producing formation shall mean a formation from which oil or gas has

been produced in the general vicinity of a well to be plugged.

- (59) "Producing Well" shall mean any well that produces quantities greater than 12 barrels of oil per year or 25 mcf of gas per month.
- (60) "Product" shall mean any commodity made from oil or gas.
- (61) "Production Unit or Proration Unit" shall mean a drilling unit on which a well producing oil and/or gas has been completed, and which is recognized as such for the purpose of production by the Board.
- (62) "Property Line" as used herein shall mean the boundary dividing tracts on which mineral rights, royalty, or leases are separately owned except that where conventional units shall have been created for the drilling of the well, the boundaries of the unit shall be considered the "property line".
- (63) "Purchaser" shall mean any person who directly or indirectly purchases, transports, takes, or otherwise removes production to his account from a well, lease, or common source of supply.
- (64) "Reclamation" shall mean the regrading of all surface disturbed areas associated with oil and gas operations except water areas, replacement of the topsoil or substitution with suitable topsoil material, application of suitable mulch and soil nutrients where necessary, and the establishment of a vegetative cover that is in accordance with acceptable standards as set forth in the rules and regulations of the Board.
- (65) "Represented Party" shall mean any person who is known to the applicant, after diligent search, to own an interest within the area of, or proximate to, the tracts directly affected by the application and who is also known to have either a consultant or attorney representing him in conservation matters.
- (66) "Salt Water" shall mean water, commonly referred to as oil field brine, which is produced in association with oil and/or gas and which is generally considered unsuitable for human consumption or for irrigation because of its high content of dissolved solids.
- (67) "Separator" shall mean an apparatus for separating oil, gas, water, etc., with relative efficiency, as it is produced.
- (68) "Shut-In Pressure" shall mean the pressure noted at the wellhead when the well is completely shut-in. Not to be confused with bottomhole pressure.
- (69) "Stripper Well" shall have the ordinary meaning as that term is generally understood in the oil and gas industry (well capable of producing ten (10) barrels or less per day).
- (70) "Substitute Unit Well" shall mean any well already drilled to, or to be drilled to, completed or recompleted in the unitized reservoir which in the interest of good conservation practices should be designed to take the place of and become the unit well as determined by special order.
- (71) "Supervisor" shall mean the State Oil and Gas Supervisor or his subordinates. The Commissioner of Environment & Conservation or his designee.
- (72) "Transmission Line" means a pipeline, other than a gathering line, that transports gas from a gathering line or storage facility to a gas distribution center or storage facility.
- (73) "Transporter" shall mean every person engaged in the transportation of oil or gas from tanks or other receptacles located at the place of production in this State.
- (74) "Tubingless Completion" shall mean the completion of any well so as to permit the passage of production from one separate underground source through one production casing set in the well.
- (75) "Waste" in addition to its ordinary meaning, shall mean "physical waste" as that term is generally understood in the oil and gas industry. It shall include; (1) underground waste and inefficient, excessive, or improper use or dissipation of reservoir energy, including gas energy and water drive, of any pool; and

the locating, spacing, drilling, equipping, operating, or producing of any oil well or gas well in a manner which results, or tends to result, in reducing the quantity of oil or gas ultimately recoverable from any pool; and (2) surface waste and the inefficient storing of oil and the locating, spacing, drilling, equipping, operating, or producing of oil wells or gas wells in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of oil or gas.

- (76) "Well Cuttings" shall mean rock samples obtained from rotary or cable tool drilling operations. The Supervisor at his discretion, may determine the required frequency for collecting well cuttings.
- (77) "Well Site Equipment" means the equipment, including but not limited to an associated tank battery, production and hydrocarbon equipment at an oil and gas lease or location.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-01
Bond

Amendment

Chapter 1040-02-01 Bond is deleted in its entirety and replaced with the new Chapter 1040-02-01 to read as follows:

Chapter 1040-02-01
Bond

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1040-02-01-.01 Amount of Plugging Bond

- (1) A Plugging Bond is required to be in force for a well from the time a drilling or re-entry well permit is granted until the well is plugged and abandoned. The bond shall be for the sum of two thousand dollars (\$2000) for wells from 0 to 2500 feet in depth; three thousand dollars (\$3000) for wells from more than 2500 to 5000 feet in depth; for all wells deeper than 5000 feet the bond shall increase over three thousand dollars at the rate of \$1.00 for every foot deeper than 5000 feet. The bonds will be written in such a manner that the Principal and Bonding Agent hereto are firmly bound to the Tennessee Department of Environment and Conservation (hereinafter called Department), jointly and severally, for the payment of the full penal sum of the bond so that the well shall be plugged and abandoned in accordance with the rules and regulations of the Board. An individual well bond shall be released upon the proper plugging of the well and the filing with the Supervisor of a Plug and Abandon Report (Form R-P&A-1), driller's log, downhole surveys, well cuttings and cores, and other data as required, or if the permit has been canceled because of lack of proper activity.
- (2) The bonding agent may notify the Supervisor in writing of its desire to terminate its liability under the bond by giving written notice to the Supervisor. The Supervisor shall thereupon require the principal in the bond to file a new bond, or to effect a change of operators on the well within sixty (60) days. If the principal can no longer be contacted, then any interested party may seek a change of operators on the well in accordance with Rule 1040-02-02-.02(2)(a). If a new bond is filed by the principal, or a change of operators is approved by the Supervisor, liability under the original bond shall cease and terminate as to acts and operations occurring after the effective date of the new bond or approval of the change of operators, and the original bond shall be released upon written request by the bonding agent. If a new bond is not filed within the sixty (60) days, or a change of operators has not been approved, the Supervisor shall revoke the permit secured by the bond and require the principal to plug the well in accordance with the rules and regulations of the Board. In the event of the failure of the principal to plug

the well, the supervisor may issue a notice of non-compliance to the principal and the bonding agent requiring the bonding agent either to cause the well to be plugged, or forfeit the amount of the bond to the Department. The bonding agent will then have sixty (60) days in which to plug the well. If the well has not been plugged within that time limit, then a notice of forfeiture will be issued, as provided for under Rule 1040-02-01-.06. The bonding agent will then have twenty-one (21) days in which to petition the State Oil and Gas Board for a hearing relative to the bond forfeiture, pursuant to the Administrative Procedures Act, T.C.A. §4-5-101 et seq. If a hearing is requested, no further action will be taken against the bond until such hearing has taken place and a final order given by the Board. If the well is plugged in the interim, then the notice of forfeiture will be canceled and the bond released.

1040-02-01-.02 Blanket Plugging Bond

- (1) In lieu of an individual bond per well, any well operator may file with the Supervisor a blanket bond in the sum of twenty thousand dollars (\$20,000) covering a maximum of ten (10) wells from 0 to 5000 feet in depth; thirty thousand dollars (\$30,000) covering a maximum of ten (10) wells from 5000 to 10,000 feet in depth; and no blanket bonds for wells deeper than 10,000 feet either drilled or to be drilled by the principal in the bond at any one time. Additional wells may be covered by the bond only if wells originally covered by the bond are plugged or transferred to another operator, on a one-for-one basis with the wells to be added to the bond. Otherwise, an additional bond must be filed for each additional group of ten (10) wells. The terms of such blanket bonds shall be in full compliance with the requirements for an individual well bond. A blanket bond shall be released upon the proper plugging of all wells of the operator (principal) covered by the bond, and the filing with the Supervisor of the Plug and Abandon Reports, driller's logs, downhole surveys, well cuttings and cores, and other data as required for such wells. A blanket bond may be canceled by the bonding agent, notifying the Supervisor in writing, delivered personally or by registered mail, that the operator is no longer authorized by the bonding agent to obtain permits under said bond. If or when all wells permitted under said bond have been plugged and abandoned according to the rules and regulations of the Board, or existing permits have been canceled because of lack of proper activity, the Supervisor shall release the bond.
- (2) The bonding agent may notify the Supervisor in writing of its desire to terminate its liability under the bond by giving written notice to the Supervisor. The Supervisor shall thereupon require the principal in the bond to file a new bond, or to effect a change of operators on the well(s) within sixty (60) days. If the principal can no longer be contacted, then any interested party may seek a change of operators on the well(s) in accordance with Rule 1040-02-02-.02(2)(a). If a new bond is filed by the principal, or a change of operators is approved by the Supervisor on all wells covered by the bond, liability under the original bond shall cease and terminate as to acts and operations occurring after the effective date of the new bond, or approval of the changes of operators, and the original bond shall be released upon written request by the bonding agent. If a new bond is not filed within the sixty (60) days, or a change of operators has not been approved on all wells covered by the bond, the Supervisor shall revoke the permit(s) secured by the bond and require the principal to plug the well(s) in accordance with the rules and regulations of the Board. In the event of the failure of the principal to plug the well(s), the bonding agent may either cause the well(s) to be plugged, or forfeit the amount of the bond to the Department. This action will be initiated by the issuance of a notice of noncompliance, as provided for under Rule 1040-02-01-.07. The bonding agent will then have sixty (60) days in which to plug the well(s). If the well(s) have not been plugged within that time limit, then a notice of forfeiture will be issued, as provided for under Rule 1040-02-01-.06. The bonding agent will then have twenty-one (21) days in which to petition the State Oil and Gas Board for a hearing relative to the bond forfeiture, pursuant to the Administrative Procedures Act, T.C.A. §4-5-101 et seq. If a hearing is requested, no further action will be taken against the bond until such hearing has taken place and a final order given by the Board. If the well(s) are plugged in the interim, then the notice of forfeiture will be canceled and the bond released.

1040-02-01-.03 Reclamation Bond

- (1) A reclamation bond is required to be filed with the Supervisor at the time an operator's permit application is submitted, and shall be effective from the time the initial surface disturbances begin until the well is plugged and the site and access roads are reclaimed. The bond shall be for the sum of one thousand five hundred dollars (\$1,500) per well site. The bond shall be in favor of the Department, and shall be a performance bond, conditioned that the well site and access roads shall be reclaimed in accordance with the rules and regulations of the Board. Upon satisfactory completion of regrading and revegetation of all

disturbed areas except active work areas and access roads needed for oil or gas production, the Supervisor shall release one-third (1/3) of the reclamation bond, or reduce the amount of the reclamation bond by one-third (1/3). Access roads that will continue to be used by the landowner for other legitimate purposes and maintained in usable condition, which condition reduces erosion to a practical minimum, will not have to be revegetated by the operator. Such usage shall be established by the landowner by sworn affidavit. After plugging of the well and final reclamation of the well site, and after plantings have survived two growing seasons with an established ground cover of at least ninety percent (90%) herbaceous and/or woody species of which at least eighty percent (80%) are perennial species, the supervisor shall release the remainder of the reclamation bond.

- (2) This paragraph shall be applicable only when the same bonding agent is responsible for both the plugging and reclamation bonds on a well. The bonding agent may notify the Supervisor in writing of its desire to terminate its liability under the reclamation bond by giving written notice to the Supervisor. The Supervisor shall thereupon require the principal in the reclamation bond to file a new bond, or to effect a change of operators on the well within sixty (60) days. If the principal can no longer be contacted, then any interested party may seek a change of operations on the well in accordance with Rule 1040-02-02--02(2)(a). If a new reclamation bond is filed by the principal, or a change of operators is approved by the Supervisor, liability under the original bond shall cease and terminate as to acts and operations occurring after the effective date of the new bond, or approval of the change of operators, and the original bond shall be released upon written request by the bonding agent. If a new reclamation bond is not filed, or a change of operators has not been approved within sixty (60) days, the Supervisor shall revoke the permit secured by the plugging and reclamation bonds and require the principal to plug the well and reclaim the well site and access roads in accordance with the rules and regulations of the Board. In the event of the failure of the principal to plug the well and reclaim the well site and access roads, the bonding agent may either cause the well to be plugged and the well site and access roads to be reclaimed, or forfeit the amount of the bonds to the Department. This action will be initiated by the issuance of notices on noncompliance as provided for under Rule 1040-02-01-.07. The bonding agent will then have thirty (30) days in which to plug the well and reclaim the well site and access roads. If the well has not been plugged and the well site and access roads have not been reclaimed within that time limit then notices of forfeiture will be issued as provided for under Rule 1040-02-01-.06. The bonding agent will then have twenty-one (21) days in which to petition the State Oil and Gas Board for a hearing relative to the bond forfeitures, pursuant to the Administrative Procedures Act T.C.A. §4-5-101 et seq. If a hearing is requested, no further action will be taken against the plugging and reclamation bonds until such hearing has taken place and a final order has been given by the Board. In the event the bonding agent causes the well to be plugged and the well site and access roads to be reclaimed the plugging bond shall be released, and the amount of the reclamation bond shall be reduced by one-third (1/3), to one thousand dollars (\$1,000), unless such reduction has previously taken place. The remainder of the reclamation bond will be released only after plantings have survived two growing seasons with an established ground cover of at least ninety percent (90%) herbaceous and/or woody species provided that at least eighty percent (80%) are perennial species.

1040-02-01-.04 Relief of Responsibility

A permittee's bonds and other responsibilities to a well or wells shall be relieved upon approval by the Supervisor of a successor's application for a Change of Operator or Owner's Permit (Form P-AD-3), furnishing bonds, and the tendering of authority on Form P-AD-3 by the permittee requesting the Supervisor to approve the successor's application.

1040-02-01-.05 Execution

Any of the following shall serve as bonds:

- (1) A surety bond executed by the well operator as principal and by a corporate surety authorized to do business in Tennessee; or
- (2) Cash; or
- (3) A certified check; or

- (4) A Certificate of Deposit, if it is made out exactly as follows: "Operator Name and Tennessee Department of Environment and Conservation or Tennessee Department of Environment and Conservation"; and does not contain any terms or conditions that provide that the issuing bank may charge against the deposit any debt of the depositor(s) owing to it (set-off terms); or any terms or conditions that provide that anyone whose signature appears on the signature card may withdraw funds from the account. The operator shall be entitled to any interest earned on a certificate of deposit as the same becomes due and payable. The treasurer of the State of Tennessee shall receive and hold the originals of such certificates in the name of the State of Tennessee, in trust, for the purpose for which such deposit is made, and shall at all times be responsible for the custody and safekeeping of such deposits; provided, however, that the certificate may be returned to the issuing financial institution as may be necessary for renewal from time to time; or
- (5) An irrevocable letter of credit issued by any federally insured bank or savings and loan association. The letter of credit must comply with the format shown on Form ILC (Irrevocable Standby Letter of Credit format).

1040-02-01-.06 Forfeiture

- (1) The Supervisor shall cause a notice of noncompliance to be served upon the operator by certified mail, addressed to the permanent address shown on the application for a permit:
 - (a) If the requirements with respect to proper plugging upon abandonment of a well or wells and submission of all required records and data have not been complied with within the time limits set by the Board or Department, and/or,
 - (b) If the requirements with respect to proper reclamation of the well site(s) and access roads have not been complied with within the time limits set by the Board or Department.
- (2) The notice shall specify in what respects the operator has failed to comply with this chapter or the regulations or orders of the Board or Department.
- (3) If the operator has not reached an agreement with the Supervisor, or has not complied with the requirements set forth within thirty (30) days after mailing the notice, the plugging bond shall then be forfeited to the Department, and the money used by the Department to properly plug the well(s), and/or the reclamation bond used to reclaim the well site(s) and access roads.
- (4) In the case of the plugging bonds, such bonds are penal in nature, and the full amount of the bond will be forfeited.
- (5) In the case of reclamation bonds, such bonds are considered to be performance bonds, and any portion of a reclamation bond not expended to perform the reclamation work shall be refunded to the operator or his bonding agent if the conditions of the bond are fully satisfied.

1040-02-01-.07 Notice of Noncompliance

At any time the Supervisor causes a notice of noncompliance to be served upon an operator (principal), copies of such notice shall be mailed to the resident agent writing such bond (where the address is known) and to the bonding agent at the address provided to the Tennessee Department of Commerce and Insurance for receipt of notices. The bonding agent shall be afforded the opportunity to act in behalf of the operator (principal) within the time set forth in regard to the proper plugging of the well or wells and submission of required well records, down hole data, and plugging reports and/or reclamation of the well site and access roads. Should the operator (principal) and bonding agent fail to comply within the time provided, then and only in that event, the plugging bond shall be forfeited, and/or the reclamation bond used to reclaim the well site and access roads.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-02 Permits

Amendment

Chapter 1040-02-02 Permits is deleted in its entirety and replaced with the new Chapter 1040-02-02 to read as follows:

Chapter 1040-02-02 Permits

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1040-02-02-.01 Permit Required	1040-02-02-.04 Notification to Plug and Abandon
1040-02-02-.02 Drilling Permit	1040-02-02-.05 Repealed
1040-02-02-.03 Repealed	

1040-02-02-.01 Permit Required

- (1) A permit is required from the Supervisor before any person shall conduct operations described in chapter 1040-02-01 through Chapter 1040-02-12. Each permit, when granted, shall expire three hundred and sixty five (365) days after issuance unless the applicant has commenced operations and reasonably continues said operations pursuant to the permitted objective. Any permit now in force shall expire three hundred sixty days (365) days from the date of this rule unless permittee complies with this requirement. If a permitted location is to be abandoned without the commencement of any drilling activity, then the operator must notify the Supervisor in writing within thirty (30) days after expiration of the permit.
- (2) No work shall begin on a well pursuant to this chapter before a permit for such work on the well has been issued by the Supervisor. Furthermore, any work the operator may do, or may have done, will be at his own risk and with the full understanding that the Supervisor may find it necessary to require changing the well location or operation plans, or otherwise deny the permit because of noncompliance with applicable rules and regulations and require that the well be plugged. No requests for exceptions will be considered for a well that was started before a permit was issued.
 - (a) A legible copy of this permit must be displayed on location upon commencement of drilling operations and remain on display at said location until completion of the well.
- (3) Fifteen (15) day progress on drill reports, upon request of the Supervisor, shall be mailed to the Supervisor describing well activities for the previous week. Said reports shall be made on the Fifteen Day Progress Drill Report (Form R-PD-I).
- (4) Organization Report (Form R-O-1) shall be made to the Supervisor prior to the issuance of a permit. The applicant shall name all parties responsible for the well and give contact information for them on the Organization Report consistently with the record submitted to the Secretary of States for any corporation or limited liability company. If such persons have previously filed an R-O-1 report with the Supervisor, it will not be necessary to submit another report, unless there has been a change in the information originally submitted.
- (5) The operator will indicate on the permit application, on a space provided, if the operator has the legal right to drill and produce the well.
- (6) A notice to surface owners of oil and gas estates is required as follows:
 - (a) No later than the filing of the application with the Department for a permit to drill and prior to initiating any site preparation, the applicant shall give notice by certified mail, return receipt requested, of his intent to drill to the property owner or owners of the surface of the land to be drilled or to be affected by the surface disturbances listed in subparagraph (c) of this paragraph.
 - (b) The property owners to be notified under this section shall be the property owners of record in the property tax assessor's office in the county where the property is located.
 - (c) The notice shall include a well location plat which shows the proposed location of the oil and gas

well site, the proposed location of all new ingress and egress, the location of all diversions, drilling pits, dikes, and related structures and facilities, the location of proposed storage tanks and all other surface disturbances. Said plat shall comply with Chapter 1040-02-03.

- (d) The notice shall state that the property owner and applicant have fifteen (15) working days from the date of mailing to discuss the location of surface disturbances in connection with the drilling operation. It shall also state that if the property owner and applicant are unable to resolve differences regarding the location of surface disturbances, either or both may request in writing a hearing before the Supervisor or his designee. The notice shall provide the name and address of the Supervisor.
- (e) The applicant shall file with the Supervisor, as a part of the application, written certification that the notice required by subparagraph (a) of this paragraph has been given, including the name and address of each property owner given notice and the date on which each notice was mailed.
- (f) The applicant and the property owners given notice under subparagraph (a) of this paragraph shall attempt to resolve any differences between them regarding surface disturbances related to the proposed drilling operation. If those differences cannot be resolved, then a hearing and order may be obtained as follows:
 - 1. Any property owners entitled to notice (or the applicant) may request, within fifteen (15) working days of the mailing of the notice required in subparagraph (a) of this paragraph, that the Supervisor or his designee conduct a hearing. A request for hearing under this paragraph shall be in writing to the Supervisor, and shall be mailed by certified mail, return receipt requested within fifteen (15) working days of the mailing of the notice required in subparagraph (a) of this paragraph. The purpose of the hearing will be to minimize the impact of the proposed drilling operation on the surface of the land.
 - 2. The hearing shall be conducted as a contested case under Title 4, Chapter 5, Part 3 and shall be held before a hearing officer sitting alone. For purposes of the hearing, the Supervisor or his designee shall be the hearing officer. The hearing shall be held within ten (10) working days of receipt of a request for hearing by the Supervisor or his designee, and shall be held in the county of the proposed oil and gas well. Notice of the hearing shall be given to all persons entitled to notice under subparagraph (a) of this paragraph and the applicant.
 - 3. The hearing officer shall render a decision within ten (10) calendar days of the hearing. The decision shall be considered a final order not subject to further agency review pursuant to T.C.A. 4-5-315(a)(1).
 - 4. For purposes of this subparagraph, "working day" means all calendar days excluding Saturdays, Sundays, and legal holidays as designated in T.C.A. §15-1-101.
- (g) Notwithstanding any other requirement for a permit to drill, such a permit may only be issued:
 - 1. If the applicant submits to the Supervisor statements of no objection signed by all property owners entitled to notice under subparagraph (a) of this paragraph; or
 - 2. If a hearing is not requested as provided in part (f)1 of this paragraph; or
 - 3. Upon the issuing of a final order pursuant to part (f)3 of this paragraph.
- (h) For purposes of satisfying the requirements of subparagraph (g) of this paragraph for issuing a permit:
 - 1. The Supervisor may treat the persons named in the applicant's certification of property owners, under subparagraph (e) of this paragraph, as being all of the property owners entitled to notice under subparagraph (a) of this paragraph, unless the Supervisor has actual notice to the contrary.

2. If a request for hearing as provided in part (f)1 of this paragraph is not delivered to the office of the Supervisor within fifteen (15) working days plus three (3) additional days after the date notice-of-intent to drill was mailed to each property owner, as stated in the applicant's certification of notice, under subparagraph (e) of this paragraph, the Supervisor may assume that no hearing was requested, unless he has actual notice to the contrary.
- (7) Inspection and approval of all access roads, surface disturbances, and pollution control structures at a proposed well site by the designated gas and oil field inspector is required prior to the issuance of any permit under this Chapter.
 - (8) Permits shall not in any way be construed as a certification by the State of Tennessee that any property interest in the premises covered by a permit is vested in the permit; they are issued solely under the regulatory powers vested in the State Oil and Gas Board and the Department under the provision of Title 60 of the T C A for the purposes recited in said Code Section and the rules and regulations promulgated by the Board pursuant to said Code Section.
 - (9) In the event of litigation over a particular tract of land, or in the event a tract of land is contested as to the ownership of oil and gas rights, the policy of the Board will be to issue permits in order to preserve the physical integrity of that particular tract without prejudicing any claimants to the title of that land.

1040-02-02-.02 Drilling Permit.

- (1) Applications for a permit to drill a well for oil and gas shall be made on Application for Permit to Drill (Form P-AD-1) and submitted to the Supervisor's office for approval. The application shall be accompanied by a copy of a location plat, bond, organization report and a fee of five hundred dollars (\$500.00). The application shall give the name and address of the drilling contractor, if known; otherwise notification shall be made by letter to the Supervisor as soon as determined. The application shall also include a plan for erosion control, prevention of pollution of surface waters, and reclamation of all areas disturbed by the operations, including access roads. The plan shall conform to the requirements of Rule 1040-02-09-.05. The plan must be sufficiently detailed to allow a gas and oil field inspector to locate the site of the facilities to be constructed and estimate the expected environmental impact, but does not have to include detailed engineering design drawings. The Supervisor may require modifications in the operator's plan if such modifications are necessary to prevent pollution or to promote reclamation. Upon approval, the operator's plan shall be a condition of the permit. Failure to comply with the plan shall be grounds for revocation of the permit and forfeiture of the bond.
- (2) A drilling permit must be amended by filing an Application to Amend Well Permits (Form P-AD-2) with the Supervisor and paying a fee of one hundred dollars (\$100.00) if the well name, number, elevation, location, or proposed total depth is changed. If the well location is changed, one (1) copy of a revised survey plat must be filed with the application. The amended permit is subject to the same terms and conditions as a well permit, including erosion control requirements. A person who is granted a drilling permit can only transfer the permit and attendant rights to another person after submitting an Application to Change Operators (Form P-AD-3) and receiving approval of the application from the Supervisor. The person to whom the permit is being transferred must file an Organization Report (Form R-0-1), post a well plugging bond and a reclamation bond, if needed, and pay a fee of one hundred dollars (\$100.00). The transfer of a permit from the original permittee to another operator, with or without the approval of the Supervisor, does not relieve the original permittee of obligations occurring before the transfer, and the bond will not be released until all material at the time of transfer has been submitted. Unless change of operator forms have been processed or approved by the office of the Supervisor, any operation conducted on the well in question is the responsibility of the original permittee, and his bond will not be released until all State requirements have been met.
 - (a) If an Application to Change operators (Form P-AD-3) is to be submitted without the signature of the current permittee, it will be considered a forced change of operator, then the following items must also be submitted:
 1. Copy of the lease and assignments, if any, under which the permit was originally issued,

or subsequently transferred, if those documents are available, or an affidavit from the landowner that no prior oil and gas leases are still active. An affidavit from the original landowner that there are no other unexpired oil and gas leases, if the title to the land has changed hands since the Department issued the permit on the land in question, or, if the original landowner cannot be located, an affidavit by the new operator or his agent that he has checked the grantor index in the register's office and found no unexplained conveyance of the oil and gas rights by the original landowner.

2. Copy of the lease and assignments, if any, under which the permit will be transferred to the new operator.
 3. Copy of a certified letter to the current permittee requesting that an Application to Change Operators (Form P-AD-3) be signed, and also stating that if the application is not signed, and no written objection to a change of operator without that signature is submitted to the Department in writing within ten (10) working days of receipt of said letter, the new operator will seek approval from the Department of that Approval to Change Operators without said signature. In addition, the applicant will send the certified mail notice to the current address that is registered with the Tennessee Oil and Gas Board or the Department as shown on the Organizational Report.
 4. A copy of a Court Order relative to the inactive or expired status of any prior oil and gas leases may be submitted in lieu of the items mentioned in parts 2 and 3 of this subparagraph.
 5. If a written objection to approving the application to Change Operators is properly submitted to the Department, the staff will administratively deny the application. If the applicant seeks to have the application considered further, he may then apply for a hearing before the Oil and Gas Board. The Board will then consider approval of the application only when there is no doubt as to the ownership of the oil and gas rights of the applicant. If a cloud or a question as to the title is determined to exist by the Board, then the Board will deny the application, and refer the applicant to the court for a ruling on the question of ownership.
- (b) If a well or wells revert back to a landowner, whether by court action, or by lease expiration or other provisions, and the well will remain in operation, then the landowner must submit an Application to Change Operators (Form P-AD-3), file an Organization Report (Form R-0-1), post a well plugging bond, post a reclamation bond if required, pay a fee of one hundred dollars (\$100.00), and otherwise comply with well spacing regulations. If the well will be used for domestic gas only, then a plugging bond in the amount of five hundred dollars (\$500) will be required.
- (c) Before a well can be turned over to a landowner for use as a fresh water well, the operator must set a one hundred (100) foot plug within three hundred (300) feet of the surface, or a cement plug at fifty (50) feet above the casing shoe, whichever is the deeper, and the well must be completed as a water well, and approved by the Department of Environment and Conservation, Division of Water Supply. No Organization Report (Form R-0-1) is required, and in lieu of a plugging bond the landowner must submit a notarized letter agreeing to assume liability for any subsequent plugging which might be required.
- (3) If drilling operations cease for a period of thirty (30) days, the operator shall notify the Supervisor in writing of the reason for the shutdown and the date on which operations shall be resumed.
 - (4) All wells shall be either properly plugged or completed within a period of six (6) months following cessation of drilling. Upon written request to the Supervisor by the operator, showing valid cause for requiring additional time, a reasonable extension of as much as ninety (90) days additional may be granted.
 - (5) An applicant who requests a permit to drill on site which is closer than normal statewide spacing to the boundary of an offsetting oil and gas lease, or mineral or surface property, or on a tract of land which is

contested as to the ownership of oil and gas rights, must comply with the following procedures:

- (a) Notify by certified mail all affected offset and/or separate owners of oil and gas leases and mineral and surface property, as can reasonably be determined, that he is applying for a permit to drill a well; and submit a copy of the drill-site location plat with the notice.
 - (b) Publish the operator's name, lease name, well number and description of the drill-site location in a newspaper of general circulation in the county where the well is to be drilled, with a statement that if any interested owner objects to the drilling of said well, they should make their objections known to the Supervisor of the State Oil and Gas Board.
 - (c) If, within ten (10) days after the notice, there are no objections to issuing the permit, then the Supervisor shall issue the permit, provided all other requirements have been complied with.
 - (d) If there is an objection or objections to issuing the permit, the objector or objectors must furnish the applicant and the Supervisor the basis of the objection and support his contentions with documents, etc., within ten (10) days after the date of the notice.
 - (e) If the applicant, after receiving an objection, still wants the permit he must then apply for a hearing before the Oil and Gas Board. The Board will then decide whether or not to issue the permit or refer the applicant to the court for relief.
- (6) If more than one applicant applies for a permit to drill the same or a conflicting location on a tract of land at a permissible distance from an offset or offsetting well, the first application received in the Supervisors office shall be issued the permit, provided the applicant complies with all other rules and regulations governing permits to drill a well. If the first applicant fails to exercise his permit privilege, then the next applicant of record, based on time submittal, shall receive the permit, provided he complies with all other requirements.
- (7) If the ownership of the drill site tract of land is contested, all claimants shall be identified by an accompanying letter.
- (8) Requests for permits for a voluntary pooled drilling unit, or for two or more leases or tracts that have been pooled for exploration or development shall be accompanied by a notarized affidavit signed by the operator that has the right to pool these leases to form a drilling unit.
- (9) The Supervisor has the right to withhold the issuance of a permit to any operator in violation of any rule or regulation of this order until such violation has been removed.

1040-02-02-.03 Repealed

1040-02-02-.04 Notification To Plug and Abandon.

Prior to plugging, notice shall be given the Supervisor in order that the Supervisor or his representative may witness the work. Work performed must be reported to the Supervisor on the Plug and Abandon Report (Form R-P&A-1) within thirty (30) days after completing the work. Form R-P&A-1 must be accompanied by a copy of the drilling contractor's or the service company's ticket for work done unless the work was observed by the Supervisor or his representative.

1040-02-02-.05 Repealed.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-03
Well Location Plats

Amendment

Chapter 1040-02-03 Well Location Plats is deleted in its entirety and replaced with the new Chapter 1040-02-03 SS-7039 (July 2010)

to read as follows:

Chapter 1040-02-03
Well Location Plats

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1040-02-03-.01 Preparing Plats

1040-02-03-.01 Preparing Plats

- (1) Well location plats shall be constructed and certified as accurate by a surveyor registered by the State of Tennessee. The following procedures and instructions shall be strictly complied with in preparing plats:
 - (a) Two legible copies of a well location plat shall be submitted for each proposed well and drawn on a sheet 8½" x 14" or larger, using bond paper.
 - (b) The plat shall be prepared to a scale of one inch equals one hundred, two hundred, three hundred, four hundred, five hundred or six hundred feet (1" = 100, 200, 300, 400, 500 or 600'). The scale set forth on the plat should be of a graphic type rather than so many inches equaling so many feet.
 - (c) The top or upper edge of the plat shall be oriented to the north, and a vector depicting magnetic north shall be placed on the edge or margin of the plat.
 - (d) The surface elevation of the proposed drill site, referenced to mean sea level, shall be determined and a reference benchmark established within two hundred (200) feet of each location and its elevation and description noted on the plat. If the surface elevation or drill site location is altered during location preparation, it must be re-determined by the operator, and this information submitted to the Supervisor within ten (10) days.
 - (e) A description or diagram of the proposed drill site location shall be made with reference to a specific 7½-minute topographic quadrangle map (1 inch equals 2,000 feet) by the use of the Carter Coordinate System, and Latitude and Longitude and by bearing and distance in feet to two permanent landmarks or monuments that are readily identifiable on a 7½-minute topographic map.
 - (f) The location plat, in addition to other requirements, shall identify surface ownership on the tract of land where the permitted well is to be located and surface ownership on offsetting tracts of land, if within three thousand (3,000) feet.
 - (g) The plat shall show the amount of acreage in the drill site tract.
 - (h) The distance in feet between the proposed drill site and the two nearest property and lease lines, and the nearest dry, abandoned, drilling or producing well, if such exists within three thousand (3,000) feet, shall be shown on the plat.
 - (i) In cases where the tract to be drilled is composed of separately owned interests which have been pooled or unitized the property lines and the amount of acreage in each separately owned interest must be shown. In addition, the unit lines, and the distance to the two nearest unit lines must also be shown interest must be shown.
 - (j) The plat shall also show the location of all existing or proposed access roads, the location of all dwellings, diversions, drilling pits, dikes, tanks, and all other surface disturbances, and the location of all streams, lakes, or other bodies of water within 200 feet of the well site and visible from the access roads, or apparent on a USGS topographic map. This information may be shown on more than one sheet if necessary, provided that on each sheet the name of the operator, well name and number, scale (of graphic type), a vector depicting magnetic north, and the location of the proposed drill site are shown along with the surveyor's certification and seal, and date on

which the well location plat was constructed.

- (k) All plats will be submitted with a latitude and longitude for each well site location.
- (l) Any well site submitted for a horizontal well must show the locations for the well collar; entry point of the horizontal leg and the termination point. Each of these locations must be shown on the plat with latitude, longitude and Carter Coordinate System.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-04
Well Spacing

Amendment

Chapter 1040-02-04 Well Spacing is deleted in its entirety and replaced with the new Chapter 1040-02-04 to read as follows:

Chapter 1040-02-04
Vertical Well Spacing

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1040-02-04-.01 Vertical Well Spacing

1040-02-04-.01 Vertical Well Spacing

- (1) No permits shall be issued for the drilling of wells in search of oil and gas and no well shall be drilled in search of oil or gas nor shall a well be abandoned in one pool and recompleted in another pool in which no spacing rules are prescribed by special fieldwide orders, unless the location of such well shall comply with the following requirements:
 - (a) Wells drilled in search of oil or gas to a depth of less than one thousand (1,000) feet shall be drilled on 10-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than three hundred thirty (330) feet from any property or unit line.
 - (b) Wells drilled in search of oil or gas to a depth of one thousand (1,000) to two thousand (2,000) feet or to the base of the Chattanooga Shale, whichever is deeper, shall be drilled on 20-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than three hundred thirty (330) feet from any property or unit line.
 - (c) Wells drilled in search of oil to a depth of more than two thousand (2,000) feet shall be drilled on 40-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than three hundred thirty (330) feet from any property or unit line.
 - (d) Wells drilled in search of gas from a depth of two thousand (2,000) feet to five thousand (5,000) feet or to the top of the Conasauga Formation shall be drilled on 40-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than three hundred thirty (330) feet from any property or unit line.
 - (e) Wells drilled in search of gas to a depth of more than five thousand (5,000) feet or below the top of the Conasauga Formation shall be drilled on 160-acre spacing, and shall not be located closer than one thousand three hundred twenty (1,320) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than six hundred sixty (660) feet from any property or unit line.

- (f) Any existing well may be deepened and produced for oil or gas from whatever zone(s) production may be obtained on the presently permitted unit size, provided, however, that any exceptions to offsetting property lines or wells under current spacing rules must comply with the provision of rule 1040-02-04-.01(1)(k).
- (g) Where a permit is requested for a wildcat well to be drilled in an area in which the surface or mineral ownership is so divided that the well cannot be located in compliance with the requirement of a distance from property lines and well spacing and a drilling unit cannot be formed in advance of drilling because it is not known whether the well will be completed as an oil well or a gas well, a permit may nevertheless be granted for the drilling of the well when the applicant presents evidence satisfactory to the Supervisor that the applicant has available for assignment to said well leases or acreage of area and size to constitute, in the judgment of the Supervisor, a reasonable producing unit for such well and such applicant agrees to create or to apply to the Board for creation of a reasonable producing unit within forty-five (45) days after completion of the well.
- (h) Upon the completion of a confirmation well to a discovery well, the operator of the discovery well must apply for a public hearing before the State Oil and Gas Board for the purpose of establishing temporary drilling and production units. When a pool has had five (5) wells drilled to and completed therein or after one (1) year has elapsed from the completion of the confirmation well in the field, whichever occurs first, the operator or operators of well in the field shall petition the board for a public hearing for the purposes of establishing field rules and regulations and the creation of drilling and production units for the pools in the field. The right is reserved, however, to any interested party to apply for a public hearing at an earlier date and if the Board finds from an examination of the information furnished that temporary or permanent drilling and production units should be formed, it shall be so ordered.
- (i) Where prior to the issuance of this order, a pool has already been partially developed with a greater density of wells than that prescribed herein, the Supervisor may, without additional public hearing, exempt such pools from the provisions of this order. The exemptions for these pools shall be granted only after application has been made to the Supervisor in writing accompanied by a map delineating the locations of all existing wells completed and producing from the pool for which exception is being asked.
- (j) A poolwide unit is exempt, within its internal boundary, from well spacing rules as to the particular unitized pool, but all wells must be located interior of the unit outline in compliance with the rules for distance from property lines.
- (k) The Supervisor may grant administrative approval of exceptions to Chapter 1040-02-04 Well Spacing, or any order of the Supervisor establishing well spacing for a pool upon submission of an application showing all pertinent information and data and after due notice is given to all operators of interest.
 - 1. The application shall be made to the Supervisor with a copy to each known offset operator of interest and such application shall include:
 - (i) Statement of reason and justification for requested relief.
 - (ii) Map or plat as described in Chapter 1040-02-03, which additionally shows:
 - (I) The location at which an oil or gas well could be drilled in compliance with Chapter 1040-02-04, or applicable order;
 - (II) The location at which the applicant requests permission to drill;
 - (III) The outline of the drilling unit to be assigned to the proposed well site with a notation as to the amount of acreage contained therein;

- (IV) The outline of all other drilling or production units currently assigned to the tract or lease upon which the proposed drilling unit is located, with a notation of the amount of acreage assigned to each unit.
 - (iii) Sufficient geological evidence that the proposed drilling unit will be reasonably productive of oil and/or gas.
 - (iv) List of names and addresses of all interested persons notified of the application.
2. Each drilling unit should comply with the well density as described in Chapter 1040-02-04, or the applicable order.
 3. The acreage assigned to the proposed drilling unit should be reasonably expected to be productive of oil and/or gas from the common source of supply.
 4. If the application meets with the approval of the Supervisor and no written protest is received by the Supervisor within ten (10) days following prescribed notice of application, the Board may grant the requested relief without the necessity of a public hearing.
 5. If the application is accompanied by a written waiver from all known offset lease owners, the ten (10) day delay will be unnecessary.
 6. If the Supervisor does not elect to approve the application administratively, or if written protest is received within the ten (10) day period, the application may be set for public hearing.
- (l) Any drilling being conducted in Overton, Clay, Pickett or Fentress Counties (this is portions of Fentress County that are west of Hwy 127 and North and West of State Hwy 154) is based on 400 feet to another well and 200 feet to the unit or property line down to a depth of 2500 feet. This is an exception to the current state wide drilling requirements.
 - (m) Exception not to exceed ten percent (10%) in spacing distances on locations interior to property boundaries will be allowed administratively by the Supervisor. Any exception adjacent to offset operators must comply with subparagraph (k) of this paragraph.
- (2) If it is necessary to drill a well below the depth bracket for the anticipated productive zone for stratigraphic information only, the Application for Permit to Drill (Form P-AD-1), shall indicate the proposed total depth and anticipated depth bracket for productive zone and unit. Following drilling, logging and testing, the well shall be plugged back, or casing set to the legal total depth appropriate for the anticipated productive zone. The plug back depth shall be indicated on the Plug and Abandon Report (Form R-PA-1), which must be accompanied by a work ticket which indicates in detail how the work was done. If production is established below the depth bracket for the anticipated productive zone, appropriate spacing shall be established by the Supervisor or Board.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-05
Well Identification

Amendment

Chapter 1040-02-05 Well Identification is deleted in its entirety and replaced with the new Chapter 1040-02-05 to read as follows:

Chapter 1040-02-05
Well Identification

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1040-02-05-.01 Posting a Sign

1040-02-05-.01 Posting a Sign.

No well shall be placed in production, shut-in, or left unplugged until a sign has been posted on the well location. All wells must display a sign showing the operator name and telephone number, well name and number, and permit number. The mailing address and telephone number of the Department must also appear on the sign. The sign must be at a minimum eight and a half (8½) inches in height by eleven (11) inches in width, made of durable material and be legible. If the tank battery serving a particular well is not within sight of that particular well, then a sign must also be posted at a good conspicuous location at the tank battery for each well for which production is gauged individually. Where a number of wells on the same lease produce into a common tank battery, only one sign is required, and should show the name of the lease and well numbers, rather than individual permit numbers. The obligation to maintain legible signs remains until plugged and abandonment.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-06
Drilling Wells

Amendment

Chapter 1040-02-06 Drilling Wells is deleted in its entirety and replaced with the new Chapter 1040-02-06 to read as follows:

Chapter 1040-02-06
Drilling Wells

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1040-02-06-.01 Drilling Equipment	1040-02-06-.03 Casingheads
1040-02-06-.02 Blowout Prevention	1040-02-06-.04 Environmental Protection

1040-02-06-.01 Drilling Equipment

All drilling equipment shall be designed, constructed, and operated in such a manner so as to prevent accidents and insure safe operating practices. It is recommended that each operator require the drilling contractor to comply with the general rules and safety procedures of the industry.

1040-02-06-.02 Blowout Prevention

All wells shall be equipped and operated in such a manner as to prevent the uncontrolled emission of oil, gas, and water from the well.

1040-02-06-.03 Casingheads.

All wells shall be equipped with casingheads with a test pressure in conformance with conditions to be anticipated in wells in which they are used. Casinghead body shall be equipped with proper connections and valves accessible to the surface as soon as installed. Reconditioning shall be required on any well leaking gas or oil.

1040-02-06-.04 Environmental Protection.

- (1) All oil and gas operations shall be conducted in a manner that will prevent or mitigate adverse environmental impacts such as soil erosion and water pollution. All areas disturbed by the operations, including access roads, shall be reclaimed as prescribed in rule 1040-02-09-.05. Access roads shall be constructed in such a manner as to reduce erosion to a practical minimum. Sediment ponds, berms, diversion ditches, hay bales, and other measures designed to prevent erosion and discharge from well sites shall be taken to prevent or minimize soil erosion and pollution of surface waters.

- (2) Erosion prevention and sediment controls.

- (a) The erosion prevention controls shall be designed to minimize the dislodging and suspension of soil in water. Sediment controls shall be designed to retain mobilized sediment on site.
- (b) All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications (where applicable) and standard engineering practices. All control measures selected must be able to slow runoff so that rill and gully formation is prevented. When steep slopes and/or fine particle soils are present at the site, additional physical or chemical treatment of storm water runoff may be required. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the operator must replace or modify the control for relevant site situations.
- (c) If sediment escapes the drilling, production, and or roadway areas, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts. Fugitive sediment that has escaped the drill area and has collected in a drainage ditches or roadways must be removed so that it is not subsequently washed into culverts and streams by the next rain and/or so that it does not pose a safety hazard. Permittees shall not initiate remediation/restoration of a stream without consulting the Department first.
- (d) Sediment shall be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls as necessary.
- (e) Upon attainment of stability, materials used for erosion prevention and sediment control should be removed or otherwise prevented from becoming a pollutant source for storm water discharges.
- (f) Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than thirty (30) days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.
- (g) Clearing and grubbing must be held to the minimum necessary for drilling and or production activities.
- (h) Construction must be sequenced to minimize the exposure time of graded or denuded areas.
- (i) Erosion prevention and sediment control measures must be in place and functional before drilling activities begin, and must be properly maintained throughout the drilling and production phase.
- (j) Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-07
Casing Program

Amendment

Chapter 1040-02-07 Casing Program is deleted in its entirety and replaced with the new Chapter 1040-02-07 to read as follows:

Chapter 1040-02-07
Casing Program

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1040-02-07-.01 Conductor Pipe
1040-02-07-.02 Surface Casing
1040-02-07-.03 Production Casing

1040-02-07-.04 Isolation of Oil, Gas and Fresh-Water-bearing Strata, and Potential Minable Coal and Other Mineral Deposits

1040-02-07-.01 Conductor Pipe

That pipe ordinarily used for the purpose of supporting unconsolidated surface deposits, is termed conductor pipe. The use and removal of conductor pipe during the drilling of any oil or gas well shall be at the option of the operator. If the conductor pipe is to be pulled it must be pulled prior to the cementing of the surface casing.

1040-02-07-.02 Surface Casing.

- (1) The operator's proposed casing program must be submitted, for approval by the Supervisor, on Application for Permit to Drill (Form P-AD-1). If the Supervisor deems the casing program inadequate to protect fresh water zones and potential minable coal and other minerals, etc., he shall prescribe the casing program with which the operator will comply. Unless an exception is granted by the Supervisor, suitable and sufficient surface casing shall be run and cemented to a depth not less than fifty (50) feet below all fresh water strata encountered in the well and in a manner that will protect such fresh water from contamination resulting from drilling operations. The cement must fill the annular space behind the surface casing from the base thereof to the surface of the ground. If cement returns are not received to the surface, then the annulus must be cemented from the top.
- (2) The Supervisor or his representative shall be given notice of cementing of surface casing at least 12 hours prior to conducting such operation. The Supervisor or his representative may witness the cementing operation. Form R-WH1 must be accompanied by a copy of the drilling contractor's or service company's ticket for the work performed.
- (3) A cement basket and centralizer are to be run on the surface casing between the first and second joints of surface casing or as directed by the supervisor.

1040-02-07-.03 Production Casing.

The production, oil, or flow string, is that casing used for the purpose of segregating the zone from which production is obtained and affording a means of communication between such zone and the surface. A description of the work done under this section must be reported to the Supervisor on Well History, Work Summary, and Completion or Recompletion Report (Form R-WH-1) within sixty (60) days after completion.

1040-02-07-.04 Isolation of Oil, Gas and Fresh-Water-Bearing Strata, and Potential Minable Coal and Other Mineral Deposits.

Notwithstanding compliance with the foregoing requirements, all potential minable coal and other minerals must be isolated from any possible communication through the annulus with oil-, gas- or water-bearing strata or deposits of other potential minable coal or other minable minerals. In order to ascertain whether or not such work has been reasonably performed, the operator may elect to either run a cement bond log, or block squeeze each stratum or zone which is required to be isolated. If the cement bond log indicates a minimum of twenty-five (25) feet of cement bond above the top and twenty-five (25) feet of bond below the base of each stratum or zone to be isolated, then the provision of this rule shall have been complied with. If such bonding is not shown by the bond log, the Supervisor may require the operator to perform the necessary work to assure the isolation of such above described strata zones.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-08
Directional Drilling

Amendment

Chapter 1040-02-08 Directional Drilling is deleted in its entirety and replaced with the new Chapter 1040-02-08 to read as follows:

Chapter 1040-02-08

Directional Drilling

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1040-02-08-.01 Lateral Deviation
1040-02-08-.02 Inclination Surveys

1040-02-08-.03 Directional Survey
1040-02-08-.04 Horizontal Drilling

1040-02-08-.01 Lateral Deviation

- (1) No operator shall drill a well in which the well bore deviates laterally a resultant distance greater than that determined by a five degree (5 degree) angle from a vertical line passing through the center of the surface location of the well bore, without running a directional survey. If the operator desires to directionally control and thereby intentionally deflect a hole from the vertical (whether more or less than five degrees (5 degrees) and unless done to straighten the hole or to side-track junk in the hole or because of other mechanical difficulties) a permit, Application for Re-Entry and Work Permit (Form P-RAW-1), shall first be obtained from the Supervisor. Nothing herein shall be construed to permit the drilling of any well in such a manner that it crosses property lines.
- (2) Whenever a well is deviated from vertical, the point at which the well bore intersects the producing formation (pool) shall be protected to the surface and become the location of the well in determining if it complied with the spacing rules.

1040-02-08-.02 Inclination Surveys.

An inclination survey shall be made at the discretion of the Supervisor on all wells drilled with the first shot-point at a depth not greater than that of the surface casing seat and succeeding shot-points not more than one thousand (1,000) feet apart. Inclination surveys conforming to the requirements may be made either during the normal course of drilling or after the well has reached total depth. Such survey data shall be certified by the operator's representative and/or drilling contractor and shall indicate the resultant lateral deviation as the sum of the calculated lateral displacement determined between each inclination survey point, assuming that all such displacement occurs in the direction of the nearest property line. If a directional survey determining the bottom of the hole is filed with the Supervisor upon completion of the well, it shall not be necessary to furnish the inclination survey data. Except as otherwise specified herein, all inclination and/or directional survey data shall be filed along with Form R-WH-1 (Well History).

1040-02-08-.03 Directional Survey

- (1) A directional survey shall be run by a qualified contractor approved by the Supervisor and two (2) certified copies thereof filed with the Supervisor on any well, if:
 - (a) The well is directionally controlled and is thereby intentionally deflected from the vertical; or
 - (b) The resultant level deviation as calculated from inclination survey data is a distance greater than the distance from the center of the surface location of the well bore to the nearest property or unit line and might violate the distance from property lines rule; or
 - (c) The well bore deviates a resultant distance greater than that determined by a five degree (5 degree) angle from a vertical line passing through the center of the surface location of the well bore.
- (2) The Supervisor, on his own initiative or at the request of an offset operator, shall have the right to require the operator to run a directional survey on any well if there is reasonable cause therefore. Whenever a survey is so required, and the operator of the well and the offset operator are unable to agree as to the terms and conditions for running such survey, the Supervisor, upon request of either, shall determine such terms and conditions, after notice to all interested parties and a public hearing.
- (3) Unless required by the Supervisor, a directional survey shall not be required for any well which is not directionally controlled and thereby intentionally deflected from the vertical and which has a surface location, maximum angle of deviation and total depth, in compliance with the provisions of Chapter 1040-

02-01 through Chapter 1040-02-12.

- (4) The provisions hereof shall not alter or affect the minimum spacing provisions of Chapter 1040-02-01 through Chapter 1040-02-12.

1040-02-08-.04 Horizontal Drilling.

- (1) Wells drilled by horizontal methods shall comply with the following spacing requirements:
(a) For all oil wells, and for gas wells drilled to the top of the Conasauga Group, the surface trace of that portion of the wellbore or any portion of the horizontal drainhole that penetrates the producing formation, including the horizontal drainhole end point, shall not be located closer than three hundred thirty (330) feet from any property or unit line.
(b) For gas wells drilled below the top of the Conasauga Group, the surface trace of that portion of the wellbore or any portion of the horizontal drainhole that penetrates the producing formation, including the horizontal drainhole end point, shall not be located closer than six hundred sixty (660) feet from any property or unit line.
(c) Any number of producing formations may be penetrated by lateral drainholes from a single vertical wellbore.
(d) All of the producing portion of the well must be in compliance with the spacing requirements of this paragraph. The horizontal portion of the well is the formation of record for production.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-09
Well Abandonment

Amendment

Chapter 1040-02-09 Well Abandonment is deleted in its entirety and replaced with the new Chapter 1040-02-09 to read as follows:

Chapter 1040-02-09
Well Plugging and Abandonment

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1040-02-09-.01 Plugging Wells
1040-02-09-.02 Inspection
1040-20-09-.03 Deliverability Test
1040-02-09-.04 Time Limit for Plugging Wells
1040-02-09-.05 Surface Reclamation
1040-02-09-.06 Temporary Abandonment

1040-02-09-.01 Plugging Wells

- (1) All wells which are to be plugged and abandoned may be filled with a mud fluid of sufficient weight to offset the hydrostatic pressure of any formation penetrated. Sufficient cement plugs must be efficiently placed in number and properly located as to prevent the commingling of oil, gas, salt water, and fresh water from one zone to another, and to isolate potentially minable coal beds and seams and other potentially extractable minerals. All downhole plugs may be "felt for" to insure that they have been properly placed.
(2) The specific method and procedure for plugging a well shall be as follows:
(a) A mechanical plug, or a brush and stone plug, and a neat cement plug of not less than twenty-five (25) feet in length shall be placed between each geologic group or formation.
(b) A mechanical plug, or a brush and stone plug, and a neat cement plug of not less than fifty (50)

feet in length shall be placed below the base of the surface casing. The plug shall be placed so that at least twenty five (25) feet of cement is below the base of the surface casing and extends up into the casing twenty five (25) feet.

- (c) A mechanical plug, or a brush and stone plug, and a neat cement plug of not less than twenty-five (25) feet shall be placed at the surface of the well. The surface casing shall be cut off below plow depth at the request of the landowner or when determined appropriate by the supervisor or his representative.
- (d) In a well with casing that does not seal off the ground water, a mechanical plug, or a brush and stone plug, and a neat cement plug must be set fifty (50) feet below the deepest known ground water strata. The cement plug must be adequate in length to reach at least ten (10) feet in to the casing.
- (e) In an uncased well, a mechanical plug, or a brush and stone plug, and a neat cement plug must be set at least fifty (50) feet below the deepest ground water strata and extend up to the surface or just below plow depth if appropriate.
- (f) The mechanical or brush and stone plug method maybe replaced by filling the well from total depth to the surface with cement, provided, however, that such method must be either prescribed or approved by the Supervisor.
- (g) If there is fluid in the well, a dump bailer or tubing may be used to place the cement in the well.
- (h) If drill water or mud is present it may be used as filler between the plugs.
- (i) If any casing has been installed in the well and has not been cemented to the surface the casing must be pulled prior to the plugging of the well. If the casing cannot be readily removed the casing must be shot and then pulled.

(3) Any other methods not defined above, but approved by the Supervisor, may be used.

1040-02-09-.02 Inspection.

The Supervisor or his representative must be given notice of intent to plug a well at least 12 hours prior to conducting such operation. The Supervisor or his representative may inspect the work of plugging and abandonment as it progresses, check the location and quality of plugs, check the amount of casing pulled, and check the demonstration of movement, if any, of oil, gas, or water. The operator must submit a Plug and Abandon Report (Form R-P & A-1) covering the work performed to the Supervisor within thirty (30) days after plugging and abandoning the well. This work may be observed by the Supervisor or his representative and that observance verified by his signature on the Plug and Abandon Report (Form R-P & A-1).

1040-02-09-.03 Deliverability Test.

Before any well will be classified as a shut-in gas well, the operator must furnish the results of a deliverability test. Such deliverability test shall be performed after the well has achieved a stabilized flow rate. If stabilization cannot be achieved, the maximum test period required is twenty-four (24) hours. The results of the deliverability test shall be submitted on Gas Well Deliverability Tests (Form R-DT- 1), and in the initial Production section of the Well History, Work Summary, and Completion or Recompletion Report (Form R-WH-1), and must be complete as to stabilized flow rate, hours tested, choke size, and pressure in order to demonstrate that a stabilized flow rate was achieved. A copy of the chart on which the deliverability is based must also be submitted. All deliverability tests shall be conducted once every three (3) years. The well will remain shut-in in accordance with the requirements of Rule 1040-02-09-.06. In addition, a gas well may be considered shut-in if the well has been cemented with 4½ inch casing and submitted with a report signed by a petroleum engineer or geologist.

1040-02-09-.04 Time Limit For Plugging Wells.

Except as provided in Rule 1040-02-09-.06, all wells drilled for oil and gas and found to be dry holes shall be plugged within one (1) year from cessation of drilling. All wells that are non-producing or abandoned shall be

plugged within one (1) year from the date they cease producing twelve (12) barrels of oil per year or twenty five (25) mcf of gas per month or are abandoned. Upon written request to the Supervisor showing good cause, an extension of up to ninety (90) days additional may be granted. No operator or owner shall permit any well drilled for oil, gas, salt water disposal or any other purpose in connection with the production of oil and gas, to remain unplugged after such well is no longer used for the purpose for which it was drilled or converted. Nothing herein shall prevent utilizing a well for the purpose of introducing air, gas, fresh water or other liquid pressure into or upon the producing strata for the purpose of recovering oil and gas. All wells which are neither producing nor plugged must comply with shut-in standards of oil and gas wells and shall be cased and capped in such a manner so as to protect all potential oil and/or gas zones, and fresh water in accordance with the requirements of Rule 1040-02-09-.06.

1040-02-09-.05 Surface Reclamation.

- (1) Reclamation of well sites, oil or gas pipeline right-of-way, storage facility sites, and access roads.
 - (a) Except for active work areas, the operator shall drain and fill all surface pits that are not needed for production purposes, and shall grade and stabilize the well location and location road within thirty (30) days of the initial disturbance, in order to minimize surface run-off and prevent excessive erosion and sedimentation. All drilling supplies and equipment, trash, discarded materials and other refuse not contained and covered in the reclaimed pits shall be removed from the site. Temporary vegetative cover shall then be established on all graded areas.
 - (b) Within ninety (90) days of the plugging and abandonment of any well, the operator shall remove all production and storage structure, supplies and equipment, any oil, salt water and debris, fill any remaining excavations, and grade any remaining disturbed areas, including access roads. Permanent vegetative cover shall then be established on all disturbed areas, excluding approved permanent, non-erosive facilities, and access roads which are to be turned over to the landowner. Any access roads necessary for the operator to gain access to the well site in order to determine the adequacy of the vegetative cover or to perform additional re-vegetation may continue to be used by the operator until all of the Board's reclamation requirements have been met.
 - (c) Upon written request to the Supervisor showing good cause, an extension of up to ninety (90) days additional may be granted to an operator to complete grading and/or vegetation of a well site or access roads.
- (2) Re-vegetation - General Requirements.
 - (a) The operator shall establish, in accordance with paragraph (1) of this rule, on all surface disturbed areas except water areas and surface areas of access roads approved by the Supervisor as permanent roads, a vegetative cover that is in accordance with the approved permit and reclamation plan and that is as follows:
 1. Diverse, effective, and permanent;
 2. Comprised of species approved by the Supervisor that will not impede natural vegetative cover; and
 3. Capable of long term stabilization of the soil surface from erosion.
 - (b) The reclamation plant species shall have the following:
 1. The same seasonal characteristics of growth as the original vegetation;
 2. Be capable of self-regeneration;
 3. Be compatible with existing plant and animal species existing in the areas; and
 4. Meet the requirements of applicable State and Federal seed, poisonous and noxious plant, and introduced species laws or regulations.

(c) Suggested seeding mixtures, rates, and dates are shown in the following table:

Seeding Group	Rate-Pounds Per Acre	Rate-Pounds Per 1,000 Square Feet	Seeding Dates
For Temporary Cover:			
cereal wheat or rye (100%)	20-25	0.5-0.6	10/15-11/30
sudan grass hybrid (100%)	20	0.5	04/15-08/15

Seeding Group	Rate-Pounds Per Acre	Rate-Pounds Per 1,000 Square Feet	Seeding Dates
For Permanent Cover:			
tall fescue (100%)	30	0.7	02/15-04/15 08/15-10/15
tall fescue (90%)	30	0.7	02/15-04/15
white (ladino) clover (10%)	3	0.1	08/15-10/15
tall fescue (86%)	30	0.7	02/15-04/15
crownvetch (14%)	5	0.1	08/15-10/15
sericea lespedeza (scarified) (60%)	30	0.7	03/01-04/15
tall fescue (30%)	15	0.3	03/01-04/15
annual lespedeza (10%)	5	0.1	03/01-04/15
sericea lespedeza (79%)	30	0.7	03/01-04/15
weeping lovegrass (8%)	3	0.1	03/01-04/15
annual lespedeza (13%)	5	0.1	03/01-04/15

1. Seeding rate should be increased by 20 percent on sites where a seedbed cannot be prepared.
2. Temporary cover should be disked or mowed before permanent vegetation is established.
3. Where more than 90 percent of a mixture is composed of tall fescue, annual fertilizing should be done to maintain an adequate cover.
4. Crown vetch may be used in Middle and East Tennessee and the northern half of West Tennessee, but should not be used on areas that will receive heavy traffic.
5. Sericea lespedeza and weeping lovegrass are both suitable for sites that are subject to drought.
6. Disturbed areas on which temporary cover must be established between December 1 and February 15 should be mulched, and then seeded with permanent vegetation as soon as possible.

(d) The Supervisor may grant exceptions to the requirements of parts (b)1 and 2 of this paragraph when the species are necessary to establish a quick-growing, temporary, stabilizing cover, and measures to establish permanent vegetation are included in the approved reclamation plan. All items under subparagraph (c) are suggested guideline measures.

(3) Re-vegetation - Top soiling, Mulching and Soil Amendments.

(a) Prior to the establishment of a permanent vegetative cover on disturbed areas where excavation activities have occurred, the operator shall replace the excavated topsoil or provide an approved topsoil substitute material suitable for supporting the long range re-vegetation goals.

- (b) Suitable mulch and/or other soil stabilizing practice shall be used on all areas that have been regraded and covered by topsoil or topsoil substitutes unless the Supervisor waives this requirement based on a determination that seasonal, soil, or slope factors result in a condition whereby mulch or other stabilizing practices are not necessary to control erosion and to promptly establish an effective vegetation cover.
 - (c) Nutrients and soil amendments shall be applied to the redistributed growth medium prior to re-vegetation when necessary to establish and maintain the vegetative cover.
- (4) Diverse vegetation cover - Standards for Success.
- (a) All previously disturbed and reclaimed areas shall be inspected by the Supervisor or his designee prior to final reclamation bond release in order to determine the level of success of permanent re-vegetation.
 - (b) Re-vegetation success shall not be determined until after at least two successfully completed spring or summer growing seasons have occurred.
 - (c) Standards for success shall be based on a ground cover of at least ninety percent (90%) consisting of herbaceous and/or woody species with a minimum of eighty percent (80%) being of perennial varieties.

1040-02-09-.06 Temporary Abandonment.

- (1) An operator has the opportunity to place any non-producing well into Temporary Abandonment for five (5) years if all of the following requirements are fulfilled:
 - (a) The operator shall submit a Temporary Abandonment form for each well to be placed in temporary abandonment. This form can be obtained from Water Pollution Control/Oil and Gas Program.
 - (b) The operator shall submit a one hundred dollar (\$100) fee for each well per year to be placed in temporary abandonment.
 - (c) Each well shall be capped in such a manner as to have no open casing exposed to the environment (i.e., swedge with locked ball-valve or any other viable protection).
 - (d) Any well shown on the Annual Well Report that indicates no production must be placed in temporary abandonment status or plugged.
 - (e) All fees received for temporary abandonment will be placed in an account that will be set aside to be used only for funding the plugging of abandoned oil and gas wells.
- (2) At the end of the five year Temporary Abandonment period, each well submitted by the operator shall be reviewed by the Department. A determination will be made on the validity of keeping the well(s) open. This determination for validity will be based on whether the operator has a deliverability test for each gas well or if the well is producing oil. If the staff finds there is no valid reason to keep the wells open, the operator will then have two years to plug the non-producing well(s).

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-10
Filing of Well Data, Reports and Maps

Amendment

Chapter 1040-02-10 Filing of Well Data, Reports and Maps is deleted in its entirety and replaced with the new SS-7039 (July 2010)

Chapter 1040-02-10 to read as follows:

Chapter 1040-02-10
Filing of Well Data, Reports and Maps

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1040-02-10-.01 Information Due Date	1040-02-10-.04 Field Map
1040-02-10-.02 Information Required	1040-02-10-.05 Information Confidential
1040-20-10-.03 Reserved	1040-02-10-.06 Annual Well Report

1040-02-10-.01 Information Due Date

The required well data and reports shall be tendered to the Supervisor within sixty (60) days from the date of drilling to total depth of the well. This date is defined as the termination of continuous drilling operations. The due date for information submitted may not be postponed by the expressed intent to resume operations at some future date.

1040-02-10-.02 Information Required.

The following information is required within sixty (60) days after drilling to total depth:

- (1) Two final and unmarked prints of all electrical logs and other downhole surveys, if any. If no logs are run, then "NONE" should be entered in the "TYPE(S) OF GEOPHYSICAL LOGS RUN" section of the Well History Form (Form R-WH-1).
- (2) Driller's log - a driller's log shall be submitted in one of the following forms:
 - (a) On reverse side of Well History Form (R-WH -1); or
 - (b) On a separate typed sheet (one copy).
- (3) Drilling-time log - One copy for all wells drilled with rotary tools.
- (4) Drill-stem test - One final copy of any.
- (5) Core analysis - One copy if available.
- (6) Completion Report - one copy of Well History, Work Summary, and Completion or Recompletion Report (Form R-WH-1) shall be completed, notarized and submitted for each well. All shows of oil and/or gas, water zones, and coal seams penetrated shall be reported on the reverse side of this form. If all the required information is not available at the end of the sixty (60) day period the additional information will be filed on a supplemental Form R-WH-1 within 10 days after completion of the well.
- (7) Samples and Cores-well cuttings are required at ten (10) foot intervals from the top of bedrock to total depth of each well, and must be submitted to the Tennessee Division of Geology office in Nashville according to the following guidelines if requested by the Supervisor:
 - (a) Well cuttings should arrive in sturdy containers, such as heavy cardboard boxes with sturdy bottoms. Burlap bags are acceptable, but plastic garbage bags are not.
 - (b) Well cuttings must be completely dry when received.
 - (c) Each set of cuttings must be in its own container. No two sets should be in the same box or burlap bag. If more than one (1) container is required for a particular set of cuttings, this should be noted on all containers.
 - (d) Individual bags should be clearly marked and identified as to operator name, well name and number, permit number and interval. Each container must be clearly marked with operator name,

well name and number, permit number, and county.

- (e) Bags should be marked with waterproof ink.
- (f) Sets of well cuttings not meeting the above requirements will not be accepted by the Tennessee Division of Geology until those requirements are met. Cores which may be required by the Supervisor must be submitted in adequate boxes clearly marked as to the name of the well and depth intervals.

1040-02-10-.03 Reserved

1040-02-10-.04 Field Map.

Persons or companies operating in a producing area shall furnish the Supervisor with a field map showing lease lines and well locations on request.

1040-02-10-.05 Information Confidential.

Upon request by the permittee to the Supervisor, the aforementioned well information shall be kept CONFIDENTIAL by the Supervisor for a period not to exceed six (6) months from the date of drilling to total depth of the well, as defined in Rule 1040-02-10-.01.

1040-02-10-.06 Annual Well Report.

Operators shall file an annual report on each bonded well(s). The report shall include the well(s) name and number, permit number, location, current status of the well(s), any production for the past year, and future plans for the well(s). The annual report shall be due on the 15th of April each year. If the report is not received before May 1st, the well(s) shall be determined abandoned.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-11
Exceptions and Hearings

Amendment

Chapter 1040-02-11 Exceptions and Hearings is deleted in its entirety and replaced with the new Chapter 1040-02-11 to read as follows:

Chapter 1040-02-11
Exceptions and Hearings

Table of Contents

1040-02-11-.01 Prevention of Waste

1040-02-11-.01 Prevention of Waste

If any operator can show to the Supervisor or Oil and Gas Board that the work procedures herein prescribed result in waste, or such operations are unreasonable, the Supervisor may enter such an order, as a special exception to the aforesaid rules and regulations, as will prevent such waste or eliminate such unreasonable restraint as may result from the application of the aforesaid rules and regulations to the well or wells of such operators; provided, however, that before any operator shall be allowed the benefit of any order granting an exception as authorized by this chapter, such operator must establish that such exception, if granted, will not result in waste in the field as a whole or give him an inequitable and unfair advantage over another operator or operators in the field. No special exception will be granted except upon written application, fully stating the alleged facts, which shall be the subject of a hearing to be held no earlier than ten (10) days after filing the application. Prior to the hearing upon such application, at least ten (10) days notice thereof shall be given by publication to all operators in the Field. In addition to said notice by publication, the applicant must give adjacent operators, where

appropriate, at least ten (10) days notice of said hearing by personal service or by Registered Mail.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-12
Violations – Penalties – Notice – Hearing

Amendment

Chapter 1040-02-12 Violations – Penalties – Notice – Hearing is deleted in its entirety and replaced with the new Chapter 1040-02-12 to read as follows:

Chapter 1040-02-12
Violations – Penalties – Notice – Hearing

Table of Contents

1040-02-12-.01 Violations, Penalties, Notice, Hearing
1040-02-12-.02 Red Tagging of Wells

1040-02-12-.01 Violations, Penalties, Notice, Hearing

- (1) The Supervisor shall have the authority to assess monetary penalties as provided in paragraphs (3), (4), and (5) of this rule for any violation of this chapter, rules and regulations, or any order adopted by the Board. In making such assessment, the Supervisor shall give due consideration to the appropriateness of the penalty with respect to the size of the business of the operator charged, the gravity of the violation, the good faith of the operator, and the operator's history of previous violations.
- (2) If, upon an inspection or investigation, the Supervisor or any of his authorized personnel shall determine that any operator is not in compliance with any standard or regulation or rule of the Board promulgated by the Board pursuant to this chapter, he shall with reasonable promptness and in no event later than six (6) months following the inspection, issue to the operator by certified mail a written citation that states the nature and, if appropriate, the location of the violation, including a reference to the provision of the chapter and the regulation alleged to have been violated. In addition, the citation shall fix a reasonable time for abatement of the violation. If the issuing Supervisor has reason to believe that such violation, or the failure to abate such violation, should result in the assessment of a penalty under paragraphs (3), (4), and (5) of this rule the citation may so state.
- (3) Any operator who has received a citation of this chapter, rules and regulations or order of the Board, promulgated pursuant to this chapter, and has failed to correct such violation within the period of correction of this citation, shall be assessed a penalty of up to one thousand (\$1,000) dollars for each day the violation exists. The period of correction may be suspended or lengthened by the assessing party upon a showing by the operator of a good faith effort to comply with the correction requirements, and that failure to comply with the correction requirements is due to factors beyond his reasonable control.
- (4) Any operator who has received a citation for a violation of this chapter, or rules and regulations, or order of the Board and such violation is specifically determined not to be of a serious nature, may be assessed a penalty of up to one thousand (\$1,000) dollars for each such violation.
- (5) Any operator who willfully or repeatedly violates the requirements of this chapter, or rules and regulations, or order of the Board promulgated pursuant to this chapter may be assessed a penalty of up to ten thousand (\$10,000) dollars for each violation.
- (6) Penalties provided for by paragraphs (3), (4), and (5) of this rule shall be imposed in the manner hereinafter provided. Whenever the Supervisor, has determined that such a penalty should be assessed against an operator, a written notice and assessment of a penalty shall be issued to the operator by certified mail, return receipt requested, stating the amount of the penalty to be assessed and the reason therefore (which may be done by reference to citations issued prior to or simultaneously with such notification).

- (7) Any citation or notice and assessment of a penalty issued pursuant to this rule shall inform the operator of his rights to appeal such citation or assessment of a penalty and shall become final twenty (20) days after the receipt of such citation or notice and assessment of penalty by the operator unless the operator, within the period of twenty (20) days, shall file a written notice of appeal with the Supervisor.
- (8) If the operator files an appeal of such citation or assessment of a penalty as provided by paragraph (7) of this rule, the proceedings on such appeal shall be conducted in accordance with the provisions of the Uniform Administrative Procedures Act, as amended, compiled in Title 4, Chapter 5, and the rules of procedure of the Oil and Gas Board governing the conduct of contested cases. The Board shall afford the operator an opportunity for a hearing, after reasonable notice, The Board shall thereafter render a final order, in accordance with the provisions of §4-5-314, affirming, modifying or vacating the Supervisor's citation or assessment of a penalty. A final order rendered pursuant to this rule shall be effective upon its entry unless a later effective date shall be stated therein. A petition to stay the effective date of a final order may be filed under the provisions of §4-5-316. A petition for reconsideration of a final order may be filed under the provision of §4-5-317. Judicial review of a final order may be sought by filing a petition for review under the provisions of §4-5-322.
- (9) All penalties owed under this chapter shall be paid to the assessing Supervisor for deposit into the Treasury of the State of Tennessee and shall accrue to the State of Tennessee and may be recovered in a civil action in the name of the State of Tennessee in any Court of Record in the county where the violation is alleged to have occurred or where the operator has its principal office. (Acts 1978 (Adj. S), ch. 791, §1; T.C.A. §60-113; Acts 1984, ch. 700, §§1,2.)

1040-02-12-.02 Red Tagging of Wells.

If, upon an inspection or investigation, the Supervisor or any of his authorized personnel shall determine that a well or tank battery is not in compliance with any standard or regulation or rule or order of the Board promulgated by the Board pursuant to this chapter, he shall with reasonable promptness and in no event later than five (5) working days following the inspection, place a "red tag" (Form WC-NOTICE THIS WELL CLOSED) on the well or tank battery, which notice shall state that drilling or plugging of the well or any further production of oil and gas from the well or tank battery is hereby ordered to be terminated until approval to proceed has been granted by the Supervisor. The notice shall further indicate the nature of the violation or threatened violation, including a reference to the provision of the chapter and the regulation which has been violated.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-03-01
Completion, Recompletion, and Related Downhole Work

Amendment

Chapter 1040-03-01 Completion, Recompletion, and Related Downhole Work is deleted in its entirety and replaced with the new Chapter 1040-03-01 to read as follows:

Chapter 1040-03-01
Completion, Recompletion, and Related Downhole Work

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1040-03-01-.01 Time Limit for Well Completion	1040-03-01-.06 Gas Composition Analysis
1040-03-01-.02 Notification for Re-entry	1040-03-01-.07 Bottomhole Pressure Tests
1040-03-01-.03 Report Filing	1040-03-01-.08 Repealed
1040-03-01-.04 Gas/Oil Ratio Tests	1040-03-00-.09 Repealed
1040-03-01-.05 Periodic GPM Tests	

1040-03-01-.01 Time Limit for Well Completion

All wells drilled in connection with the production of oil and gas, unless plugged in accordance with well abandonment procedures as stated in Chapter 1040-02-09, shall be completed within one (1) year from cessation of drilling unless the procedures outlined in Rule 1040-02-09-.06 Temporary Abandonment.

1040-03-01-.02 Notification For Re-entry.

Notification to the supervisor is required prior to conducting work for the purpose of deepening a well pursuant to producing oil and/or gas.

The operator must notify the Supervisor twenty-four (24) hours in advance of conducting this proposed operation.

This rule shall not deter an operator from taking immediate action in an emergency to prevent damage when a service company, other than the drilling contractor, performs any work germane to this section. The service company shall furnish the operator, and the operator upon request shall furnish the Supervisor with legible and exact copies of reports furnished the owner or operator of the well.

1040-03-01-.03 Report Filing.

The operator shall file a Well History, Work Summary and Completion or Recompletion Report (Form R-WH-1) with the Supervisor within sixty (60) days after completing, recompleting or working over a well pursuant to producing oil and/or gas. Wells shall be considered completed when they are capable of being turned into the tanks and/or gas transmission or gathering lines.

1040-03-01-.04 Gas/Oil Ratio Tests.

- (1) All oil wells drilled must be equipped so that gas/oil ratios can be taken at any time. Production and gas/oil ratio tests shall be made when requested by the Supervisor, and shall be witnessed by the Supervisor or his representative.
 - (a) Gas production potential tests shall be made on the Gas Well Deliverability Tests (Form R-DT-1) and submitted as prescribed above to the Supervisor, and conducted every three years until the well is plugged and abandoned when requested by the supervisor.
 - (b) Gas wells shall not be tested by the "open-flow" method. The back-pressure method of determining the open-flow, as outlined by the Bureau of Mines in their Monograph 1, "Back-Pressure Data on Natural Gas Wells", shall be used. When for any reasons, the completed back-pressure method is not feasible, an acceptable method, not entailing excessive physical waste of gas may be used upon recommendation of the Department.
 - (c) Gas/Oil (c: Gas/Condensate) ratios shall be reported on Form R-PT-1 and Form R-WH-1.
 - (d) In the event any operator considers that, for the purpose of determining field allowable, his well has not had a fair determination of its gas/oil ratio, or that its gas/oil ratio has changed because of natural causes or corrective work on his well, he may make application in writing to the Supervisor for a re-test or a special test of the gas/oil ration of his well, and for an adjustment of his well if applicable. If, upon re-testing a well, the Supervisor finds that the new gas/oil ratio justifies a change in the allowable, he is authorized to make such change.

1040-03-01-.05 Periodic GMP Tests.

Gallons of liquid per thousand cubic feet of gas shall be reported on Periodic GPM Tests Report (Form R-GPM-1) to the Supervisor on the thirtieth (30th) day after the Supervisor requests such data.

1040-03-01-.06 Gas Composition Analysis.

Gas Composition Analysis shall be completed and submitted to the Supervisor within sixty (60) days after the Supervisor requests such data.

1040-03-01-.07 Bottomhole Pressure Tests.

Bottomhole Pressure Tests shall be conducted and submitted to the Supervisor within sixty (60) days after the Supervisor requests such data.

1040-03-01-.08 REPEALED.

1040-03-01-.09 REPEALED.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-03-02
Tubing and Well Equipment

Amendment

Chapter 1040-03-02 Tubing and Well Equipment is deleted in its entirety and replaced with the new Chapter 1040-03-02 to read as follows:

Chapter 1040-03-02
Tubing and Well Equipment

Table of Contents

1040-03-02-.01 Repealed	1040-03-02-.03 Separators
1040-03-02-.02 Connections	1040-03-02-.04 Safety Valves

1040-03-02-.01 Repealed.

1040-03-02-.02 Connections.

- (1) When requested by the supervisor or his representative, wellhead connections shall be tested prior to installation at a pressure indicated by the Supervisor in conformance with conditions existing in areas in which they are used.
- (2) Whenever such tests are made in the field, they shall be witnessed by the Supervisor.
- (3) Tubing and tubingheads shall be free from obstructions in wells used for bottomhole pressure test purposes.

1040-03-02-.03 Separators.

All flowing and gas-lift oil wells are to be produced through efficient operating separators, except in the case of low-pressure headings or gas-lift wells with low-gas output (less than 100 lbs. surface pressure).

1040-03-02-.04 Safety Valves.

- (1) A safety valve is required on all flowing wells, with a surface pressure in excess of one thousand (1,000) pounds in the following categories.
 - (a) Any location inaccessible during period of storm or floods.
 - (b) Location within any wildlife refuges, parks or game preserves, or bodies of water used for recreation or navigation.
 - (c) Location within six hundred (600) feet of public roads or waterways, railroads, inhabited dwellings, or closer than one thousand (1,000) feet to any school or church.
- (2) Where the use of safety valves would unduly interfere with normal operations of a well, the Supervisor

may, upon submission of pertinent data in writing, waive the requirements of this rule.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-03-03
Prevention of Hazards and Pollution

Amendment

Chapter 1040-03-03 Prevention of Hazards and Pollution is deleted in its entirety and replaced with the new Chapter 1040-03-03 to read as follows:

Chapter 1040-03-03
Prevention of Hazards and Pollution

Table of Contents

1040-03-03-.01 Safety

1040-03-03-.02 Pollution and Safety Controls

1040-03-03-.01 Safety

- (1) Each operator shall so conduct his operations and maintain his equipment as to reduce to a minimum the danger of explosion, fire, or waste.
- (2) All tests for production should be started and completed during daylight hours unless approval is obtained by the Supervisor.
- (3) No boiler, open fire, or electric generator shall be operated within one hundred (100) feet of any producing oil or gas well or oil tank.
- (4) Any rubbish, debris, or vegetation that might constitute a fire hazard shall be removed to a distance of at least one hundred (100) feet from the vicinity of wells to be tested.
- (5) All waste shall be disposed of in such a manner as to avoid creating a fire hazard or polluting streams and fresh water strata.
- (6) No test oil, condensate, salt water, or any other fluid substance shall be discharged to or disposed of in any way into any stream, lake, or other body of water, or into any ditch or surface drainage depression leading to any stream, lake, or other body of water, except in compliance with the Water Quality Control Act and the regulations of the Water Quality Control Board.
- (7) All wells shall have the equipment and containers or lined pits necessary to prevent the spillage of oil, condensate, water, or any other fluids or substances produced or used during any production test. The equipment shall be in place prior to the start of the production test, and shall be large enough to contain any plausible spill.
- (8) All wells shall be cleaned into a pit or tank, located at a distance of at least one hundred (100) feet from any fire hazard or dwellings.
 - (a) If pits are to be used, the sides and bottoms of the pits must be lined with heavy gauge seamless plastic sheets, or other artificial liner approved by the Supervisor.
 - (b) If it seems likely that a pit will overflow, additional pits must be constructed, or else tanks must be brought in to contain the surplus fluids.
- (9) No oil or gas well shall be drilled closer than two hundred (200) feet from a dwelling or closer than one hundred (100) feet from a public road.

- (a) That portion of this regulation concerning distance from a dwelling may be waived by the supervisor upon submission of a notarized statement by the dwelling owner agreeing to the well location.
- (10) No oil or gas well shall be drilled within two hundred (200) feet of any water well that is in active use. This requirement may be waived by the Supervisor upon submission of a notarized statement from the well owner agreeing to the location of the oil or gas well and a plan identifying the additional measures to be taken to prevent pollution of the water well.
- (11) No oil or gas well shall be drilled within one hundred (100) feet of any stream, lake, or other body of water, so that an undisturbed riparian zone can be maintained, except that this requirement may be waived upon submission of a plan identifying additional measures acceptable to the Supervisor to be taken to prevent pollution of the waters of the State.

1040-03-03-.02 Pollution and Safety Controls.

- (1) All personnel, including operators and service personnel shall be trained in the prevention of spills and made aware of the consequences of spillage. There shall be a Site Coordinator designated for each well site who will be the principle contact for all activities on the location and the responsible party for submitting an action and safety plan for each well site.
- (2) Implement necessary procedures and safeguards during drilling and completion operations to prevent the uncontrolled flow of oil from wells, including, but not limited to:
 - (a) Follow reasonable procedures such as cleaning and lubricating pipe threads so that pipe can be made up to proper tightness.
 - (b) Lay flow and test lines on ground or install adequate supports for crossing streams and drainways with the lines.
 - (c) At truck loading terminals, provide containers to catch unrecoverable oil at the hose connections, and provide proper maintenance of valves and other equipment. Train personnel to take necessary procedures to prevent spillage.
 - (d) During completion operations, produce and clean wells into tanks instead of pits if at all possible.
 - (e) At the same time that any pits or other diversion, transport, or storage facilities are constructed at ground level, dikes, diversion ditches, or other structures shall also be constructed to prevent any surface water from entering the pits or other facilities.
 - (f) Remove oil, salt water, or other fluids from pits as soon as practical after it has accumulated in them, and dispose of it in such a way that none can enter surface water or ground water, or otherwise adversely affect the environment or threaten public health and safety.
 - (g) All pits or other diversion, transport, or storage facilities shall be constructed so that waste fluids do not discharge from them. There shall be no discharge pipe, overflow weir, trickle tube, or any other device allowing any discharge. No pit shall be located so that any part of it, including a dike or diversion structure, is within a horizontal distance of one hundred (100) feet of the normal high-water line of any stream or lake.
 - (h) Containment at tanks must equal at a minimum the storage capacity of one and one half (1.5) times the capacity of the largest tank in the tank battery.
 - (i) All tanks must be maintained to prevent corrosion which can lead to both fluid loss from the vessel and accelerated reduction in its useful life span.
 - (j) To prevent fire hazard, all tank batteries and tanks shall be kept free of brush or overgrowth within the berm surrounding the tank or tanks.

- (k) Dikes and ditches designated in subparagraphs (e) and (g) of this paragraph should be constructed in a manner to accommodate permanent facilities such as pumping units and flow lines.
 - (l) Provide dikes and/or containment pits at storage tanks upon initial installation where such tanks are so located as to be deemed hazardous. If containment pits are to be used, they should be constructed according to the guidelines set forth in Rule 1040-04-01-.07.
- (3) All surface pits must be drained of water and back filled with dirt as soon as they are no longer needed for drilling or testing.
 - (4) Implement prudent production operations to prevent potential oil spills, including, but not limited to:
 - (a) Connect fill lines to storage tanks so that oil and gas will not spray into the atmosphere.
 - (b) Install "equalizer" lines between adjacent tanks as a safeguard against overflow.
 - (c) Install oil and gas separators where gas is produced in sufficient quantities to be hazardous.
 - (d) Pump contaminated unsalable residual oil from storage tanks into an accumulator tank instead of open pits.
 - (e) Place locks, remove handles, or otherwise secure all valves, so vandals cannot open them to cause spills.
 - (5) The Supervisor should notify all oil industry related companies, including operators, service companies, drilling contractors, and crude oil gatherers and purchasers of their responsibility and liability in regard to oil spills.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-01
Pollution and Safety Controls

Amendment

Chapter 1040-04-01 Pollution and Safety Controls is deleted in its entirety and replaced with the new Chapter 1040-04-01 to read as follows:

Chapter 1040-04-01
Pollution and Safety Controls

Table of Contents

1040-04-01-.01 Operator's Responsibility	1040-04-01-.07 Containment Pit at Tank Batteries
1040-04-01-.02 Proper Handling of Drilling Foam	1040-04-01-.08 Vents Required
1040-04-01-.03 Proper Disposal of Waste	1040-04-01-.09 Improper Loading
1040-04-01-.04 Removal of Debris	1040-04-01-.10 Gathering Lines
1040-04-01-.05 Pollution Avoidance	1040-04-01-.11 Improper Casing
1040-04-01-.06 Cleaning Pit or Tank	1040-04-01-.12 Disposal of Salt Water

1040-04-01-.01 Operator's Responsibility

Each operator shall so conduct his operations and maintain his equipment as to reduce to a minimum the danger of explosion, fire, or waste.

1040-04-01-.02 Proper Handling of Drilling Foam.

When it becomes necessary to use detergents during air-rotary drilling operations, the foam generated by such SS-7039 (July 2010)

activity shall be directed into a containment pit and retained there until it has been degraded to a harmless form.

1040-04-01-.03 Proper Disposal of Waste.

No waste oil, oil field waste, or any other fluid substance shall be discharged to or disposed of in any way into any stream, lake, or other body of water, or into any ditch or surface drainage depression leading to any stream, lake, or other body of water, except in accordance with a discharge permit obtained from the Department of Environment and Conservation.

1040-04-01-.04 Removal of Debris.

Any rubbish or debris that might constitute a fire hazard shall be removed to a distance of at least one hundred (100) feet from the vicinity of wells, tanks and pump stations.

1040-04-01-.05 Pollution Avoidance.

All waste shall be burned or disposed of in such a manner as to avoid creating a fire hazard or polluting streams and ground water.

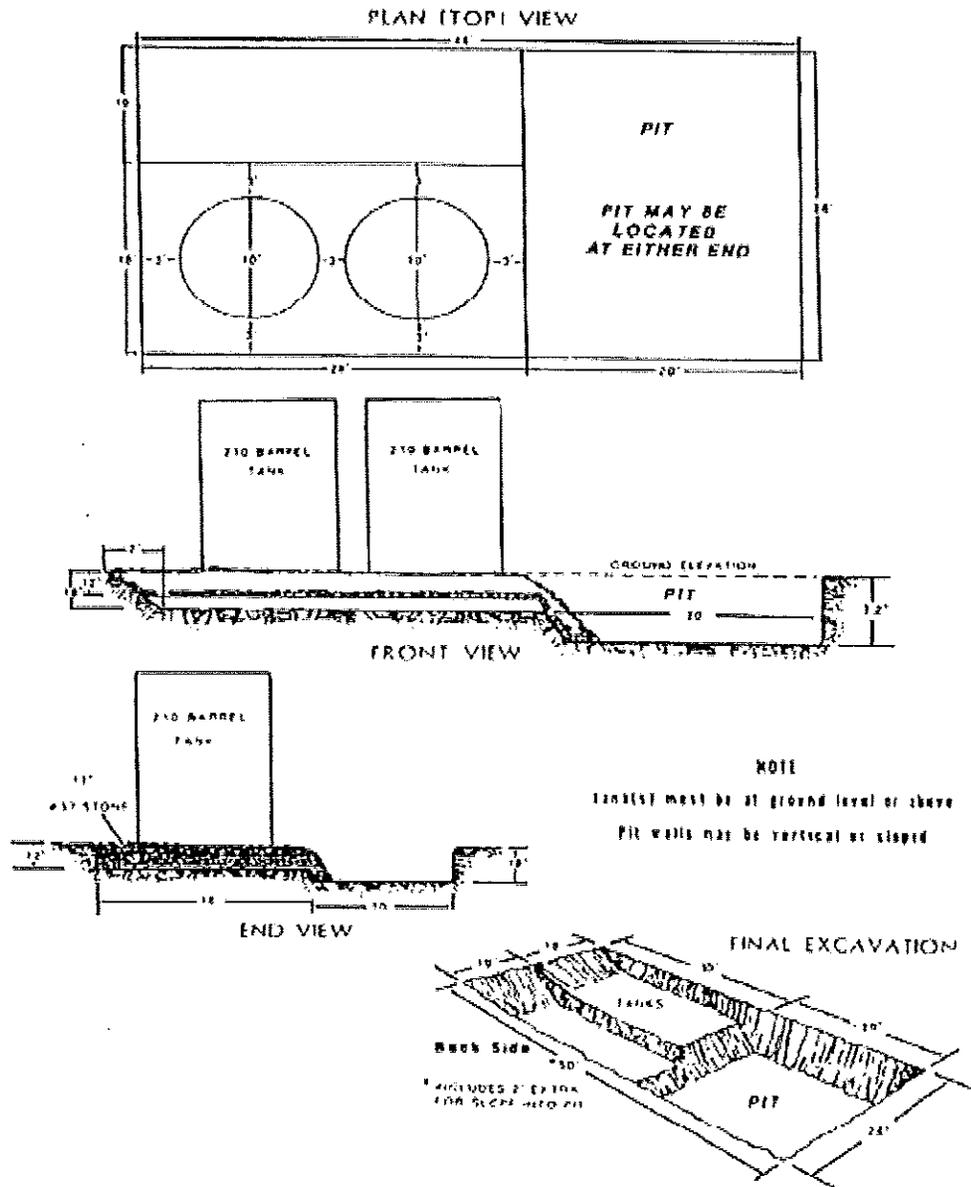
1040-04-01-.06 Cleaning Pit or Tank.

All wells shall be cleaned into a lined pit or tank located at a distance of at least one hundred (100) feet from any fire hazards or dwellings.

1040-04-01-.07 Containment Pit at Tank Batteries.

A containment pit is required at each permanent oil tank or battery of tanks located within corporate limits or where such tanks are less than six hundred (600) feet from any highway or inhabited dwelling, or less than one thousand (1,000) feet from any school or church or within one hundred (100) feet of a stream or where such tanks are so located as to be deemed hazardous by the Supervisor. Tanks not falling in the aforementioned categories must be surrounded by a retaining wall or suitably ditched to a collecting sump, each of sufficient capacity and construction to contain potential spillage.

CONSTRUCTION DETAILS FOR TANK PAD AND PIT



1040-04-01-.08 Vents Required.

All storage facilities must be vented.

1040-04-01-.09 Improper Loading.

Oil transporters and producers will not load oil from oil storage facilities into vehicles parked on public roads.

1040-04-01-.10 Gathering Lines.

All gathering lines shall be buried beneath the surface wherever no blasting is required, and must be steel or weather resistant black plastic wherever outcropping, resistant rock makes it necessary to lay the pipe on top of the ground. Lines crossing streams, rivers, intermittent streams or other drainways shall be constructed in such a fashion as to bridge the drainage features and protect the gathering lines from damage due to lack of adequate support. Failure of support may result in rupture of or discharge from the line. If the line is to be installed below

the stream bed or below ground level and will cross state waters an Aquatic Resources Alteration Permit must be obtained prior to the activity occurring. Burial is not required, however, in those instances where this would conflict with the Natural Gas Pipeline Safety Act (published in the Federal Register, Volume 35, No 161, Part II, August 19, 1970).

1040-04-01-.11 Improper Casing.

All producing wells that are not properly cased and/or cemented must cease production. The operator is required to perform corrective work before production can be resumed.

1040-04-01-.12 Disposal of Salt Water.

- (1) Underground injection is the preferred form of disposal of salt water, provided, however, that such injection is permitted by appropriate State and Federal agencies.
- (2) Produced salt water may either be injected into a subsurface formation(s) productive of hydrocarbons, if part of an approved secondary recovery project, into a subsurface formation(s) not productive of hydrocarbons, if through an approved salt water disposal well, or else may be transported off-lease to an authorized salt water disposal facility if prior approval has been granted by the Department.
- (3) Produced salt water shall not be put in any unlined pit, pond, lake or depression, or in any other place in a manner that will constitute a pollution hazard to the waters of the State including ground water.
- (4) No salt water shall be discharged to or disposed of at the land surface where it can enter surface water or ground water. Salt water discharged to and temporarily stored in lined pits shall be removed before it can leak into underground water.
- (5) All pits or ditches used for temporary storage or transport of salt water shall be lined with an impermeable man-made liner.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-02
Procedures and Equipment for Metering, Measuring and Producing Oil Condensate and Gas
Amendment

Chapter 1040-04-02 Procedures and Equipment for Metering, Measuring and Producing Oil Condensate and Gas is deleted in its entirety and replaced with the new Chapter 1040-04-02 to read as follows:

Chapter 1040-04-02
Procedures and Equipment for Metering, Measuring and Producing Oil Condensate and Gas

Table of Contents

1040-04-02-.01 Gas/Oil Ratios Equipment	1040-04-02-.09 Repealed
1040-04-02-.02 Gauging	1040-04-02-.10 Repealed
1040-04-02-.03 Testing	1040-04-02-.11 Repealed
1040-04-02-.04 Improper Transfer	1040-04-02-.12 Repealed
1040-04-02-.05 Lease Tank Outlets	1040-04-02-.13 Basic Orifice Coefficients
1040-04-02-.06 Bleed-off Lines	1040-04-02-.14 Pilot Tubes
1040-04-02-.07 Commingling Prohibited	1040-04-02-.15 Gas Measurements
1040-04-02-.08 Required Test Lines	

1040-04-02-.01 Gas/Oil Ratios Equipment

All leases are to be so equipped as to permit the determination of gas/oil ratios on individual flowing and gas-lift wells. Gas/oil ratio data on all wells shall be available to the Supervisor at all times.

1040-04-02-.02 Gauging.

Each lease shall be provided with sufficient tankage and/or meters to permit proper gauging of the oil/condensate and gas produced. The tanks or meters must be identified by a sign showing the ownership of the tanks or meters and the name of the lease from which the oil/condensate or gas is being produced. In no case shall meters be the sole means of measuring oil runs from any field. There must be used at least one gauge tank to check the readings of oil and condensate meters.

1040-04-02-.03 Testing.

All oil tendered to any transportation system shall be gauged and tested for Basic S. & W. and temperature. For each and every transfer of oil from the lease tanks the number of the "on-seal" observed temperature and the percent of Basic S. & W. shall be recorded on each and every run ticket, and the producer and purchaser of any transfer of oil from lease tanks shall receive a copy of the run or delivery ticket or tickets.

1040-04-02-.04 Improper Transfer.

There shall not be any simultaneous movement of oil into and out of any tank that is being used for delivering oil to a gatherer or transporter. Transfer of oil or gas from the possession of one lease to the possession of another lease, except when properly accounted for, is hereby prohibited. The possession of improper mechanical means for transferring oil from one lease tank or well to the lease tank or well of another lease is hereby prohibited.

1040-04-02-.05 Lease Tank Outlets.

All pipeline outlets from lease tanks shall be kept sealed at all times except when a pipeline is being made from the tank, and the number of the "on-seal" and "off-seal" shall be recorded on each and every run ticket. Additionally, all pipeline outlets from lease tanks shall be made secure to prevent the unauthorized discharge or transfer of oil.

1040-04-02-.06 Bleed-Off Lines.

Basic S. & W. bleed-off lines of lease tanks shall be sealed or locked at the time any pipeline run is being made.

1040-04-02-.07 Commingling Prohibited.

Oil produced from separately owned leases, not pooled, unitized, or consolidated shall not be commingled in lease tanks except as hereinafter provided for in this order.

1040-04-02-.08 Required Test Lines.

Reserved.

1040-04-02-.09 REPEALED

1040-04-02-.10 REPEALED.

1040-04-02-.11 REPEALED.

1040-04-02-.12 REPEALED.

1040-04-02-.13 Basic Orifice Coefficients.

Basic orifice coefficients used in the calculation of gas flow shall be those contained in the American Gas Association's Gas Measurement Committee Report No. 3 or some other basic orifice coefficients generally accepted in the industry and approved by the Supervisor, such as those published by the Foxboro Company, American Meter Company, and Pittsburg Equitable Meter Company. Corrections for base pressure and base temperature shall be made. Corrections for supercompressibility are recommended when available. Corrections

for Reynolds number and expansion factor are recommended only in cases where their combined correction is equal to or exceeds one percent (1%).

1040-04-02-.14 Pilot Tubes.

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

1040-04-02-.15 Gas Measurements.

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

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-03
Requirements for Reporting the Volume and Disposition of Oil and Gas Produced
Amendment

Chapter 1040-04-03 Requirements for Reporting the Volume and Disposition of Oil and Gas Produced is deleted in its entirety and replaced with the new Chapter 1040-04-03 to read as follows:

Chapter 1040-04-03
Requirements for Reporting the Volume and Disposition of Oil and Gas Produced

Table of Contents

1040-04-03-.01 Time Reports	1040-04-03-.08 Report Filing
1040-04-03-.02 Month Defined	1040-04-03-.09 Computing Method
1040-04-03-.03 Repealed	1040-04-03-.10 Report Verification
1040-04-03-.04 Repealed	1040-04-03-.11 Monthly Report-Gas
1040-04-03-.05 Reporting-Producers	1040-04-03-.12 Monthly Report-Plant
1040-04-03-.06 Monthly Reporting-Transporters	1040-04-03-.13 Report-Gas Gatherers
1040-04-03-.07 Repealed	

1040-04-03-.01 Time Reports

The length of time reports and other pertinent data, covered by this section, shall be kept on file by the operators and available for inspection by the Supervisor or members of his staff, for not less than a period of three (3) years.

1040-04-03-.02 Month Defined.

A "month" and "calendar month" shall mean the interval of time from 7:00 a.m. on the first day of any month of the calendar to 7:00 a.m. of the first day of the next succeeding month of the calendar.

1040-04-03-.03 REPEALED.

1040-04-03-.04 REPEALED.

1040-04-03-.05 Reporting-Producers.

Each producer of oil and such producer of condensate from a gas well, where produced in liquid form at the wellhead by ordinary production methods or as Calculated Theoretical Condensate, defined as the amount of condensate (allocated back to lease) that normally would be separated by conventional methods from natural gas well volumes flowing full stream directly to a plant without any condensate separation having been made at lease

or a plant, shall furnish for each year an Annual Well Report pursuant to Rule 1040-02-10-.06 setting forth complete information and data indicated by such reports respecting oil produced from every lease operated by said producer and respecting condensate produced from gas wells at the wellhead in liquid form by ordinary production methods from each lease operated by said producer.

1040-04-03-.06 Monthly Reporting-Transporters.

Each transporter of oil and condensate shall furnish for such calendar month a Transporter's and Storer's Monthly Report for Crude Oil and/or Condensate (Form R-MP-2) containing complete information and data indicated by such form including the quantity of oil removed from each lease and permit numbers of producing wells on each lease.

1040-04-03-.07 REPEALED.

1040-04-03-.08 Report Filing.

The transporter's and storer's reports for each month shall be prepared and filed according to instructions on the form, on or before the twenty-fifth (25th) day of the next succeeding month.

1040-04-03-.09 Computing Method.

All quantities included in the reports provided for in this chapter shall be reported in barrels computed from one hundred percent (100%) tank tables and based upon actual physical gauges.

1040-04-03-.10 Report Verification.

All reports provided for in this chapter shall be verified by affidavit in the form or forms indicated; any reports not so verified shall not be taken as filed in compliance with this chapter.

1040-04-03-.11 Monthly Report-Gas.

All gas produced within the State of Tennessee, excepting gas vented from stripper wells, shall be reported on the Annual Well Report and Monthly Gatherer's and/or Transporters Natural Gas Report (Form R-MP-5). Every producer shall complete the Annual Well Report pursuant to 1040-02-10-.06. Every transporter shall complete Form R-MP-5. The transporter thus required to report, shall execute under oath and file in the manner hereafter directed on or before the last day of each month, Form R-MP-5, setting forth fully the data and information indicated by such form, which shall be completed as to data covering the calendar month next preceding the date of filing.

1040-04-03-.12 Monthly Report-Plant.

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 natural gas, shall furnish for each calendar month a Monthly Gasoline and/or Cycling Plant Report (Form R-MP-6) containing the information indicated by such form respecting natural gas and products involved in the operation of each plant during each month. Such report for each month shall be prepared and filed according to instructions on the form on or before the last day of each month.

1040-04-03-.13 Report-Gas Gatherers.

Gas gatherers shall report the amounts of gas handled and disposed of on Monthly Producers Natural Gas Report (Form R-MP-4). The gas which he has produced in the field shall be reported on Form R-MP-4, under the section of the report entitled "Production." The gas gathered in the same field along with gas which he has gathered in nearby fields and transported to that field shall be reported on the same form, under the section entitled "Acquisitions." He shall indicate in this section the company from whom the gas was received, the field from which this gas was produced, and the amount of gas received. In the event the gatherer has produced no gas in the field from which he is gathering, then he shall indicate in the Production Section of Form R-MP-4 that he has no gas production. His acquisition in that field shall be listed in the Acquisitions section.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-04
Ratable Take

Amendment

Chapter 1040-04-04 Ratable Take is deleted in its entirety and replaced with the new Chapter 1040-04-04 to read as follows:

Chapter 1040-04-04
Ratable Take

Table of Contents

1040-04-04-.01 Taking Oil and Gas Ratably

1040-04-04-.01 Taking Oil and Gas Ratably

- (1) It is required that oil and gas be taken ratably from wells producing from a common pool. The application of vacuum at the wellhead of a well, or upon any gas or oil-bearing reservoir is prohibited, except on application, notice and hearing. A copy of the application and notice of hearing shall be mailed by certified mail to each offset operator within five (5) days after the application is filed. Wherever authority is granted to impose a vacuum, a continuous record thereof shall be kept by the operator as required by the order authorizing same. The record shall be made available to the Board on request. Should any operator, or a person with financial interest feel that oil and gas is not being taken ratably from well or wells in which he participates, then he may make that fact known through application for a public hearing and present and exhibit appropriate technical data to demonstrate such positions to the Oil and Gas Board. A decision will be made by the Board provided the applicant complies with the rule governing said hearings.
- (2) At a minimum, consideration of approval for use of a vacuum pump must include the following:
 - (a) A comprehensive presentation of the information pertinent to the request;
 - (b) Well histories of the well in question and surrounding wells;
 - (c) Electronic logs, if available, for each well;
 - (d) 7½ minute topographic quadrangle maps indicating the location of each well within one mile of the well site;
 - (e) A property map of the same area showing the surface owners, and mineral lease holders on surrounding properties; and
 - (f) A copy of a signed document, from each interested party, i.e., surrounding landowners and lease holders, stating that they have no objection to the well in question being pulled on a vacuum.
- (3) Subparagraph (f) of paragraph (2) may be waived if the gas that is pulled from the well is re-injected back into the same reservoir(s) as it is pulled from as a secondary recovery operation.
- (4) All requests made to the Oil and Gas Board shall include the requirements of paragraph (2) of this rule.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-05
Commingling and Automatic Custody Transfer of Hydrocarbons

Amendment

Chapter 1040-04-05 Commingling and Automatic Custody Transfer of Hydrocarbons is deleted in its entirety and replaced with the new Chapter 1040-04-05 to read as follows:

Chapter 1040-04-05
Commingling and Automatic Custody Transfer of Hydrocarbons

Table of Contents

1040-04-05-.01 Permission to Commingle	1040-04-05-.05 Operational Limitations
1040-04-05-.02 Notice Publication	1040-04-05-.06 By-Pass Lines
1040-04-05-.03 Granting Permission	1040-04-05-.07 Test for GPM
1040-04-05-.04 Meter Calibrations	1040-04-05-.08 Retention of Reports

1040-04-05-.01 Permission to Commingle.

Permission to commingle gas and/or liquid hydrocarbons and to measure and transfer custody of liquid hydrocarbons by use of methods other than customary gauge tanks may be obtained without the necessity of a public hearing, in the absence of protest, as hereinafter provided, and upon strict compliance with the procedure set forth herein.

- (1) Detailed schematic diagram of the mechanical installation to be used with adequate explanation of the flow of gas and/or liquid hydrocarbons and indicating locations of locking devices and seals to provide assurance against, or evidence of, tampering.
- (2) Statement by the producer that in his opinion the use of the proposed method will provide reasonably accurate measurement and will not create inequities.
- (3) A list of all known interested parties, including operators and royalty owners, affected by the application.

1040-04-05-.02 Notice Publication.

Notice of the filing of an application for projects applicable to this section shall be published in a newspaper of general circulation in the county wherein the field is located.

1040-04-05-.03 Granting Permission.

Upon the basis of application as herein provided, no permission for projects applicable to this section will be granted if; in the judgment of the Supervisor, the data and information submitted does not warrant the approval of the application or if any party protests the application by filing written protest with the Supervisor within fifteen (15) days following the first publications of the notice of the application; however, in either of the foregoing events, the application may be set for public hearing at the election of the applicant or the Supervisor.

1040-04-05-.04 Meter Calibrations.

The applicant shall provide a suitable means of calibrating each meter used for measurement of hydrocarbons in order that its accuracy in operation can be proven, such calibration to be done before or at the time the meter is initially installed and at such intervals or other times as the Supervisor or his agent shall, after consideration of the inherent characteristics of the particular equipment, deem proper. The results of all meter calibrations required by this order shall be certified as being true and correct by the party performing the calibration. These results shall be available upon request to the Supervisor or his duly authorized representative.

1040-04-05-.05 Operational Limitations.

The approved custody transfer or commingling installation shall be permitted to operate so as to transfer or commingle, as produced, the hydrocarbons produced from the well or wells served by such installation. The limitations on the operation of such installation are as follows:

- (1) The daily production rate from any well or wells must not cause waste.
- (2) Unless otherwise permitted, no production from a well in a prorated pool in excess of the total monthly allowable may be transferred during a calendar month.
- (3) The production from any given well in any one day shall not be increased more than twenty-five percent (25%) of the legally permissible hydrocarbon production from such well or wells.

1040-04-05-.06 By-Pass Lines.

Permission, in writing, from the Supervisor must be obtained for all by-pass lines or other lines that will permit flow around the regular meter, and each such line must have a meter that will permit individual well measurement.

1040-04-05-.07 Test for GPM.

Should the application be for the approval of the use of well tests, split stream tests, full stream tests, or other methods of determining GPM of the full well stream test or other method of determining GPM of the full well stream in lieu of gauge tanks and should the application for same be approved, such testing shall be done at least monthly. Applications of this nature shall only be approved when the applicant files with the supervisor an executed copy of an agreement in which all royalty and working interest owners in the leases affected have voluntarily agreed to the proposal.

1040-04-05-.08 Retention of Reports.

Should approval be given, the applicant shall indicate in the "Remarks" column on current R-MP-1 and R-MP-4 forms that appropriate well tests have been conducted. The applicant shall retain the actual reports of such tests and such reports shall be kept on file, and available for inspection by the Supervisor or any party at interest for a period of not less than three (3) years.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-06
Limiting Production

Amendment

Chapter 1040-04-06 Limiting Production is deleted in its entirety and replaced with the new Chapter 1040-04-06 to read as follows:

Chapter 1040-04-06
Limiting Production

Table of Contents

1040-04-06-.01 Prorating a Pool

1040-04-06-.01 Prorating a Pool

The Oil and Gas Board, after public hearing, may prorate a pool for the purpose of protecting correlative rights and to minimize the waste of oil and/or gas. Prior to prorating a pool, its wells may be shut-in until subparagraph (h) of Rule 1040-02-04-.01 is complied with, or in lieu thereof, a poolwide unit is established.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-07
Regulating High Gas/Oil Ratio Wells and Preventing Waste of Gas

Amendment

Chapter 1040-04-07 Regulating High Gas/Oil Ratio Wells and Preventing Waste of Gas is deleted in its entirety and replaced with the new Chapter 1040-04-07 to read as follows:

Chapter 1040-04-07
Regulating High Gas/Oil Ratio Wells and Preventing Waste of Gas

Table of Contents

1040-04-07-.01 Classification	1040-04-07-.04 Wells Regulated
1040-04-07-.02 Escaping Gas	1040-04-07-.05 Gas-Lifted Wells
1040-04-07-.03 Unitization	1040-04-07-.06 Application of Rules

1040-04-07-.01 Classification.

An oil well with a gas/oil ratio in excess of two thousand (2,000) cubic feet of gas per barrel of oil (2,000:1) shall be considered a high gas/oil ratio well and may be limited by the Supervisor in the amount of gas permissible to produce.

1040-04-07-.02 Escaping Gas.

No gas shall be flared or permitted to escape into the atmosphere, but will not be utilized without waste, except upon approval of the Supervisor or where special orders are operative. If necessary to prevent undue waste of gas or dissipation of reservoir energy, the Oil and Gas Board may limit venting of gas.

1040-04-07-.03 Unitization.

An attempt shall be made to unitize all pools, or reservoir, with high gas/oil ratios.

1040-04-07-.04 Wells Regulated.

Production from wells in pools or reservoirs that have both oil and gas production shall be regulated by the rules of this Chapter.

1040-04-07-.05 Gas-Lifted Wells.

Wells that are gas-lifted with gas from gas wells shall be prorated in the same manner as are high-ratio naturally flowing oil wells after subtracting the input gas from the output gas. The uneconomical or unreasonable use of gas for gas-lifting will not be permitted.

1040-04-07-.06 Application of Rules.

If gas is produced from an oil reservoir or common source of supply and is returned to the same source, only gas not returned or utilized for lease or unit operations shall be considered in applying the rules of this Chapter.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-08
Subterranean Gas Storage

Amendment

Chapter 1040-04-08 Subterranean Gas Storage is deleted in its entirety and replaced with the new Chapter 1040-04-08 to read as follows:

Chapter 1040-04-08
Subterranean Gas Storage

Table of Contents

1040-04-08-.01 Conditioned Usage

1040-04-08-.01 Conditioned Usage.

Application for usage of subterranean reservoirs for gas storage must be submitted to the Oil and Gas Board. The Board may, after public hearing, grant the applicant's request conditioned as follows:

- (1) That the underground reservoir sought to be used for the injection, storage and withdrawal of natural gas is suitable and feasible for such use, provided no reservoir, any part of which is producing or is capable of producing oil and gas in paying quantities, shall be subject to such use, unless all owners in such underground reservoir shall have agreed thereto in writing; or
- (2) Unless such reservoir has a greater value or utility as an underground reservoir for gas storage than for the production of the remaining volumes of original reservoir natural gas and condensate, and all owners, in interest shall have consented to such use in writing; and
- (3) That the use of the underground reservoir for the storage of natural gas will not contaminate other formations containing fresh water, oil, gas, or other commercial mineral deposits;
- (4) That the proposed storage shall not endanger lives or property; and
- (5) That the storage reservoir may be drilled through, in a prudent manner, for the purpose of exploration for, or producing, underlying oil and/or gas pools.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-09 Pressure Maintenance Projects and Secondary Recovery

Amendment

Chapter 1040-04-09 Pressure Maintenance Projects and Secondary Recovery is deleted in its entirety and replaced with the new Chapter 1040-04-09 to read as follows:

Chapter 1040-04-09 Pressure Maintenance Projects and Secondary Recovery

Table of Contents

1040-04-09-.01 Application	1040-04-09-.05 Casing and Sealing Wells
1040-04-09-.02 Administrative Approval	1040-04-09-.06 Input Well Procedure
1040-04-09-.03 Approval by Special Order	1040-04-09-.07 Pro-rata Payment
1040-04-09-.04 Poolwide Unit-Formation	1040-04-09-.08 Application for Hearing

1040-04-09-.01 Application.

Any person desiring to institute secondary recovery or pressure maintenance projects must apply to the Supervisor by letter setting forth the request, and submit a Pressure Maintenance and Secondary Recovery Questionnaire (Form Q-PMSR).

1040-04-09-.02 Administrative Approval.

If the common source of supply, for which such operations are to be instituted, lies within a single lease, or all interested parties voluntarily agree, the project may administratively be approved by the Supervisor.

- (a) The order is reasonably necessary to conserve the natural resources of the State; will prevent waste of oil and gas, and the drilling of an unnecessary well or wells; will appreciably increase the ultimate recovery of oil and gas from the affected pool; is economically feasible; and will protect correlative rights of both landowners and owners of mineral rights.
- (b) The order will provide for the allocation to each separate tract within the unit a proportionate share of the unit production, thereby insuring the recovery by the owners of that tract their just and equitable share of recoverable oil or gas in the unit.
- (c) The order will provide the designation of a unit operator, but only with the consent of the designated person, and approve the terms and plans of the unit operating agreement in the absence of a voluntary agreement among the owners.
- (d) The order shall make provision for the proportionate allocation of cost to the producers, which allocation shall be in the same proportion that the separately owned tracts share in unit production. The cost of capital investment in wells and physical equipment and intangible drilling cost shall be shared in like proportion, provided that no such producer or owner who has not consented to the unitization shall be required to contribute to the cost or expenses of the unit operation, or to the cost of capital investment in wells and physical equipment and intangible drilling cost, except out of proceeds of production accruing to the interest of such owners out of production from such unit operation. However, no well costs credit allowable shall be adjusted on the basis of less than the average well costs within the unitized area. If any producer or owner fails to tender his just and reasonable share of cost, the Board may provide that the operator shall withhold and be reimbursed for the non-participant's share of cost of the proceeds to the extent of three hundred fifty percent (350%) of the amount advanced.
- (e) It is provided, however, that the order requiring unit operation shall not vary nor alter any of the terms of the required written contract or contracts evidencing approval nor impose any terms or operations upon the nonsigners of said contract or contracts more onerous than the terms and operations set out in said contract or contracts.
- (f) The order will provide for the forced integration of separately owned tracts and other property ownership into drilling, production, or pool units. Continuous operations incident to the drilling of a well upon any portion of a unit shall be deemed, for all purposes, the conduct of such operations upon each separately owned tract in the unit. That portion of the production allocated to each separately owned tract included in a unit shall, when produced, be deemed for all purposes to have been actually produced from such tract by a well drilled thereon.

1040-05-01-.02 Drilling and Production Units.

- (1) Any owner with interest in a tract of land offsetting production and who cannot comply with the spacing rules for drilling a well on said tract may make application for a hearing before the Oil and Gas Board for the purpose of having the tract, or a portion thereof, included in a production unit.
- (2) Drilling and production unit wells shall comply with the rules on spacing between wells and distance from property lines as prescribed in Chapter 1040-02-01 through 1040-02-12.
- (3) The shape and pattern of production and drilling units should be designed to permit the attendant unit well to economically, efficiently and equitably drain the unit's pro-rata share of the pool's oil and/or gas, and shall be based on available geologic and engineering parameters. Length of any drilling unit shall not exceed twice its width.

1040-05-01-.03 Poolwide Units

- (1) Poolwide units may be formed on a volumetric or surface area basis provided that sufficient data are available to determine the geometry and to define the physical characteristics of the reservoir.
- (2) Drilling, production, or poolwide units can only be revised by the Oil and Gas Board if new pertinent geological or engineering evidence becomes available which was not in existence at the time a unit was

formed.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-06-01
Hearings and Administrative Approval

Amendment

Chapter 1040-06-01 Hearings and Administrative Approval is deleted in its entirety and replaced with the new Chapter 1040-06-01 to read as follows:

Chapter 1040-06-01
Hearings and Administrative Approval

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1040-06-01-.01 Hearings
1040-06-01-.02 Administrative Approval

1040-06-01-.01 Hearings.

- (1) Public hearings, after legal notice, shall be held by the Board as needed by the Board to implement its responsibility and upon applications made for such hearings. A notice of public hearing as provided by T.C.A. §60-1-204 shall be given by publishing one (1) notice of the time and place thereof in at least three (3) newspapers of general circulation in at least three (3) major cities in Tennessee, and such notice shall be published at least ten (10) days prior to the date of such hearing. Applicant must pay the cost incurred in publishing legal notices. The time and place for each public hearing shall be fixed by the Board as soon as reasonably possible and each public hearing will be conducted by the Board. If more than one hearing is to be held on a particular date, the Board conducting the hearings shall determine the order in which they will be held.
- (2) The applicant will open the hearing and present the testimony and exhibits offered in support of the application. The applicant's witnesses will then be subject to cross-examination by the Board and by any person with an interest in the subject matter of the application. The Board shall determine the order of appearance of the other participants in the hearing.
- (3) Each person having an interest in the subject matter of the application and who has complied with the rules and procedures may present testimony and exhibits in support of or in opposition to the applicant. All witnesses shall be subject to cross-examination as set forth above.
- (4) The applicant may offer rebuttal testimony and exhibits, but the witness will again be subject to cross-examination. Surrebuttal testimony and exhibits and subsequent testimony and exhibits may be permitted at the discretion of the person conducting the hearing.
- (5) All witnesses shall testify under oath.
- (6) Closing statements and statements of position may be made by the participants and all other interested parties before the hearing is closed or at such time as designated by the Board.
- (7) The Supervisor shall record each hearing showing appearances, testimony and exhibits, statements, and all other records submitted at the hearing.

1040-06-01-.02 Administrative Approval.

- (1) Administrative approval of certain matters of a routine nature may be granted by the Supervisor upon submission of an application showing all pertinent information and data and after due notice is given to all operators of interest.

- (a) The application shall be made to the Supervisor with a copy to each known offset lease owner and such application shall include:
 - 1. statement of reason and justification for requested relief,
 - 2. map or sketch illustrating the information pertinent to the request relief,
 - 3. list of names and addresses of all interested persons notified of the application.
- (b) If the application meets with the approval of the Supervisor and no written protest is received by the Supervisor within fifteen (15) days following prescribed notice of the application, the Supervisor may grant the requested relief without the necessity of a public hearing.
- (c) If the application is accompanied by a written waiver from all known offset lease owners, the fifteen (15) day delay will be unnecessary.
- (d) If the Supervisor does not elect to approve the application administratively or if written protest is received within the fifteen (15) day period, the application may be set for public hearing.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-06-02
Rules of Procedure for Hearing Contested Cases

Amendment

Chapter 1040-06-02 Rules of Procedure for Hearing Contested Cases is deleted in its entirety and replaced with the new Chapter 1040-06-02 to read as follows:

Chapter 1040-06-02
Rules of Procedure for Hearing Contested Cases

For Rules of Procedure for Hearing Contested Cases see Rules of the Secretary of State, Chapter 1360-04-01.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-07-01
List of Forms

Amendment

Chapter 1040-07-01 List of Forms is deleted in its entirety and replaced with the new Chapter 1040-07-01 to read as follows:

Chapter 1040-07-01
List of Forms

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1040-07-01-.01 Report and Permit Forms

1040-07-01-.01 Report and Permit Forms.

- (1) The report and permit forms designated below may be obtained from the State Oil and Gas Board, 401 Church St., Nashville, TN 37243-1534, and are hereby adopted and made a part of the rules set out in Chapter 1040-01-01 through Chapter 1040-07-01:

- (a) Application to Amend Well Permit (Form P-AD-2)
- (b) Application to Change Operators (Form P-AD-3)
- (c) Application for Permit to Drill (Form P-AD-1)
- (d) Authority to Drill, Deepen, or Reopen a Well (Form P)
- (e) Gas Well Deliverability Tests (Form R-DT-1)
- (f) Monthly Gatherer's and/or Transporter's Natural Gas Report (Form R-MP-5)
- (g) Organization Report (Form R-O-1)
- (h) Periodic GPM Test Report (Form R-GPM-1)
- (i) Plug and Abandon Report (Form R-P&A-1)
- (j) Pooling Affidavit (Form PA)
- (k) Pressure Maintenance and Secondary Recovery Questionnaire (Form Q-PMSR)
- (l) Statement of No Objection to Proposed Surface Disturbance (Form NO)
- (m) Surface Owners Notification Certification (Form NC)
- (n) Transporter's and Storer's Monthly Report for Crude Oil and/or Condensate (Form R-MP-2)
- (o) Well History, Work Summary, And Completion or Recompletion Report (Form R-WH-1)
- (p) Irrevocable Standby Letter of Credit Format (Form ILC)

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-08-01
Determinations Under Federal Natural Gas Policy Act of 1978

Amendment

Chapter 1040-08-01 Determinations Under Federal Natural Gas Policy Act of 1978 is deleted in its entirety and replaced with the new Chapter 1040-08-01 to read as follows:

Chapter 1040-08-01
Determinations Under Federal Natural Gas Policy Act of 1978

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1040-08-01-.01 Definitions	1040-08-01-.06 Attesting of Written Orders
1040-08-01-.02 Applicability of Other Rules	1040-08-01-.07 List of Participants
1040-08-01-.03 Application and Filing Procedure	1040-08-01-.08 Forms
1040-08-01-.04 Evidence by Affidavit	1040-08-01-.09 Notice of Determination
1040-08-01-.05 Intervention	1040-08-01-.10 Method of Determinations

1040-08-01-.01 Definitions.

- (1) "F.E.R.C." means the Federal Energy Regulatory Commission.
- (2) "F.E.R.C. Rules" means rules or regulations adopted by F.E.R.C. implementing the NGPA.

- (3) "NGPA" means the Natural Gas Policy Act of 1978 enacted by the United States Congress on November 9, 1978, and as that Act may subsequently be amended, supplemented, or superseded by subsequent legislation by Congress.
- (4) "Application" shall mean a written request for status determination in accordance with Rule 1040-08-01-.03 herein and shall also mean "petition" within the meaning of other rules, regulations, and orders by the Board, when applied to NGPA status determination proceedings by the Board.
- (5) "Sections 102, 103, 107, and 108" or reference to any one or more of those sections shall mean and be in reference to those sections of the NGPA.

1040-08-01-.02 Applicability of Other Rules.

Except where the same conflict with these rules pertaining to NGPA Determinations, F.E.R.C. rules, or the NGPA, all other rules, regulations, and orders of the Board are applicable thereto.

1040-08-01-.03 Application and Filing Procedure.

Any interested person requesting the classification of a gas well under Sections 102, 103, 107 or 108 by the Board pursuant to the authority granted to the Board by Section 503 of the NGPA, in order to determine the applicable status for such wells, shall initiate such determination by:

- (1) Filing with the Board NGPA Form No 121.
- (2) Filing with the Board Forms TGP 102, TGP 103, TGP 107 or TGP 108, whichever is appropriate.
- (3) Filing with the Board all forms, information, plats, exhibits, affidavits, documents, and evidence required by Part 274 of the F.E.R.C. rules, and other applicable F.F.R.C. rules, and required by these rules herein, and by Oil and Gas Board Forms TGP 102, 103, 107 and 108.
- (4) Attesting to the application in the manner required by Section 274 and other applicable rules of the F.E.R.C. rules for such filings.
- (5) Paying a fee of twenty-five dollars (\$25.00) to the State of Tennessee through the Supervisor for each application filed. Checks should be made payable to the Tennessee Oil and Gas Board.

1040-08-01-.04 Evidence by Affidavit.

Applications may be considered and determined by the Board on the basis of information contained in the application provided such application complies with all other rules herein. If there are no objections to the applications by any interested parties, the Board may consider and act on sworn affidavits, as well as exhibits, forms and other matters filed with the Board and constituting a part of the record of the hearing of the application. If confidentiality applies (Oil and Gas Board Rule 1040-02-10-.05) to any items submitted as evidence, a separate letter identifying the items and giving the period of confidentiality should be included with the application.

1040-08-01-.05 Intervention.

Any person may intervene in an application and become a proponent or opponent of any application.

1040-08-01-.06 Attesting to Written Orders.

Written orders of the Board concerning applications may be signed by the Chairman of the Board and such orders certified by the Chairman as an order duly promulgated by the Board shall have full force and effect as orders signed by the Board members.

1040-08-01-.07 List of Participants.

A list of participants in the proceedings, as well as any persons who submitted or sought an opportunity to submit

written comment (whether or not such persons participated in the proceedings) shall be made for each hearing.

1040-08-01-.08 Forms.

- (1) Applications shall be made upon Forms TGP 102 (Application for New Natural Gas Determination), TGP 103 (Application for New Production Well Determination), TGP 107 (Application for High Cost Natural Gas Determination), and/or TGP 108 (Application for Stripper Well Natural Gas Determination), and any form required by F.E.R.C. The original and two copies of such application shall be filed with the Board, along with a self-addressed stamped envelope for return of one of the copies after the filing date and docket number have been noted by the Board. The F.E.R.C. 121 Form and Form TGP 102, 103, 107 and 108 may be submitted in lieu of the second complete copy of the application. All applications shall be fully completed as appropriate in conformance with Board rules as well as with F.E.R.C. rules, and the well for which a determination is being sought must have been classified by the Tennessee Division of Geology before such applications may be heard by the Board. Upon receipt of an application, the Board shall notify the applicant of the receipt of such application and, should the application be incomplete in any respect, indicate the nature of the incompleteness. Upon the receipt of application, such application shall be considered filed with the Board, assigned a docket number, and notice duly published, provided all other rules referred to herein have been complied with.
- (2) The date the application is received by the Board shall be considered the filing date or record, unless after a determination has become final it is determined that the application did not, in fact, qualify for the request status in the first place, in which case the Board will consider the filing date of record of a new application to be the date the disqualified application for a price determination for a particular reservoir was received by the Board. This exception will be allowed between categories as well as within a particular category, but shall only apply to those wells for which commercial sale of natural gas has occurred after the original determination was filed. Written notice shall be given to the F.E.R.C. and to the applicant for any determination for which this exception shall apply.

1040-08-01-.09 Notice or Determination.

After making a determination that an application does or does not qualify for the requested status under the NGPA, the Board shall give written notice of such determination to F.E.R.C. in accordance with F.E.R.C. rules.

1040-08-01-.10 Method of Determinations.

- (1) The State Oil and Gas Board of Tennessee, hereinafter referred to as the "Board" hereby certifies that it will take such steps as are reasonably necessary or appropriate to perform its function in accordance with Part 214 of the proposed implementing rules of F.E.R.C.
- (2) The method by which the Board will make determination is as follows:
 - (a) Applicants for determination shall file on forms required by the F.E.R.C. and by the Board in order to receive a hearing. Forms required by the Board are:
 1. Form No. P (Authority to Drill Deepen, or Reopen a well)
 2. Form No. P-AD-1 (Application for Permit to Drill)
 3. Form No. P-AD-2 (Application to Amend Well Permit)
 4. Form No. P-AD-3 (Application to Change Operators) if applicable
 5. Form No. R-O-1 (Organization Report)
 6. Form No. R-WH-1 (Well History, Work Summary, and Completion or Recompletion Report)
 7. Form No. R-DT-1 (Gas Well Deliverability Tests)

8. Form No. R-MP-5 (Monthly Gatherer's and/or Transporter's Natural Gas Report)
 9. Form No. R-MP-6 (Monthly Gasoline and/or Cycling Plant Report)
 10. Form No. TGP 102 (Application for New Natural Gas Determination), TGP 103 (Application for New Production Well Determination), TGP 107 (Application for High Cost Natural Gas Determination), or TGP 108 (Application for Stripper Well Natural Gas Determination), whichever is appropriate.
- (b) Notice of filing by applicants is required by the rules of the Board to be given by applicants to identified purchases, as required by Section 274.201(e) of the said proposed Regulations of F.E.R.C. (Board Rule 1040-08-01-.03(3)).
 - (c) Public notice of the filing, pending hearing, and pending determination of applications for determinations shall be given by the Board at least ten (10) days prior to such hearing, giving the date, time, and place of such hearing. Such public notice shall be given by publication at least once in a newspaper of general circulation published in Nashville, Knoxville, and Chattanooga.
 - (d) All rules, regulations, and orders of the Board require at least three affirmative votes by the five members of the Board. All such rules and regulations and orders of the Board are required to be in writing, T.C.A. §60-1-204(d). Petitions must be filed at least fifteen days prior to the hearing thereon. When a proceeding is instituted, the Board assigns a docket number to the application and records the fact and the dates of the filing of the application in a docket book provided for such purpose (Board Rule 1040-08-01-.10(2)(g)). Testimony is recorded, transcribed, and preserved as a part of the permanent record of the hearing. Any person testifying is required to do so under oath; however, relevant unsworn statements, comments, and observations by any interested person may be heard and considered by the Board and included in the record. In matters where there are no objections of record, sworn affidavits of witnesses may be received in evidence (Board Rule 1040-08-01-.04). The relevancy of any testimony or other evidence is subject to challenge by any party to the hearing or any member of the Board. When so interposed, such objections are acted upon by the Chairman, his ruling being subject to challenge and overturning by a majority vote of the Board.
 - (e) Full opportunity is afforded all interested parties at a hearing to present evidence and to cross-examine witness.
 - (f) The Board maintains data files which contain the records on each individual well in the State. Such well records consist of the following:
 1. Application to Amend Well Permit (Form P-AD-2).
 2. Application to Change Operators (Form P-AD-3).
 3. Application for Permit to Drill (Form P-AD-1).
 4. Authority to Drill, Deepen, or Reopen a Well (Form P).
 5. Gas Well Deliverability Tests (Form R-DT-1).
 6. Monthly Gatherer's and/or Transporter's Natural Gas Report (Form R-MP-5).
 7. Organization Report (Form R-O-1).
 8. Periodic GPM Test Report (Form R-GPM-1).
 9. Plug and Abandon Report (Form R-P&A-1).
 10. Pressure Maintenance and Secondary Recovery Questionnaire (Form Q-PMSR).

11. Production Test and Gas-Oil Ratio Report (Form R-PT-1).
12. Transporter's and Storer's Monthly Report for Crude Oil and/or Condensate (Form R-MP-2).
13. Well History, Work Summary, and Completion or Recompletion Report (Form RWH-1).
14. Application for New Natural Gas Determination (Form TGP-102).
15. Application for New Production Well Determination (Form TGP-103)
16. Application for High Cost Natural Gas Well Determination (Form TGP-107).
17. Application for Stripper Well Natural Gas Determination (Form TGP-108).

Further, the Board maintains a library of drill cuttings, cores and logs from wells in the state. Records of the Board include extensive geologic and engineering data, such as geologic structure, isopach, and cross-section maps, production data, well potential test results, bottom hole pressure surveys, fluid analyses, gas analyses, and other similar data.

The Board maintains field or reservoir base maps and all wells completed in or penetrating a reservoir are identified.

A monthly activity report is published by the Board for all wells being drilled or completed in the state and a monthly production report is available giving monthly production from all producing wells in the state.

- (g) Applications for determinations will be filed and assigned a docket number upon receipt. The professional staff of the Board will then study the application and data submitted in conjunction with records of the Board as identified in subparagraph (f) of this paragraph. Information contained in the application will be verified to the extent possible with information on file with the Board. The staff of the Board includes professional engineers, geologists, and attorneys, as well as other support staff. The application and relevant data will be considered and discussed in a joint meeting of the professional staff, prior to the public hearing of the application before the Board. Requests for clarification of data or for additional data may be made, where deemed necessary by the staff. Unresolved questions may be asked of the applicant at the hearing.
- (h) The initial authority of the Board for making determination in accordance with the N.G.P.A. was established by an emergency order of the Board, which was made at a scheduled hearing under the Uniform Administrative Procedures Act. This action was properly advertised in accordance with the state law and Board rules.

After studying the application, all data submitted by the applicant, all data available in the files of the Board, and hearing any additional evidence submitted at the hearing, the staff of the Board will make a recommendation to the Board. Where there is no objection, evidence may be submitted by affidavit without oral testimony. Regarding uncontested applications, the Board will hear them en masse and, where appropriate, grant the same by one order. A list of applications recommended for approval will be made available prior to the hearing so that comments or objections may be expressed when the applications are considered by the Board.

- (i) The Board will give written notice to the F.E.R.C. of any change in the procedures described in these rules.

Authority: T.C.A §§60-1-105, 60-1-201 et seq., and 4-5-201 et seq.; Natural Gas Policy Act of 1978, Public Law No. 95-621, 92 Stat. 3350 (November 9, 1978).

Public Hearing Comments

One copy of a document containing responses to comments made at the public hearing must accompany the filing pursuant to T.C.A. §4-5-222. Agencies shall include only their responses to public hearing comments, which can be summarized. No letters of inquiry from parties questioning the rule will be accepted. When no comments are received at the public hearing, the agency need only draft a memorandum stating such and include it with the Rulemaking Hearing Rule filing. Minutes of the meeting will not be accepted. Transcripts are not acceptable.

Summary of Public Comments and Tennessee Division of Water Pollution Control/Oil and Gas Board Responses

The Tennessee Department of Environment and Conservation (TDEC) has completed the public hearing and comment process regarding proposed changes to the rules of the Tennessee State Oil and Gas Board. The changes propose amendments to *TDEC Rules 1040-01* through *1040-08*. These rules cover oil and gas well extraction and related support activities. The proposed amendments include new and revised definitions and changes relating to non-producing well, bonding requirements and procedures, permit requirements, schedules and dates for filing forms, drilling depths, well testing, plugging, fees, and casing requirements, public notification, reclamation, and environmental protection.

The notice of rulemaking hearing was filed with the Tennessee Department of State on December 6, 2010. The public hearing and comment process was conducted in the manner and procedures prescribed by the *Uniform Administrative Procedures Act, Tennessee Code Annotated, Section 4-5-204*.

Copies of the draft rules were made available for public review at the Environmental Field Offices located in Knoxville, Nashville, Cookeville, Chattanooga, and Johnson City. Draft copies of the rules were also available for review at the Central Office of the Division of Water Pollution Control/Oil and Gas Board in Nashville and at the Huntsville Public Library in Huntsville, Tennessee. The draft rules were also accessible electronically at <http://tn.nov/environment/wpc/ppo>.

A public hearing was held on February 22, 2011, at the Knoxville Environmental Field Office, 3711 Middlebrook Pike, Knoxville, Tennessee. Approximately 100 people attended this public hearing. Twenty-three (23) people offered oral comments during the hearing. The initial public comment period ended at 4:30 p.m. on March 1, 2011.

The public comment process for the draft rules was extended until May 9, 2011. The extension was granted as a result of Governor Haslam's 45 day suspension of any new rules at the beginning of his term. As a result of the suspension, a second public hearing was held at the Knoxville Environmental Field Office (EFO) on April 28, 2011. Approximately 60 people attended this hearing. Thirteen (13) people offered oral testimony at this hearing. There were 22 written or e-mailed comments submitted to the Tennessee Oil and Gas Board. Thirteen of the written comments were direct comments to specific regulations.

The hearings were attended by interested citizens, government agencies, local media, and representatives of numerous groups, institutions, and public and private organizations. The list of attendees represented the following organizations:

Big South Fork National River and Recreation Area (BSFNRA)
Dixie Shamrock Oil & Gas, Inc
Estate of Bruno Gernt
Foundation for Global Sustainability
Global Environmental, LLC
League of Women Voters of Tennessee (LWV)
LWV State Action Committee
Miller Energy Resources, Inc.
Ohio-Kentucky Oil Corp.
Planet Energy, LLC
Sierra Club
Statewide Organizing for Community eMpowerment (SOCM), SOCM E3 Committee (Energy, Ecology, and Environmental Justice)
Students Promoting Environmental Action in Knoxville

Tennessee Citizens for Wilderness Planning (TCWP)
Tennessee Clean Water Network (TCWN)
Tennessee Oil and Gas Association (TOGA)
Tennessee Valley Unitarian Universalist Church
The Coal Creek Company
The National Park Service (NPS)
The Nature Conservancy
TMD Energy
United Mountain Defense (UMD)
U. S. Fish and Wildlife Service (USFWS)
Vinland Energy

Written comments were submitted during the hearings and to Michael Burton, Oil and Gas Supervisor, Tennessee Division of Water Pollution Control, 6 Floor, L & C Annex, 401 Church Street, Nashville, Tennessee 37243- 1534. The following responded with written comments regarding the proposed rule changes:

Big South Fork Park National River and Recreation Area, (BSFNRRRA)
Global Environmental, LLC
League of Women Voters of Tennessee (LWV)
Obed Wild and Scenic River Sierra Club
Sierra Club Tennessee Chapter
Statewide Organizing for Community eMpowerment (SOCM), SOCM E3 Committee (Energy, Ecology, and Environmental Justice)
Tennessee Clean Water Network (TCWN)
Tennessee Oil and Gas Association (TOGA)
The National Park Service (NPS)
The Nature Conservancy
TMD Energy
United Mountain Defense (UMD)
U. S. Fish and Wildlife Service (USFWS)

The public hearings were conducted by TDEC personnel. The oral testimony was recorded and written comments, e-mails, etc. received during the comment period were entered into the hearing record. Introductory remarks by TDEC personnel offered a summary of the proposed rule changes, the hearing procedure, and decision process. Individual and group concerns were also discussed at the close of the hearing.

Comments and Responses

Please note that a number of comments (both written and oral) are not included in this document because they: 1) were not directly related to the proposed rules change (see section T below for some of these topics), 2) stated a belief or opinion, and did not specifically ask for a response, 3) required a response that would be speculative and without direct relationship to the proposed rules change, 4) or requested information or involved matters subject to control or regulation by other government agencies. However, all comments received are part of the hearing record and were considered by the Division in making the determination regarding the proposed rule changes.

Subjects included in the comments or questions follow: (Public comments that represent similar concerns and issues are grouped together under specific categories with the associated Chapter Title of the Rules identified).

A. Definitions (Chapter 1040-01-01)

Comment A-1. *Several commenters requested changes and additions to the definitions in the rules.*

Response: We agree that certain changes and additions to the definitions are needed. The changes and additions are intended to provide greater clarity to the existing rules.

Comment A-2. *Comments included calls for new definitions and changes to existing definitions for non-producing well, dry hole, access road, gathering line, organization report, and well site equipment. Also, adding the word "plug" before the word "abandoned" would help clarify the term.*

Response: There are some references to "non-producing wells" in the existing regulations; therefore we are adding a separate definition for "non-producing well" in the rules. In addition, the word "plug" will be placed before the word "abandoned" to provide greater clarity to the term.

The definition for "Dry Hole" will be written to state the following: *"Dry Hole" or "Dry well" shall mean a well found incapable of producing either oil or gas in sufficient quantities to justify completion or continued production.* This improved definition will allow the Tennessee Oil and Gas Board to better enforce the regulations when it becomes necessary to plug wells.

We are making a small change to the proposed addition to the definition of "Access Road" *"...built and used exclusively by the operator."* We recognize that access roads are an ongoing problem for most operators. It is acknowledged that other entities sometimes use access roads and cause significant damage.

The definition for "Gathering Line" will remain the same because of the number of lines across our state that need to be addressed for burial when appropriate.

We are including a definition for "Organization Report" as follows: *"Organization Report shall mean the form submitted by the operator of record to the Tennessee Oil and Gas Board with all responsible parties listed with all the appropriate contact information that coincides with the record submitted at the Secretary of States for any entity listed as an Incorporation, Company or LLC.*

We will not make additional changes to the definition for "Well Site Equipment" from what we have proposed. The existing definition gives an "either/or" situation for lease or location. We also deleted the definition of the term "wetlands" because it is not used in the rules.

Comment A-3. *Commenter expressed confusion about the use of the terms "production formation" and "producing formation" in the rules.*

Response: "Production Formation" is synonymous with "Producing Formation" and is defined as the formation in a particular area that is producing oil or gas. No changes to this definition are proposed.

B. Bonding (Chapter 1040-02-01)

Comment B-1. *The amount of the plugging bonds and reclamation bonds should be reassessed and increased in the rules.*

Response: After reviewing the comments, we propose to leave the plugging bond the same for shallow wells and increase it for deeper ones as follows: *" The bond shall be for the sum of two thousand dollars (\$2000) for wells from 0 to 2500 feet in depth; three thousand dollars (\$3000) for wells from more than 2500 feet up to 5000 feet in depth; all wells deeper than 5000 feet will increase over three thousand dollars at the rate of \$1.00 for every foot deeper than 5000 feet."* This change will coincide with the current spacing requirements and be consistent with the costs we have incurred in plugging wells. After 5000 feet, fee requirements will increase significantly for all single well plugging bonds.

Another change we are making to the rules in regard to bonding is to clarify language regarding the processes around issuance and forfeiture of bonds. We have modified the proposed new definition of "bonding agent" which is being used in lieu of "surety" because not all bonds are surety bonds.

Comment B-2. *Eliminate the per-well bond and create a larger blanket bond for existing companies with existing production.*

Currently, there are operators that may not drill enough wells to allow them to make it feasible for the operator to utilize a blanket plugging. Therefore, the department is required to provide a means to utilize a single well bond for some operators.

Comment B-3. *One comment referred to bonds as 'fees', another comment stated that we should not return bonds under any circumstances.*

Response: We must clarify for the commenter that bonds are not fees. The operator, as specified in the regulations, is entitled to have all bonds returned if the rules are followed.

C. Permit Required (Chapter 1040-02-02)

Concerns and questions relating to permit requirements were cited by several commenters. Written and oral testimony received related to the time limit for issued permits, time limit for landowner notification, lease arrangements, requirements for permit applications, and transfer of drilling permit. The time extension for issued permits was a major concern of several commenters.

Comment C-1. *Some commenters questioned extension of the time limit for issued permits and notification to surface owners.*

Response: We believe the proposed rule change extending the expiration of a permit from 90 days to 365 days is appropriate. We reached this determination after evaluating the public comments, review of existing practices/industry requirements, and recommendations of the STRONGER Review regarding Tennessee's oil and gas program. We arrived at the same conclusions for other time extensions proposed in the rules.

An extension for the fifteen (15) day waiting period for landowner notification has worked well in the past. This allows the landowner a sufficient amount of time to respond to the Oil and Gas Program Supervisor's office if there are any unresolved conflicts.

Comment C-2. *I recommend that the lease of record requirement with the mineral owner for each application be removed from the rule. Is the state prepared to determine the existence of a lease?*

Comment C-3. *Rule 1040-02-02-.01 (5) requires that a lease of record must be submitted with each application. However, Rule 1040-02-02-.02(1) says a copy of the lease of record must be provided with an application for a permit to drill a well for oil and gas, if needed. The words "if needed" contradict the terms "must be submitted" and should be removed from the rules.*

Response: The Department agrees with the commenters and will change the rule to say, "The operator will indicate on the permit application, on a space provided, if the operator has the legal right to drill and produce the well."

D. Public Participation/Notification and Protections for Wildlife

Comment D-1. *The notification requirements for oil and gas permits should be the same as required for TDEC water quality permits (i.e. NPDES): Public Notice and comment period for each permit with Public Hearings upon request.*

Response: Public Notice of all oil and gas permits for public review is currently not economically feasible for the Division of Water Pollution Control. The cost for a public notice and comment process like that used for NPDES permits was estimated at more than \$400,000 per year, which would more than double the existing oil and gas program budget.

Comment D-2. *The rules do not provide adequate protective measures for state and federally listed threatened and endangered species and migratory birds.*

Response: We recognize these concerns and will propose to implement the same procedure on oil and gas permits for identifying potential impacts to listed species that TDEC utilizes in other permitting programs. For each application, the reviewer will check the Heritage Program database for known listed species records within a ½ mile radius of the proposed wellhead. If this database search indicates a record of a listed species of concern within that radius, TWRA and U.S. Fish and Wildlife Service will be notified so that they may take whatever

actions with the lease holder or landowner they deem necessary. This would involve only a change in process; no change to the rules is needed.

Comment D-3. *Commenter recommends that netting be placed on open pits to protect migratory wildlife. Netting is the most effective method of protecting migratory wildlife.*

Response: We do not agree with the commenter that nets should be placed over pits at wellheads. We are not aware of any wildlife mortality caused by these pits, while the dangers to small wildlife presented by netting are well known.

E. Well Location Plats (Chapter 1040-02-03)

Comment E-1. *A number of comments questioned the reduction in radius in which dwellings, dikes, streams, drinking water wells, etc., must be shown on the location plat from ½ mile to 200 feet. This will reduce the attention to details of potential impact areas.*

Comment E-2. *Several commenters favored the reduction to 200 feet as more practical and protective of the likely impact area.*

Response: After consideration of all the comments, we concur with the view that a setback radius of 200 feet is adequate. Commenters point out that in many cases a surveyor does not have access to adjoining private properties within a ½ mile radius. Generally, the oil and gas activity would not affect an area 1/2 mile from the site. Any sensitive or critical locations beyond two hundred (200) feet can more easily be indicated on the site map in the action plan for all permitted locations, rather than on the plat.

F. Well Spacing (Chapter 1040-02-04)

Comment F-1. *Some commenters questioned the need for any changes in well spacing at this time. Exceptions should not be granted to vertical well spacing requirements for Overton, Pickett, Clay and Fentress Counties. These are areas with unstable karst geology and caves, sinkholes, and disappearing streams.*

Response: The rule changes for well spacing are designed to reconcile the language of the law with the supporting regulations. The spacing requirement for Overton, Pickett, Clay Counties is already in the law, and we are just adding the same language to the regulations for clarity – these additions do not therefore represent any change from our current procedures. The only change is the additional of “western Fentress County”.

Comment F-2. *Commenter felt that spacing requirements under unit operations were not stringent enough.*

Response: The requirement for *Rule 1040-2-4-.01(j)* refers to unit operations for this type of spacing request. Well spacing can become denser when a unit is approved for interior location. Unit operations usually come before the Board for approval and are based on geology and empirical aspects of the immediate area drilled. The approval of a unit is also dependant on how mineral rights and surface owners in the proposed unit may be affected, and how adjacent surface owners, mineral owners, and lease holders are addressed in the request for approval. We believe that authority for the Board to allow flexibility for spacing in unit operations is appropriate and we do not propose any changes at this time.

G. Well Identification (Chapter 1040-02-05)

Comment G-1. *Commenter recommends a sign of 8 1/2 inches in height and 11 inches in width be required for well identification.*

Response: There are no current size requirements for sign posting in the rules. In response to comment, we will adjust our proposed language to require signage to be a *minimum* of 8 1/2 X 11 inches.

H. Casingheads (Chapter 1040-02-06)

Comment H-1. *The casinghead requirements should be eliminated, or clarified and written by an engineer describing what the regulation means.*

Response: We disagree that casinghead requirements should be eliminated, as they are a critical component for safety and environmental protection. The casinghead language we have proposed is intended to clarify and simplify, but the language has been intentionally left flexible to allow for different equipment types for different geologic settings in the state. For example, an operator would not use a double stack blowout preventer in Overton, Pickett, Clay or western Fentress County because the wells drilled are low pressure and short-term producing wells.

I. Environmental Protection (Chapter 1040-02-06)

Comment I-1. *Several commenters expressed support for erosion prevention and sediment controls in the rules. Some comments were more critical and questioned the time periods allowed to fulfill requirements.*

Response: The changes brought forth under this rule are intended to bring general erosion and sediment control language into accord with standard sediment and erosion control requirements in other TDEC permits, referencing the Tennessee Erosion and Sediment Control Handbook. All concerns as to the time periods allowable to fulfill the requirements are addressed under Section O (1040-02-09) below.

J. Surface Casing (1040-02-07)

Comment J-1. *Several comments expressed concern about the Oil and Gas policy regarding surface casings and cementing procedures, and the impact of karst topography on the effectiveness of these requirements in protecting groundwater resources.*

Response: The Division recognizes that karst features are often encountered in Tennessee. Unfortunately there are zones that exist that can cause a loss of circulation of cement due to such features as voids, caves or water bearing zones, even old mines. Currently, the Oil and Gas program has a casing policy that forces every operator to address these features to protect all groundwater resources.

Current regulations require a cement bond log upon request if we suspect the cementing of the casing is improper in any way. The well can be red-tagged (temporarily shut down) until the operator can prove the casing job is proper. Our casing and cementing practices have proven adequate in all areas of the State when properly followed and witnessed by our inspectors.

K. Horizontal Drilling (Chapter 1040-02-08)

Comment K-1. *Rule 1040-2-8-.04 (d), Horizontal Drilling, should be changed to read: "All of the producing portion of the well must be in compliance with the spacing requirements of this paragraph. The horizontal portion of the well is the formation of record for production."*

Comment K-2. *More clarification regarding spacing for horizontal drilling is needed.*

Response: We specify that computation of spacing requirements should begin at the point where the horizontal portion of the well enters the formation of record and begins to turn into the producing formation not just at the bottom of the annulus. Placing the spacing requirement at the horizontal turn into the producing formation will allow more wellheads to be located closer in proximity to one another, which will result in a smaller footprint of surface disturbance.

L. Plugging Wells (Chapter 1040-02-09)

Comment L-1. *Several commenters raised questions about the adequacy of our plugging requirements to protect drinking water aquifers.*

Comment L-2. *The proposed increase in time limits for plugging is too long.*

Comment L-3. *The depth of wells and plugging requirements are inadequate.*

Comment L-4. *The bond amounts for plugging should be reduced.*

Response: The concerns of the commenters are noted, but we believe our plugging requirements as revised in this rule-making are more than adequate to address and protect groundwater aquifers. We have no data suggesting contamination of groundwater drinking water sources due to a lack of plugging requirements from oil and gas activities.

The comments concerning the time limits for plugging non-producing wells, we think are addressed adequately by the language that will require an operator to plug all wells not producing within one year, or to place into temporary abandonment those wells of worth for an annual fee of \$100.00 per well. We believe that a one year time limit to plug a non-producing well is appropriate given the scarcity of capable contractors in the state.

M. Deliverability Test (Chapter 1040-02-09)

Comment M-1. *Commenter strongly recommended that wells be tested every three years. If the well is properly shut in, the deliverability of that well will not change over a shorter time frame. A provision must be made for the operator who chooses to run production casing on a well but does not perforate nor stimulate until the file is drilled up and pipelines are built. Shale wells should be included.*

Response: The State of Tennessee has a number of gas wells that are not producing for a variety of reasons. Many of these wells are 20 to 30 years in age. A search of our files revealed that many of these wells had incomplete deliverability tests or none at all on file. We have identified this as one of our high priorities to address.

We agree with the commenter that every three years is adequate. The requirement of submitting a new deliverability test every three years is intended to 1) give the Oil and Gas Board a recent update of a well and if the well is truly still viable and 2), force the operator to address any well that is truly not able to produce gas, based on current information. The regulation has been written in a manner to allow an operator to have a shut-in well if the well is cased from total depth (T.D.) to the surface without a deliverability test. A cement bond could be requested at a future date to determine if a proper casing program is in place.

A well cannot be designated as a shale well because there is no separate category or definition for "shale wells" in our regulations. Any well drilled directionally into a shale formation or any formation is deemed as a horizontal well by regulation. If an operator has a well he feels has value, then the well can be placed in temporary abandonment until the operator can determine the status of the well at a future time.

N. Surface Reclamation (Chapter 1040-02-09)

Comment N-1. *Several commenters questioned the time limit for surface reclamation and plugging, with limits ranging from 30 days to 120 days recommended. Other comments related to the reclaiming of pits, disposal of fluids, and to vegetative cover used in surface reclamation.*

Response: We agree with some comments that a 30 day time frame to complete reclamation and plugging is not always possible to achieve due to weather conditions or lack of available contractors. Therefore, the surface reclamation time limit has been extended to 90 days to allow the operator more time for reclamation and plugging.

The reclaiming of surface disturbances at active well sites such as pits and access roads is to take place no later than 90 days after the well is completed or drilled. Pits are not to remain open for any reason unless a request is made to allow for an extended time period of no longer than 90 days for the purpose of well treatment. Once the well is treated and the fluids contained, the operator is to dispose of the fluids in a proper manner and close out the pit containment area.

Comment N-2. *Some commenters were concerned that seeding types may be harmful to migratory wildlife.*

We have revised the language in 1040-02-09-.05(2)(c) to clarify that seed mixes and rates are "Suggested" in section 2(c). Our seeding recommendations are made in accordance with TDEC's *Erosion and Sediment Control Handbook*. Operators or landowners may opt for other seed mixes and rates if appropriate, as long as effective stabilization is achieved.

O. Temporary Abandonment (Chapter 1040-02-09)

Comment O-1. *Commenter recommended we change the length of time that an operator can place a non-producing well into Temporary Abandonment from two years to five years. Commenter also favored a change in the \$200.00 onetime fee to \$100.00 for the first year with renewal of \$50.00 per year. Some of these wells have near-future value and it is a waste of money to plug them too soon.*

Response: In the past fifteen (15) years the Tennessee Oil and Gas Program has struggled with the on-going issue of non-producing wells or abandoned wells. Attempts to adequately enforce the existing regulations have been hampered by legal rulings stating that the Oil and Gas Board has no clear definition for Abandoned Well, Dry Hole or Non-Producing Well. These proposed changes are intended to provide more specific language to rectify this situation.

Some operators are in possession of numerous (100 to 200 or more) wells that are not producing and sitting dormant. Industry representatives have indicated that it would take two to five years to plug all of these wells.

We agree with commenters that some of these wells may have worth for future production. Therefore, we have written regulations to allow the operator time to plug all open boring wells not in use and to place wells believed valuable into temporary abandonment for five years, for an annual fee of \$100 per well (reduced from the \$200.00 that was proposed). We also deleted the language that was proposed stating there would be specific penalties for violations, to allow instead appropriate discretion to be used based on all the circumstances if a violation of the rule occurs.

P. Filing of Well Data, Reports and Maps (Chapter 1040-02-10)

Comment P-1. *Several commenters opposed rules regarding time limits for completing wells to one year, to the filing of well history and work summary to 60 days, and identification of structures and features on maps.*

Response: The time extensions proposed for required filing of information were chosen to reflect industry wide standards, and are comparable to requirements observed in other states. On this basis we stand by our time limit requirements.

Q. Metering (Chapter 1040-04-02)

Comment Q-1. *Commenter recommended that metering requirement should be changed to state that all oil and gas wells that have separate ownership interest be metered separately. For economic reasons, many gas wells are metered together to save on costs.*

Response: We have deleted this requirement.

R. Issues and Items Not Subject to the Current Rule Changes

Commenters raised a number of issues that are outside the scope of the present rule-making effort; in fact these issues made up the bulk of the comments received. These issues include Hydraulic Fracturing of oil and gas wells, Naturally Occurring Radioactive Materials (NORM), Air Toxics, Coal Bed Methane Wells, Pit Liners, and the STRONGER Review Recommendations of 2007.

Hydraulic fracturing

The fracturing of exploration gas wells with excessive amounts of water and associated chemicals has become a controversial issue nationwide. Currently, the United States Environmental Protection Agency is examining this issue; guidance to the states on how hydrofracturing of gas wells is to be regulated is expected tentatively by 2014. The commenter's correctly point out that current Tennessee regulations do not provide direct control over

fracturing activities, and that operators do not have to provide information to the Division detailing if and how they plan to fracture as part of their application. However, all operators are required by current regulation to report all activity on an oil or gas well by submitting a Well History, Work Summary, and Completion or Recompletion Report Form (CN-0221) at the completion of work.

Commissioner Martineau directed the Division to meet with citizen groups and the industry to discuss further regulation changes to address this issue. The Division may initiate a separate rule-making effort based upon comments received at this meeting.

Naturally Occurring Radioactive Material (NORM)

The Department is currently looking into this issue. We are aware that the Chattanooga Shale contains low to moderate amounts of decaying Uranium with Radon gas as a by-product of the decay.

Air Toxics/greenhouse emissions

The Department plans to investigate this issue as well. Currently, operators are required to have an adequate shut-in apparatus at the well head to prevent the escape of gases into the atmosphere. In addition, each driller is required to have a H₂S detector at the drill rig; if detected continuously at a producing oil well, the operator is required to keep a continuous flare burning to consume the gaseous H₂S or re-inject the gas back into the formation.

Coal Bed Methane Well

To date, only one well in Tennessee has been permitted as a coal bed methane well. That well has been plugged because of a lack of production. Any well that is submitted as a coal bed methane well will be subject to the same requirements as any other oil or gas well, including disposal of brine or other produced water. Coal bed methane wells have so far not proven to be a viable alternative for oil and gas production in Tennessee; therefore we do not plan to propose any rules on this subject at this time.

Pit liners

Pit liners are a needed element for all oil and gas locations. Currently, the operator is required to line the pit during active drilling operations; however there are no specifics on how a pit should be lined. New pit liner requirements will be reviewed as we consider hydro-fracturing requirements in a later rule-making effort.

STRONGER Review

Several commenters cited the 2007 STRONGER Review of the Tennessee Oil and Gas Board Program and expressed concerns that the state has not yet adequately addressed all of the STRONGER recommendations.

We agree with the commenters that the Division has not met the all the STRONGER recommendations, though some progress has been made. The items from the STRONGER report most mentioned by commenters were:

- a) *Staffing:* An additional oil and gas inspector has been added to the Division as of June 2011, and is currently in training.
- b) *Funding:* The Oil and Gas Board regulations were changed to increase fees in 2007, and these proposed changes include provisions to raise them again. However, a drop-off in permitting activity has caused funding to decline. If the changes proposed in this rule-making are enacted, Tennessee oil and gas fees will be comparable to those of surrounding states.
- c) *Regulation and Policy:* The state policy on casing of wells was updated in 2006 and we believe it is in-line with industry standards and other states, and adequate to protect groundwater and production zones.

The Division will continue to use the STRONGER report as a guide for setting oil and gas program goals.

Regulatory Flexibility Addendum

Pursuant to T.C.A. § 4-5-401 through 4-5-404, prior to initiating the rule making process as described in T.C.A. § 4-5-202(a)(3) and T.C.A. § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

- (1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

There are approximately twenty to twenty-five active small businesses of this type in the oil and gas exploration and drilling business in Tennessee that would be affected directly by the rule changes.

- (2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

There are no changes in reporting or recordkeeping requirements in these rule changes.

- (3) A statement of the probable effect on impacted small businesses and consumers.

There will be some effect on the small businesses from the increase in the fee for amending permits or changing operators, but that is a small impact. The changes in the amounts of the bonds for deeper wells will have more impact, but the operators get their funds back when the bond is released. This increase is necessary to ensure that the state has adequate funds to plug the wells if an operator defaults. This cost is generally passed on to investors rather than consumers in this industry.

- (4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

None.

- (5) A comparison of the proposed rule with any federal or state counterparts.

Other states have similar rules and fees. It is difficult to compare fee amounts because surrounding states often charge fees on different activities than we do.

- (6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

It would not be feasible or fair to exempt some businesses from the requirements of the rules.

Impact on Local Governments

Pursuant to T.C.A. 4-5-220 and 4-5-228 "any rule to proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments." (See Public Chapter Number 1070 (<http://state.tn.us/sos/acts/106/pub/pc1070.pdf>) of the 2010 Session of the General Assembly)

The Department does not anticipate an impact on local governments from this rulemaking.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to TCA 4-5-226(i)(1).

- (A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

These amendments make the following changes to the rules of the oil and gas board.

- to assure that we will not have oil and gas wells be abandoned without being properly plugged, there are new definitions of an abandoned well, non-producing well, and a dry hole; the amount of the bond for wells over 2500' deep is increased to cover the cost of plugging such wells; the amount of a blanket bond (one covering up to ten wells) is increased; a requirement that the operator state the parties responsible for the well in the application; the length of the cement plug is increased from 25 to 50 feet; a deliverability test must be done every three years; and the time frame for plugging a non-producing well is increased to a year, with the new option of paying \$100 per year for five years to keep a well open if it is not plugged at that time;
- there is a fee increase for an application to amend a permit from \$25 to \$100;
- some language is added to address horizontal drilling in relation to the spacing requirements;
- a change is made to make the rules consistent with an amendment to the statute regarding spacing in certain counties;
- the required sign at a well site must be 8 ½ x 11 inches;
- erosion prevention and sediment control measures that have been required are being added to the rule; and
- the requirements for tanks at the well location are upgraded.

- (B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

There is no federal law relevant to this program. These rules are adopted pursuant to T.C.A. §60-1-201 et seq.

- (C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Oil and gas drillers are most affected by this rule.

- (D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule;

The Department is not aware of any.

- (E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars (\$500,000), whichever is less;

The increase in the bonds in these amendments is not revenue to the state. Operators either file a surety bond, a cash bond or a CD. The state holds the cash or CD and returns the amount to operator when they reclaim site and plug the well. The number of permit amendments or change of operators varies widely from year to year. Some years there are very few. This year they numbered in the hundreds. We have estimated approximately 100 per year. That would generate \$7500 per year.

- (F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Michael Burton
Water Pollution Control

6th Floor Annex,
401 Church Street
Nashville, Tennessee 37243-1534
(615) 532-0166 or (615) 532-0455

- (G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Alan M. Leiserson
Legal Services Director
Department of Environment and Conservation

- (H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
Department of Environment and conservation
20th Floor L & C Tower
Nashville, Tennessee 37243-1548
(615) 532-0131
Alan.Leiserson@tn.gov

- (I) Any additional information relevant to the rule proposed for continuation that the committee requests.

The Department is not aware of any.

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
Pete Claussen	✓				
Derek Gernt	✓				
Ken Haislip	✓				
Chuck Head	✓				
Brian Hensley	✓				
Jim Washburn	✓				

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Tennessee Oil & Gas Board on 08/25/2011, and is in compliance with the provisions of TCA 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 12/06/10

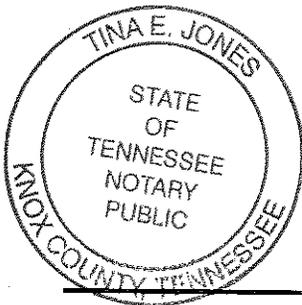
Rulemaking Hearing(s) Conducted on: (add more dates). 02/22/11 and 04/28/11

Date: August 25, 2011

Signature: *Chuck Head*

Name of Officer: Chuck Head

Title of Officer: Chairman



Subscribed and sworn to before me on: August 25, 2011

Notary Public Signature: *Tina E. Jones*

My commission expires on: 8/29/2012

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

Robert E. Cooper, Jr.
 Robert E. Cooper, Jr.
 Attorney General and Reporter
10-12-11
 Date

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File Date: _____
Effective Date: _____

Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. TCA Section 4-5-205

Agency/Board/Commission:	Environment and Conservation
Division:	Water Pollution Control
Contact Person:	Michael Burton
Address:	6 th Floor, L & C Annex 401 Church Street Nashville, Tennessee
Zip:	37243-1534
Phone:	(615) 532-0166 or (615) 532-0455
Email:	Michael.K.Burton@tn.gov

Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only ONE Rule Number/Rule Title per row)

Chapter Number	Chapter Title
1040-01-01	Definitions
Rule Number	Rule Title
1040-01-01-.01	Definitions of Terms

Chapter Number	Chapter Title
1040-02-01	Bond
Rule Number	Rule Title
1040-02-01-.01	Amount of Plugging Bond
1040-02-01-.02	Blanket Plugging Bond
1040-02-01-.03	Reclamation Bond
1040-02-01-.04	Relief of Responsibility
1040-02-01-.05	Execution
1040-02-01-.06	Forfeiture
1040-02-01-.07	Notice of Compliance

Chapter Number	Chapter Title
1040-02-02	Permits
Rule Number	Rule Title
1040-02-02-.01	Permit Required
1040-02-02-.02	Drilling Permit
1040-02-02-.03	Repealed
1040-02-02-.04	Notification to Plug and Abandon
1040-02-02-.05	Repealed

Chapter Number	Chapter Title
1040-02-03	Well Location Plats
Rule Number	Rule Title
1040-02-03-.01	Preparing Plats

Chapter Number	Chapter Title
1040-02-04	<u>Vertical</u> Well Spacing
Rule Number	Rule Title
1040-02-04-.01	<u>Vertical</u> Well Spacing

Chapter Number	Chapter Title
1040-02-05	Well Identification
Rule Number	Rule Title
1040-20-05-.01	Posting a Sign

Chapter Number	Chapter Title
1040-02-06	Drilling Wells
Rule Number	Rule Title
1040-02-06-.01	Drilling Equipment
1040-02-06-.02	Blowout Prevention
1040-02-06-.03	Casingheads
1040-02-06-.04	Environmental Protection

Chapter Number	Chapter Title
1040-02-07	Casing Program
Rule Number	Rule Title
1040-02-07-.01	Conductor Pipe
1040-02-07-.02	Surface Casing
1040-02-07-.03	Production Casing
1040-02-07-.04	Isolation of <u>Oil, Gas and Fresh-Water-Bearing Strata, and Potential Minable Coal and Other</u> Mineral Deposits

Chapter Number	Chapter Title
1040-02-08	Directional Drilling
Rule Number	Rule Title
1040-02-08-.01	Lateral Deviation
1040-02-08-.02	Inclination Surveys
1040-20-08-.03	Directional Survey
1040-02-08-.04	Horizontal Drilling

Chapter Number	Chapter Title
1040-02-09	Well <u>Plugging and</u> Abandonment
Rule Number	Rule Title
1040-02-09-.01	Plugging Wells
1040-02-09-.02	Inspection
1040-02-09-.03	Deliverability Test
1040-02-09-.04	Time Limit for Plugging Wells
1040-02-09-.05	Surface Reclamation
<u>1040-02-09-.06</u>	<u>Temporary Abandonment</u>

Chapter Number	Chapter Title
1040-02-10	Filing of Well Data, Reports and Maps
Rule Number	Rule Title
1040-02-10-.01	Information Due Date
1040-02-10-.02	Information Required
1040-02-10-.03	<u>Pick-up Locations Reserved</u>

1040-02-10-.04	Field Map
1040-02-10-.05	Information Confidential
1040-02-10-.06	Annual Well Report

Chapter Number	Chapter Title
1040-02-11	Exceptions and Hearings
Rule Number	Rule Title
1040-02-11-.01	Prevention of Waste

Chapter Number	Chapter Title
1040-02-12	Violations – Penalties – Notice – Hearing
Rule Number	Rule Title
1040-02-12-.01	Violations, Penalties, Notice, Hearing
1040-02-12-.02	Red Tagging of Wells

Chapter Number	Chapter Title
1040-03-01	Completion, Recompletion, and Related Downhole Work
Rule Number	Rule Title
1040-03-01-.01	Time Limit for Well Completion
1040-03-01-.02	Notification for Re-entry
1040-03-01-.03	Report Filing
1040-03-01-.04	Gas/Oil Ratio Tests
1040-03-01-.05	Periodic GPM Tests
1040-03-01-.06	Gas Composition Analysis for Permit Tests
1040-03-01-.07	Bottomhole Pressure Tests
1040-03-01-.08	Repealed
1040-03-01-.09	Repealed

Chapter Number	Chapter Title
1040-03-02	Tubing and Well Equipment
Rule Number	Rule Title
1040-03-02-.01	Repealed
1040-03-02-.02	Connections
1040-03-02-.03	Separators
1040-03-02-.04	Safety Valves

Chapter Number	Chapter Title
1040-03-03	Prevention of Hazards and Pollution
Rule Number	Rule Title
1040-03-03-.01	Safety
1040-03-03-.02	Pollution and Safety Controls

Chapter Number	Chapter Title
1040-04-01	Pollution and Safety Controls
Rule Number	Rule Title
1040-04-01-.01	Operator's Responsibility
1040-04-01-.02	Proper Handling of Drilling Foam
1040-04-01-.03	Proper Disposal of Waste
1040-04-01-.04	Removal of Debris
1040-04-01-.05	Pollution Avoidance
1040-04-01-.06	Cleaning Pit or Tank
1040-04-01-.07	Retaining Wall Containment Pit and Tank Batteries
1040-04-01-.08	Vents Required Foam
1040-04-01-.09	Improper Loading
1040-04-01-.10	Gathering Lines
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1040-04-01-.12	Disposal of Salt Water
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Chapter Number	Chapter Title
1040-04-02	Procedures and Equipment for Metering, Measuring and Producing Oil Condensate and Gas
Rule Number	Rule Title
1040-04-02-.01	Gas/Oil Ratios Equipment
1040-04-02-.02	Gauging
1040-04-02-.03	Testing
1040-04-02-.04	Improper Transfer
1040-04-02-.05	Lease Tank Outlets
1040-04-02-.06	Bleed-off Lines
1040-04-02-.07	Commingling Prohibited
1040-04-02-.08	Required Test Lines
1040-04-02-.09	Repealed
1040-04-02-.10	Repealed
1040-04-02-.11	Repealed
1040-04-02-.12	Repealed
1040-04-02-.13	Basic Orifice Coefficients
1040-04-02-.14	Pilot Tubes
1040-04-02-.15	Gas Measurements

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1040-04-03	Requirements for Reporting the Volume and Disposition of Oil and Gas Produced
Rule Number	Rule Title
1040-04-03-.01	Time Reports
1040-04-03-.02	Month Defined
1040-04-03-.03	Repealed
1040-04-03-.04	Repealed
1040-04-03-.05	Reporting-Producers
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1040-04-03-.07	Repealed
1040-04-03-.08	Report Filing
1040-04-03-.09	Computing Method
1040-04-03-.10	Report Verification
1040-04-03-.11	Monthly Reports-Gas
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Chapter Number	Chapter Title
1040-04-04	Ratable Take
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1040-04-04-.01	Taking Oil and Gas Ratably

Chapter Number	Chapter Title
1040-04-05	Commingling and Automatic Custody Transfer of Hydrocarbons
Rule Number	Rule Title
1040-04-05-.01	Permission to Commingle
1040-04-05-.02	Notice Publication
1040-04-05-.03	Granting Permission
1040-04-05-.04	Meter Calibrations
1040-04-05-.05	Operational Limitations
1040-04-05-.06	By-Pass Lines
1040-04-05-.07	Test for GPM
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Chapter Number	Chapter Title
1040-04-06	Limiting Production
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1040-04-06-.01	Prorating a Pool

Chapter Number	Chapter Title
1040-04-07	Regulating High Gas/Oil Ratio Wells and Preventing Waste of Gas
Rule Number	Rule Title
1040-04-07-.01	Classification
1040-04-07-.02	Escaping Gas
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1040-04-07-.04	Wells Regulated
1040-04-07-.05	Gas-Lifted Wells
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Chapter Number	Chapter Title
1040-04-08	Subterranean Gas Storage
Rule Number	Rule Title
1040-04-08-.01	Conditioned Usage

Chapter Number	Chapter Title
1040-04-09	Pressure Maintenance Projects and Secondary Recovery
Rule Number	Rule Title
1040-04-09-.01	Application
1040-04-09-.02	Administrative Approval
1040-04-09-.03	Approval by Special Order
1040-04-09-.04	Poolwide Unit-Formation
1040-04-09-.05	Casing and Sealing Wells
1040-04-09-.06	Input Wells Procedure
1040-04-09-.07	Pro-rata Payment
1040-04-09-.08	Application for Hearing

Chapter Number	Chapter Title
1040-05-01	Unit Operations
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1040-05-01-.01	Unit Operation
1040-05-01-.02	Drilling and Production <u>Units</u>
1040-05-01-.03	Poolwide <u>Units</u>

Chapter Number	Chapter Title
1040-06-01	Hearings and Administrative Approval
Rule Number	Rule Title
1040-06-01-.01	Hearings
1040-06-01-.02	Administrative Approval

Chapter Number	Chapter Title
1040-06-02	Rules of Procedure for Hearing Contested Cases

Chapter Number	Chapter Title
1040-07-01	List of Forms
Rule Number	Rule Title
1040-07-01-.01	Report and Permit Forms

Chapter Number	Chapter Title
1040-08-01	Determinations Under Federal Natural Gas Policy Act of 1978
Rule Number	Rule Title

1040-08-01-.01	Definitions
1040-08-01-.02	Applicability of Other Rules
1040-08-01-.03	Application and Filing Procedure
1040-08-01-.04	Evidence by Affidavit
1040-08-01-.05	Intervention
1040-08-01-.06	Attesting of Written Orders
1040-08-01-.07	List of Participants
1040-08-01-.08	Forms
1040-08-01-.09	Notice of Determination
1040-08-01-.10	Method of Determinations

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <http://tn.gov/sos/rules/1360/1360.htm>)

Chapter 1040-01-01
Definitions

Amendment

Chapter 1040-01-01 Definitions is deleted in its entirety and replaced with the new Chapter 1040-01-01 to read as follows:

Chapter 1040-01-01
Definitions

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1040-01-01-.01 Definitions of Terms

1040-01-01-.01 Definitions of Terms

For the purpose of rules contained in Chapter 1040-01-01 the terms set out herein shall have the meaning indicated.

(1) "Abandoned well" shall mean either of the following:

(a) A well that was not adequately plugged or closed at conclusion of operations such that it constitutes or may constitute a threat to public health or the environment; or

(b) A well that has no owner, operator or other responsible person (hereinafter called "responsible party") who can be located, or such responsible party has failed or refused to undertake actions, where required by law, to abate a threat.

(2) "Access Road" shall mean any road ~~constructed, improved or used by an operator~~ built and used exclusively by the operator (except public roads) which provides access to and/or ends at a wellhead, tank, pit or other facility related to oil and gas exploration and/or production.

(3) "Active Work Area" as it pertains to a well site, shall mean that portion of the initially disturbed area necessary for production-related equipment, materials, and facilities, as determined by the supervisor.

(4) "Automatic Custody Transfer" shall mean that the liquid hydrocarbons is automatically measured as it is transferred from the producer to the carrier.

(5) "Barrel (or, Barrel of Oil or Condensate)" shall mean the amount of forty-two (42) standard United States liquid measure gallons of 231 cubic inches per gallon, computed at a temperature of sixty degree (60) Fahrenheit.

(6) "Blow-Out" shall mean an uncontrolled escape of oil, gas and/or water from the well.

(7) "Blow-Out Preventer" shall mean a properly selected casinghead control fitted with special gates or discs which may be closed around the drill pipe, or which completely closes the top of the casing if the pipe or tools are withdrawn.

(8) "Board" shall mean the State Oil and Gas Board as authorized and created by Title 60, Tennessee Code Annotated. It is composed of the following:

(a) The Commissioner of Environment and Conservation, or his or her designee who shall act as chairperson,

(b) The head of the Division of Energy of the Department of Economic and Community Development,

- (c) The chairperson of the Conservation Commission,
- (d) A member from the oil or gas industry appointed by the Governor.
- (e) An owner of oil and gas property appointed by the Governor, and
- (f) A member from the mineral industry appointed by the Governor.

The Commissioner of Environment and Conservation shall be ex officio the State Oil and Gas Supervisor, and shall also serve as Supervisor of the Mineral Test Hole Regulatory Act, Part 5 of Title 60, Chapter 1.

- (9) "Bonding Agent" shall mean any entity that issues a bond for an operator to submit to the state to assure the plugging of a well or reclamation of a well site.
- (10) "Bottomhole Pressure" shall mean the pressure in pounds per square inch of an oil and/or gas well determined at the face of the producing horizon by means of a pressure-recording instrument, adopted and recognized by the oil and gas industry.
- (11) "Brush and Rock Plug" shall mean an obstruction, made of wood and stone, and placed in the well bore to form an effective base for plugging material.
- (12) "Casing Pressure" shall mean the pressure built up between the casing and the tubing when the casing and tubing are packed off at the top of the well.
- (13) "Casinghead Gas" shall mean any gas or vapor, or both, indigenous to an oil stratum and produced from such stratum with oil. It shall be treated as gas, if sold, for the purpose of paying privilege tax.
- (14) "Christmas Tree" shall mean an assembly of valves and fittings at the head of the ~~casing~~ casing of a well to control the flow. Also spoken of as "wellhead connections".
- (15) "Circulation" shall mean the passing of approved fluid down through the drill stem and up to the surface, in the process or rotary drillings or in setting casing.
- (16) "Common Source of Supply" shall comprise and include the area, which is underlain or that, from geological or other scientific data or from drilling operations or other evidence, appears to be underlain by a common accumulation of oil or gas or both; provided, that if any such area is underlain or appears from geologic or other scientific data or from drilling operations or other evidence to be underlain by more than one common accumulation of oil or gas, or both, separated from each other by strata of earth and not connected with each other, then such area, as to each said common accumulation of oil or gas, or both, shall be deemed a separate common source of supply.
- (17) "Condensate" shall mean liquid hydrocarbons that were in the gaseous phase in the reservoir at initial reservoir condition. It shall be treated as oil for the purpose of paying privilege tax.
- (18) "Conservation" shall mean conserving, preserving, guarding, or protecting the oil and gas resources of the State by obtaining the maximum efficiency with minimum waste in the production, transportation, processing, refining, treating, and marketing of the un-renewable oil and gas resources of the State.
- (19) "Correlative Rights or Equally" shall mean that action or regulation by the Board, which affords a reasonable opportunity to each person entitled thereto to recover or receive the oil and/or gas under his tract or tracts without being required to drill unnecessary wells or incur other unnecessary expense to recover or receive such oil or gas or its equivalent.
- (20) "Cubic Foot of Gas" shall mean the volume of gas contained in one cubic foot of space at a standard pressure base of 14.73 ~~psia~~ psi and a temperature base of 60 degrees Fahrenheit.
- (21) "Developed Area" shall mean acreage assigned by the Board to a drilling or production unit on which a well has been completed that is capable of producing oil or gas.

- (22) "Directional Drilling" shall mean the drilling of a well that deviated from the vertical by more than five (5) degrees.
- (23) "Disposal Well" shall mean a well drilled or converted for subsurface disposal of waste products or brine, and its related surface facilities.
- (24) "Drilling Mud" shall mean any approved mixture of water and clay or other material as the term is commonly used in the industry.
- (25) "Dry Hole or Dry Well" shall mean a well found incapable of producing either oil or gas in sufficient quantities to justify completion or continued production.
- (26) "Equitable Share of the Production" shall mean, as to each person, that part of the authorized production from the pool that is substantial in the proportion that the amount of recoverable oil and gas, or both, in the developed area of his tracts in the pool bears to the recoverable oil or gas, or both, in the total of the developed area in the pool.
- (27) "Exploitation Well" shall mean a well drilled or to be drilled to one or more pools of oil and/or gas with reasonable assurance of obtaining commercial production.
- (28) "Exploration Well" shall mean a well drilled in unproven or semi proven territory for the purpose of ascertaining the presence of commercial oil and/or gas accumulations.
- (29) "Field" shall mean the general area which is underlain or appears to be underlain by at least one (1) pool and including the pool or pools beneath the area.
- (30) "Forced-change of operator" shall mean any oil or gas well being taken over by a new operator without the signatures from the original permittee or previous operator of record.
- (31) "Gas" shall mean all natural gas and all other fluid hydrocarbons not defined as oil, including condensate because it originally was in a gaseous phase in the reservoir, but excluding helium and other rare gases.
- (32) "Gas/Oil Ratio (GOR)" shall mean the portion of a wellbore drilled laterally into a common source of supply for production or injection purposes.
- (33) "Gathering Line" means a pipeline that transports gas or oil from a well or current production facility to a transmission line, main meter, compressor station, or tank battery.
- (34) "Horizontal Drainhole" shall mean the portion of a wellbore drilled laterally into a common source of supply for production or injection purposes.
- (35) "Horizontal Drainhole End Point" shall mean the terminus of a horizontal drainhole.
- (36) "Horizontal (Lateral) Drilling" shall mean controlled directional drilling of wells with lateral penetration through productive reservoirs.
- (37) "Illegal Gas" shall mean gas that has been produced, transported, or sold in violations of any rule, regulation, or order of the Board.
- (38) "Illegal Oil" shall mean oil that has produced, transported, or sold in violation of any rule, regulation, or order of the Board.
- (39) "Illegal Product" shall mean any product derived in whole or in part from illegal oil or illegal gas.
- (40) "Interested Party" shall mean any person who owns an interest within the area of, or proximate to, the tracts directly affected by the application.
- (41) "Lease Tank" shall mean the tank or other receptacle into which the oil is produced either directly from a

well or from a well through gas separator, gun barrel, or similar equipment.

- (42) "Market Demand" shall mean the amount of oil reasonably needed for current consumption, use, storage, or working stocks, within and without the State, or the amount of gas of any type reasonably needed for current consumption, use, or storage, within and without the State.
- (43) "Mechanical Plug" shall mean a manufactured device to seal the well bore or inside diameter of casing.
- (44) "Multiple Completion" shall mean the completion of any well so as to permit simultaneous production from two or more common sources of supply with such common sources of supply completely segregated.
- (45) "Neet Cement" shall mean a complex, finely ground, kiln-fired calcium carbonate silicate which, when mixed with water, forms a slurry that will harden in the well bore and casing and effectively seal formations penetrated by the well bore.
- (46) "Nomination" shall mean the amount of oil or gas for which a purchaser has a definite and bona fide need during a given period.
- (47) "Non-producing well" shall mean any well shown on the annual well report that indicates production of 12 barrels or less of oil per year or 25 mcf or less of gas per month.
- (48) "Oil" shall mean crude petroleum that was originally in an oil phase in the reservoir.
- (49) "Operator" shall mean the person to whom the drilling permit has been issued, whether owner or not, supervising or responsible for drilling, operating, repairing, abandoning or plugging of wells subject to this act.
- (50) "Organization Report" shall mean the form required by 1040-02-02-.01 to be submitted with a permit application that names the responsible parties for the well.
- (51) "Owner" shall mean the person who has the right to drill into and to produce from any pool, and to appropriate the production for himself or others.
- (52) "Person" shall mean any natural person, corporation, association, partnership, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, and includes any government or political subdivision or any agency thereof.
- (53) "Pool" shall mean an underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both. Each zone of the general structure which is completely separated from any other zone in the structure is covered by the term "pool" as used therein.
- (54) "Pooled Unit" shall mean two or more tracts of land, of which their ownership may be different, that are consolidated and operated as a single tract for production of oil and/or gas, either by voluntary agreement between the owners thereof, or by exercising of the authority of the Board under the statute. When such tracts are consolidated by Board authority, the size of the consolidation tract will not exceed the size, with permitted tolerance, of a "Drilling Unit" as herein defined. In no such case is there any actual change in the title or ownership of the original tracts.
- (55) "Pollution" shall mean damage or injury from the loss, escape or unapproved disposal of any substance at any well or structure installation subject to these rules.
- (56) "Pollution Control Structures" shall mean structures designed to prevent pollution, including but not limited to, berms, dikes, diversion drainage ditches, hay bales, pits, or tanks.
- (57) "Producer" shall mean the owner or operator of a well or wells capable of producing oil or gas, or both, in paying quantities.
- (58) "Producing Formation" shall mean a formation from which oil or gas is being or has been produced. In the context of plugging operations, producing formation shall mean a formation from which oil or gas has

been produced in the general vicinity of a well to be plugged.

- (59) "Producing Well" shall mean any well that produces quantities greater than 12 barrels of oil per year or 25 mcf of gas per month.
- (60) "Product" shall mean any commodity made from oil or gas.
- (61) "Production Unit or Proration Unit" shall mean a drilling unit on which a well producing oil and/or gas has been completed, and which is recognized as such for the purpose of production by the Board.
- (62) "Property Line" as used herein shall mean the boundary dividing tracts on which mineral rights, royalty, or leases are separately owned except that where conventional units shall have been created for the drilling of the well, the boundaries of the unit shall be considered the "property line".
- (63) "Purchaser" shall mean any person who directly or indirectly purchases, transports, takes, or otherwise removes production to his account from a well, lease, or common source of supply.
- (64) "Reclamation" shall mean the regarding regrading of all surface disturbed areas associated with oil and gas operations except water areas, replacement of the topsoil or substitution with suitable topsoil material, application of suitable mulch and soil nutrients where necessary, and the establishment of a vegetative cover that is in accordance with acceptable standards as set forth in the rules and regulations of the Board.
- (65) "Represented Party" shall mean any person who is known to the applicant, after diligent search, to own an interest within the area of, or proximate to, the tracts directly affected by the application and who is also known to have either a consultant or attorney representing him in conservation matters.
- (66) "Salt Water" shall mean water, commonly referred to as oil field brine, which is produced in association with oil and/or gas and which is generally considered unsuitable for human consumption or for irrigation because of its high content of dissolved solids.
- (67) "Separator" shall mean an apparatus for separating oil, gas, water, etc., with relative efficiency, as it is produced.
- (68) "Shut-In Pressure" shall mean the pressure noted at the wellhead when the well is completely shut-in. Not to be confused with bottomhole pressure.
- (69) "Stripper Well" shall have the ordinary meaning as that term is generally understood in the oil and gas industry (well capable of producing ten (10) barrels or less per day).
- (70) "Substitute Unit Well" shall mean any well already drilled to, or to be drilled to, completed or recompleted in the unitized reservoir which in the interest of good conservation practices should be designed to take the place of and become the unit well as determined by special order.
- (71) "Supervisor" shall mean the State Oil and Gas Supervisor or his subordinates. The Commissioner of Environment & Conservation or his designee.
- (72) "Transmission Line" means a pipeline, other than a gathering line, that transports gas from a gathering line or storage facility to a gas distribution center or storage facility.
- (73) "Transporter" shall mean every person engaged in the transportation of oil or gas from tanks or other receptacles located at the place of production in this State.
- (74) "Tubingless Completion" shall mean the completion of any well so as to permit the passage of production from one separate underground source through one production casing set in the well.
- (75) "Waste" in addition to its ordinary meaning, shall mean "physical waste" as that term is generally understood in the oil and gas industry. It shall include; (1) underground waste and inefficient, excessive, or improper use or dissipation of reservoir energy, including gas energy and water drive, of any pool; and

the locating, spacing, drilling, equipping, operating, or producing of any oil well or gas well in a manner which results, or tends to result, in reducing the quantity of oil or gas ultimately recoverable from any pool; and (2) surface waste and the inefficient storing of oil and the locating, spacing, drilling, equipping, operating, or producing of oil wells or gas wells in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of oil or gas.

(76) "Well Cuttings" shall mean rock samples obtained from rotary or cable tool drilling operations. The Supervisor at his discretion, may determine the required frequency for collecting well cuttings.

(77) "Well Site Equipment" means the equipment, including but not limited to an associated tank battery, production and hydrocarbon equipment at an oil and gas lease or location.

~~"Wetlands" shall mean water areas as defined under Executive Order No. 65 issued on April 3, 1985, and specifically includes fresh water meadows, shallow fresh water marshes, open fresh water, shrub swamps with standing water most of the year, or which are waterlogged during the growing season, wooded swamps, and bogs.~~

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-01
Bond

Amendment

Chapter 1040-02-01 Bond is deleted in its entirety and replaced with the new Chapter 1040-02-01 to read as follows:

Chapter 1040-02-01
Bond

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1040-02-01-.01 Amount of <u>Plugging</u> Bond	1040-02-01-.05 Execution
1040-02-01-.02 Blanket <u>Plugging</u> Bond	1040-02-01-.06 Forfeiture
1040-02-01-.03 Reclamation Bond	1040-02-01-.07 Notice of Compliance
1040-02-01-.04 Relief of Responsibility	

1040-02-01-.01 Amount of Plugging Bond

- (1) A Plugging Bond is required to be in force for a well from the time a drilling or re-entry well permit is granted until the well is plugged and abandoned. The bond shall be for the sum of two thousand dollars (\$2000) for wells from 0 to 2500 feet in depth; three thousand dollars (\$3000) for wells from more than 2500 feet up to 5000 feet in depth; for all wells deeper than 5000 feet the bond shall increase over three thousand dollars at the rate of \$1.00 for every foot deeper than 5000 feet. The bonds will be written in such a manner that the Principal and Bonding Agent hereto are firmly bound to favor of the Board the Tennessee Department of Environment and Conservation (hereinafter called Department), conditioned that jointly and severally, for the payment of the full penal sum of the bond so that the well shall be plugged and abandoned in accordance with the rules and regulations of the Board. An individual well bond shall be released upon the proper plugging of the well and the filing with the Supervisor of a Plug and Abandon Report (Form R-P&A-1), driller's log, downhole surveys, well cuttings and cores, and other data as required, or if the permit has been canceled because of lack of proper activity.
- (2) The surety bonding agent may notify the Supervisor in writing of its desire to terminate its liability under the bond by giving written notice to the Supervisor. The Supervisor shall thereupon require the principal in the bond to file a new bond, or to effect a change of operators on the well within sixty (60) days. If the principal can no longer be contacted, then any interested party may seek a change of operators on the well in accordance with Chapter Rule 1040-02-02-.02(2)(a). If a new bond is filed by the principal, or a change of operators is approved by the Supervisor, liability under the original bond shall cease and

terminate as to acts and operations occurring after the effective date of the new bond or approval of the change of operators, and the original bond shall be released upon written request by the surety bonding agent. If a new bond is not filed within the sixty (60) days, or a change of operators has not been approved, the Supervisor shall revoke the permit secured by the bond and require the principal to plug the well in accordance with the rules and regulations of the Board. In the event of the failure of the principal to plug the well, ~~the surety may the supervisor may issue a notice of non-compliance to the principal and the bonding agent requiring the bonding agent~~ either to cause the well to be plugged, or forfeit the amount of the bond to the Board Department. ~~This action will be initiated by the issuance of a notice of noncompliance, as provided for under chapter 1040-02-01-.07.~~ The surety bonding agent will then have ~~thirty (30) sixty (60)~~ days in which to plug the well. If the well has not been plugged within that time limit, then a notice of forfeiture will be issued, as provided for under chapter Rule 1040-02-01-.06. The surety bonding agent will then have twenty-one (21) days in which to petition the State Oil and Gas Board for a hearing relative to the bond forfeiture, pursuant to the Administrative Procedures Act, T.C.A. §4-5-101 et seq. If a hearing is requested, no further action will be taken against the bond until such hearing has taken place and a final order given by the Board. If the well is plugged in the interim, then the notice of forfeiture will be canceled and the bond released.

1040-02-01-.02 Blanket Plugging Bond

- (1) In lieu of an individual bond per well, any well operator may file with the Supervisor a blanket bond in the sum of ~~ten thousand dollars (\$10,000) twenty thousand dollars (\$20,000)~~ covering a maximum of ten (10) wells from 0 to 5000 feet in depth; thirty thousand dollars (\$30,000) covering a maximum of ten (10) wells from 5000 to 10,000 feet in depth; and no blanket bonds for wells deeper than 10,000 feet either drilled or to be drilled by the principal in the bond at any one time. Additional wells may be covered by the bond only if wells originally covered by the bond are plugged or transferred to another operator, on a one-for-one basis with the wells to be added to the bond. Otherwise, an additional bond must be filed for each additional group of ten (10) wells. The ~~acceptance and approval by the Supervisor terms~~ of such blanket bonds shall be in full compliance with the requirements ~~of for~~ an individual well bond. A blanket bond shall be released upon the proper plugging of all wells of the operator (principal) covered by the bond, and the filing with the Supervisor of the Plug and Abandon Reports, driller's logs, downhole surveys, well cuttings and cores, and other data as required for such wells. A blanket bond may be canceled by the surety bonding agent, notifying the Supervisor in writing, delivered personally or by registered mail, that the operator is no longer authorized by the surety bonding agent to obtain permits under said bond. If or when all wells permitted under said bond have been plugged and abandoned according to the rules and regulations of the Board, or existing permits have been canceled because of lack of proper activity, the Supervisor shall release the bond.
- (2) The surety bonding agent may notify the Supervisor in writing of its desire to terminate its liability under the bond by giving written notice to the Supervisor. The Supervisor shall thereupon require the principal in the bond to file a new bond, or to effect a change of operators on the well(s) within sixty (60) days. If the principal can no longer be contacted, then any interested party may seek a change of operators on the well(s) in accordance with Chapter Rule 1040-02-02-.02(2)(a). If a new bond is filed by the principal, or a change of operators is approved by the Supervisor on all wells covered by the bond, liability under the original bond shall cease and terminate as to acts and operations occurring after the effective date of the new bond, or approval of the changes of operators, and the original bond shall be released upon written request by the surety bonding agent. If a new bond is not filed within the sixty (60) days, or a change of operators has not been approved on all wells covered by the bond, the Supervisor shall revoke the permit(s) secured by the bond and require the principal to plug the well(s) in accordance with the rules and regulations of the Board. In the event of the failure of the principal to plug the well(s), the surety bonding agent may either cause the well(s) to be plugged, or forfeit the amount of the bond to the Board Department. This action will be initiated by the issuance of a notice of noncompliance, as provided for under chapter Rule 1040-02-01-.07. The surety bonding agent will then have ~~thirty (30) sixty (60)~~ days in which to plug the well(s). If the well(s) have not been plugged within that time limit, then a notice of forfeiture will be issued, as provided for under chapter Rule 1040-02-01-.06. The surety bonding agent will then have twenty-one (21) days in which to petition the State Oil and Gas Board for a hearing relative to the bond forfeiture, pursuant to the Administrative Procedures Act, T.C.A. §4-5-101 et seq. If a hearing is requested, no further action will be taken against the bond until such hearing has taken place and a final order given by the Board. If the well(s) are plugged in the interim, then the notice of forfeiture will be canceled and the bond released.

1040-02-01-.03 Reclamation Bond

- (1) A reclamation bond is required to be filed with the Supervisor at the time an operator's permit application is submitted, and shall be effective from the time the initial surface disturbances begin until the well is plugged and the site and access roads are reclaimed. The bond shall be for the sum of one thousand five hundred dollars (\$1,500) per well site. The bond shall be in favor of the [Board Department](#), and shall be a performance bond, conditioned that the well site and access roads shall be reclaimed in accordance with the rules and regulations of the Board. Upon satisfactory completion of regrading and revegetation of all disturbed areas except active work areas and access roads needed for oil or gas production, the Supervisor shall release one-third (1/3) of the reclamation bond, or reduce the amount of the reclamation bond by one-third (1/3). Access roads that will continue to be used by the landowner for other legitimate purposes and maintained in usable condition, which condition reduces erosion to a practical minimum, will not have to be revegetated by the operator. Such usage shall be established by the landowner by sworn affidavit. After plugging of the well and final reclamation of the well site, and after plantings have survived two growing seasons with an established ground cover of at least ninety percent (90%) herbaceous and/or woody species of which at least eighty percent (80%) are perennial species, the supervisor shall release the remainder of the reclamation bond.

- (2) This paragraph shall be applicable only when the same [surety bonding agent](#) is responsible for both the plugging and reclamation bonds on a well. The [surety bonding agent](#) may notify the Supervisor in writing of its desire to terminate its liability under the reclamation bond by giving written notice to the Supervisor. The Supervisor shall thereupon require the principal in the reclamation bond to file a new bond, or to effect a change of operators on the well within sixty (60) days. If the principal can no longer be contacted, then any interested party may seek a change of operations on the well in accordance with [chapter Rule 1040-02-02-.02\(2\)\(a\)](#). If a new reclamation bond is filed by the principal, or a change of operators is approved by the Supervisor, liability under the original bond shall cease and terminate as to acts and operations occurring after the effective date of the new bond, or approval of the change of operators, and the original bond shall be released upon written request by the [surety bonding agent](#). If a new reclamation bond is not filed, or a change of operators has not been approved within sixty (60) days, the Supervisor shall revoke the permit secured by the plugging and reclamation bonds and require the principal to plug the well and reclaim the well site and access roads in accordance with the rules and regulations of the Board. In the event of the failure of the principal to plug the well and reclaim the well site and access roads, the [surety bonding agent](#) may either cause the well to be plugged and the well site and access roads to be reclaimed, or forfeit the amount of the bonds to the [Board Department](#). This action will be initiated by the issuance of notices on noncompliance as provided for under [chapter Rule 1040-02-01-.07](#). The [surety bonding agent](#) will then have thirty (30) days in which to plug the well and reclaim the well site and access roads. If the well has not been plugged and the well site and access roads have not been reclaimed within that time limit then notices of forfeiture will be issued as provided for under [chapter Rule 1040-02-01-.06](#). The [surety bonding agent](#) will then have twenty-one (21) days in which to petition the State Oil and Gas Board for a hearing relative to the bond forfeitures, pursuant to the Administrative Procedures Act T.C.A. §4-5-101 et seq. If a hearing is requested, no further action will be taken against the plugging and reclamation bonds until such hearing has taken place and a final order has been given by the Board. In the event the [surety bonding agent](#) causes the well to be plugged and the well site and access roads to be reclaimed the plugging bond shall be released, and the amount of the reclamation bond shall be reduced by one-third (1/3), to one thousand dollars (\$1,000), unless such reduction has previously taken place. The remainder of the reclamation bond will be released only after plantings have survived two growing seasons with an established ground cover of at least ninety percent (90%) herbaceous and/or woody species provided that at least eighty percent (80%) are perennial species.

1040-02-01-.04 Relief of Responsibility

A permittee's bonds and other responsibilities to a well or wells shall be relieved upon approval by the Supervisor of a successor's application for a Change of Operator or Owner's Permit (Form P-AD-3), furnishing bonds, and the tendering of authority on Form P-AD-3 by the permittee requesting the Supervisor to approve the successor's application.

1040-02-01-.05 Execution

Any of the following shall serve as bonds:

- (1) A surety bond executed by the well operator as principal and by a corporate surety authorized to do business in Tennessee; or
- (2) Cash; or
- (3) A certified check; or
- (4) A Certificate of Deposit, if it is made out exactly as follows: "Operator Name and Tennessee ~~Oil and Gas Board~~ Department of Environment and Conservation or Tennessee ~~Oil and Gas Board~~ Department of Environment and Conservation"; and does not contain any terms or conditions that provide that the issuing bank may charge against the deposit any debt of the depositor(s) owing to it (set-off terms); or any terms or conditions that provide that anyone whose signature appears on the signature card may withdraw funds from the account. The operator shall be entitled to any interest earned on a certificate of deposit as the same becomes due and payable. The treasurer of the State of Tennessee shall receive and hold the originals of such certificates in the name of the State of Tennessee, in trust, for the purpose for which such deposit is made, and shall at all times be responsible for the custody and safekeeping of such deposits; provided, however, that the certificate may be returned to the issuing financial institution as may be necessary for renewal from time to time; or
- (5) An irrevocable letter of credit issued by any federally insured bank or savings and loan association. The letter of credit must comply with the format shown on Form ILC (Irrevocable Standby Letter of Credit format).

1040-02-01-.06 Forfeiture

- (1) The Supervisor shall cause a notice of noncompliance to be served upon the operator by certified mail, addressed to the permanent address shown on the application for a permit:
 - (a) If the requirements with respect to proper plugging upon abandonment of a well or wells and submission of all required records and data have not been complied with within the time limits set by the Board or Department, and/or,
 - (b) If the requirements with respect to proper reclamation of the well site(s) and access roads have not been complied with within the time limits set by the Board or Department.
- (2) The notice shall specify in what respects the operator has failed to comply with this chapter or the regulations or orders of the Board or Department.
- (3) If the operator has not reached an agreement with the Supervisor, or has not complied with the requirements set forth within thirty (30) days after mailing the notice, the plugging bond shall then be forfeited to the Board Department, and the money used by the Board Department to properly plug the well(s), and/or the reclamation bond used to reclaim the well site(s) and access roads.
- (4) In the case of the plugging bonds, such bonds are penal in nature, and the full amount of the bond will be forfeited.
- (5) In the case of reclamation bonds, such bonds are considered to be performance bonds, and any portion of a reclamation bond not expended to perform the reclamation work shall be refunded to the operator or his surety bonding agent if the conditions of the bond are fully satisfied.

1040-02-01-.07 Notice of Noncompliance

At any time the Supervisor causes a notice of noncompliance to be served upon an operator (principal), copies of such notice shall be mailed to the resident agent writing such bond (where the address is known) and to the surety company bonding agent at the address provided to the Tennessee Department of Commerce and Insurance for receipt of notices. The surety bonding agent shall be afforded the opportunity to act in behalf of the operator (principal) within the time set forth in regard to the proper plugging of the well or wells and submission of

required well records, down hole data, and plugging reports and/or reclamation of the well site and access roads. Should the operator (principal) and surety bonding agent fail to comply within the time provided, then and only in that event, the plugging bond shall be forfeited, and/or the reclamation bond used to reclaim the well site and access roads. ~~When a bond is forfeited pursuant to the provisions of Chapter 1040-02-01 through Chapter 1040-02-12, the Supervisor shall give notice to the Attorney General, who shall institute proceedings to collect the forfeiture.~~

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-02
Permits

Amendment

Chapter 1040-02-02 Permits is deleted in its entirety and replaced with the new Chapter 1040-02-02 to read as follows:

Chapter 1040-02-02
Permits

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1040-02-02-.01 Permit Required
1040-02-02-.02 Drilling Permit
1040-02-02-.03 Repealed

1040-02-02-.04 Notification to Plug and Abandon
1040-02-02-.05 Repealed

1040-02-02-.01 Permit Required

- (1) A permit is required from the Supervisor before any person shall conduct operations described in chapter 1040-02-01 through Chapter 1040-02-12. Each permit, when granted, shall expire ~~ninety (90) days~~ three hundred and sixty five (365) days after issuance unless the applicant has commenced operations and reasonably continues said operations pursuant to the permitted objective. Any permit now in force shall expire ~~ninety (90) three hundred sixty days (365)~~ days from the date of this order rule unless permittee complies with this requirement. If a permitted location is to be abandoned without the commencement of any drilling activity, then the operator must notify the Supervisor in writing within thirty (30) days after expiration of the permit.
- (2) No work shall begin on a well pursuant to this chapter before a permit for such work on the well has been issued by the Supervisor. Furthermore, any work the operator may do, or may have done, will be at his own risk and with the full understanding that the Supervisor may find it necessary to require changing the well location or operation plans, or otherwise deny the permit because of noncompliance with applicable rules and regulations and require that the well be plugged. No requests for exceptions will be considered for a well that was started before a permit was issued.
 - (a) A legible copy of this permit must be displayed on location upon commencement of drilling operations and remain on display at said location until completion of the well.
- (3) Fifteen (15) day progress on drill reports, upon request of the Supervisor, shall be mailed to the Supervisor describing well activities for the previous week. Said reports shall be made on the Fifteen Day Progress Drill Report (Form R-PD-I).
- (4) Organization Report (Form R-O-1) shall be made to the Supervisor prior to the issuance of a permit. ~~This report shall identify the company, organization, individual, or group for whom the benefit of the project is being conducted. The applicant shall name all parties responsible for the well and give contact information for them on the Organization Report consistently with the record submitted to the Secretary of States for any corporation or limited liability company.~~ If such persons have previously filed an R-O-1 report with the Supervisor, it will not be necessary to submit another report, unless there has been a change in the information originally submitted.

(5) The operator will indicate on the permit application, on a space provided, if the operator has the legal right to drill and produce the well.

(5)(6) A notice to surface owners of oil and gas estates is required as follows:

- (a) No later than the filing of the application with the Board Department for a permit to drill and prior to initiating any site preparation, the applicant shall give notice by certified mail, return receipt requested, of his intent to drill to the property owner or owners of the surface of the land to be drilled or to be affected by the surface disturbances listed in subparagraph (c) below of this paragraph.
- (b) The property owners to be notified under this section shall be the property owners of record in the property tax assessor's office in the county where the property is located.
- (c) The notice shall include a well location plat which shows the proposed location of the oil and gas well site, the proposed location of all new ingress and egress, the location of all diversions, drilling pits, dikes, and related structures and facilities, the location of proposed storage tanks and all other surface disturbances. Said plat shall comply with Chapter 1040-02-03.
- (d) The notice shall state that the property owner and applicant have fifteen (15) working days from the date of mailing to discuss the location of surface disturbances in connection with the drilling operation. It shall also state that if the property owner and applicant are unable to resolve differences regarding the location of surface disturbances, either or both may request in writing a hearing before the Supervisor or his designee. The notice shall provide the name and address of the Supervisor.
- (e) The applicant shall file with the Supervisor, as a part of the application, written certification that the notice required by subparagraph (a) of this paragraph has been given, including the name and address of each property owner given notice and the date on which each notice was mailed.
- (f) The applicant and the property owners given notice under subparagraph (a) of this paragraph shall attempt to resolve any differences between them regarding surface disturbances related to the proposed drilling operation. If those differences cannot be resolved, then a hearing and order may be obtained as follows:

1. Any property owners entitled to notice (or the applicant) may request, within fifteen (15) working days of the mailing of the notice required in subparagraph (a) of this paragraph, that the Supervisor or his designee conduct a hearing. A request for hearing under this paragraph shall be in writing to the Supervisor, and shall be mailed by certified mail, return receipt requested within fifteen (15) working days of the mailing of the notice required in subparagraph (a) above of this paragraph. The purpose of the hearing will be to minimize the impact of the proposed drilling operation on the surface of the land.

2. The hearing shall be conducted as a contested case under Title 4, Chapter 5, Part 3 and shall be held before a hearing officer sitting alone. For purposes of the hearing, the Supervisor or his designee shall be the hearing officer. The hearing shall be held within ten (10) working days of receipt of a request for hearing by the Supervisor or his designee, and shall be held in the county of the proposed oil and gas well. Notice of the hearing shall be given to all persons entitled to notice under subparagraph (a) of this paragraph and the applicant.

3. The hearing officer shall render a decision within ten (10) calendar days of the hearing. The decision shall be considered a final order not subject to further agency review pursuant to T.C.A. 4-5-315(a)(1).

4. For purposes of this subparagraph ~~(f) above~~, "working day" means all calendar days excluding Saturdays, Sundays, and legal holidays as designated in T.C.A. §15-1-101.

- (g) Notwithstanding any other requirement for a permit to drill, such a permit may only be issued:

1. If the applicant submits to the Supervisor statements of no objection signed by all property owners entitled to notice under subparagraph (a) of this paragraph; or
 2. If a hearing is not requested as provided in subparagraph part (f), part-1 of this paragraph; or
 3. Upon the issuing of a final order pursuant to subparagraph part (f), part-3 of this paragraph.
- (h) For purposes of satisfying the requirements of subparagraph (g) above of this paragraph for issuing a permit:
1. The Supervisor may treat the persons named in the applicant's certification of property owners, under subparagraph (e) above of this paragraph, as being all of the property owners entitled to notice under subparagraph (a) above of this paragraph, unless the Supervisor has actual notice to the contrary.
 2. If a request for hearing as provided in subparagraph part (f), part-1 of this paragraph is not delivered to the office of the Supervisor within fifteen (15) working days plus three (3) additional days after the date notice-of-intent to drill was mailed to each property owner, as stated in the applicant's certification of notice, under subparagraph (e) above of this paragraph, the Supervisor may assume that no hearing was requested, unless he has actual notice to the contrary.

~~(6)~~(7) Inspection and approval of all access roads, surface disturbances, and pollution control structures at a proposed well site by the designated gas and oil field inspector is required prior to the issuance of any permit under this Chapter.

~~(7)~~(8) Permits shall not in any way be construed as a certification by the State of Tennessee that any property interest in the premises covered by a permit is vested in the permit; they are issued solely under the regulatory powers vested in the State Oil and Gas Board and the Department under the provision of Title 60 of the T C A for the purposes recited in said Code Section and the rules and regulations promulgated by the Board pursuant to said Code Section.

~~(8)~~(9) In the event of litigation over a particular tract of land, or in the event a tract of land is contested as to the ownership of oil and gas rights, the policy of the Board will be to issue permits in order to preserve the physical integrity of that particular tract without prejudicing any claimants to the title of that land.

1040-02-02-.02 Drilling Permit.

- (1) Applications for a permit to drill a well for oil and gas shall be made on Application for Permit to Drill (Form P-AD-1) and submitted to the Supervisor's office for approval. The application shall be accompanied by ~~two (2) copies a copy~~ of a location plat, bond, organization report and a fee of ~~one hundred fifty dollars (\$150.00)~~ five hundred dollars (\$500.00). The application shall give the name and address of the drilling contractor, if known; otherwise notification shall be made by letter to the Supervisor as soon as determined. The application shall also include a plan for erosion control, prevention of pollution of surface waters, and reclamation of all areas disturbed by the operations, including access roads. The plan shall conform to the requirements of Rule 1040-02-09-.05. The plan must be sufficiently detailed to allow a gas and oil field inspector to locate the site of the facilities to be constructed and estimate the expected environmental impact, but does not have to include detailed engineering design drawings. The Supervisor may require modifications in the operator's plan if such modifications are necessary to prevent pollution or to promote reclamation. Upon approval, the operator's plan shall be a condition of the permit. Failure to comply with the plan shall be grounds for revocation of the permit and forfeiture of the bond.
- (2) A drilling permit must be amended by filing an Application to Amend Well Permits (Form P-AD-2) with the Supervisor and paying a fee of ~~twenty-five dollars (\$25.00)~~ one hundred dollars (\$100.00) if the well name, number, elevation, location, or proposed total depth is changed. If the well location is changed, one (1) copy of a revised survey plat must be filed with the application. The amended permit is subject to

the same terms and conditions as a well permit, including erosion control requirements. A person who is granted a drilling permit can only transfer the permit and attendant rights to another person after submitting an Application to Change Operators (Form P-AD-3) and receiving approval of the application from the Supervisor. The person to whom the permit is being transferred must file an Organization Report (Form R-0-1), post a well plugging bond and a reclamation bond, if needed, and pay a fee of ~~twenty-five dollars (\$25.00)~~ one hundred dollars (\$100.00). The transfer of a permit from the original permittee to another operator, with or without the approval of the Supervisor, does not relieve the original permittee of obligations occurring before the ~~transferal~~ transfer, and the bond will not be released until all material at the time of ~~transferal~~ transfer has been submitted. Unless change of operator forms have been processed or approved by the office of the Supervisor, any operation conducted on the well in question is the responsibility of the original permittee, and his bond will not be released until all State requirements have been met.

- (a) If an Application to Change operators (Form P-AD-3) is to be submitted without the signature of the current permittee, it will be considered a forced change of operator, then the following items must also be submitted:
1. Copy of the lease and assignments, if any, under which the permit was originally issued, or subsequently transferred, if those documents are available, or an affidavit from the landowner that no prior oil and gas leases are still active. An affidavit from the original landowner that there are no other unexpired oil and gas leases, if the title to the land has changed hands since the Board Department issued the permit on the land in question, or, if the original landowner cannot be located, an affidavit by the new operator or his agent that he has checked the grantor index in the register's office and found no unexplained conveyance of the oil and gas rights by the original landowner.
 2. Copy of the lease and assignments, if any, under which the permit will be transferred to the new operator.
 3. Copy of a certified letter to the current permittee requesting that an Application to Change Operators (Form P-AD-3) be signed, and also stating that if the application is not signed, and no written objection to a change of operator without that signature is submitted to the Oil and Gas Board Department in writing within ten (10) working days of receipt of said letter, the new operator will seek approval from the Oil and Gas Board Department of that Approval to Change Operators without said signature. In addition, the applicant will send the certified mail notice to the current address that is registered with the Tennessee Oil and Gas Board or the Department as shown on the Organizational Report.
 4. A copy of a Court Order relative to the inactive or expired status of any prior oil and gas leases may be submitted in lieu of the items mentioned in parts 2 and 3 of this subparagraph.
 5. If a written objection to approving the application to Change Operators is properly submitted to the Oil and Gas Board Department, the ~~policy of the Board's~~ staff will ~~be to~~ administratively deny the application. If the applicant seeks to have the application considered further, he may then apply for a hearing before the Oil and Gas Board. The Board will then consider approval of the application only when there is no doubt as to the ownership of the oil and gas rights of the applicant. If a cloud or a question as to the title is determined to exist by the Board, then the ~~policy of the~~ Board will ~~be to~~ deny the application, and refer the applicant to the court for a ruling on the question of ownership.
- (b) If a well or wells revert back to a landowner, whether by court action, or by lease expiration or other provisions, and the well will remain in operation, then the landowner must submit an Application to Change Operators (Form P-AD-3), file an Organization Report (Form R-0-1), post a well plugging bond, post a reclamation bond if required, pay a fee of ~~twenty-five dollars (\$25.00)~~ one hundred dollars (\$100.00), and otherwise comply with well spacing regulations. If the well will be used for domestic gas only, then a plugging bond in the amount of five hundred dollars (\$500) will be required.

- (c) Before a well can be turned over to a landowner for use as a fresh water well, the operator must set a one hundred (100) foot plug within three hundred (300) feet of the surface, or a cement plug at fifty (50) feet above the casing shoe, whichever is the deeper, and the well must be completed as a water well, and approved by the Department of Environment and Conservation, Division of Water Supply. No Organization Report (Form R-0-1) is required, and in lieu of a plugging bond the landowner must submit a notarized letter agreeing to assume liability for any subsequent plugging which might be required.
- (3) If drilling operations cease for a period of thirty (30) days, the operator shall notify the Supervisor in writing of the reason for the shutdown and the date on which operations shall be resumed.
- (4) All wells shall be either properly plugged or completed within a period of six (6) months following cessation of drilling. Upon written request to the Supervisor by the operator, showing valid cause for requiring additional time, a reasonable extension of as much as ninety (90) days additional may be granted.
- (5) An applicant who requests a permit to drill on site which is closer than normal statewide spacing to the boundary of an offsetting oil and gas lease, or mineral or surface property, or on a tract of land which is contested as to the ownership of oil and gas rights, must comply with the following procedures:
 - (a) Notify by certified mail all affected offset and/or separate owners of oil and gas leases and mineral and surface property, as can reasonably be determined, that he is applying for a permit to drill a well; and submit a copy of the drill-site location plat with the notice.
 - (b) Publish the operator's name, lease name, well number and description of the drill-site location in a newspaper of general circulation in the county where the well is to be drilled, with a statement that if any interested owner objects to the drilling of said well, they should make their objections known to the Supervisor of the State Oil and Gas Board.
 - (c) If, within ten (10) days after the notice, there are no objections to issuing the permit, then the Supervisor shall issue the permit, provided all other requirements have been complied with.
 - (d) If there is an objection or objections to issuing the permit, the objector or objectors must furnish the applicant and the Supervisor the basis of the objection and support his contentions with documents, etc., within ten (10) days after the date of the notice.
 - (e) If the applicant, after receiving an objection, still wants the permit he must then apply for a hearing before the Oil and Gas Board. The Board will then decide whether or not to issue the permit or refer the applicant to the court for relief.
- (6) If more than one applicant applies for a permit to drill the same or a conflicting location on a tract of land at a permissible distance from an offset or offsetting well, the first application received in the Supervisors office shall be issued the permit, provided the applicant complies with all other rules and regulations governing permits to drill a well. If the first applicant fails to exercise his permit privilege, then the next applicant of record, based on time submittal, shall receive the permit, provided he complies with all other requirements.
- (7) If the ownership of the drill site tract of land is contested, all claimants shall be identified by an accompanying letter.
- (8) Requests for permits for a voluntary pooled drilling unit, or for two or more leases or tracts that have been pooled for exploration or development shall be accompanied by a notarized affidavit signed by the operator that has the right to pool these leases to form a drilling unit.
- (9) The Supervisor has the right to withhold the issuance of a permit to any operator in violation of any rule or regulation of this order until such violation has been removed.

1040-02-02-.03 Repealed

1040-02-02-.04 Notification To Plug and Abandon.

Prior to plugging, notice shall be given the Supervisor in order that the Supervisor or his representative may witness the work. Work performed must be reported to the Supervisor on the Plug and Abandon Report (Form R-P&A-1) within thirty (30) days after completing the work. Form R-P&A-1 must be accompanied by a copy of the drilling contractor's or the service company's ticket for work done unless the work was observed by the Supervisor or his representative.

1040-02-02-.05 Repealed.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-03
Well Location Plats

Amendment

Chapter 1040-02-03 Well Location Plats is deleted in its entirety and replaced with the new Chapter 1040-02-03 to read as follows:

Chapter 1040-02-03
Well Location Plats

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1040-02-03-.01 Preparing Plats

1040-02-03-.01 Preparing Plats

- (1) Well location plats shall be constructed and certified as accurate by a surveyor registered by the State of Tennessee. The following procedures and instructions shall be strictly complied with in preparing plats:
 - (a) Two legible copies of a well location plat shall be submitted for each proposed well and drawn on a sheet 8½" x 14" or larger, using bond paper.
 - (b) The plat shall be prepared to a scale of one inch equals one hundred, two hundred, three hundred, four hundred, five hundred or six hundred feet (1" = 100, 200, 300, 400, 500 or 600'). The scale set forth on the plat should be of a graphic type rather than so many inches equaling so many feet.
 - (c) The top or upper edge of the plat shall be oriented to the north, and a vector depicting magnetic north shall be placed on the edge or margin of the plat.
 - (d) The surface elevation of the proposed drill site, referenced to mean sea level, shall be determined and a reference benchmark established within two hundred (200) feet of each location and its elevation and description noted on the plat. If the surface elevation or drill site location is altered during location preparation, it must be re-determined by the operator, and this information submitted to the Supervisor within ten (10) days.
 - (e) A description or diagram of the proposed drill site location shall be made with reference to a specific 7½-minute topographic quadrangle map (1 inch equals 2,000 feet) by the use of the Carter Coordinate System, and Latitude and Longitude and by bearing and distance in feet to two permanent landmarks or monuments that are readily identifiable on a 7½-minute topographic map.
 - (f) The location plat, in addition to other requirements, shall identify surface ownership on the tract of land where the permitted well is to be located and surface ownership on offsetting tracts of land, if within three thousand (3,000) feet.

- (g) The plat shall show the amount of acreage in the drill site tract.
- (h) The distance in feet between the proposed drill site and the two nearest property and lease lines, and the nearest dry, abandoned, drilling or producing well, if such exists within three thousand (3,000) feet, shall be shown on the plat.
- (i) In cases where the tract to be drilled is composed of separately owned interests which have been pooled or unitized the property lines and the amount of acreage in each separately owned interest must be shown. In addition, the unit lines, and the distance to the two nearest unit lines must also be shown interest must be shown.
- (j) The plat shall also show the location of all existing or proposed access roads, the location of all dwellings, diversions, drilling pits, dikes, tanks, and all other surface disturbances, and the location of all streams, lakes, or other bodies of water ~~blue line streams within one-half (1/2) mile within 200 feet~~ of the well site and visible from the ~~or~~ access roads, or apparent on a USGS topographic map. This information may be shown on more than one sheet if necessary, provided that on each sheet the name of the operator, well name and number, scale (of graphic type), a vector depicting magnetic north, and the location of the proposed drill site are shown along with the surveyor's certification and seal, and date on which the well location plat was constructed.
- (k) All plats will be submitted with a latitude and longitude for each well site location.
- (l) Any well site submitted for a horizontal well must show the locations for the well collar; entry point of the horizontal leg and the termination point. Each of these locations must be shown on the plat with latitude, longitude and Carter Coordinate System.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-04
Well Spacing

Amendment

Chapter 1040-02-04 Well Spacing is deleted in its entirety and replaced with the new Chapter 1040-02-04 to read as follows:

Chapter 1040-02-04
Vertical Well Spacing

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1040-02-04-.01 Vertical Well Spacing

1040-02-04-.01 Vertical Well Spacing

- (1) No permits shall be issued for the drilling of wells in search of oil and gas and no well shall be drilled in search of oil or gas nor shall a well be abandoned in one pool and recompleted in another pool in which no spacing rules are prescribed by special fieldwide orders, unless the location of such well shall comply with the following requirements:
 - (a) Wells drilled in search of oil or gas to a depth of less than one thousand (1,000) feet shall be drilled on 10-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than three hundred thirty (330) feet from any property or unit line.
 - (b) Wells drilled in search of oil or gas to a depth of one thousand (1,000) to two thousand (2,000) feet or to the base of the Chattanooga Shale, whichever is deeper, shall be drilled on 20-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool;

and not closer than three hundred thirty (330) feet from any property or unit line.

- (c) Wells drilled in search of oil to a depth of more than two thousand (2,000) feet shall be drilled on 40-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than three hundred thirty (330) feet from any property or unit line.
- (d) Wells drilled in search of gas from a depth of two thousand (2,000) feet to five thousand (5,000) feet or to the top of the Conasauga Formation shall be drilled on 40-acre spacing, and shall not be located closer than six hundred sixty (660) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than three hundred thirty (330) feet from any property or unit line.
- (e) Wells drilled in search of gas to a depth of more than five thousand (5,000) feet or below the top of the Conasauga Formation shall be drilled on 160-acre spacing, and shall not be located closer than one thousand three hundred twenty (1,320) feet from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; and not closer than six hundred sixty (660) feet from any property or unit line.
- (f) Any existing well may be deepened and produced for oil or gas from whatever zone(s) production may be obtained on the presently permitted unit size, provided, however, that any exceptions to offsetting property lines or wells under current spacing rules must comply with the provision of rule 1040-02-04-.01(1)(k).
- (g) Where a permit is requested for a wildcat well to be drilled in an area in which the surface or mineral ownership is so divided that the well cannot be located in compliance with the requirement of a distance from property lines and well spacing and a drilling unit cannot be formed in advance of drilling because it is not known whether the well will be completed as an oil well or a gas well, a permit may nevertheless be granted for the drilling of the well when the applicant presents evidence satisfactory to the Supervisor that the applicant has available for assignment to said well leases or acreage of area and size to constitute, in the judgment of the Supervisor, a reasonable producing unit for such well and such applicant agrees to create or to apply to the Board for creation of a reasonable producing unit within forty-five (45) days after completion of the well.
- (h) Upon the completion of a confirmation well to a discovery well, the operator of the discovery well must apply for a public hearing before the State Oil and Gas Board for the purpose of establishing temporary drilling and production units. When a pool has had five (5) wells drilled to and completed therein or after one (1) year has elapsed from the completion of the confirmation well in the field, whichever occurs first, the operator or operators of well in the field shall petition the board for a public hearing for the purposes of establishing field rules and regulations and the creation of drilling and production units for the pools in the field. The right is reserved, however, to any interested party to apply for a public hearing at an earlier date and if the Board finds from an examination of the information furnished that temporary or permanent drilling and production units should be formed, it shall be so ordered.
- (i) Where prior to the issuance of this order, a pool has already been partially developed with a greater density of wells than that prescribed herein, the Supervisor may, without additional public hearing, exempt such pools from the provisions of this order. The exemptions for these pools shall be granted only after application has been made to the Supervisor in writing accompanied by a map delineating the locations of all existing wells completed and producing from the pool for which exception is being asked.
- (j) A poolwide unit is exempt, within its internal boundary, from well spacing rules as to the particular unitized pool, but all wells must be located interior of the unit outline in compliance with the rules for distance from property lines.
- (k) The Supervisor may grant administrative approval of exceptions to Chapter 1040-02-04 Well Spacing, or any order of the Supervisor establishing well spacing for a pool upon submission of

an application showing all pertinent information and data and after due notice is given to all operators of interest.

1. The application shall be made to the Supervisor with a copy to each known offset operator of interest and such application shall include:
 - (i) Statement of reason and justification for requested relief.
 - (ii) Map or plat as described in Chapter 1040-02-03, which additionally shows:
 - (I) The location at which an oil or gas well could be drilled in compliance with Chapter 1040-02-04, or applicable order;
 - (II) The location at which the applicant requests permission to drill;
 - (III) The outline of the drilling unit to be assigned to the proposed well site with a notation as to the amount of acreage contained therein;
 - (IV) The outline of all other drilling or production units currently assigned to the tract or lease upon which the proposed drilling unit is located, with a notation of the amount of acreage assigned to each unit.
 - (iii) Sufficient geological evidence that the proposed drilling unit will be reasonably productive of oil and/or gas.
 - (iv) List of names and addresses of all interested persons notified of the application.
2. Each drilling unit should comply with the well density as described in Chapter 1040-02-04, or the applicable order.
3. The acreage assigned to the proposed drilling unit should be reasonably expected to be productive of oil and/or gas from the common source of supply.
4. If the application meets with the approval of the Supervisor and no written protest is received by the Supervisor within ten (10) days following prescribed notice of application, the Board may grant the requested relief without the necessity of a public hearing.
5. If the application is accompanied by a written waiver from all known offset lease owners, the ten (10) day delay will be unnecessary.
6. If the Supervisor does not elect to approve the application administratively, or if written protest is received within the ten (10) day period, the application may be set for public hearing.

(l) Any drilling being conducted in Overton, Clay, Pickett or Fentress Counties (this is portions of Fentress County that are west of Hwy 127 and North and West of State Hwy 154) is based on 400 feet to another well and 200 feet to the unit or property line down to a depth of 2500 feet. This is an exception to the current state wide drilling requirements.

(+)(m) Exception not to exceed ten percent (10%) in spacing distances on locations interior to property boundaries will be allowed administratively by the Supervisor. Any exception adjacent to offset operators must comply with ~~Rule 1040-02-04-.01~~ subparagraph (k) of this paragraph.

- (2) If it is necessary to drill a well below the depth bracket for the anticipated productive zone for stratigraphic information only, the Application for Permit to Drill (Form P-AD-1), shall indicate the proposed total depth and anticipated depth bracket for productive zone and unit. Following drilling, logging and testing, the well shall be plugged back, or casing set to the legal total depth appropriate for the anticipated productive zone. The plug back depth shall be indicated on the Plug and Abandon Report (Form R-PA-I), which must be accompanied by a work ticket which indicates in detail how the work was done. If production is

established below the depth bracket for the anticipated productive zone, appropriate spacing shall be established by the Supervisor or Board.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-05
Well Identification

Amendment

Chapter 1040-02-05 Well Identification is deleted in its entirety and replaced with the new Chapter 1040-02-05 to read as follows:

Chapter 1040-02-05
Well Identification

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1040-02-05-.01 Posting a Sign

1040-02-05-.01 Posting a Sign.

No well shall be placed in production, shut-in, or left unplugged until a sign has been posted on the well location. All wells must display a sign showing the operator name and telephone number, well name and number, and permit number. The mailing address and telephone number of the ~~State Oil and Gas Board Department~~ must also appear on the sign. The sign must be at a minimum eight and a half (8½) inches in height by eleven (11) inches in width, made of durable material and be legible. If the tank battery serving a particular well is not within sight of that particular well, then a sign must also be posted at a good conspicuous location at the tank battery for each well for which production is gauged individually. Where a number of wells on the same lease produce into a common tank battery, only one sign is required, and should show the name of the lease and well numbers, rather than individual permit numbers. The obligation to maintain legible signs remains until plugged and abandonment.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-06
Drilling Wells

Amendment

Chapter 1040-02-06 Drilling Wells is deleted in its entirety and replaced with the new Chapter 1040-02-06 to read as follows:

Chapter 1040-02-06
Drilling Wells

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1040-02-06-.01 Drilling Equipment
1040-02-06-.02 Blowout Prevention

1040-02-06-.03 Casingheads
1040-02-06-.04 Environmental Protection

1040-02-06-.01 Drilling Equipment

All drilling equipment shall be designed, constructed, and operated in such a manner so as to prevent accidents and insure safe operating practices. It is recommended that each operator require the drilling contractor to comply with the general rules and ~~safe practices procedure set out in the "Accident Prevention Manual" prepared by the Safety Committee of the American Association of Oilwell Drilling Contractors (217 North Ervay Building, Suite 505, Dallas, Texas 75201)~~ safety procedures of the industry.

1040-02-06-.02 Blowout Prevention

All wells shall be equipped and operated in such a manner as to prevent the uncontrolled emission of oil, gas, and water from the well.

1040-02-06-.03 Casingheads.

All wells shall be equipped with casingheads with a test pressure in conformance with conditions ~~existing in areas to be anticipated in wells~~ in which they are used. Casinghead body shall be equipped with proper connections and valves accessible to the surface as soon as installed. Reconditioning shall be required on any well ~~showing pressure on the casinghead, or leaking gas or oil between the oil string and the next larger size casing string, when, in the opinion of the Supervisor, such pressures or leakages assume hazardous proportions or indicate the existence of underground waste. Mud-laden fluid may be pumped between any two strings of casing at the top of the hole, but no cement shall be used except by special permission of the Supervisor~~ leaking gas or oil.

1040-02-06-.04 Environmental Protection.

(1) All oil and gas operations shall be conducted in a manner that will prevent or mitigate adverse environmental impacts such as soil erosion and water pollution. All areas disturbed by the operations, including access roads, shall be reclaimed as prescribed in rule 1040-02-09-.05. Access roads shall be constructed in such a manner as to reduce erosion to a practical minimum. Sediment ponds, berms, diversion ditches, hay bales, and other measures designed to prevent erosion and discharge from well sites shall be taken to prevent or minimize soil erosion and pollution of surface waters.

(2) Erosion prevention and sediment controls.

- (a) The erosion prevention controls shall be designed to minimize the dislodging and suspension of soil in water. Sediment controls shall be designed to retain mobilized sediment on site.
- (b) All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications (where applicable) and standard engineering practices. All control measures selected must be able to slow runoff so that rill and gully formation is prevented. When steep slopes and/or fine particle soils are present at the site, additional physical or chemical treatment of storm water runoff may be required. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the operator must replace or modify the control for relevant site situations.
- (c) If sediment escapes the drilling, production, and or roadway areas, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts. Fugitive sediment that has escaped the drill area and has collected in a drainage ditches or roadways must be removed so that it is not subsequently washed into culverts and streams by the next rain and/or so that it does not pose a safety hazard. Permittees shall not initiate remediation/restoration of a stream without consulting the Department first.
- (d) Sediment shall be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls as necessary.
- (e) Upon attainment of stability, materials used for erosion prevention and sediment control should be removed or otherwise prevented from becoming a pollutant source for storm water discharges.
- (f) Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than thirty (30) days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.
- (g) Clearing and grubbing must be held to the minimum necessary for drilling and or production activities.
- (h) Construction must be sequenced to minimize the exposure time of graded or denuded areas.
- (i) Erosion prevention and sediment control measures must be in place and functional before drilling

activities begin, and must be properly maintained throughout the drilling and production phase.

- (j) Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-07
Casing Program

Amendment

Chapter 1040-02-07 Casing Program is deleted in its entirety and replaced with the new Chapter 1040-02-07 to read as follows:

Chapter 1040-02-07
Casing Program

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1040-02-07-.01 Conductor Pipe
1040-02-07-.02 Surface Casing
1040-02-07-.03 Production Casing

1040-02-07-.04 Isolation of Oil, Gas and Fresh-Water-Bearing Strata, and Potential Minable Coal and Other Mineral Deposits

1040-02-07-.01 Conductor Pipe

That pipe ordinarily used for the purpose of supporting unconsolidated surface deposits, is termed conductor pipe. The use and removal of conductor pipe during the drilling of any oil or gas well shall be at the option of the operator. If the conductor pipe is to be pulled it must be pulled prior to the cementing of the surface casing.

1040-02-07-.02 Surface Casing.

- (1) The operator's proposed surface casing program must be submitted, for approval by the Supervisor, on Application for Permit to Drill (Form P-AD-1). If the Supervisor deems the casing program inadequate to protect fresh water zones and potential minable coal and other minerals, etc., he shall prescribe the casing program with which the operator will comply. Unless an exception is granted by the Supervisor, suitable and sufficient surface casing shall be run and cemented to a depth not less than fifty (50) feet below all fresh water strata encountered in the well and in a manner that will protect such fresh water from contamination resulting from drilling operations. The cement must fill the annular space behind the surface casing from the base thereof to the surface of the ground. If cement returns are not received to the surface, then the annulus must be cemented from the top.
- (2) The Supervisor or his representative shall be given notice of cementing of surface casing at least 12 hours prior to conducting such operation. The Supervisor or his representative may witness the cementing operation. Form R-WH1 must be accompanied by a copy of the drilling contractor's or service company's ticket for the work performed.
- (3) A cement basket and centralizer are to be run on the surface casing between the first and second joints of surface casing or as directed by the supervisor.

1040-02-07-.03 Production Casing.

The production, oil, or flow string, is that casing used for the purpose of segregating the zone from which production is obtained and affording a means of communication between such zone and the surface. A description of the work done under this section must be reported to the Supervisor on Well History, Work Summary, and Completion or Recompletion Report (Form R-WH-1) within sixty (60) days after completion.

1040-02-07-.04 Isolation of Oil, Gas and Fresh-Water-Bearing Strata, and Potential Minable Coal and Other Mineral Deposits.

Notwithstanding compliance with the foregoing requirements, all potential minable coal and other minerals must be isolated from any possible communication through the annulus with oil-, gas- or water-bearing strata or deposits of other potential minable coal or other minable minerals. In order to ascertain whether or not such work has been reasonably performed, the operator may elect to either run a cement bond log, or block **squeezed squeeze** each stratum or zone which is required to be isolated. If the cement bond log indicates a minimum of twenty-five (25) feet of cement bond above the top and twenty-five (25) feet of bond below the base of each stratum or zone to be isolated, then the provision of this rule shall have been complied with. If such bonding is not shown by the bond log, the Supervisor may require the operator to perform the necessary work to assure the isolation of such above described strata zones.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-08
Directional Drilling

Amendment

Chapter 1040-02-08 Directional Drilling is deleted in its entirety and replaced with the new Chapter 1040-02-08 to read as follows:

Chapter 1040-02-08
Directional Drilling

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1040-02-08-.01 Lateral Deviation	1040-02-08-.03 Directional Survey
1040-02-08-.02 Inclination Surveys	1040-02-08-.04 Horizontal Drilling

1040-02-08-.01 Lateral Deviation

- (1) No operator shall drill a well in which the well bore deviates laterally a resultant distance greater than that determined by a five degree (5 degree) angle from a vertical line passing through the center of the surface location of the well bore, without running a directional survey. If the operator desires to directionally control and thereby intentionally deflect a hole from the vertical (whether more or less than five degrees (5 degrees) and unless done to straighten the hole or to side-track junk in the hole or because of other mechanical difficulties) a permit, Application for Re-Entry and Work Permit (Form P-RAW-1), shall first be obtained from the Supervisor. Nothing herein shall be construed to permit the drilling of any well in such a manner that it crosses property lines.
- (2) Whenever a well is deviated from vertical, the point at which the well bore intersects the producing formation (pool) shall be protected to the surface and become the location of the well in determining if it complied with the spacing rules.

1040-02-08-.02 Inclination Surveys.

An inclination survey shall be made at the discretion of the Supervisor on all wells drilled with the first shot-point at a depth not greater than that of the surface casing seat and succeeding shot-points not more than one thousand (1,000) feet apart. Inclination surveys conforming to the requirements may be made either during the normal course of drilling or after the well has reached total depth. Such survey data shall be certified by the operator's representative and/or drilling contractor and shall indicate the resultant lateral deviation as the sum of the calculated lateral displacement determined between each inclination survey point, assuming that all such displacement occurs in the direction of the nearest property line. If a directional survey determining the bottom of the hole is filed with the Supervisor upon completion of the well, it shall not be necessary to furnish the inclination survey data. Except as otherwise specified herein, all inclination and/or directional survey data shall be filed along with Form R-WH-1 (Well History).

1040-02-08-.03 Directional Survey

- (1) A directional survey shall be run by a qualified contractor approved by the Supervisor and two (2) certified copies thereof filed with the Supervisor on any well, if:
 - (a) The well is directionally controlled and is thereby intentionally deflected from the vertical; or
 - (b) The resultant level deviation as calculated from inclination survey data is a distance greater than the distance from the center of the surface location of the well bore to the nearest property or unit line and might violate the distance from property lines rule; or
 - (c) The well bore deviates a resultant distance greater than that determined by a five degree (5 degree) angle from a vertical line passing through the center of the surface location of the well bore.
- (2) The Supervisor, on his own initiative or at the request of an offset operator, shall have the right to require the operator to run a directional survey on any well if there is reasonable cause therefore. Whenever a survey is so required, and the operator of the well and the offset operator are unable to agree as to the terms and conditions for running such survey, the Supervisor, upon request of either, shall determine such terms and conditions, after notice to all interested parties and a public hearing.
- (3) Unless required by the Supervisor, a directional survey shall not be required for any well which is not directionally controlled and thereby intentionally deflected from the vertical and which has a surface location, maximum angle of deviation and total depth, in compliance with the provisions of Chapter 1040-02-01 through Chapter 1040-02-12.
- (4) The provisions hereof shall not alter or affect the minimum spacing provisions of Chapter 1040-02-01 through Chapter 1040-02-12.

1040-02-08-.04 Horizontal Drilling.

- (1) Wells drilled by horizontal methods shall comply with the following spacing requirements:
 - (a) For all oil wells, and for gas wells drilled to the top of the Conasauga Group, the surface trace of that portion of the wellbore or any portion of the horizontal drainhole that penetrates the producing formation, including the horizontal drainhole end point, shall not be located closer than three hundred thirty (330) feet from any property or unit line.
 - (b) For gas wells drilled below the top of the Conasauga Group, the surface trace of that portion of the wellbore or any portion of the horizontal drainhole that penetrates the producing formation, including the horizontal drainhole end point, shall not be located closer than six hundred sixty (660) feet from any property or unit line.
 - (c) Any number of producing formations may be penetrated by lateral drainholes from a single vertical wellbore.
 - (d) All of the producing portion of the well must be in compliance with the spacing requirements of this paragraph. The horizontal portion of the well is the formation of record for production.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-09 Well Abandonment

Amendment

Chapter 1040-02-09 Well Abandonment is deleted in its entirety and replaced with the new Chapter 1040-02-09 to read as follows:

Chapter 1040-02-09
Well Plugging and Abandonment

Table of Contents

1040-02-09-.01 Plugging Wells
1040-02-09-.02 Inspection
1040-20-09-.03 Deliverability Test

1040-02-09-.04 Time Limit for Plugging Wells
1040-02-09-.05 Surface Reclamation
1040-02-09-.06 Temporary Abandonment

1040-02-09-.01 Plugging Wells

- (1) All wells which are to be plugged and abandoned may be filled with a mud fluid of sufficient weight to offset the hydrostatic pressure of any formation penetrated. Sufficient cement plugs must be efficiently placed in number and properly located as to prevent the commingling of oil, gas, salt water, and fresh water from one zone to another, and to isolate potentially minable coal beds and seams and other potentially extractable minerals. All downhole plugs may be "felt for" to insure that they have been properly placed.
- (2) The specific method and procedure for plugging a well shall be as follows:
 - (a) A mechanical plug, or a brush and stone plug, and a neet cement plug of not less than twenty-five (25) feet in length shall be placed between each producing formation, whenever possible geologic group or formation.
 - (b) A mechanical plug, or a brush and stone plug, and a neet cement plug of not less than twenty-five (25) fifty (50) feet in length shall be placed at the below the base of the surface casing. The plug shall be placed so that at least ten (10) feet of cement twenty five (25) feet of cement is below the base of the surface casing and extends up into the casing twenty five (25) feet.
 - (c) A mechanical plug, or a brush and stone plug, and a neet cement plug of not less than twenty-five (25) feet shall be placed at the surface of the well. The surface casing shall be cut off below plow depth at the request of the landowner or when determined appropriate by the supervisor or his representative.
 - (d) In a well with casing that does not seal off the ground water, a mechanical plug, or a brush and stone plug, and a neet cement plug must be set fifty (50) feet below the deepest known ground water strata. The cement plug must be adequate in length to reach at least ten (10) feet in to the casing.
 - (e) In an uncased well, a mechanical plug, or a brush and stone plug, and a neet cement plug must be set at least fifty (50) feet below the deepest ground water strata and extend up to the surface or just below plow depth if appropriate.
 - (f) The mechanical or brush and stone plug method maybe replaced by filling the well from total depth to the surface with cement, provided, however, that such method must be either prescribed or approved by the Supervisor.
 - (g) If there is fluid in the well, a dump bailer or tubing may be used to place the cement in the well.
 - (h) If drill water or mud is present it may be used as filler between the plugs.
 - (i) If any casing has been installed in the well and has not been cemented to the surface the casing must be pulled prior to the plugging of the well. If the casing cannot be readily removed the casing must be shot and then pulled.
- (3) Any other methods not defined above, but approved by the Supervisor, may be used.

1040-02-09-.02 Inspection.

The Supervisor or his representative must be given notice of intent to plug a well at least 12 hours prior to conducting such operation. The Supervisor or his representative may inspect the work of plugging and abandonment as it progresses, check the location and quality of plugs, check the amount of casing pulled, and check the demonstration of movement, if any, of oil, gas, or water. The operator must submit a Plug and Abandon Report (Form R-P & A-1) covering the work performed to the Supervisor within thirty (30) days after plugging and abandoning the well. This work must may be observed by the Supervisor or his representative and that observance verified by his signature on the Plug and Abandon Report (Form R-P & A-1).

1040-02-09-.03 Deliverability Test.

Before any well will be classified as a shut-in gas well, the operator must furnish the results of a deliverability test. Such deliverability test shall be performed after the well has achieved a stabilized flow rate. If stabilization cannot be achieved, the maximum test period required is twenty-four (24) hours. The results of the deliverability test shall be submitted on Gas Well Deliverability Tests (Form R-DT- 1), and in the initial Production section of the Well History, Work Summary, and Completion or Recompletion Report (Form R-WH-1), and must be complete as to stabilized flow rate, hours tested, choke size, and pressure in order to demonstrate that a stabilized flow rate was achieved. A copy of the chart on which the deliverability is based must also be submitted. All deliverability tests shall be conducted once every three (3) years. The well will remain shut-in in accordance with the requirements of Rule 1040-02-09-.06. In addition, a gas well may be considered shut-in if the well has been cemented with 4½ inch casing and submitted with a report signed by a petroleum engineer or geologist.

1040-02-09-.04 Time Limit For Plugging Wells.

Except as provided in Rule 1040-02-09-.06, all wells drilled for oil and gas and found to be dry abandoned holes shall be plugged within six (6) months one (1) year from cessation of drilling. All wells that are non-producing or abandoned shall be plugged within one (1) year from the date they cease producing twelve (12) barrels of oil per year or twenty five (25) mcf of gas per month or are abandoned. Upon written request to the Supervisor showing good cause, an extension of up to ninety (90) days additional may be granted. No operator or owner shall permit any well drilled for oil, gas, salt water disposal or any other purpose in connection with the production of oil and gas, to remain unplugged after such well is no longer used for the purpose for which it was drilled or converted. Nothing herein shall prevent utilizing a well for the purpose of introducing air, gas, fresh water or other liquid pressure into or upon the producing strata for the purpose of recovering oil and gas. All wells which are neither producing nor plugged must comply with shut-in standards of oil and gas wells and shall be cased and capped in such a manner so as to protect all potential oil and/or gas zones, and fresh water in accordance with the requirements of Rule 1040-02-09-.06.

1040-02-09-.05 Surface Reclamation.

- (1) Abandonment Reclamation of well sites, oil or gas pipeline right-of-way, storage facility sites, and access roads.
 - (a) Except for active work areas, the operator shall drain and fill all surface pits that are not needed for production purposes, and shall grade and stabilize the well location and location road within thirty (30) days of the initial disturbance, in order to minimize surface run-off and prevent excessive erosion and sedimentation. All drilling supplies and equipment, trash, discarded materials and other refuse not contained and covered in the reclaimed pits shall be removed from the site. Temporary vegetative cover shall then be established on all graded areas.
 - (b) Within thirty (30) ninety (90) days of the plugging and abandonment of any well, the operator shall remove all production and storage structure, supplies and equipment, any oil, salt water and debris, fill any remaining excavations, and grade any remaining disturbed areas, including access roads. Permanent vegetative cover shall then be established on all disturbed areas, excluding approved permanent, non-erosive facilities, and access roads which are to be turned over to the landowner. Any access roads necessary for the operator to gain access to the well site in order to determine the adequacy of the vegetative cover or to perform additional re-vegetation may continue to be used by the operator until all of the Board's reclamation requirements have been met.
 - (c) Upon written request to the Supervisor showing good cause, an extension of up to ninety (90)

days additional may be granted to an operator to complete grading and/or vegetation of a well site or access roads.

(2) Re-vegetation - General Requirements.

(a) The operator shall establish, in accordance with ~~1040-2-9-.05(1)~~ paragraph (1) of this rule, on all surface disturbed areas except water areas and surface areas of access roads approved by the Supervisor as permanent roads, a vegetative cover that is in accordance with the approved permit and reclamation plan and that is as follows:

1. Diverse, effective, and permanent;
2. Comprised of species approved by the Supervisor that will not impede natural vegetative cover; and
3. Capable of long term stabilization of the soil surface from erosion.

(b) The reclamation plant species shall have the following:

1. The same seasonal characteristics of growth as the original vegetation;
2. Be capable of self-regeneration;
3. Be compatible with existing plant and animal species existing in the areas; and
4. Meet the requirements of applicable State and Federal seed, poisonous and noxious plant, and introduced species laws or regulations.

(c) Suggested seeding mixtures, rates, and dates are shown in the following table:

Seeding Group	Rate-Pounds Per Acre	Rate-Pounds Per 1,000 Square Feet	Seeding Dates
For Temporary Cover:			
cereal wheat or rye (100%)	20-25	0.5-0.6	10/15-11/30
sudan grass hybrid (100%)	20	0.5	04/15-08/15

Seeding Group	Rate-Pounds Per Acre	Rate-Pounds Per 1,000 Square Feet	Seeding Dates
For Permanent Cover:			
tall fescue (100%)	30	0.7	02/15-04/15 08/15-10/15
tall fescue (90%)	30	0.7	02/15-04/15
white (ladino) clover (10%)	3	0.1	08/15-10/15
tall fescue (86%)	30	0.7	02/15-04/15
crownvetch (14%)	5	0.1	08/15-10/15
sericea lespedeza (scarified) (60%)	30	0.7	03/01-04/15
tall fescue (30%)	15	0.3	03/01-04/15
annual lespedeza (10%)	5	0.1	03/01-04/15
sericea lespedeza (79%)	30	0.7	03/01-04/15
weeping lovegrass (8%)	3	0.1	03/01-04/15
annual lespedeza (13%)	5	0.1	03/01-04/15

1. Seeding rate should be increased by 20 percent on sites where a seedbed cannot be prepared.

2. Temporary cover should be disked or mowed before permanent vegetation is established.
 3. Where more than 90 percent of a mixture is composed of tall fescue, annual fertilizing should be done to maintain an adequate cover.
 4. Crown vetch may be used in Middle and East Tennessee and the northern half of West Tennessee, but should not be used on areas that will receive heavy traffic.
 5. Sericea lespedeza and weeping lovegrass are both suitable for sites that are subject to drought.
 6. Disturbed areas on which temporary cover must be established between December 1 and February 15 should be mulched, and then seeded with permanent vegetation as soon as possible.
- (d) The Supervisor may grant exceptions to the requirements of parts (b)1 and 2 of this paragraph when the species are necessary to establish a quick-growing, temporary, stabilizing cover, and measures to establish permanent vegetation are included in the approved reclamation plan. All items under subparagraph (c) are suggested guideline measures.
- (3) Re-vegetation - Top soiling, Mulching and Soil Amendments.
- (a) Prior to the establishment of a permanent vegetative cover on disturbed areas where excavation activities have occurred, the operator shall replace the excavated topsoil or provide an approved topsoil substitute material suitable for supporting the long range re-vegetation goals.
 - (b) Suitable mulch and/or other soil stabilizing practice shall be used on all areas that have been regraded and covered by topsoil or topsoil substitutes unless the Supervisor waives this requirement based on a determination that seasonal, soil, or slope factors result in a condition whereby mulch or other stabilizing practices are not necessary to control erosion and to promptly establish an effective vegetation cover.
 - (c) Nutrients and soil amendments shall be applied to the redistributed growth medium prior to re-vegetation when necessary to establish and maintain the vegetative cover.
- (4) Revegetation Diverse vegetation cover - Standards for Success.
- (a) All previously disturbed and reclaimed areas shall be inspected by the Supervisor or his designee prior to final reclamation bond release in order to determine the level of success of permanent re-vegetation.
 - (b) Re-vegetation success shall not be determined until after at least two successfully completed spring or summer growing seasons have occurred.
 - (c) Standards for success shall be based on a ground cover of at least ninety percent (90%) consisting of herbaceous and/or woody species with a minimum of eighty percent (80%) being of perennial varieties.

1040-02-09-.06 Temporary Abandonment.

- (1) An operator has the opportunity to place any non-producing well into Temporary Abandonment for five (5) years if all of the following requirements are fulfilled:
- (a) The operator shall submit a Temporary Abandonment form for each well to be placed in temporary abandonment. This form can be obtained from Water Pollution Control/Oil and Gas Program.

- (b) The operator shall submit a one hundred dollar (\$100) fee for each well per year to be placed in temporary abandonment.
 - (c) Each well shall be capped in such a manner as to have no open casing exposed to the environment (i.e., swedge with locked ball-valve or any other viable protection).
 - (d) Any well shown on the Annual Well Report that indicates no production must be placed in temporary abandonment status or plugged.
 - (e) All fees received for temporary abandonment will be placed in an account that will be set aside to be used only for funding the plugging of abandoned oil and gas wells.
- (2) At the end of the five year Temporary Abandonment period, each well submitted by the operator shall be reviewed by the Department. A determination will be made on the validity of keeping the well(s) open. This determination for validity will be based on whether the operator has a deliverability test for each asw well or if the well(s) is producing oil. If the staff finds there is no valid reason to keep the wells open, the operator will then have two years to plug the non-producing well(s).

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-10
Filing of Well Data, Reports and Maps

Amendment

Chapter 1040-02-10 Filing of Well Data, Reports and Maps is deleted in its entirety and replaced with the new Chapter 1040-02-10 to read as follows:

Chapter 1040-02-10
Filing of Well Data, Reports and Maps

Table of Contents

1040-02-10-.01 Information Due Date	1040-02-10-.04 Field Map
1040-02-10-.02 Information Required	1040-02-10-.05 Information Confidential
1040-20-10-.03 Pick-up Locations Reserved	1040-02-10-.06 Annual Well Report

1040-02-10-.01 Information Due Date

The required well data and reports shall be tendered to the Supervisor within ~~thirty (30)~~ sixty (60) days from the date of drilling to total depth of the well. This date is defined as the termination of continuous drilling operations. The due date for information submitted may not be postponed by the expressed intent to resume operations at some future date.

1040-02-10-.02 Information Required.

The following information is required within ~~thirty (30)~~ sixty (60) days after drilling to total depth:

- (1) Two final and unmarked prints of all electrical logs and other downhole surveys, if any. If no logs are run, then "NONE" should be entered in the "TYPE(S) OF GEOPHYSICAL LOGS RUN" section of the Well History Form (Form R-WH-1).
- (2) Driller's log - a driller's log shall be submitted in one of the following forms:
 - (a) On reverse side of Well History Form (R-WH -1); or
 - (b) On a separate typed sheet (one copy).

- (3) Drilling-time log - One copy for all wells drilled with rotary tools.
- (4) Drill-stem test - One final copy of any.
- (5) Core analysis - One copy if available.
- (6) Completion Report - one copy of Well History, Work Summary, and Completion or Recompletion Report (Form R-WH-1) shall be completed, notarized and submitted for each well. All shows of oil and/or gas, water zones, and coal seams penetrated shall be reported on the reverse side of this form. If all the required information is not available at the end of the ~~thirty (30)~~ sixty (60) day period the additional information will be filed on a supplemental Form R-WH-1 within 10 days after completion of the well.
- (7) Samples and Cores-well cuttings are required at ten (10) foot intervals from the top of bedrock to total depth of each well, and must be submitted to the Tennessee Division of Geology office in Nashville according to the following guidelines if requested by the Supervisor:
 - (a) Well cuttings should arrive in sturdy containers, such as heavy cardboard boxes with sturdy bottoms. Burlap bags are acceptable, but plastic garbage bags are not.
 - (b) Well cuttings must be completely dry when received.
 - (c) Each set of cuttings must be in its own container. No two sets should be in the same box or burlap bag. If more than one (1) container is required for a particular set of cuttings, this should be noted on all containers.
 - (d) Individual bags should be clearly marked and identified as to operator name, well name and number, permit number and interval. Each container must be clearly marked with operator name, well name and number, permit number, and county.
 - (e) Bags should be marked with waterproof ink.
 - (f) Sets of well cuttings not meeting the above requirements will not be accepted by the Tennessee Division of Geology until those requirements are met. Cores which may be required by the Supervisor must be submitted in adequate boxes clearly marked as to the name of the well and depth intervals.

~~1040-02-10-.03 Reserved PICK-UP LOCATIONS. When feasible, the Supervisor may designate local pick-up locations for the deposit by the operators of the cuttings or cores.~~

1040-02-10-.04 Field Map.

Persons or companies operating in a producing area shall furnish the Supervisor with a field map showing lease lines and well locations on request.

1040-02-10-.05 Information Confidential.

Upon request by the permittee to the Supervisor, the aforementioned well information shall be kept CONFIDENTIAL by the Supervisor for a period not to exceed six (6) months from the date of drilling to total depth of the well, as defined above in Rule 1040-02-10-.01.

1040-02-10-.06 Annual Well Report.

Operators shall file an annual report on each bonded well(s). The report shall include the well(s) name and number, permit number, location, current status of the well(s), any production for the past year, and future plans for the well(s). The annual report shall be due on the 15th of April each year. If the report is not received before May 1st, the well(s) shall be determined abandoned.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-11
Exceptions and Hearings

Amendment

Chapter 1040-02-11 Exceptions and Hearings is deleted in its entirety and replaced with the new Chapter 1040-02-11 to read as follows:

Chapter 1040-02-11
Exceptions and Hearings

Table of Contents

1040-02-11-.01 Prevention of Waste

1040-02-11-.01 Prevention of Waste

If any operator can show to the Supervisor or Oil and Gas Board that the work procedures herein prescribed result in waste, or such operations are unreasonable, the Supervisor may enter such an order, as a special exception to the aforesaid rules and regulations, as will prevent such waste or eliminate such unreasonable restraint as may result from the application of the aforesaid rules and regulations to the well or wells of such operators; provided, however, that before any operator shall be allowed the benefit of any order granting an exception as authorized by this chapter, such operator must establish that such exception, if granted, will not result in waste in the field as a whole or give him an inequitable and unfair advantage over another operator or operators in the field. No special exception will be granted except upon written application, fully stating the alleged facts, which shall be the subject of a hearing to be held no earlier than ten (10) days after filing the application. Prior to the hearing upon such application, at least ten (10) days notice thereof shall be given by publication to all operators in the Field. In addition to said notice by publication, the applicant must give adjacent operators, where appropriate, at least ten (10) days notice of said hearing by personal service or by Registered Mail.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-02-12
Violations – Penalties – Notice – Hearing

Amendment

Chapter 1040-02-12 Violations – Penalties – Notice – Hearing is deleted in its entirety and replaced with the new Chapter 1040-02-12 to read as follows:

Chapter 1040-02-12
Violations – Penalties – Notice – Hearing

Table of Contents

1040-02-12-.01 Violations, Penalties, Notice, Hearing

1040-02-12-.02 Red Tagging of Wells

1040-02-12-.01 Violations, Penalties, Notice, Hearing

- (1) The ~~Oil and Gas Board through the~~ Supervisor shall have the authority to assess monetary penalties as provided in paragraphs (3), (4), and (5) of this rule for any violation of this chapter, rules and regulations, or any order adopted by the Board. In making such assessment, the ~~Board~~ Supervisor shall give due consideration to the appropriateness of the penalty with respect to the size of the business of the operator charged, the gravity of the violation, the good faith of the operator, and the operator's history of previous violations.
- (2) If, upon an inspection or investigation, the Supervisor or any of his authorized personnel shall determine that any operator is not in compliance with any standard or regulation or rule of the Board promulgated by

the Board pursuant to this chapter, he shall with reasonable promptness and in no event later than six (6) months following the inspection, issue to the operator by certified mail a written citation that states the nature and, if appropriate, the location of the violation, including a reference to the provision of the chapter and the regulation alleged to have been violated. In addition, the citation shall fix a reasonable time for abatement of the violation. If the issuing Supervisor has reason to believe that such violation, or the failure to abate such violation, should result in the assessment of a penalty under paragraphs (3), (4), and (5) of this rule the citation may so state.

- (3) Any operator who has received a citation of this chapter, rules and regulations or order of the Board, promulgated pursuant to this chapter, and has failed to correct such violation within the period of correction of this citation, shall be assessed a penalty of up to one thousand (\$1,000) dollars for each day the violation exists. The period of correction may be suspended or lengthened by the assessing party upon a showing by the operator of a good faith effort to comply with the correction requirements, and that failure to comply with the correction requirements is due to factors beyond his reasonable control.
- (4) Any operator who has received a citation for a violation of this chapter, or rules and regulations, or order of the Board and such violation is specifically determined not to be of a serious nature, may be assessed a penalty of up to one thousand (\$1,000) dollars for each such violation.
- (5) Any operator who willfully or repeatedly violates the requirements of this chapter, or rules and regulations, or order of the Board promulgated pursuant to this chapter may be assessed a penalty of up to ten thousand (\$10,000) dollars for each violation.
- (6) Penalties provided for by paragraphs (3), (4), and (5) of this rule shall be imposed in the manner hereinafter provided. Whenever the ~~Oil and Gas Board, through the~~ Supervisor, has determined that such a penalty should be assessed against an operator, a written notice and assessment of a penalty shall be issued to the operator by certified mail, return receipt requested, stating the amount of the penalty to be assessed and the reason therefore (which may be done by reference to citations issued prior to or simultaneously with such notification).
- (7) Any citation or notice and assessment of a penalty issued pursuant to this rule shall inform the operator of his rights to appeal such citation or assessment of a penalty and shall become final twenty (20) days after the receipt of such citation or notice and assessment of penalty by the operator unless the operator, within the period of twenty (20) days, shall file a written notice of appeal with the Supervisor.
- (8) If the operator files an appeal of such citation or assessment of a penalty as provided by paragraph (7) of this rule, the proceedings on such appeal shall be conducted in accordance with the provisions of the Uniform Administrative Procedures Act, as amended, compiled in Title 4, Chapter 5, and the rules of procedure of the Oil and Gas Board governing the conduct of contested cases. The Board shall afford the operator an opportunity for a hearing, after reasonable notice, The Board shall thereafter render a final order, in accordance with the provisions of §4-5-314, affirming, modifying or vacating the Supervisor's citation or assessment of a penalty. A final order rendered pursuant to this rule shall be effective upon its entry unless a later effective date shall be stated therein. A petition to stay the effective date of a final order may be filed under the provisions of §4-5-316. A petition for reconsideration of a final order may be filed under the provision of §4-5-317. Judicial review of a final order may be sought by filing a petition for review under the provisions of §4-5-322.
- (9) All penalties owed under this chapter shall be paid to the assessing Supervisor for deposit into the Treasury of the State of Tennessee and shall accrue to the State of Tennessee and may be recovered in a civil action in the name of the State of Tennessee in any Court of Record in the county where the violation is alleged to have occurred or where the operator has its principal office. (Acts 1978 (Adj. S), ch. 791, §1; T.C.A. §60-113; Acts 1984, ch. 700, §§1,2.)

1040-02-12-.02 Red Tagging of Wells.

If, upon an inspection or investigation, the Supervisor or any of his authorized personnel shall determine that a well or tank battery is not in compliance with any standard or regulation or rule or order of the Board promulgated by the Board pursuant to this chapter, he shall with reasonable promptness and in no event later than five (5) working days following the inspection, place a "red tag" (Form WC-NOTICE THIS WELL CLOSED) on the well or

tank battery, which notice shall state that drilling or plugging of the well or any further production of oil and gas from the well or tank battery is hereby ordered to be terminated until approval to proceed has been granted by the Supervisor. The notice shall further indicate the nature of the violation or threatened violation, including a reference to the provision of the chapter and the regulation which has been violated.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-03-01
Completion, Recompletion, and Related Downhole Work

Amendment

Chapter 1040-03-01 Completion, Recompletion, and Related Downhole Work is deleted in its entirety and replaced with the new Chapter 1040-03-01 to read as follows:

Chapter 1040-03-01
Completion, Recompletion, and Related Downhole Work

Table of Contents

1040-03-01-.01 Time Limit for Well Completion	1040-03-01-.06 Gas Composition Analysis for Permit
1040-03-01-.02 Notification for Re-entry	1040-03-01-.07 Bottomhole Pressure Tests
1040-03-01-.03 Report Filing	1040-03-01-.08 Repealed
1040-03-01-.04 Gas/Oil Ratio Tests	1040-03-00-.09 Repealed
1040-03-01-.05 Periodic GPM Tests	

1040-03-01-.01 Time Limit for Well Completion

All wells drilled in connection with the production of oil and gas, unless plugged in accordance with well abandonment procedures as stated in Chapter 1040-02-09, shall be completed within one (1) year from cessation of drilling unless the procedures outlined in Rule 1040-02-09-.06 Temporary Abandonment.

1040-03-01-.02 Notification For Re-entry.

Notification to the supervisor is required prior to conducting work for the purpose of deepening a well pursuant to producing oil and/or gas.

The operator must notify the Supervisor twenty-four (24) hours in advance of conducting this proposed operation.

This rule shall not deter an operator from taking immediate action in an emergency to prevent damage when a service company, other than the drilling contractor, performs any work germane to this section. The service company shall furnish the operator, and the operator upon request shall furnish the Supervisor with legible and exact copies of reports furnished the owner or operator of the well.

1040-03-01-.03 Report Filing.

The operator shall file a Well History, Work Summary and Completion or Recompletion Report (Form R-WH-1) with the Supervisor within ~~thirty (30)~~ sixty (60) days after completing, recompleting or working over a well pursuant to producing oil and/or gas. Wells shall be considered completed when they are capable of being turned into the tanks and/or gas transmission or gathering lines.

1040-03-01-.04 Gas/Oil Ratio Tests.

(1) All oil wells drilled must be equipped so that gas/oil ratios can be taken at any time. Production and gas/oil ratio tests shall be made when requested by the Supervisor, and shall be witnessed by the Supervisor or his representative.

(a) Gas production potential tests shall be made on the Gas Well Deliverability Tests (Form R-DT-I)

and submitted as prescribed above to the Supervisor, and ~~thereafter on June 1st and December 1st of each year~~ conducted every three years until the well is plugged and abandoned when requested by the supervisor.

- (b) Gas wells shall not be tested by the "open-flow" method. The back-pressure method of determining the open-flow, as outlined by the Bureau of Mines in their Monograph 1, "Back-Pressure Data on Natural Gas Wells", shall be used. When for any reasons, the completed back-pressure method is not feasible, an acceptable method, not entailing excessive physical waste of gas may be used upon recommendation of the ~~technical staff of the Oil and Gas Board Department~~.
- (c) Gas/Oil (c: Gas/Condensate) ratios shall be reported on Form R-PT-1 and Form R-WH-1.
- (d) In the event any operator considers that, for the purpose of determining field allowable, his well has not had a fair determination of its gas/oil ratio, or that its gas/oil ratio has changed because of natural causes or corrective work on his well, he may make application in writing to the Supervisor for a re-test or a special test of the gas/oil ration of his well, and for an adjustment of his well if applicable. If, upon re-testing a well, the Supervisor finds that the new gas/oil ratio justifies a change in the allowable, he is authorized to make such change.

1040-03-01-.05 Periodic GMP Tests.

Gallons of liquid per thousand cubic feet of gas shall be reported on Periodic GPM Tests Report (Form R-GPM-1) to the Supervisor on the thirtieth (30th) day after the Supervisor requests such data.

1040-03-01-.06 Gas Composition Analysis ~~Tests~~.

Gas Composition Analysis shall be completed and submitted to the Supervisor within ~~thirty (30)~~ sixty (60) days after the Supervisor requests such data.

1040-03-01-.07 Bottomhole Pressure Tests.

Bottomhole Pressure Tests shall be conducted and submitted to the Supervisor within ~~thirty (30)~~ sixty (60) days after the Supervisor requests such data.

1040-03-01-.08 REPEALED.

1040-03-01-.09 REPEALED.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-03-02
Tubing and Well Equipment

Amendment

Chapter 1040-03-02 Tubing and Well Equipment is deleted in its entirety and replaced with the new Chapter 1040-03-02 to read as follows:

Chapter 1040-03-02
Tubing and Well Equipment

Table of Contents

1040-03-02-.01 Repealed	1040-03-02-.03 Separators
1040-03-02-.02 Connections	1040-03-02-.04 Safety Valves

1040-03-02-.01 Repealed.

1040-03-02-.02 Connections.

- (1) When requested by the supervisor or his representative, wellhead connections shall be tested prior to installation at a pressure indicated by the Supervisor in conformance with conditions existing in areas in which they are used.
- (2) Whenever such tests are made in the field, they shall be witnessed by the Supervisor.
- (3) Tubing and tubingheads shall be free from obstructions in wells used for bottomhole pressure test purposes.

1040-03-02-.03 Separators.

All flowing and gas-lift oil wells are to be produced through efficient operating separators, except in the case of low-pressure headings or gas-lift wells with low-gas output (less than 100 lbs. surface pressure).

1040-03-02-.04 Safety Valves.

- (1) A safety valve is required on all flowing wells, with a surface pressure in excess of one thousand (1,000) pounds in the following categories.
 - (1)(a) Any location inaccessible during period of storm or floods.
 - (2)(b) Location within any wildlife refuges, parks or game preserves, or bodies of water used for recreation or navigation.
 - (3)(c) Location within six hundred (600) feet of public roads or waterways, railroads, inhabited dwellings, or closer than one thousand (1,000) feet to any school or church.
- (2) Where the use of safety valves would unduly interfere with normal operations of a well, the Supervisor may, upon submission of pertinent data in writing, waive the requirements of this rule.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-03-03
Prevention of Hazards and Pollution

Amendment

Chapter 1040-03-03 Prevention of Hazards and Pollution is deleted in its entirety and replaced with the new Chapter 1040-03-03 to read as follows:

Chapter 1040-03-03
Prevention of Hazards and Pollution

Table of Contents

1040-03-03-.01 Safety
1040-03-03-.02 Pollution and Safety Controls

1040-03-03-.01 Safety

- (1) Each operator shall so conduct his operations and maintain his equipment as to reduce to a minimum the danger of explosion, fire, or waste.
- (2) All tests for production should be started and completed during daylight hours unless approval is obtained by the Supervisor.

- (3) No boiler, open fire, or electric generator shall be operated within one hundred (100) feet of any producing oil or gas well or oil tank.
- (4) Any rubbish, debris, or vegetation that might constitute a fire hazard shall be removed to a distance of at least one hundred (100) feet from the vicinity of wells to be tested.
- (5) All waste shall be disposed of in such a manner as to avoid creating a fire hazard or polluting streams and fresh water strata.
- (6) No test oil, condensate, salt water, or any other fluid substance shall be discharged to or disposed of in any way into any stream, lake, or other body of water, or into any ditch or surface drainage depression leading to any stream, lake, or other body of water, except in compliance with the Water Quality Control Act and the regulations of the Water Quality Control Board.
- (7) All wells shall have the equipment and containers or lined pits necessary to prevent the spillage of oil, condensate, water, or any other fluids or substances produced or used during any production test. The equipment shall be in place prior to the start of the production test, and shall be large enough to contain any plausible spill.
- (8) All wells shall be cleaned into a pit or tank, located at a distance of at least one hundred (100) feet from any fire hazard or dwellings.
 - (a) If pits are to be used, the sides and bottoms of the pits must be lined with heavy gauge seamless plastic sheets, or other artificial liner approved by the Supervisor.
 - (b) If it seems likely that a pit will overflow, additional pits must be constructed, or else tanks must be brought in to contain the surplus fluids.
- (9) No oil or gas well shall be drilled closer than two hundred (200) feet from a dwelling or closer than one hundred (100) feet from a public road.
 - (a) That portion of this regulation concerning distance from a dwelling may be waived by the supervisor upon submission of a notarized statement by the dwelling owner agreeing to the well location.
- (10) No oil or gas well shall be drilled within two hundred (200) feet of any water well that is in active use. This requirement may be waived by the Supervisor upon submission of a notarized statement from the well owner agreeing to the location of the oil or gas well and a plan identifying the additional measures to be taken to prevent pollution of the water well.
- (11) No oil or gas well shall be drilled within one hundred (100) feet of any stream, lake, or other body of water, so that an undisturbed riparian zone can be maintained, except that this requirement may be waived upon submission of a plan identifying additional measures acceptable to the Supervisor to be taken to prevent pollution of the waters of the State.

1040-03-03-.02 Pollution and Safety Controls.

- (1) All personnel, including operators and service personnel shall be trained in the prevention of spills and made aware of the consequences of spillage. There shall be a Site Coordinator designated for each well site who will be the principle contact for all activities on the location and the responsible party for submitting an action and safety plan for each well site.
- (2) Implement necessary procedures and safeguards during drilling and completion operations to prevent the uncontrolled flow of oil from wells, including, but not limited to:
 - (a) Follow reasonable procedures such as cleaning and lubricating pipe threads so that pipe can be made up to proper tightness.
 - (b) Lay flow and test lines on ground or install adequate supports. ~~Provide proper protection or line~~

~~flexibility such as "swings" at stream crossings, or suspend pipelines with proper supports across the streams for crossing streams and drainways with the lines.~~

- (c) At truck loading terminals, provide containers to catch unrecoverable oil at the hose connections, and provide proper maintenance of valves and other equipment. Train personnel to take necessary procedures to prevent spillage.
 - (d) During completion operations, produce and clean wells into tanks instead of pits if at all possible.
 - (e) At the same time that any pits or other diversion, transport, or storage facilities are constructed at ground level, dikes, diversion ditches, or other structures shall also be constructed to prevent any surface water from entering the pits or other facilities.
 - (f) Remove oil, salt water, or other fluids from pits as soon as practical after it has accumulated in them, and dispose of it in such a way that none can enter surface water or ground water, or otherwise adversely affect the environment or threaten public health and safety.
 - (g) All pits or other diversion, transport, or storage facilities shall be constructed so that waste fluids ~~can drain only into pits, and none can escape into the waters of the State, including ground water do not discharge from them.~~ There shall be no discharge pipe, overflow weir, trickle tube, or any other device allowing any discharge, ~~unless the operator holds a valid NPDES permit from the Department of Environment and Conservation.~~ No pit shall be located so that any part of it, including a dike or diversion structure, is within a horizontal distance of ~~twenty-five (25) one hundred (100)~~ one hundred (100) feet of the normal high-water line of any stream or lake.
 - ~~(h) Containment at tanks must equal at a minimum the storage capacity of one and one half (1.5) times the capacity of the largest tank in the tank battery.~~
 - ~~(i) All tanks must be maintained to prevent corrosion which can lead to both fluid loss from the vessel and accelerated reduction in its useful life span.~~
 - ~~(j) To prevent fire hazard, all tank batteries and tanks shall be kept free of brush or overgrowth within the berm surrounding the tank or tanks.~~
 - ~~(k)~~ (k) Dikes and ditches designated in ~~items "e" and "g" subparagraphs (e) and (g) of this paragraph~~ should be constructed in a manner to accommodate permanent facilities such as pumping units and flow lines.
 - ~~(l)~~ (l) Provide dikes and/or containment pits at storage tanks upon initial installation where such tanks are so located as to be deemed hazardous. If containment pits are to be used, they should be constructed according to the guidelines set forth in Rule 1040-04-01-.07.
- (3) All surface pits must be drained of water and back filled with dirt as soon as they are no longer needed for drilling or testing.
- (4) Implement prudent production operations to prevent potential oil spills, including, but not limited to:
- (a) Connect fill lines to storage tanks so that oil and gas will not spray into the atmosphere.
 - (b) Install "equalizer" lines between adjacent tanks as a safeguard against overflow.
 - (c) Install oil and gas separators where gas is produced in sufficient quantities to be hazardous.
 - (d) Pump contaminated unsalable residual oil from storage tanks into an accumulator tank instead of open pits.
 - (e) Place locks, remove handles, or otherwise secure all valves, so vandals cannot open them to cause spills.

- (5) The Supervisor should notify all oil industry related companies, including operators, service companies, drilling contractors, and crude oil gatherers and purchasers of their responsibility and liability in regard to oil spills.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-01
Pollution and Safety Controls

Amendment

Chapter 1040-04-01 Pollution and Safety Controls is deleted in its entirety and replaced with the new Chapter 1040-04-01 to read as follows:

Chapter 1040-04-01
Pollution and Safety Controls

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1040-04-01-.01 Operator's Responsibility	1040-04-01-.07 <u>Retaining Wall Containment Pit at Tank Batteries</u>
1040-04-01-.02 Proper Handling of Drilling <u>Foam</u>	1040-04-01-.08 Vents Required <u>Foam</u>
1040-04-01-.03 Proper Disposal of Waste	1040-04-01-.09 Improper Loading
1040-04-01-.04 Removal of Debris	1040-04-01-.10 Gathering Lines
1040-04-01-.05 Pollution Avoidance	1040-04-01-.11 Improper <u>Coring Casing</u>
1040-04-01-.06 Cleaning Pit or Tank	1040-04-01-.12 Disposal of Salt Water

1040-04-01-.01 Operator's Responsibility

Each operator shall so conduct his operations and maintain his equipment as to reduce to a minimum the danger of explosion, fire, or waste.

1040-04-01-.02 Proper Handling of Drilling Foam.

When it becomes necessary to use detergents during air-rotary drilling operations, the foam generated by such activity shall be directed into a containment pit and retained there until it has been degraded to a harmless form.

1040-04-01-.03 Proper Disposal of Waste.

No waste oil, oil field waste, or any other fluid substance shall be discharged to or disposed of in any way into any stream, lake, or other body of water, or into any ditch or surface drainage depression leading to any stream, lake, or other body of water, except in accordance with a discharge permit obtained from the Department of Environment and Conservation.

1040-04-01-.04 Removal of Debris.

Any rubbish or debris that might constitute a fire hazard shall be removed to a distance of at least one hundred (100) feet from the vicinity of wells, tanks and pump stations.

1040-04-01-.05 Pollution Avoidance.

All waste shall be burned or disposed of in such a manner as to avoid creating a fire hazard or polluting streams and ground water.

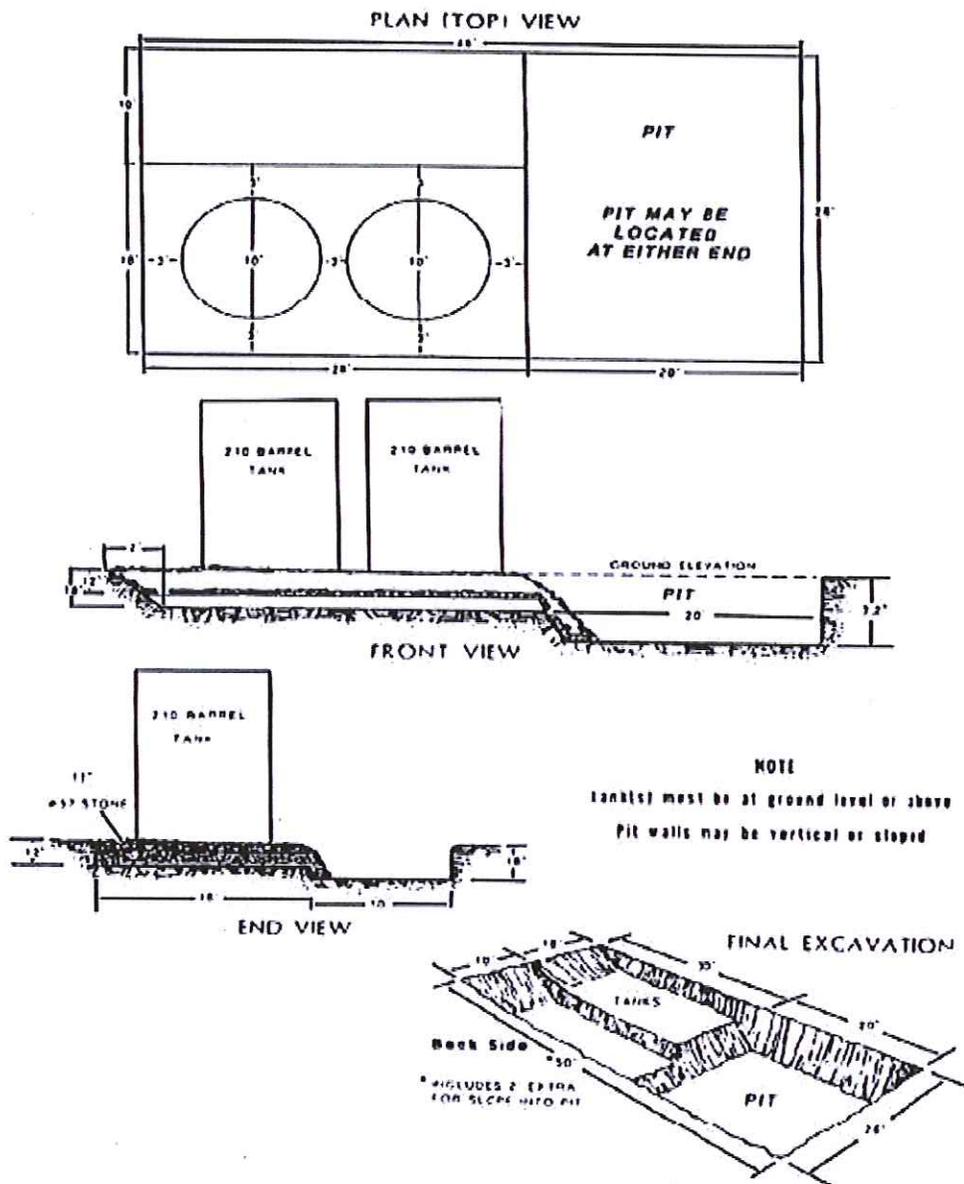
1040-04-01-.06 Cleaning Pit or Tanks.

All wells shall be cleaned into a lined pit or tank located at a distance of at least one hundred (100) feet from any fire hazards or dwellings.

1040-04-01-.07 Containment Pit at Tank Batteries.

A containment pit is required at each permanent oil tank or battery of tanks located within corporate limits or where such tanks are less than six hundred (600) feet from any highway or inhabited dwelling, or less than one thousand (1,000) feet from any school or church or within one hundred (100) feet of a stream or where such tanks are so located as to be deemed hazardous by the Supervisor. Tanks not falling in the aforementioned categories must be surrounded by a retaining wall or suitably ditched to a collecting sump, each of sufficient capacity and construction to contain potential spillage.

CONSTRUCTION DETAILS FOR TANK PAD AND PIT



1040-04-01-.08 Vents Required.

All storage facilities must be vented.

1040-04-01-.09 Improper Loading.

Oil transporters and producers will not load oil from oil storage facilities into vehicles parked on public roads.

1040-04-01-.10 Gathering Lines.

All gathering lines shall be buried beneath the surface wherever no blasting is required, and must be steel or weather resistant black plastic wherever outcropping, resistant rock makes it necessary to lay the pipe on top of the ground. Lines crossing streams, rivers, intermittent streams or other drainways shall be constructed in such a fashion as to bridge the drainage features and protect the gathering lines from damage due to lack of adequate support. Failure of support may result in rupture of or discharge from the line. If the line is to be installed below

the stream bed or below ground level and will cross state waters an Aquatic Resources Alteration Permit must be obtained prior to the activity occurring. Burial is not required, however, in those instances where this would conflict with the Natural Gas Pipeline Safety Act (published in the Federal Register, Volume 35, No 161, Part II, August 19, 1970).

1040-04-01-.11 Improper Casing.

All producing wells that are not properly cased and/or cemented must cease production. and The operator is required to perform corrective work performed before production can be resumed.

1040-04-01-.12 Disposal of Salt Water.

- (1) Underground injection is the preferred form of disposal of salt water, provided, however, that such injection is permitted by appropriate State and Federal agencies.
- (2) Produced salt water may either be injected into a subsurface formation(s) productive of hydrocarbons, if part of an approved secondary recovery project, into a subsurface formation(s) not productive of hydrocarbons, if through an approved salt water disposal well, or else may be transported off-lease to an authorized salt water disposal facility if prior approval has been granted by the State Oil and Gas Board Department.
- (3) Produced salt water shall not be put in any unlined pit, pond, lake or depression, or in any other place in a manner that will constitute a pollution hazard to the waters of the State including ground water.
- (4) No salt water shall be discharged to or disposed of at the land surface where it can enter surface water or ground water. Salt water discharged to and temporarily stored in lined pits shall be removed before it can leak into underground water.
- (5) All pits or ditches used for temporary storage or transport of salt water shall be lined with an impermeable man-made liner.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-02
Procedures and Equipment for Metering, Measuring and Producing Oil Condensate and Gas
Amendment

Chapter 1040-04-02 Procedures and Equipment for Metering, Measuring and Producing Oil Condensate and Gas is deleted in its entirety and replaced with the new Chapter 1040-04-02 to read as follows:

Chapter 1040-04-02
Procedures and Equipment for Metering, Measuring and Producing Oil Condensate and Gas

Table of Contents

1040-04-02-.01 Gas/Oil Ratios Equipment	1040-04-02-.09 Repealed
1040-04-02-.02 Gauging	1040-04-02-.10 Repealed
1040-04-02-.03 Testing	1040-04-02-.11 Repealed
1040-04-02-.04 Improper Transfer	1040-04-02-.12 Repealed
1040-04-02-.05 Lease Tank Outlets	1040-04-02-.13 Basic Orifice Coefficients
1040-04-02-.06 Bleed-off Lines	1040-04-02-.14 Pilot Tubes
1040-04-02-.07 Commingling Prohibited	1040-04-02-.15 Gas Measurements
1040-04-02-.08 Required Test Lines	

1040-04-02-.01 Gas/Oil Ratios Equipment

All leases are to be so equipped as to permit the determination of gas/oil ratios on individual flowing and gas-lift

wells. Gas/oil ratio data on all wells shall be available to the Supervisor at all times.

1040-04-02-.02 Gauging.

Each lease shall be provided with sufficient tankage and/or meters to permit proper gauging of the oil/condensate and gas produced. The tanks or meters must be identified by a sign showing the ownership of the tanks or meters and the name of the lease from which the oil/condensate or gas is being produced. In no case shall meters be the sole means of measuring oil runs from any field. There must be used at least one gauge tank to check the readings of oil and condensate meters.

1040-04-02-.03 Testing.

All oil tendered to any transportation system shall be gauged and tested for Basic S. & W. and temperature. For each and every transfer of oil from the lease tanks the number of the "on-seal" observed temperature and the percent of Basic S. & W. shall be recorded on each and every run ticket, and the producer and purchaser of any transfer of oil from lease tanks shall receive a copy of the run or delivery ticket or tickets.

1040-04-02-.04 Improper Transfer.

There shall not be any simultaneous movement of oil into and out of any tank that is being used for delivering oil to a gatherer or transporter. Transfer of oil or gas from the possession of one lease to the possession of another lease, except when properly accounted for, is hereby prohibited. The possession of improper mechanical means for transferring oil from one lease tank or well to the lease tank or well of another lease is hereby prohibited.

1040-04-02-.05 Lease Tank Outlets.

All pipeline outlets from lease tanks shall be kept sealed at all times except when a pipeline is being made from the tank, and the number of the "on-seal" and "off-seal" shall be recorded on each and every run ticket. Additionally, all pipeline outlets from lease tanks shall be made secure to prevent the unauthorized discharge or transfer of oil.

1040-04-02-.06 Bleed-Off Lines.

B.S. & W. bleed-off lines of lease tanks shall be sealed or locked at the time any pipeline run is being made.

1040-04-02-.07 Commingling Prohibited.

Oil produced from separately owned leases, not pooled, unitized, or consolidated shall not be commingled in lease tanks except as hereinafter provided for in this order.

1040-04-02-.08 Required Test Lines.

~~Reserved. All leases having more than one producing well shall be equipped with a test line, so as to obviate the necessity of shutting in wells when taking individual well tests.~~

1040-04-02-.09 REPEALED

1040-04-02-.10 REPEALED.

1040-04-02-.11 REPEALED.

1040-04-02-.12 REPEALED.

1040-04-02-.13 Basic Orifice Coefficients.

Basic orifice coefficients used in the calculation of gas flow shall be those contained in the American Gas Association's Gas Measurement Committee Report No. 3 or some other basic orifice coefficients generally accepted in the industry and approved by the ~~Oil and Gas Board~~ Supervisor, such as those published by the Foxboro Company, American Meter Company, and Pittsburg Equitable Meter Company. Corrections for base SS-7039 (July 2010)

pressure and base temperature shall be made. Corrections for supercompressibility are recommended when available. Corrections for Reynolds number and expansion factor are recommended only in cases where their combined correction is equal to or exceeds one percent (1%).

1040-04-02-.14 Pitot Pilot Tubes.

Gas measurements with Pitot Pilot Tubes shall be based on Reid's formula and shall follow recommendations similar to those set forth in Appendix 4 of the Bureau of Mines Monograph 7. Corrections for base pressure and base temperature shall be made as in orifice measurements.

1040-04-02-.15 Gas Measurements.

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

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-03
Requirements for Reporting the Volume and Disposition of Oil and Gas Produced

Amendment

Chapter 1040-04-03 Requirements for Reporting the Volume and Disposition of Oil and Gas Produced is deleted in its entirety and replaced with the new Chapter 1040-04-03 to read as follows:

Chapter 1040-04-03
Requirements for Reporting the Volume and Disposition of Oil and Gas Produced

Table of Contents

1040-04-03-.01 Time Reports	1040-04-03-.08 Report Filing
1040-04-03-.02 Month Defined	1040-04-03-.09 Computing Method
1040-04-03-.03 Repealed	1040-04-03-.10 Report Verification
1040-04-03-.04 Repealed	1040-04-03-.11 Monthly Reports-Gas
1040-04-03-.05 Reporting-Producers	1040-04-03-.12 Monthly Report-Plant
1040-04-03-.06 Monthly Reporting-Transporters	1040-04-03-.13 Report-Gas Gatherers
1040-04-03-.07 Repealed	

1040-04-03-.01 Time Reports

The length of time reports and other pertinent data, covered by this section, shall be kept on file by the operators and available for inspection by the Supervisor or members of his staff, for not less than a period of three (3) years.

1040-04-03-.02 Month Defined.

A "month" and "calendar month" shall mean the interval of time from 7:00 a.m. on the first day of any month of the calendar to 7:00 a.m. of the first day of the next succeeding month of the calendar.

1040-04-03-.03 REPEALED.

1040-04-03-.04 REPEALED.

1040-04-03-.05 Reporting-Producers.

Each producer of oil and such producer of condensate from a gas well, where produced in liquid form at the wellhead by ordinary production methods or as Calculated Theoretical Condensate, defined as the amount of condensate (allocated back to lease) that normally would be separated by conventional methods from natural gas

well volumes flowing full stream directly to a plant without any condensate separation having been made at lease or a plant, shall furnish for each year an Annual Well Report pursuant to [Rule 1040-02-10-.06](#) setting forth complete information and data indicated by such reports respecting oil produced from every lease operated by said producer and respecting condensate produced from gas wells at the wellhead in liquid form by ordinary production methods from each lease operated by said producer.

1040-04-03-.06 Monthly Reporting-Transporters.

Each transporter of oil and condensate shall furnish for such calendar month a Transporter's and Storer's Monthly Report for Crude Oil and/or Condensate (Form R-MP-2) containing complete information and data indicated by such form including the quantity of oil removed from each lease and permit numbers of producing wells on each lease.

1040-04-03-.07 REPEALED.

1040-04-03-.08 [Reporting Report](#) Filing.

The transporter's and storer's reports for each month shall be prepared and filed according to instructions on the form, on or before the twenty-fifth (25th) day of the next succeeding month.

1040-04-03-.09 Computing Method.

All quantities included in the reports provided for in this [order chapter](#) shall be reported in barrels computed from one hundred percent (100%) tank tables and based upon actual physical gauges.

1040-04-03-.10 Report Verification.

All reports provided for in this [order](#) shall be verified by affidavit in the form or forms indicated; any reports not so verified shall not be taken as filed in compliance with this [order chapter](#).

1040-04-03-.11 Monthly [Reports Report](#)-Gas.

All gas produced within the State of Tennessee, excepting gas vented from stripper wells, shall be reported on the Annual Well Report and Monthly Gatherer's and/or Transporters Natural Gas Report (Form R-MP-5). Every producer shall complete the Annual Well Report pursuant to 1040-02-10-.06. Every transporter shall complete Form R-MP-5. The transporter thus required to report, shall execute under oath and file in the manner hereafter directed on or before the last day of each month, Form R-MP-5, setting forth fully the data and information indicated by such form, which shall be completed as to data covering the calendar month next preceding the date of filing.

1040-04-03-.12 Monthly [Reports-Plants Report-Plant](#).

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 natural gas, shall furnish for each calendar month a Monthly Gasoline and/or Cycling Plant Report (Form R-MP-6) containing the information indicated by such form respecting natural gas and products involved in the operation of each plant during each month. Such report for each month shall be prepared and filed according to instructions on the form on or before the last day of each month.

1040-04-03-.13 [Reports Report](#)-Gas Gatherers.

Gas gatherers shall report the amounts of gas handled and disposed of on Monthly Producers Natural Gas Report (Form R-MP-4). The gas which he has produced in the field shall be reported on Form R-MP-4, under the section of the report entitled "Production." The gas gathered in the same field along with gas which he has gathered in nearby fields and transported to that field shall be reported on the same form, under the section entitled "Acquisitions." He shall indicate in this section the company from whom the gas was received, the field from which this gas was produced, and the amount of gas received. In the event the gatherer has produced no gas in the field from which he is gathering, then he shall indicate in the Production Section of Form R-MP-4 that he has no gas production. His acquisition in that field shall be listed in the Acquisitions section.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-04
Ratable Take

Amendment

Chapter 1040-04-04 Ratable Take is deleted in its entirety and replaced with the new Chapter 1040-04-04 to read as follows:

Chapter 1040-04-04
Ratable Take

Table of Contents

1040-04-04-.01 Taking Oil and Gas Ratably

1040-04-04-.01 Taking Oil and Gas Ratably

- (1) It is required that oil and gas be taken ratably from wells producing from a common pool. The application of vacuum at the wellhead of a well, or upon any gas or oil-bearing reservoir is prohibited, except on application, notice and hearing. A copy of the application and notice of hearing shall be mailed by certified mail to each offset operator within five (5) days after the application is filed. Wherever authority is granted to impose a vacuum, a continuous record thereof shall be kept by the operator as required by the order authorizing same. The record shall be made available to the Board on request. Should any operator, or a person with financial interest feel that oil and gas is not being taken ratably from well or wells in which he participates, then he may make that fact known through application for a public hearing and present and exhibit appropriate technical data to demonstrate such positions to the Oil and Gas Board. A decision will be made by the Board provided the applicant complies with the rule governing said hearings.
- (2) At a minimum, consideration of approval for use of a vacuum pump must include the following:
 - (a) A comprehensive presentation of the information pertinent to the request;
 - (b) Well histories of the well in question and surrounding wells;
 - (c) Electronic logs, if available, for each well;
 - (d) 7½ minute topographic quadrangle maps indicating the location of each well within one mile of the well site;
 - (e) A property map of the same area showing the surface owners, and mineral lease holders on surrounding properties; and
 - (f) A copy of a signed document, from each interested party, i.e., surrounding landowners and lease holders, stating that they have no objection to the well in question being pulled on a vacuum.
- (3) Subparagraph (f) of paragraph (2) may be waived if the gas that is pulled from the well is re-injected back into the same reservoir(s) as it is pulled from as a secondary recovery operation.
- (4) All requests made to the Oil and Gas Board shall include the requirements of paragraph (2) of this rule.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-05
Commingling and Automatic Custody Transfer of Hydrocarbons

Amendment

Chapter 1040-04-05 Commingling and Automatic Custody Transfer of Hydrocarbons is deleted in its entirety and replaced with the new Chapter 1040-04-05 to read as follows:

Chapter 1040-04-05 Commingling and Automatic Custody Transfer of Hydrocarbons

Table of Contents

1040-04-05-.01 Permission to Commingle	1040-04-05-.05 Operational Limitations
1040-04-05-.02 Notice Publication	1040-04-05-.06 By-Pass Lines
1040-04-05-.03 Granting Permission	1040-04-05-.07 Test for GPM
1040-04-05-.04 Meter Calibrations	1040-04-05-.08 Retention of Reports

1040-04-05-.01 Permission to Commingle.

Permission to commingle gas and/or liquid hydrocarbons and to measure and transfer custody of liquid hydrocarbons by use of methods other than customary gauge tanks may be obtained without the necessity of a public hearing, in the absence of protest, as hereinafter provided, and upon strict compliance with the procedure set forth herein.

- (1) Detailed schematic diagram of the mechanical installation to be used with adequate explanation of the flow of gas and/or liquid hydrocarbons and indicating locations of locking devices and seals to provide assurance against, or evidence of, tampering.
- (2) Statement by the producer that in his opinion the use of the proposed method will provide reasonably accurate measurement and will not create inequities.
- (3) A list of all known interested parties, including operators and royalty owners, affected by the application.

1040-04-05-.02 Notice Publication.

Notice of the filing of an application for projects applicable to this section shall be published in a newspaper of general circulation in the county wherein the field is located.

1040-04-05-.03 Granting Permission.

Upon the basis of application as herein provided, no permission for projects applicable to this section will be granted if, in the judgment of the Supervisor, the data and information submitted does not warrant the approval of the application or if any party protests the application by filing written protest with the Supervisor within fifteen (15) days following the first publications of the notice of the application; however, in either of the foregoing events, the application may be set for public hearing at the election of the applicant or the Supervisor.

1040-04-05-.04 Meter Calibrations.

The applicant shall provide a suitable means of calibrating each meter used for measurement of hydrocarbons in order that its accuracy in operation can be proven, such calibration to be done before or at the time the meter is initially installed and at such intervals or other times as the Supervisor or his agent shall, after consideration of the inherent characteristics of the particular equipment, deem proper. The results of all meter calibrations required by this order shall be certified as being true and correct by the party performing the calibration. These results shall be available upon request to the Supervisor or his duly authorized representative.

1040-04-05-.05 Operational Limitations.

The approved custody transfer or commingling installation shall be permitted to operate so as to transfer or commingle, as produced, the hydrocarbons produced from the well or wells served by such installation. The

limitations on the operation of such installation are as follows:

- (1) The daily production rate from any well or wells must not cause waste.
- (2) Unless otherwise permitted, no production from a well in a prorated pool in excess of the total monthly allowable may be transferred during a calendar month.
- (3) The production from any given well in any one day shall not be increased more than twenty-five percent (25%) of the legally permissible hydrocarbon production from such well or wells.

1040-04-05-.06 By-Pass Lines.

Permission, in writing, from the Supervisor must be obtained for all by-pass lines or other lines that will permit flow around the regular meter, and each such line must have a meter that will permit individual well measurement.

1040-04-05-.07 Test for GPM.

Should the application be for the approval of the use of well tests, split stream tests, full stream tests, or other methods of determining GPM of the full well stream test or other method of determining GPM of the full well stream in lieu of gauge tanks and should the application for same be approved, such testing shall be done at least monthly. Applications of this nature shall only be approved when the applicant files with the supervisor an executed copy of an agreement in which all royalty and working interest owners in the leases affected have voluntarily agreed to the proposal.

1040-04-05-.08 Retention of Reports.

Should approval be given, the applicant shall indicate in the "Remarks" column on current R-MP-1 and R-MP-4 forms that appropriate well tests have been conducted. The applicant shall retain the actual reports of such tests and such reports shall be kept on file, and available for inspection by the Supervisor or any party at interest for a period of not less ~~that~~ than three (3) years.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-06
Limiting Production

Amendment

Chapter 1040-04-06 Limiting Production is deleted in its entirety and replaced with the new Chapter 1040-04-06 to read as follows:

Chapter 1040-04-06
Limiting Production

Table of Contents

1040-04-06-.01 Prorating a Pool

1040-04-06-.01 Prorating a Pool

The Oil and Gas Board, after public hearing, may prorate a pool for the purpose of protecting correlative rights and to minimize the waste of oil and/or gas. Prior to prorating a pool, its wells may be shut-in until subparagraph (h) of Rule 1040-02-04-.01 is complied with, or in lieu thereof, a poolwide unit is established.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-07
Regulating High Gas/Oil Ratio Wells and Preventing Waste of Gas

Amendment

Chapter 1040-04-07 Regulating High Gas/Oil Ratio Wells and Preventing Waste of Gas is deleted in its entirety and replaced with the new Chapter 1040-04-07 to read as follows:

Chapter 1040-04-07
Regulating High Gas/Oil Ratio Wells and Preventing Waste of Gas

Table of Contents

1040-04-07-.01 Classification	1040-04-07-.04 Wells Regulated
1040-04-07-.02 Escaping Gas	1040-04-07-.05 Gas-Lifted Wells
1040-04-07-.03 Unitization	1040-04-07-.06 Application of Rules

1040-04-07-.01 Classification.

An oil well with a gas/oil ratio in excess of two thousand (2,000) cubic feet of gas per barrel of oil (2,000:1) shall be considered a high gas/oil ratio well and may be limited by the Supervisor in the amount of gas permissible to produce.

1040-04-07-.02 Escaping Gas.

No gas shall be flared or permitted to escape into the atmosphere, but will not be utilized without waste, except upon approval of the Supervisor or where special orders are operative. If necessary to prevent undue waste of gas or dissipation of reservoir energy, the Oil and Gas Board may limit venting of gas.

1040-04-07-.03 Unitization.

An attempt shall be made to unitize all pools, or reservoir, with high gas/oil ratios.

1040-04-07-.04 Wells Regulated.

Production from wells in pools or reservoirs that have both oil and gas production shall be regulated by the rules of [this](#) Chapter ~~1040-04-07~~.

1040-04-07-.05 Gas-Lifted Wells.

Wells that are gas-lifted with gas from gas wells shall be prorated in the same manner as are high-ratio naturally flowing oil wells after subtracting the input gas from the output gas. The uneconomical or unreasonable use of gas for gas-lifting will not be permitted.

1040-04-07-.06 Application of Rules.

If gas is produced from an oil reservoir or common source of supply and is returned to the same source, only gas not returned or utilized for lease or unit operations shall be considered in applying the rules of this [section](#) ~~Chapter~~.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-08
Subterranean Gas Storage

Amendment

Chapter 1040-04-08 Subterranean Gas Storage is deleted in its entirety and replaced with the new Chapter 1040-04-08 to read as follows:

Chapter 1040-04-08
Subterranean Gas Storage

Table of Contents

1040-04-08-.01 Conditioned Usage

1040-04-08-.01 Conditioned Usage.

Application for usage of subterranean reservoirs for gas storage must be submitted to the Oil and Gas Board. The Board may, after public hearing, grant the applicant's request conditioned as follows:

- (1) That the underground reservoir sought to be used for the injection, storage and withdrawal of natural gas is suitable and feasible for such use, provided no reservoir, any part of which is producing or is capable of producing oil and gas in paying quantities, shall be subject to such use, unless all owners in such underground reservoir shall have agreed thereto in writing; or
- (2) Unless such reservoir has a greater value or utility as an underground reservoir for gas storage than for the production of the remaining volumes of original reservoir natural gas and condensate, and all owners, in interest shall have consented to such use in writing; and
- (3) That the use of the underground reservoir for the storage of natural gas will not contaminate other formations containing fresh water, oil, gas, or other commercial mineral deposits;
- (4) That the proposed storage shall not endanger lives or property; and
- (5) That the storage reservoir may be drilled through, in a prudent manner, for the purpose of exploration for, or producing, underlying oil and/or gas pools.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-04-09
Pressure Maintenance Projects and Secondary Recovery

Amendment

Chapter 1040-04-09 Pressure Maintenance Projects and Secondary Recovery is deleted in its entirety and replaced with the new Chapter 1040-04-09 to read as follows:

Chapter 1040-04-09
Pressure Maintenance Projects and Secondary Recovery

Table of Contents

1040-04-09-.01 Application	1040-04-09-.05 Casing and Sealing Wells
1040-04-09-.02 Administrative Approval	1040-04-09-.06 Input Well Procedure
1040-04-09-.03 Approval by Special Order	1040-04-09-.07 Pro-rata Payment
1040-04-09-.04 Poolwide Unit-Formation	1040-04-09-.08 Application for Hearing

1040-04-09-.01 Application.

Any person desiring to institute secondary recovery or pressure maintenance projects must apply to the Supervisor by letter setting forth the request, and submit a Pressure Maintenance and Secondary Recovery Questionnaire (Form Q-PMSR).

1040-04-09-.02 Administrative Approval.

If the common source of supply, for which such operations are to be instituted, lies within a single lease, or all interested parties voluntarily agree, the project may administratively be approved by the Supervisor.

1040-04-09-.03 Approval by Special Order.

All other categories of secondary recovery and pressure maintenance projects must be approved by special order, after a public hearing and by determination of the Oil and Gas Board that waste will be prevented and the unit operation will increase ultimate recovery; that the unit operation is feasible; that each owner will receive his just and equitable share; and that fifty percent (50%) or more of the owners have approved the unit operation.

1040-04-09-.04 Poolwide Unit-Formation.

When the common source of supply is not restricted to a single lease, a poolwide unit must be formed prior to the Oil and Gas Board granting approval for secondary recovery and pressure maintenance projects.

1040-04-09-.05 Casing and Sealing Wells.

Wells drilled or reworked for use in the injection of fluids or gases shall be adequately cased and sealed to prevent injection or migration of injected substances into any strata or stratum other than the objective.

1040-04-09-.06 Input Well Procedure.

The drilling and plugging of any input well shall follow the same procedure that is employed in drilling or plugging oil and gas wells.

1040-04-09-.07 Pro-rata Payment.

The owners of working interest in secondary recovery and pressure projects are required to pay their pro-rata share of the cost of equipping and operating said project. If any working interest owner fails to tender this just and reasonable share of costs, the Board may provide that the operator shall withhold all proceeds and be reimbursed for the non-participating owner's share of the proceeds to the extent of one hundred fifty percent (150%) to two hundred percent (200%) of the amount advanced.

1040-04-09-.08 Application for Hearing.

Any owner may apply for a hearing before the Oil and Gas Board to obtain relief from unjust and unreasonable costs assessed by the project operation, provided he shows that he has either conferred or attempted to confer with the operator for the purpose of settling the dispute prior to making application to the Board.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-05-01 Unit Operations

Amendment

Chapter 1040-05-01 Unit Operations is deleted in its entirety and replaced with the new Chapter 1040-05-01 to read as follows:

Chapter 1040-05-01 Unit Operations

Table of Contents

1040-05-01-.01 Unit Operation	1040-05-01-.03 Poolwide Units
1040-05-01-.02 Drilling and Production Units	

1040-05-01-.01 Unit Operation.

- (1) Unit operations shall be ordered only after notice and hearing and shall be based on findings that:
 - (a) The order is reasonably necessary to conserve the natural resources of the State; will prevent waste of oil and gas, and the drilling of an unnecessary well or wells; will appreciably increase the ultimate recovery of oil and gas from the affected pool; is economically feasible; and will protect correlative rights of both landowners and owners of mineral rights.
 - (b) The order will provide for the allocation to each separate tract within the unit a proportionate share of the unit production, thereby insuring the recovery by the owners of that tract their just and equitable share of recoverable oil or gas in the unit.
 - (c) The order will provide the designation of a unit operator, but only with the consent of the designated person, and approve the terms and plans of the unit operating agreement in the absence of a voluntary agreement among the owners.
 - (d) The order shall make provision for the proportionate allocation of cost to the producers, which allocation shall be in the same proportion that the separately owned tracts share in unit production. The cost of capital investment in wells and physical equipment and intangible drilling cost shall be shared in like proportion, provided that no such producer or owner who has not consented to the unitization shall be required to contribute to the cost or expenses of the unit operation, or to the cost of capital investment in wells and physical equipment and intangible drilling cost, except out of proceeds of production accruing to the interest of such owners out of production from such unit operation. However, no well costs credit allowable shall be adjusted on the basis of less than the average well costs within the unitized area. If any producer or owner fails to tender his just and reasonable share of cost, the Board may provide that the operator shall withhold and be reimbursed for the non-participant's share of cost of the proceeds to the extent of three hundred fifty percent (350%) of the amount advanced.
 - (e) It is provided, however, that the order requiring unit operation shall not vary nor alter any of the terms of the required written contract or contracts evidencing approval nor impose any terms or operations upon the nonsigners of said contract or contracts more onerous than the terms and operations set out in said contract or contracts.
 - (f) The order will provide for the forced integration of separately owned tracts and other property ownership into drilling, production, or pool units. Continuous operations incident to the drilling of a well upon any portion of a unit shall be deemed, for all purposes, the conduct of such operations upon each separately owned tract in the unit. That portion of the production allocated to each separately owned tract included in a unit shall, when produced, be deemed for all purposes to have been actually produced from such tract by a well drilled thereon.

1040-05-01-.02 Drilling and Production Units.

- (1) Any owner with interest in a tract of land offsetting production and who cannot comply with the spacing rules for drilling a well on said tract may make application for a hearing before the Oil and Gas Board for the purpose of having the tract, or a portion thereof, included in a production unit.
- (2) Drilling and production unit wells shall comply with the rules on spacing between wells and distance from property lines as prescribed in Chapter 1040-02-01 through 1040-02-12.
- (3) The shape and pattern of production and drilling units should be designed to permit the attendant unit well to economically, efficiently and equitably drain the unit's pro-rata share of the pool's oil and/or gas, and shall be based on available geologic and engineering parameters. Length of any drilling unit shall not exceed twice ~~it's~~ its width.

1040-05-01-.03 Poolwide Units

- (1) Poolwide units may be formed on a volumetric or surface area basis provided that sufficient data are available to determine the geometry and to define the physical characteristics of the reservoir.

- (2) Drilling, production, or poolwide units can only be revised by the Oil and Gas Board if new pertinent geological or engineering evidence becomes available which was not in existence at the time a unit was formed.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-06-01
Hearings and Administrative Approval

Amendment

Chapter 1040-06-01 Hearings and Administrative Approval is deleted in its entirety and replaced with the new Chapter 1040-06-01 to read as follows:

Chapter 1040-06-01
Hearings and Administrative Approval

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1040-06-01-.01 Hearings
1040-06-01-.02 Administrative Approval

1040-06-01-.01 Hearings.

- (1) Public hearings, after legal notice, shall be held by the Board as needed by the Board to implement its responsibility and upon applications made for such hearings. A notice of public hearing as provided by T.C.A. ~~§60-107 § 60-1-204~~ shall be given by publishing one (1) notice of the time and place thereof in at least three (3) newspapers of general circulation in at least three (3) major cities in Tennessee, and such notice shall be published at least ten (10) days prior to the date of such hearing. Applicant must pay the cost incurred in publishing legal notices. The time and place for each public hearing shall be fixed by the Board as soon as reasonably possible and each public hearing will be conducted by the Board. If more than one hearing is to be held on a particular date, the Board conducting the hearings shall determine the order in which they will be held.
- (2) The applicant will open the hearing and present the testimony and exhibits offered in support of the application. The applicant's witnesses will then be subject to cross-examination by the Board and by any person with an interest in the subject matter of the application. The Board shall determine the order of appearance of the other participants in the hearing.
- (3) Each person having an interest in the subject matter of the application and who has complied with the rules and procedures may present testimony and exhibits in support of or in opposition to the applicant. All witnesses shall be subject to cross-examination as set forth above.
- (4) The applicant may offer rebuttal testimony and exhibits, but the witness will again be subject to cross-examination. Surrebuttal testimony and exhibits and subsequent testimony and exhibits may be permitted at the discretion of the person conducting the hearing.
- (5) All witnesses shall testify under oath.
- (6) Closing statements and statements of position may be made by the participants and all other interested parties before the hearing is closed or at such time as designated by the Board.
- (7) The Supervisor shall record each hearing showing appearances, testimony and exhibits, statements, and all other records submitted at the hearing.

1040-06-01-.02 Administrative Approval.

- (1) Administrative approval of certain matters of a routine nature may be granted by the Supervisor upon submission of an application showing all pertinent information and data and after due notice is given to all operators of interest.
- (a) The application shall be made to the Supervisor with a copy to each known offset lease owner and such application shall include:
1. statement of reason and justification for requested relief,
 2. map or sketch illustrating the information pertinent to the request relief,
 3. list of names and addresses of all interested persons notified of the application.
- (b) If the application meets with the approval of the Supervisor and no written protest is received by the Supervisor within fifteen (15) days following prescribed notice of the application, the Supervisor may grant the requested relief without the necessity of a public hearing.
- (c) If the application is accompanied by a written waiver from all known offset lease owners, the fifteen (15) day delay will be unnecessary.
- (d) If the Supervisor does not elect to approve the application administratively or if written protest is received within the fifteen (15) day period, the application may be set for public hearing.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-06-02
Rules of Procedure for Hearing Contested Cases

Amendment

Chapter 1040-06-02 Rules of Procedure for Hearing Contested Cases is deleted in its entirety and replaced with the new Chapter 1040-06-02 to read as follows:

Chapter 1040-06-02
Rules of Procedure for Hearing Contested Cases

For Rules of Procedure for Hearing Contested Cases see Rules of the Secretary of State, Chapter 1360-04-01.

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-07-01
List of Forms

Amendment

Chapter 1040-07-01 List of Forms is deleted in its entirety and replaced with the new Chapter 1040-07-01 to read as follows:

Chapter 1040-07-01
List of Forms

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1040-07-01-.01 Report and Permit Forms

1040-07-01-.01 Report and Permit Forms.

(1) The report and permit forms designated below may be obtained from the State Oil and Gas Board, 401 SS-7039 (July 2010)

Church St., Nashville, TN 37243-15491534, and are hereby adopted and made a part of the rules set out in Chapter 1040-01-01 through Chapter 1040-07-01:

- (a) Application to Amend Well Permit (Form P-AD-2)
- (b) Application to Change Operators (Form P-AD-3)
- (c) Application for Permit to Drill (Form P-AD-1)
- (d) Authority to Drill, Deepen, or Reopen a Well (Form P)
- (e) Gas Well Deliverability Tests (Form R-DT-1)
- (f) Monthly Gatherer's and/or Transporter's Natural Gas Report (Form R-MP-5)
- (g) Organization Report (Form R-O-1)
- (h) Periodic GPM Test Report (Form R-GPM-1)
- (i) Plug and Abandon Report (Form R-P&A-1)
- (j) Pooling Affidavit (Form PA)
- (k) Pressure Maintenance and Secondary Recovery Questionnaire (Form Q-PMSR)
- (l) Statement of No Objection to Proposed Surface Disturbance (Form NO)
- (m) Surface Owners Notification Certification (Form NC)
- (n) Transporter's and Storer's Monthly Report for Crude Oil and/or Condensate (Form R-MP-2)
- (o) Well History, Work Summary, And Completion or Recompletion Report (Form R-WH-1)
- (p) Irrevocable Standby Letter of Credit Format (Form ILC)

Authority: T.C.A §§60-1-201 et seq., and 4-5-201 et seq.

Chapter 1040-08-01
Determinations Under Federal Natural Gas Policy Act of 1978

Amendment

Chapter 1040-08-01 Determinations Under Federal Natural Gas Policy Act of 1978 is deleted in its entirety and replaced with the new Chapter 1040-08-01 to read as follows:

Chapter 1040-08-01
Determinations Under Federal Natural Gas Policy Act of 1978

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1040-08-01-.01 Definitions	1040-08-01-.06 Attesting of Written Orders
1040-08-01-.02 Applicability of Other Rules	1040-08-01-.07 List of Participants
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1040-08-01-.04 Evidence by Affidavit	1040-08-01-.09 Notice of Determination
1040-08-01-.05 Intervention	1040-08-01-.10 Method of Determinations

1040-08-01-.01 Definitions.

- (1) "F.E.R.C." means the Federal Energy Regulatory Commission.
- (2) "F.E.R.C. Rules" means rules or regulations adopted by F.E.R.C. implementing the NGPA.
- (3) "NGPA" means the Natural Gas Policy Act of 1978 enacted by the United States Congress on November 9, 1978, and as that Act may subsequently be amended, supplemented, or superseded by subsequent legislation by Congress.
- (4) "Application" shall mean a written request for status determination in accordance with Rule 1040-08-01-.03 herein and shall also mean "petition" within the meaning of other rules, regulations, and orders by the Board, when applied to NGPA status determination proceedings by the Board.
- (5) "Sections 102, 103, 107, and 108" or reference to any one or more of those sections shall mean and be in reference to those sections of the NGPA.

1040-08-01-.02 Applicability of Other Rules.

Except where the same conflict with these rules pertaining to NGPA Determinations, F.E.R.C. rules, or the NGPA, all other rules, regulations, and orders of the Board are applicable thereto.

1040-08-01-.03 Application and Filing Procedure.

Any interested person requesting the classification of a gas well under Sections 102, 103, 107 or 108 by the Board pursuant to the authority granted to the Board by Section 503 of the NGPA, in order to determine the applicable status for such wells, shall initiate such determination by:

- (1) Filing with the Board NGPA Form No 121.
- (2) Filing with the Board Forms TGP 102, TGP 103, TGP 107 or TGP 108, whichever is appropriate.
- (3) Filing with the Board all forms, information, plats, exhibits, affidavits, documents, and evidence required by Part 274 of the F.E.R.C. rules, and other applicable F.F.R.C. rules, and required by these rules herein, and by Oil and Gas Board Forms TGP 102, 103, 107 and 108.
- (4) Attesting to the application in the manner required by Section 274 and other applicable rules of the F.E.R.C. rules for such filings.
- (5) Paying a fee of twenty-five dollars (\$25.00) to the State of Tennessee through the Supervisor for each application filed. Checks should be made payable to the Tennessee Oil and Gas Board.

1040-08-01-.04 Evidence by Affidavit.

Applications may be considered and determined by the Board on the basis of information contained in the application provided such application complies with all other rules herein. If there are no objections to the applications by any interested parties, the Board may consider and act on sworn affidavits, as well as exhibits, forms and other matters filed with the Board and constituting a part of the record of the hearing of the application. If confidentiality applies (Oil and Gas Board Rule 1040-02-10-.05) to any items submitted as evidence, a separate letter identifying the items and giving the period of confidentiality should be included with the application.

1040-08-01-.05 Intervention.

Any person may intervene in an application and become a proponent or opponent of any application.

1040-08-01-.06 Attesting to Written Orders.

Written orders of the Board concerning applications may be signed by the Chairman of the Board and such orders certified by the Chairman as an order duly promulgated by the Board shall have full force and effect as orders signed by the Board members.

1040-08-01-.07 List of Participants.

A list of participants in the proceedings, as well as any persons who submitted or sought an opportunity to submit written comment (whether or not such persons participated in the proceedings) shall be made for each hearing.

1040-08-01-.08 Forms.

- (1) Applications shall be made upon Forms TGP 102 (Application for New Natural Gas Determination), TGP 103 (Application for New Production Well Determination), TGP 107 (Application for High Cost Natural Gas Determination), and/or TGP 108 (Application for Stripper Well Natural Gas Determination), and any form required by F.E.R.C. The original and two copies of such application shall be filed with the Board, along with a self-addressed stamped envelope for return of one of the copies after the filing date and docket number have been noted by the Board. The F.E.R.C. 121 Form and Form TGP 102, 103, 107 and 108 may be submitted in lieu of the second complete copy of the application. All applications shall be fully completed as appropriate in conformance with Board rules as well as with F.E.R.C. rules, and the well for which a determination is being sought must have been classified by the Tennessee Division of Geology before such applications may be heard by the Board. Upon receipt of an application, the Board shall notify the applicant of the receipt of such application and, should the application be incomplete in any respect, indicate the nature of the incompleteness. Upon the receipt of application, such application shall be considered filed with the Board, assigned a docket number, and notice duly published, provided all other rules referred to herein have been complied with.
- (2) The date the application is received by the Board shall be considered the filing date or record, unless after a determination has become final it is determined that the application did not, in fact, qualify for the request status in the first place, in which case the Board will consider the filing date of record of a new application to be the date the disqualified application for a price determination for a particular reservoir was received by the Board. This exception will be allowed between categories as well as within a particular category, but shall only apply to those wells for which commercial sale of natural gas has occurred after the original determination was filed. Written notice shall be given to the F.E.R.C. and to the applicant for any determination for which this exception shall apply.

1040-08-01-.09 Notice or Determination.

After making a determination that an application does or does not qualify for the requested status under the NGPA, the Board shall give written notice of such determination to F.E.R.C. in accordance with F.E.R.C. rules.

1040-08-01-.10 Method of Determinations.

- (1) The State Oil and Gas Board of Tennessee, hereinafter referred to as the "Board" hereby certifies that it will take such steps as are reasonably necessary or appropriate to perform its function in accordance with Part 214 of the proposed implementing rules of F.E.R.C.
- (2) The method by which the Board will make determination is as follows:
 - (a) Applicants for determination shall file on forms required by the F.E.R.C. and by the Board in order to receive a hearing. Forms required by the Board are:
 1. Form No. P (Authority to Drill Deepen, or Reopen a well)
 2. Form No. P-AD-1 (Application for Permit to Drill)
 3. Form No. P-AD-2 (Application to Amend Well Permit)
 4. Form No. P-AD-3 (Application to Change Operators) if applicable
 5. Form No. R-O-1 (Organization Report)
 6. Form No. R-WH-1 (Well History, Work Summary, and Completion or Recompletion Report)

7. Form No. R-DT-1 (Gas Well Deliverability Tests)
 8. Form No. R-MP-5 (Monthly Gatherer's and/or Transporter's Natural Gas Report)
 9. Form No. R-MP-6 (Monthly Gasoline and/or Cycling Plant Report)
 10. Form No. TGP 102 (Application for New Natural Gas Determination), TGP 103 (Application for New Production Well Determination), TGP 107 (Application for High Cost Natural Gas Determination), or TGP 108 (Application for Stripper Well Natural Gas Determination), whichever is appropriate.
- (b) Notice of filing by applicants is required by the rules of the Board to be given by applicants to identified purchases, as required by Section 274.201(e) of the said proposed Regulations of F.E.R.C. (Board Rule 1040-08-01-.03(3)).
 - (c) Public notice of the filing, pending hearing, and pending determination of applications for determinations shall be given by the Board at least ten (10) days prior to such hearing, giving the date, time, and place of such hearing. Such public notice shall be given by publication at least once in a newspaper of general circulation published in Nashville, Knoxville, and Chattanooga.
 - (d) All rules, regulations, and orders of the Board require at least three affirmative votes by the five members of the Board. All such rules and regulations and orders of the Board are required to be in writing, T.C.A. §60-1-204(d). Petitions must be filed at least fifteen days prior to the hearing thereon. When a proceeding is instituted, the Board assigns a docket number to the application and records the fact and the dates of the filing of the application in a docket book provided for such purpose (Board Rule 1040-08-01-.10(2)(g)). Testimony is recorded, transcribed, and preserved as a part of the permanent record of the hearing. Any person testifying is required to do so under oath; however, relevant unsworn statements, comments, and observations by any interested person may be heard and considered by the Board and included in the record. In matters where there are no objections of record, sworn affidavits of witnesses may be received in evidence (Board Rule 1040-08-01-.04). The relevancy of any testimony or other evidence is subject to challenge by any party to the hearing or any member of the Board. When so interposed, such objections are acted upon by the Chairman, his ruling being subject to challenge and overturning by a majority vote of the Board.
 - (e) Full opportunity is afforded all interested parties at a hearing to present evidence and to cross-examine witness.
 - (f) The Board maintains data files which contain the records on each individual well in the State. Such well records consist of the following:
 1. Application to Amend Well Permit (Form P-AD-2).
 2. Application to Change Operators (Form P-AD-3).
 3. Application for Permit to Drill (Form P-AD-1).
 4. Authority to Drill, Deepen, or Reopen a Well (Form P).
 5. Gas Well Deliverability Tests (Form R-DT-1).
 6. Monthly Gatherer's and/or Transporter's Natural Gas Report (Form R-MP-5).
 7. Organization Report (Form R-O-1).
 8. Periodic GPM Test Report (Form R-GPM-1).
 9. Plug and Abandon Report (Form R-P&A-1).

10. Pressure Maintenance and Secondary Recovery Questionnaire (Form Q-PMSR).
11. Production Test and Gas-Oil Ratio Report (Form R-PT-1).
12. Transporter's and Storer's Monthly Report for Crude Oil and/or Condensate (Form R-MP-2).
13. Well History, Work Summary, and Completion or Recompletion Report (Form RWH-1).
14. Application for New Natural Gas Determination (Form TGP-102).
15. Application for New Production Well Determination (Form TGP-103)
16. Application for High Cost Natural Gas Well Determination (Form TGP-107).
17. Application for Stripper Well Natural Gas Determination (Form TGP-108).

Further, the Board maintains a library of drill cuttings, cores and logs from wells in the state. Records of the Board include extensive geologic and engineering data, such as geologic structure, isopach, and cross-section maps, production data, well potential test results, bottom hole pressure surveys, fluid analyses, gas analyses, and other similar data.

The Board maintains field or reservoir base maps and all wells completed in or penetrating a reservoir are identified.

A monthly activity report is published by the Board for all wells being drilled or completed in the state and a monthly production report is available giving monthly production from all producing wells in the state.

- (g) Applications for determinations will be filed and assigned a docket number upon receipt. The professional staff of the Board will then study the application and data submitted in conjunction with records of the Board as identified in ~~4040-8-1-10(2)(g)~~ subparagraph (f) of this paragraph. Information contained in the application will be verified to the extent possible with information on file with the Board. The staff of the Board includes professional engineers, geologists, and attorneys, as well as other support ~~slat~~ staff. The application and relevant data will be considered and discussed in a joint meeting of the professional staff, prior to the public hearing of the application before the Board. Requests for clarification of data or for additional data may be made, where deemed necessary by the ~~slat~~ staff. Unresolved questions may be asked of the applicant at the hearing.
- (h) The initial authority of the Board for making determination in accordance with the N.G.P.A. was established by an emergency order of the Board, which was made at a scheduled hearing under the Uniform Administrative Procedures Act. This action was properly advertised in accordance with the state law and Board rules.

After studying the application, all data submitted by the applicant, all data available in the files of the Board, and hearing any additional evidence submitted at the hearing, the staff of the Board will make a recommendation to the Board. Where there is no objection, evidence may be submitted by affidavit without oral testimony. Regarding uncontested applications, the Board will hear them en masse and, where appropriate, grant the same by one order. A list of applications recommended for approval will be made available prior to the hearing so that comments or objections may be expressed when the applications are considered by the Board.
- (i) The Board will give written notice to the F.E.R.C. of any change in the procedures described in these rules.

Authority: T.C.A §§60-1-105, 60-1-201 et seq., and 4-5-201 et seq.; Natural Gas Policy Act of 1978, Public Law No. 95-621, 92 Stat. 3350 (November 9, 1978).