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## Oil and Gas Exploration and Production

### Sec. 22a-472-1. Oil and gas exploration and production

#### (a) Definitions

(1) The definitions of the following terms used in this section shall be the same as the definitions in section 22a-423 of the General Statutes: Commissioner, person and pollution.

(2) For the purposes of this section:

“Blowout Preventer” means equipment installed at the wellhead for the purpose of preventing an uncontrolled flow of gas, oil or other well fluids in the space between the casing and the drill pipe or in an open hole during drilling, completion, or production operations;

“Cement Bond Log” means a record of the type of cement used to fill the annular space about the casing, the injection method used to inject cement into such annular space, the depth to which such cement has been so injected, and the date of such cement injection;

“Cement Plug” means a section of a well filled with cement;

“Electrical Well Log” means the record of electrical characteristics of the geologic horizons intersected by a well;

“Exploration” means activities conducted for the purpose of obtaining geological, geophysical or geochemical information about oil or gas in the State including seismic activities but not including exploratory well drilling or aerial surveys;

“Fresh-Water Bearing Horizon” means any geologic strata or horizon yielding or containing water with less than 10,000 parts per million of total dissolved solids;

“Gas” means all natural gas and all other hydrocarbons that occur in a gaseous phase in the reservoir;

“Geologic Well Log” means the record of the lithologic characteristics of the horizons traversed by a well;

“Oil” means crude petroleum oil and other hydrocarbons, regardless of gravity, that are produced in liquid form by ordinary production methods;

“Radioactivity Well Log” means the record of the radioactive characteristics of the geologic horizons traversed by a well;

“Surface Casing” means a pipe placed into a well and cemented to the sides of the well from the top to a depth sufficient to seal off all fresh-water bearing horizons;

“Well” means any excavation that is cored, drilled, jetted, or otherwise created for the purpose of exploring for or producing oil or gas or for the purpose of enhanced recovery or for the disposal of oil-field wastes or for the storage of hydrocarbons, but not including borings less than 100 feet in depth for the purpose of seismic exploration.

#### (b) Registration.

(1) Any person exploring for oil or gas on and after the effective date of this section shall register with the Commissioner of Environmental Protection on a form prescribed by the Commissioner. Exploration or well drilling shall not commence until the Commissioner approves such registration as conforming to the requirements of section 22a-472-1.

(2) Registration information for exploration shall include but not be limited to the following:

(A) the name (if a corporation transacting business in Connecticut, the full exact name as registered with the Secretary of the State), mailing and location addresses and telephone number of the person for whom the exploration is conducted, and,

if such person is a business, the name, mailing and location address and telephone number of the individual designated as the contact for the Commissioner;

(B) a United States Geologic Survey topographic map at a scale of one inch equals 25,000 feet which shows the location of the exploration activity;

(C) a description of the exploration activity, including but not limited to a description of the methods of exploration to be used and the location, depth and number of borings to be drilled;

(D) a registration fee of \$50 payable by certified check or money order to the Commissioner of Environmental Protection; and

(E) any other information which the Commissioner deems necessary.

(3) A separate registration shall be submitted for each exploratory well and each oil or gas production well. Registration information for each such well shall include but not be limited to the following:

(A) the name (if a corporation transacting business in Connecticut, the full exact name as registered with the Secretary of the State), mailing and location addresses and telephone numbers of the owner of the land on which the proposed well will be located, the owner of the rights to drill the well and the operator of the well, and, if any such person is a business, the name, mailing and location address and telephone number of the individual designated as the contact for the Commissioner;

(B) a map, drawn to scale, prepared by a land surveyor licensed to practice in Connecticut, which shows the location of the proposed well, the location of each private water supply well within a 1000 foot radius of the proposed well, the location of each public water supply well or public water supply reservoir within a one mile radius of the proposed well, and the names and locations of all watercourses, springs and roads within a one mile radius of the proposed well; the Commissioner shall notify the owner of any public water supply well or public water supply reservoir identified in accordance with this subparagraph of a registration upon receipt of the registration information;

(C) the proposed final depth of the proposed well;

(D) the depth of each private well within a 1000 foot radius of the proposed well and the depth of each public water supply well within a one mile radius of the proposed well;

(E) the estimated depth and diameter of surface casing to be installed in the proposed well, and the material and diameter of which such casing is made;

(F) the type and quantity of fluids to be used or produced during or as a result of drilling, and the proposed method of handling and disposal for each type of fluid. Handling and disposal shall be consistent with all legal requirements, including but not limited to Sections 22a-430-8, 22a-430-3 and 22a-430-4 of the Regulations of Connecticut State Agencies, as amended. In addition, any uncontrolled loss of oil, water chemical or gas from an oil or gas well must be immediately reported to the Commissioner or the State Police as required by Section 22a-450 of the Connecticut General Statutes;

(G) the latitude, longitude and surface elevation above mean sea level for the location of the proposed well;

(H) the proposed well diameter and drilling method to be used;

(I) a surety or performance bond payable to the State of Connecticut in the sum of \$25,000 for each proposed well, conditioned on the well being drilled, maintained and abandoned in accordance with this section and the exploration and production activities not causing pollution;

(J) a fee of \$250 for each proposed exploratory well, and \$500 for each proposed oil or gas production well, payable by certified check or money order to the Commissioner of Environmental Protection; and

(K) any other information which the Commissioner deems necessary.

(4) The Commissioner may, at any time, increase or decrease the amount of the bond required by subparagraph (b) (3) (I) of section 22a-472-1 upon consideration of the potential extent and degree of pollution from the exploration or production activity, the potential costs for study of the extent and degree of pollution, prevention and remediation of pollution if pollution occurs or is threatened; and the potential costs of proper abandonment.

(5) If a registrant becomes aware of a change in the information submitted as part of a registration, or that any such information was erroneous, or that any relevant facts were omitted from the registration, he or she shall submit the correct information to the Commissioner in writing within thirty days. Notwithstanding this requirement, information regarding the depth of the well being drilled need not be altered until thirty days after the drilling of such well ceases, at which time the actual depth of the surface casing and geologic, electrical and radioactivity well logs as well as a cement bond log, and any other information as necessary to verify to the Commissioner that the well has been constructed in accordance with the requirements of this Section shall be submitted to the Commissioner and made a part of the registration. Within thirty days after abandoning a well, the registrant shall verify to the Commissioner that the well has been properly abandoned in accordance with the requirements of subsection (f) of section 22a-472-1, and such verification shall be made a part of the registration.

**(c) Registration expiration.**

A registration is not transferable and a registration expires if drilling operations have not commenced within one year of the Commissioner's approval of a registration in accordance with subdivision (b) (1) of Section 22a-472-1.

**(d) Well construction requirements.**

(1) The casing program adopted for each well must be designed to protect against the potential for infiltration of oil or gas bearing horizons into a water bearing horizon, to prevent the migration of oil or gas from one horizon to another and to prevent the infiltration of water from any source into potential oil or gas bearing horizons. All casing shall be new and in good condition.

(2) Unless otherwise approved in writing by the Commissioner, surface casing shall extend from the ground surface to a depth of at least fifty feet below the lowest fresh water bearing horizon. Sufficient cement shall be used to fill the annular space from the base of the surface casing to the surface of the ground. Cement shall be added from the base of the casing upward and shall be circulated back to the surface.

(3) Unless otherwise approved in writing by the Commissioner, all wells shall be equipped with a blowout preventer during drilling or production activities and all blowout prevention equipment shall be maintained in good working order at all times.

**(e) Well drilling activities.**

All activities related to the exploration or production of oil and gas including but not limited to the generation of oil field wastes such as waste oil, wastewater, chemicals, mud and/or cement, or the construction of unlined evaporation sumps, catch basins or mud pits, shall be conducted in such a manner so as not to create a condition which reasonably can be expected to create a source of pollution to the waters of the State.

**(f) Well abandonment requirements.**

(1) Thirty days prior to the abandonment of any well the registrant of that well shall give notice to the Commissioner of the intent to undertake such abandonment.

(2) Each exploratory and production well shall be abandoned in accordance with the following: The bottom of the well shall be filled with mud-laden fluid weighing at least nine pounds per gallon with not less than thirty-six viscosity A.P.I., full funnel method, to twenty-five feet below the bottom of the surface casing, except that each producing formation shall be sealed with a cement plug which extends from either the bottom of the well or twenty-five feet below the base of each producing formation upward to a point at least fifty feet above the top of each producing formation. A cement plug shall extend from at least twenty-five feet below the bottom of the surface casing to at least fifty feet above the bottom of the surface casing. The well shall then be filled with mud-laden fluid weighing at least nine pounds per gallon with not less than thirty-six viscosity A.P.I. from fifty feet above the bottom of the surface casing to at least thirty feet from the top of the well. A cement plug shall extend from thirty feet from the top of the well to the ground surface.

(3) The surface casing shall not be removed from the well at any time.

(4) Each well used for the production of oil or gas which has not been in operation for one year or more shall be properly abandoned in accordance with this subsection, unless otherwise approved in writing by the Commissioner.

(5) Exploratory wells shall be properly abandoned in accordance with this subsection within one hundred eighty days of cessation of drilling, unless otherwise approved in writing by the Commissioner.

(Effective April 30, 1987)