

This document contains the amendments to the Connecticut regulations concerning Underground Storage Tanks. These amendments became effective May 31, 2012. This document was prepared by the State of Connecticut Department of Energy and Environmental Protection and is provided for the convenience of the reader. This is not the official version of the amendments to the regulations. The official amendments are published by the State of Connecticut, Judicial Branch, Commission on Official Legal Publications in the Connecticut Law Journal. In the event there is inconsistency between this document and the amendments to the regulations as published in the Connecticut Law Journal, the Connecticut Law Journal publication will serve as the official version.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

Section 1. Section 22a-449 (d)-1 of the Regulations of Connecticut State Agencies is amended to read as follows:

(d)-1 **Sec. 22a-449 (d)-1. Control of the nonresidential underground storage and handling of oil and petroleum liquids**

(a) Definitions, applicability and purpose

(1) Applicability

Owners and operators of the following types of facilities, as defined in subdivision (2) of this subsection, shall comply with the requirements of this section:

- (A) Facilities used for storing heating oil for consumptive use on the premises where stored; and
- (B) Farm facilities of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.

(2) As used in this section:

Definitions

``Abandoned" means rendered permanently unfit for use.

``Abnormal loss or gain" means an apparent loss or gain in liquid exceeding 0.5 percent of (1) the volume of product used or sold by the owner or operator during any seven consecutive day period, or (2) the volumetric capacity of the tank or container; whichever is greater, as determined by reconciliation of inventory measurements made in accordance with subsection 22a-449 (d)-1 (g) of these regulations.

``CFR" means the Code of Federal Regulations revised as of July 1, 1991, unless otherwise specified.

``Discharge" means the emission of any water, substance or material into the waters of the state, whether or not such substance causes pollution.

``Existing facility" means a facility the construction or installation of which began prior to November 1, 1985, including, but not limited to, facilities which are abandoned and facilities which are temporarily out-of-service.

``Facility" means a system of interconnected tanks, pipes, pumps, vaults, fixed containers and appurtenant structures, singly or in any combination, which are used or designed to be used for the storage, transmission or dispensing of oil or petroleum liquids, including any monitoring devices. As used in Section 22a-449 (d)-1 of these regulations, the term ``facility" refers only to nonresidential underground facilities and does not include residential underground heating oil storage tank systems.

``Failure" means a condition which can or does allow the uncontrolled passage of liquid into or out of a facility, and includes but is not limited to a discharge to the waters of the state without a permit issued pursuant to Section 22a-430 of the General Statutes.

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d) -1

“Failure determination” means the evaluation of a facility component in accordance with subsection 22a-449 (d)-1 (i) of these regulations to determine whether a failure has occurred.

“Farm” means a tract of land devoted to the production of crops or raising of animals, including, but not limited to, fish, and associated residences and improvements, including fish hatcheries, rangeland and nurseries with growing operations;

“Flammable Liquid” means a flammable liquid as determined in accordance with NFPA 30 and having a flash point below 100 degrees fahrenheit (37.8 degrees centigrade) and having a vapor pressure not exceeding 40 pounds per square inch (absolute) (2,068 millimeters mercury) at 100 degrees fahrenheit (37.8 degrees centigrade).

“Life expectancy” means the time period within which a failure is not expected to occur as determined in accordance with subsection 22a- 449 (d)-1 (h) of these regulations.

“Life expectancy determination” means the evaluation of a facility component in accordance with subsection 22a-449 (d)-1 (h) of these regulations to determine its life expectancy.

“Liquid” means any fluid, including, but not limited to, oil and petroleum fluids.

“Listed” means included in a list published by a testing laboratory which (1) is approved by the Commissioner of Environmental Protection in consultation with the Bureau of the State Fire Marshal, (2) maintains periodic inspection of production of listed equipment or materials, and (3) states in their listing either that the equipment, material or procedure meets appropriate standards or has been tested and found suitable for use in a specified manner.

“New facility” means a facility the construction or installation of which begins on or after November 1, 1985, including, but not limited to, facilities which replace existing facilities, facilities which are moved from one location to another, facilities which are abandoned, and facilities which are temporarily out-of-service.

“NFPA 30” means National Fire Protection Association publication number 30 entitled, “Flammable and Combustible Liquids Code,” as enforced by the State Fire Marshal pursuant to Section 29-320 of the Connecticut General Statutes and Sections 29-320-1, 29-320-2, and 29-320-3 of the Regulations of Connecticut State Agencies, as of the effective date of these regulations.

“NFPA 329” means National Fire Protection Association publication number 329 entitled, “Underground Leakage of Flammable and Combustible Liquids,” as enforced by the state fire marshal pursuant to Section 29-320 of the Connecticut General Statutes and Sections 29-320-1, 29-320-2, and 29-320-3 of the Regulations of Connecticut State Agencies, as of the effective date of these regulations.

“Nonresidential” when referring to a facility means a facility which serves any commercial, industrial, institutional, public or other building, including, but not limited to, hotels and motels,

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d) -1

boarding houses, hospitals, nursing homes and correctional institutions, but not including residential buildings.

“Oil or petroleum liquid” or “product” means oil or petroleum of any kind in liquid form including, but not limited to, waste oils and distillation products such as fuel oil, kerosene, naphtha, gasoline and benzene.

“Operator” means the person or municipality in control of, or having responsibility for, the daily operation of a facility.

“Owner” means the person or municipality in possession of or having legal ownership of a facility.

“Residential building” means any house, apartment, trailer, mobile home, or other structure, composed of four residential units or fewer, occupied by individuals as a dwelling provided that if the structure is not used solely as a dwelling, the nominal capacity of the facility, exclusive of piping, serving such structure does not exceed two thousand one hundred (2,100) gallons.

“Residential underground heating oil storage tank system” has the same meaning as provided in section 22a-449a(6) of the Connecticut General Statutes.

“Substantial modification” means the construction or installation of any addition to a facility or the restoration or renovation of a facility which: increases or decreases the on-site storage capacity of the facility; significantly alters the physical configuration of the facility; or impairs or improves the physical integrity of the facility or its monitoring systems; or modifies the facility so as to comply with the standards for new facilities specified in subdivision 22a-449 (d)-1 (e) (1) of these regulations.

“Substantial modification” shall not include a modification for the purpose of extending life expectancy in accordance with subparagraph 22a-449(d)-1 (h) (2) (D) of these regulations.

“Temporarily out-of-service” means not in use, in that no regular filling or drawing is occurring; or not established and maintained in accordance with these regulations; or not regularly attended and secured.

“Underground” when referring to a facility or facility component means that ten percent or more of the volumetric capacity of the facility or component is below the surface of the ground and that portion which is below the surface of the ground is not fully visible for inspection.

(3) Purpose

The purpose of Section 22a-449(d)-1 is to establish standards for the construction, operation, maintenance, and closure of certain nonresidential underground facilities, as specified in subsection (a)(1) of this section, that contain oil or petroleum liquids and that are not regulated under sections 22a-449(d)-101 to 22a-449(d)-113, inclusive, of the Regulations of Connecticut State Agencies.

(b) Discharges prohibited

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d)-1

No owner or operator shall discharge any water, substance or material, including but not limited to oil or petroleum liquids, from any facility to the waters of the state without first obtaining a permit for such discharge pursuant to Section 22a-430 of the General Statutes, as amended.

(c) Exemptions

(1) Facilities which meet all of the following criteria are exempt from subsections 22a-449 (d)-1 (d), (g), (h) and (i) of these regulations:

(A) the nominal capacity exclusive of piping is less than two thousand one hundred (2,100) gallons; (B) the sole intended use of the oil or petroleum liquid is for on-site heating or intermittent stationary power production such as stand-by electricity generation or irrigation pump power; (C) the oil or petroleum liquid stored is not intended for resale; and (D) the facility is not used for the storage or handling of waste oil.

(2) Facilities which are used solely for the storage, transmission or dispensing of viscous oil and petroleum liquids which will not flow at temperatures below sixty degrees Fahrenheit (60°) are exempt from the requirements of these regulations. For the purpose of this subdivision, a liquid will be deemed to flow if, when maintained for at least forty-eight hours at a temperature of sixty degrees Fahrenheit (60°) and at a pressure of 14.7 pounds per square inch absolute, it assumes the shape of a container also maintained at a temperature of sixty degrees Fahrenheit for at least forty-eight hours.

(3) Facilities used solely for on-site heating, process steam generation, other on-site combustion or manufacturing processes or waste oil storage are exempt from subdivision 22a-449 (d)-1 (g) (2).

(d) Reporting

(1) By May 8, 1986, the owner or operator of each existing facility shall notify the commissioner and the office of the local fire marshal of the results of the life expectancy determination required by subsection (h).

(2) Within thirty days following completion of installation of a new facility an owner or operator shall notify the commissioner and the office of the local fire marshal of the results of the life expectancy determination required by subsection (h).

(3) The notification required by subdivisions (1) and (2) of this subsection shall include but not be limited to the following: facility location and capacity, date of installation, contents, type of facility, and type of monitoring systems, if any, results of life expectancy determinations, and any other information which the commissioner deems necessary.

(4) By May 8, 1986, the owner or operator of an abandoned or temporarily out-of-service facility shall notify the commissioner of the location, type and capacity of such facility and the date it was abandoned or removed from service.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d) -1

(5) Within thirty days of completion of a failure determination required by subsection (i), the owner or operator shall notify the commissioner and the office of the local fire marshal of the result of such failure determination.

(6) Owners and operators shall report any changes in information provided in accordance with this subsection within thirty days.

(7) Each notification required by this subsection shall be submitted on forms furnished or prescribed by the commissioner.

(e) Design, construction, installation, and maintenance

(1) All new facilities and new components of substantially modified facilities shall conform to the following standards:

(A) Each underground tank or container shall:

(i) be a listed fiberglass-reinforced plastic (FRP) tank which is equipped with contact plates under all fill and gauge openings and is chemically compatible with the contained oil or petroleum liquid as determined by the tank or container manufacturer's warranty; or

(ii) be a listed steel tank externally coated with a factory applied corrosion resistant coating approved by the manufacturer for the proposed use, and equipped with cathodic protection and permanent cathodic protection monitoring devices, and contact plates under all fill and gauge openings.

(B) All other underground facility components that routinely contain regulated substances and are in contact with the ground shall:

(i) be protected against corrosion by use of non-corrosive materials or steel components with factory applied corrosion resistant coating and cathodic protection and permanent cathodic protection monitoring devices;

(ii) be designed, constructed and installed so as to allow failure determination of all underground piping without the need for substantial excavation; and

(iii) be chemically compatible with the contained oil or petroleum liquid as determined by the manufacturer's warranty.

(C) The installation and maintenance of underground components of new facilities and the substantial modification of underground components of new or existing facilities shall be done in accordance with NFPA 30 and the manufacturer's specifications and recommendations. If provisions of NFPA 30 are inconsistent with the manufacturer's specifications or recommendations, the provision which imposes the most stringent and protective requirement shall control. Within thirty (30) days after completion of installation, the owner or operator shall submit to the commissioner a statement signed by

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d)-1

the installation contractor, certifying that the installation has been carried out in accordance with this subsection.

(D) All cathodic protection monitoring devices and cathodic protection systems for underground components shall meet the specifications of the manufacturer of the component(s) being protected and shall be installed and maintained in accordance with the specifications and recommendations of the manufacturer(s) of the monitoring device, the cathodic protection system, and the underground component being protected, as applicable. If a manufacturer's specifications or recommendations are inconsistent with any provision of these regulations, the provision which imposes the most stringent and protective requirement shall control. Within thirty (30) days after completion of installation, the owner or operator shall submit to the commissioner a statement signed by the installation contractor, certifying that the installation has been carried out in accordance with this subsection.

(E) All cathodic protection systems which protect underground facility components shall be tested annually. A structure to soil test voltage reading of at least minus 0.85 volts measured between the structure and a copper-copper sulfate electrode must be maintained. Voltage drops other than those across the structure electrolyte boundary must be considered for valid interpretation of the voltage measurements. Impressed current cathodic protection systems shall be checked monthly to assure that the system rectifier providing the source of current is operating properly. A monthly record of rectifier current and voltage output shall be maintained. If any cathodic protection system malfunctions or fails to meet the above structure to soil test voltage requirement, it shall be repaired as quickly as possible but in no event later than thirty (30) days from the date of discovery of the malfunction. Anodes shall be replaced when all other corrective measures which have been taken are not sufficient to maintain the structure to soil test voltage of at least minus 0.85 volts. Other cathodic protection criteria may be used upon written approval of the commissioner.

(2) No owner or operator of an existing facility shall use or operate any underground component of that facility beyond September 1, 1989, or for longer than five years beyond its life expectancy as determined in accordance with subsection 22a-449 (d)-1 (h) of these regulations, whichever is later, unless such component is modified so as to comply with the standards for new facilities specified in subdivision 22a-449 (d)-1 (e) (1) above. If life expectancy has not been determined in accordance with subsection 22a-449 (d)-1 (h) of these regulations, such component shall not be used or operated unless such component is modified so as to comply with the standards for new facilities specified in subdivision 22a-449 (d)-1 (e) (1) above. If the component is not so modified, it must be removed or abandoned in accordance with procedures specified in NFPA 30.

(3) No underground component of a facility shall be moved from one location to another without prior written approval of the commissioner.

(4) No owner or operator of a facility that complies with the standards for new facilities specified

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d)-1

in subdivision 22a-449 (d)-1(e) (1) above shall use or operate any underground component of that facility beyond its life expectancy as determined in accordance with subsection 22a-449 (d)-1 (h) of these regulations. Prior to the last day of the life expectancy of an underground component of a facility that complies with the standards for new facilities specified in subdivision 22a-449 (d)-1 (e) (1) above, the owner or operator shall remove or abandon the underground component in accordance with the procedures specified in NFPA 30.

(f) Transfer of facilities

(1) No owner or operator shall transfer ownership, possession or control of any new or existing facility without full disclosure to the transferee of the status of the facility with respect to compliance with these regulations at least fifteen (15) days prior to the transfer. Such disclosure shall include an up-to-date copy of the information submitted to the commissioner pursuant to subsection (d).

(g) Records; abnormal loss or gain

(1) Activity records. The owner or operator of a new or existing facility shall assure the maintenance of up-to-date records of significant construction or installation activities; monitoring; substantial modifications; abandonment, removal or replacement of underground components or protective devices for such components; and any other activity required by an order of the commissioner. The owner or operator shall review such records and attest to their accuracy by signing them no later than seven days following completion of the recorded activity.

(2) Daily inventory records (A) The owner or operator of a new or existing facility shall assure that the following information is recorded: on a daily basis, the amount of product sold, used and received, and the level of water and product in the tank or container; and on a weekly basis, a reconciliation comparing these figures to determine whether an abnormal loss or gain has occurred. Separate records shall be maintained for each system of interconnected tanks or containers and serving pumps or dispensers. The owner or operator shall review such records and attest to their accuracy by signing them no later than seven days following their recording.

(B) Daily inventory measurements shall be made by gauge or gauge stick or by readout from a listed automatic monitoring device. Such measuring devices shall be calibrated in accordance with the manufacturer's specifications and recommendations.

(C) Daily inventory measurements need not be recorded on those days when a facility is not in operation, except that if such period exceeds fifteen consecutive days inventory measurements shall be recorded on every fifteenth day. A day on which product is delivered to the facility shall be considered a day of operation.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d) -1

(D) The commissioner may require an owner or operator to perform a failure determination of any facility for which daily inventory records are not maintained in accordance with this subsection.

(E) When inventory reconciliation indicates an abnormal loss or gain which is not explainable by spillage, temperature variations or other known causes, the owner or operator shall assure the immediate investigation and correction of the source of the abnormal loss or gain. At a minimum, the owner or operator shall take as many of the following steps as necessary to confirm an abnormal loss or gain:

(i) When an inventory record error is not apparent, a recalculation to determine abnormal loss or gain shall be made starting from a point where the records indicate no abnormal loss or gain;

(ii) A detailed visual inspection of those components of the facility which are readily accessible for evidence of failure shall be performed;

(iii) The dispensers of the particular oil or petroleum liquid in question shall be checked for proper calibration;

(iv) A failure determination shall be performed on the piping system between the storage tank or container and dispenser(s) in accordance with subsection (i) of these regulations; and

(v) A failure determination shall be performed on the tank or container in accordance with subsection (i) of these regulations.

(F) When an abnormal loss or gain is confirmed, the owner or operator shall immediately report the abnormal loss or gain to the state police in accordance with Section 22a-450 of the General Statutes, as amended.

(3) All records required by subdivisions (1) and (2) of this subsection shall be kept on the premises of the facility for a period of at least five years and shall be available for immediate inspection by the commissioner or his or her representative during reasonable hours.

(h) Life Expectancy

This subsection, in conjunction with subsection 22a-449 (d)-1 (i) of these regulations, specifies when a failure determination must be performed, and when the owner and operator must discontinue use of a facility component in accordance with subdivisions 22a-449 (d)-1 (e) (2) and (e) (4) of these regulations.

(1) Life expectancy determinations shall be conducted for underground components of new facilities within thirty (30) days following completion of installation or substantial modification of the component, and shall be conducted for underground components of existing facilities by May 8, 1986, as specified in subsection 22a-449 (d)-1 (d) of this section.

(2) Life expectancy shall be as follows:

(A) For fiberglass-reinforced plastic (FRP) facility components, the period of the manufacturer's

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d)-1

corrosion or structural warranty, whichever is shorter.

(B) For cathodically protected facility components that meet the requirements of subdivision 22a-449 (d)-1 (e) (1) of these regulations, the period of the manufacturer's corrosion or structural warranty, whichever is shorter, or the life expectancy of the existing or replacement anode(s) as calculated using standard formulae approved in writing by the commissioner. If the cathodic protection system malfunctions or fails to meet the structure to soil voltage requirement in subparagraph 22a-449 (d)-1 (e) (1) (E) of these regulations, and is not repaired or replaced within thirty days, the life expectancy of the facility components protected by the system shall be reestablished in accordance with either subparagraph (2) (C) or subdivision (3) of this subsection. If life expectancy must be reestablished in accordance with subparagraph 22a-449 (d)-1 (2) (C) of these regulations, the period specified by subparagraph 22a-449 (d)-1 (2) (C) of these regulations shall be deemed to have begun on the earliest date of malfunction or the earliest date on which the structure to soil test voltage reading was less negative than minus 0.85 volts, as applicable, provided that the period specified by subparagraph 22a-449 (d)-1 (2) (C) of these regulations shall not extend beyond the last day of the component's initial life expectancy period.

(C) For facility components not covered in subparagraphs (2) (A) and (2) (B) of this subsection, fifteen years from the date of installation. If the date of installation cannot be documented, the life expectancy shall be determined by a method approved by the commissioner.

(D) The life expectancy of existing facility components which are not in compliance with the standards listed in subdivision 22a-449 (d)-1 (e) (1) of these regulations may be extended by any method, provided:

- (i) a failure of the facility component in question has never occurred, as determined by a failure determination conducted in accordance with subdivision 22a-449 (d)-1 (i) (1) of these regulations, or by an alternative method used with the prior written approval of the commissioner;
- (ii) the facility component shall not be used or operated for longer than five years beyond its extended life expectancy;
- (iii) no tank or container shall be lined more than once to extend its life expectancy;
- (iv) the period for which the life expectancy will be extended shall be determined by the owner or operator in a manner approved in writing by the commissioner;
- (v) the facility component has not exceeded its original life expectancy as of the date of lining installation; and
- (vi) the facility component is not used to store gasoline or other flammable liquids.

(3) The life expectancy of a facility component may be determined by a method other than those set forth in subdivision (2) of this subsection upon written approval of the commissioner.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d)-1

(i) Failure determination

(1) Failure determinations shall consist of any test that takes into consideration the temperature coefficient of expansion of the product being tested as related to any temperature change during the test, and is capable of detecting a loss of 0.05 gallons per hour. Such test shall be conducted in accordance with NFPA 329. Failure determination equipment and any methods of release detection shall be installed, calibrated, operated and maintained in accordance with the manufacturer's instructions including routine maintenance and service checks for operability and running condition.

(2) Failure determinations shall be conducted by the owner or operator for all underground components of new and existing facilities as follows:

(A) On all fiberglass-reinforced plastic (FRP) facility components, within three to six months after their installation, and within twenty-four to twenty-one months and within twelve to nine months prior to the end of their life expectancy.

(B) On all cathodically protected facility components, within twenty-four to twenty-one months and within twelve to nine months prior to the end of their life expectancy.

(C) Beginning on November 1, 1988, on all existing facility components which are not in compliance with the standards listed in subdivision 22a-449 (d)-1 (e) (1) of these regulations, within thirty-six to thirty-three months prior to the end of their life expectancy and annually thereafter.

(3) Alternative methods and schedules for failure determination may be used with the prior written approval of the commissioner.

(j) Failures

(1) An owner or operator of a new or existing facility shall report any failure to the state police immediately, in accordance with Section 22a-450 of the Connecticut General Statutes, as amended.

(2) The owner or operator of a new or existing facility at which a failure occurs shall immediately empty and discontinue the use of the failed facility component and:

(A) Remove or abandon it within ninety days in accordance with procedures specified in NFPA 30; or

(B) Repair it within sixty days; or

(C) Replace all damaged components in accordance with the standards listed in subdivision (e) (1) of these regulations.

(3) The owner or operator of a new or existing facility which discharges oil or petroleum liquids without a permit issued pursuant to Section 22a-430 of the General Statutes shall immediately cease such discharge and reclaim, recover and properly dispose of the discharged liquid and any other substance contaminated by it, restore the environment to a condition and quality acceptable to the commissioner, and repair damage caused by the discharge, all to the satisfaction of the

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(d) -1

commissioner.

(4) When a failure occurs at a new or existing facility, all of such facility's components shall be evaluated within thirty days to determine whether similar conditions to that which caused the failure exist. Within ten (10) days following such evaluation, the owner or operator shall notify the commissioner in writing of the methods and results of each such evaluation. If an additional failure is detected, the owner or operator shall act in accordance with this subsection.

(k) Abandoned and temporarily out-of-service facilities

(1) An owner or operator shall notify the commissioner in writing within thirty days when a new or existing facility is abandoned or rendered temporarily out-of-service.

(2) A facility or facility component shall be abandoned in accordance with procedures specified in NFPA 30.

(3) No person or municipality shall use or operate an abandoned facility.

(4) No person or municipality shall use or operate a temporarily out-of-service facility without giving prior written notice to the commissioner that such facility will be used or operated.

(l) Variances

(1) The commissioner may grant a variance or partial variance from one or more of the provisions of this section provided such variance will not endanger the public health, safety or welfare or allow pollution of the air, land or waters of the state. An application for a variance shall be submitted by the owner or operator on a form furnished or prescribed by the commissioner and shall include such information as he or she requires.

(2) Failure to supply all information necessary to enable the commissioner to make a determination regarding the application shall be cause for rejection of the application.

(3) In acting on a request for a variance, the commissioner shall balance the degree to which compliance with the requirement in question would create an undue hardship for the applicant, against the benefit to the environment and the public from the applicant's strict compliance with that requirement.

(4) The commissioner may reject an application for a variance as untimely if it is received less than ninety days prior to the required date of compliance for which the variance is sought or if the facility is not in compliance with the requirement for which the variance is sought. For those existing facilities or underground components which are required to be removed or modified by September 1, 1989 in accordance with subparagraph (e) (2) of this section, no application for a variance from the requirements of that subparagraph shall be accepted after August 1, 1988, which date was the original deadline for such applications when these regulations were first adopted.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(5) The commissioner may limit the duration of a variance and include in a variance any conditions which he or she deems necessary. A variance may be revoked or modified for failure to comply with any such conditions.

Section 2. Section 22a-449 (d)-101 of the Regulations of Connecticut State Agencies is amended to read as follows:

Sec. 22a-449 (d)-101. Technical standards and corrective action requirements for owners and operators of underground storage tank systems-program scope and interim prohibition

(a) Applicability and purpose of sections 22a-449 (d)-101 through 22a-449 (d)-113.

(1) The requirements of sections 22a-449 (d)-101 through 22a-449 (d)-113 shall apply to all owners and operators of an UST system, as defined in section 22a-449 (d)-101 (d), except as otherwise provided in subdivisions (a) (2), (a) (3), and (a) (4) of section 22a-449 (d)-101. Any UST system listed in subdivision (a) (3) of section 22a-449 (d)-101 shall meet the requirements in subsection (b) of section 22a-449 (d)-101. Any UST system listed in subparagraphs (a) (2) (C), (a) (2) (D), (a) (2) (E) and (a) (2) (F) and in subparagraphs (a) (3) (C), (a) (3) (D), and (a) (3) (E) of section 22a-449 (d)-101 which is used for the storage, transmission or dispensing of oil or petroleum liquids, as defined in section 22a-449 (d)-1 (a) of the Regulations of Connecticut State Agencies ("RCSA"), shall meet the requirements of section 22a-449 (d)-1.

(2) The following UST systems are excluded from the requirements of section 22a-449 (d)-101 through section 22a-449 (d)-113 of these regulations:

- (A) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances;
- (B) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 402 or 307 (b) of the Clean Water Act;
- (C) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks;
- (D) Any UST system whose capacity is 110 gallons or less;
- (E) Any UST system that contains a de minimis concentration of regulated substances; and
- (F) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(3) Deferrals. Sections 22a-449 (d)-102, 103, 104, 105, and 107 do not apply to any of the following types of UST systems:

- (A) Wastewater treatment tank systems;

(d)-101

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(B) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011 and following);

(C) Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50, appendix A;

(D) Airport hydrant fuel distribution systems; and

(E) UST systems with field-constructed tanks.

(4) Deferrals. Section 22a-449 (d)-104 does not apply to any UST system that stores fuel solely for use by emergency power generators, provided however that the owner and operator of any such UST system shall comply with the requirements of subsection 22a-449 (d)-1 (i) if the nominal capacity of such system, exclusive of piping, is greater than or equal to two thousand one hundred (2,100) gallons.

(5) Purpose. The purpose of sections 22a-449(d)-101 to 22a-449(d)-113 of the Regulations of Connecticut State Agencies is to establish a comprehensive regulatory program for underground storage tanks containing regulated substances subject to Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, and the regulations adopted thereunder at 40 CFR Parts 280 and 281.

(b) Interim prohibition for deferred UST systems.

(1) No person may install an UST system listed in subparagraph (a) (3) of section 22a-449 (d)-101 for the purpose of storing regulated substances unless the UST system (whether of single- or double-wall construction):

(A) Shall prevent releases due to corrosion or structural failure for the operational life of the UST system;

(B) Is cathodically protected against corrosion, constructed of noncorrodible material, steel clad with a noncorrodible material, or designed in a manner to prevent the release or threatened release of any stored substance; and

(C) Is constructed or lined with material that is compatible with the stored substance.

(2) Notwithstanding subdivision (b) (1) of section 22a-449 (d)-101, an UST system without corrosion protection may be installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators shall maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank.

(3) The National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," may be used as guidance for complying with subdivision (b) (2) of section 22a-449 (d)-101.

(c) General.

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

Nothing in sections 22a-449 (d)-101 through 22a-449 (d)-113 of these regulations shall affect the Commissioner's authority to enforce statutes, regulations, permits or orders administered, adopted or issued by the Commissioner, including, but not limited to, the Commissioner's authority to issue an order to prevent or abate pollution and potential source of pollution.

(d) Definitions.

When used in sections 22a-449 (d)-101 to 22a-449 (d)-113, inclusive of these regulations, the following terms shall have the meanings given below:

- (1) "Abandoned" means rendered permanently closed and unfit for use, in accordance with subsection 22a-449 (d)-107 (b) of these regulations;
- (2) "Abnormal loss or gain" means an apparent loss or gain in liquid exceeding 0.5 percent of (1) the volume of product used or sold by the owner or operator during any seven consecutive day period, or (2) the volumetric capacity of the tank or container; whichever is greater, as determined by reconciliation of inventory measurements made in accordance with section 22a-449 (d)-104 of these regulations;
- (3) "Aboveground release" means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the above-ground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system;
- (4) "Ancillary equipment" means any devices including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST;
- (5) "Approved training program" means a Class A, B, or C Operator training program that meets the requirements of subsection 22a-449 (d)-108 (b) of the Regulations of Connecticut State Agencies.
- (6) "Belowground release" means any release to the subsurface of the land and to ground water. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank;
- (7) "Beneath the surface of the ground" means beneath the ground surface or otherwise covered with earthen materials;
- (8) "Cathodic protection" is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current;
- (9) "Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons shall have education and

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems;

(10) "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended;

(11) "CFR" means the Code of Federal Regulations revised as of July 1, 1991, unless otherwise specified;

(12) "Class A Operator" means the individual or individuals designated by the owner or operator to have primary statutory and regulatory responsibility for the operation and maintenance of the UST systems. The Class A Operator may hold more than one class of operator position. The designation as a 'Class A Operator' does not confer any other operator status upon the individual. Any person designated as a Class A Operator shall have fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108.

(13) "Class B Operator" means the individual or individuals designated by the owner or operator to implement applicable regulatory requirements and implement the daily aspects of the operation, maintenance, and recordkeeping for the UST systems. The Class B Operator may hold more than one class of operator position. The designation as a 'Class B Operator' does not confer any other operator status upon the individual. Any person designated as a Class B Operator shall have fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108.

(14) "Class C Operator" means the individual or individuals designated by the owner or operator to have primary responsibility for responding to alarms, emergencies presented by releases, and other problems associated with the operation of the UST systems. The Class C Operator may hold more than one class of operator position. The designation as a 'Class C Operator' does not confer any other operator status upon the individual. Any person designated as a Class C Operator shall have fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108.

(15) "Commissioner" means the Commissioner of Environmental Protection of the State of Connecticut, or the Commissioner's operator;

(16) "Compatible" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST;

(17) "Connected piping" means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them;

(18) "Consumptive use with respect to heating oil" means consumed on the premises;

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

- (19) "Corrosion expert" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person shall be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks;
- (20) "Day" means calendar day, unless otherwise specified;
- (21) "Department" or "DEP" means the Connecticut Department of Energy and Environmental Protection or DEEP* (*Public Act 11-80, effective July 1, 2011, established the Department of Energy and Environmental Protection as the successor agency to the Department of Environmental Protection);
- (22) "Dielectric material" means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system including, but not limited to, tank from piping;
- (23) "Discharge" means the emission of any water, substance or material into the waters of the state, whether or not such substance causes pollution;
- (24) "Dispenser" means equipment located above ground that meters the amount of regulated substances transferred to a point of use outside the UST system, such as a motor vehicle;
- (25) "Double-walled underground storage tank" has the same meaning as provided in section 22a-449o(1) of the Connecticut General Statutes;
- (26) "Double-walled underground storage tank system" means one or more double-walled underground storage tanks connected by double-walled piping and utilizing double-walled piping to connect the underground storage tank to any associated equipment;
- (27) "Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable;
- (28) "Excavation zone" means the volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation;
- (29) "Existing tank system" means a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before December 22, 1988. Installation is considered to have commenced if:
- (a) The owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and if,
 - (b) (1) Either a continuous on-site physical construction or installation program has begun; or,

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(2) The owner or operator has entered into contractual obligations-which cannot be canceled or modified without substantial loss-for physical construction at the site or installation of the tank system to be completed within a reasonable time;

(30) "Failure" means a condition which can or does allow the uncontrolled passage of liquid into or out of an UST system, and includes but is not limited to a discharge to the waters of the state without a permit issued pursuant to Section 22a-430 of the General Statutes;

(31) "Farm tank" is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank shall be located on the farm property. "Farm" includes fish hatcheries, rangeland and nurseries with growing operations;

(32) "Flow-through process tank" is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process;

(33) "Free product" refers to a regulated substance that is present as a non-aqueous phase liquid including, but not limited to, liquid not dissolved in water;

(34) "Gathering lines" means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations;

(35) "Hazardous substance" means a substance defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, but does not include any substance regulated as a hazardous waste under subsection (c) of Section 22a-449 of the General Statutes or any mixture of such substances and petroleum;

(36) "Hazardous substance UST system" means an underground storage tank system that contains a hazardous substance defined in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 but not including any substance regulated as a hazardous waste under subtitle C of the Resource Conservation and Recovery Act or any mixture of such substances and petroleum, and which is not a petroleum UST system;

(37) "Heating oil" means petroleum that is No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces;

(38) "Hydraulic lift tank" means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices;

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

- (39) "Implementing agency" means the Connecticut Department of Energy and Environmental Protection* (*Public Act 11-80, effective July 1, 2011, established the Department of Energy and Environmental Protection as the successor agency to the Department of Environmental Protection);
- (40) "Life expectancy" means the period of time within which a failure is not expected to occur as determined in accordance with section 22a-449 (d)-111;
- (41) "Life expectancy determination" means the evaluation of an UST system component in accordance with section 22a-449 (d)-111 to determine its life expectancy;
- (42) "Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream;
- (43) "Maintenance" means the normal operational upkeep to prevent an underground storage tank system from releasing product;
- (44) "Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine;
- (45) "New piping containment sump" means the sump housing a turbine pump or piping that distributes petroleum or regulated substances that (A) prevents any liquids that may accumulate in such containment sump, including but not limited to, liquid from the piping or pump, from leaving the containment sump and reaching soil, groundwater or surface waters; (B) is capable of immediate visual inspection and provides immediate access to the components of such sump and the components contained therein; (C) contains release detection equipment, such as a sensor, that at all times is capable of detecting any liquid that may accumulate in such containment sump, including but not limited to, liquid from the turbine pump or piping; and (D) contains an alarm or other device that notifies the owner or operator immediately whenever a liquid accumulates in the containment sump;
- (46) "New tank system" means a tank system that shall be used to contain an accumulation of regulated substances and for which installation has commenced after December 22, 1988, including UST systems that are moved from one location to another. (See also "Existing Tank System");
- (47) "New under-dispenser containment sump" means a containment sump located underneath a dispenser that (A) prevents any liquids that may accumulate in such containment sump, including but not limited to, liquid from the dispenser, from leaving the containment sump and reaching soil, groundwater or surface waters; (B) is capable of immediate visual inspection and provides immediate access to the components of such sump and any components contained therein; (C) contains release detection equipment, such as a sensor, that at all times is capable of detecting any liquid that may

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

accumulate in such containment sump, including but not limited to, liquid from the dispenser; and (D) contains an alarm or other device that notifies the owner or operator immediately whenever a liquid accumulates in the containment sump:

(48) ``Noncommercial purposes with respect to motor fuel" means not for resale;

(49) ``On the premises where stored with respect to heating oil" means UST systems located on the same property where the stored heating oil is used;

(50) ``Operational life" refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed under section 22a-449 (d)-107 of these regulations;

(51) ``Operator" means any person in control of, or having responsibility for, the daily operation of the UST system. An Operator designation is not equivalent to designation as a "Class A Operator", "Class B Operator", or "Class C Operator", as defined in this section, solely by virtue of such designation. An Operator may be designated as a Class A, B, or C Operator only if that person has fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108 of the Regulations of Connecticut State Agencies;

(52) ``Operator Response Guidelines" means guidelines that are in written form, including reporting procedures for releases and suspected releases, emergency contact phone numbers, malfunctioning equipment lock-out/tag-out and notification procedures, and initial mitigation protocol for releases, suspected releases and other emergencies;

(53) ``Overfill release" is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment;

(54) ``Owner" means the person or municipality in possession of or having legal ownership of an UST system;

(55) ``Person" means an individual, trust, firm, joint stock company, Federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. ``Person" also includes a consortium, a joint venture, a commercial entity, and the United States Government;

(56) ``Petroleum UST system" means an underground storage tank system that contains petroleum or a mixture of petroleum with de minimis quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, used oils and any bio-fuel blend;

(57) ``Pipe or piping" means a hollow cylinder or tubular conduit that is constructed of non-earthen materials;

(58) ``Pipeline facilities (including gathering lines)" are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings;

(59) ``Regulated substance" means:

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

- (a) Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C of the Resource, Conservation and Recovery Act), and
- (b) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). The term "regulated substance" includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, used oils and any bio-fuel blend;
- (60) "Release" means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into ground water, surface water or subsurface soils;
- (61) "Release detection" means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it;
- (62) "Repair" means to restore a tank or UST system component that has caused a release of product from the UST system;
- (63) "Residential tank" is a tank located on property used primarily for dwelling purposes;
- (64) "SARA" means the Superfund Amendments and Reauthorization Act of 1986;
- (65) "Septic tank" is a water-tight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility;
- (66) "Storm-water or wastewater collection system" means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance;
- (67) "Substantial modification" means the construction or installation of any addition to an UST system or any restoration or renovation of an UST system which: increases or decreases the on-site storage capacity of the UST system; significantly alters the physical configuration of the UST system; or impairs or improves the physical integrity of the UST system or its monitoring system; or modifies the UST system so as to comply with the standards specified in subsection 22a-449 (d)-102 (a) of these regulations;

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(68) "Surface impoundment" is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well;

(69) "Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials including, but not limited to, concrete, steel, and plastic that provide structural support;

(70) "Under-dispenser containment sump" means a containment sump located underneath a dispenser whose purpose is to prevent liquids that may accumulate in such containment sump, including but not limited to, liquid from the dispenser, from leaving the containment sump or from reaching the soil, groundwater or surface waters;

(71) "Underground area" means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor;

(72) "Underground release" means any belowground release;

(73) "Underground storage facility" means a parcel of real property on which a UST or UST system is located;

(74) "Underground storage tank or UST" means any one or combination of tanks (including underground pipes connected thereto) that is used or designed to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

(a) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

(b) Tank used for storing heating oil for consumptive use on the premises where stored;

(c) Septic tank;

(d) Pipeline facility (including gathering lines) regulated under:

(1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.), or

(2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.), or

(3) Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in paragraph (d) (1) or (d) (2) of this definition;

(e) Surface impoundment, pit, pond, or lagoon;

(f) Storm-water or wastewater collection system;

(g) Flow-through process tank;

(h) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(i) Storage tank situated in an underground area including, but not limited to, a basement, cellar,

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

mineworking, drift, shaft, or tunnel if the storage tank is situated upon or above the surface of the floor. The term "underground storage tank" or "UST" does not include any pipes connected to any tank which is described in paragraphs (a) through (i) of this definition;

(75) "Underground storage tank system or UST system" means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any;

(76) "Upgrade" means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overflow controls to improve the ability of an underground storage tank system to prevent the release of product;

(77) "Wastewater treatment tank" means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

(78) The following terms are defined as provided in section 22a-449 (d)-1 of these regulations: "liquid"; "listed"; "NFPA 30"; and "temporarily out-of-service."

Section 3. Section 22a-449 (d)-102 of the Regulations of Connecticut State Agencies is amended to read as follows:

Sec. 22a-449 (d)-102. UST systems: design, construction installation and notification

(a) Performance standards for new UST systems.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for the operational life of the UST system, all owners and operators of new UST systems shall meet the following requirements. Any substantial modification of UST systems shall meet the following requirements:

(1) Tanks. Each tank shall be listed and properly designed and constructed, and any portion underground that routinely contains product shall be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(A) The tank is constructed of fiberglass-reinforced plastic; or

(B) The tank is constructed of steel and cathodically protected including a permanent cathodic protection monitoring device in the following manner:

(i) The tank is coated with a factory applied suitable dielectric material approved by the manufacturer for the proposed use;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in subdivision 22a-449 (d)-103 (b) (3) of these regulations; and

(iv) Cathodic protection systems are operated and maintained in accordance with subsection

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

22a-449 (d)-103 (b) of these regulations and manufacturer's specifications to the extent such specifications are no less stringent than subsection 22a-449 (d)-103 (b) of these regulations, or according to guidelines established by the implementing agency and have permanent monitoring devices; or

(C) The tank construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than subdivisions 22a-449 (d)-102 (a) (1) (A) and (B) of these regulations and such protection has been approved in writing by the implementing agency prior to installation of the UST system.

(2) Tank Notes

(A) The following industry codes may be used to comply with subdivision 22a-449 (d)-102 (a) (1) (A) of these regulations: Underwriters Laboratories Standard 1316, ``Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products"; Underwriter's Laboratories of Canada CAN4-S615-M83, ``Standard for Reinforced Plastic Underground Tanks for Petroleum Products"; or American Society of Testing and Materials Standard D4021-86, ``Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks."

(B) The following codes and standards may be used to comply with subdivision 22a-449 (d)-102 (a) (1) (B) of these regulations:

(i) Steel Tank Institute ``Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks";

(ii) Underwriters Laboratories Standard 1746, ``Corrosion Protection Systems for Underground Storage Tanks";

(iii) Underwriters Laboratories of Canada CAN4-S603-M85, ``Standard for Steel Underground Tanks for Flammable and Combustible Liquids," and CAN4-G03.1-M85, ``Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids," and CAN4-S631-M84, ``Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems"; or

(iv) National Association of Corrosion Engineers Standard RP-02-85, ``Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and Underwriters Laboratories Standard 58, ``Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(3) Piping. The piping that routinely contains regulated substances and is not in contact with the ground shall meet the requirements in subparagraph 22a-449 (d)-102 (a) (9) of these regulations. The piping that routinely contains regulated substances and is in contact with the ground shall be

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

- (A) The piping is constructed of fiberglass-reinforced plastic; or
- (B) The piping is constructed of steel and cathodically protected in the following manner:
 - (i) The piping is coated with a suitable dielectric material;
 - (ii) Field-installed cathodic protection systems are designed by a corrosion expert;
 - (iii) Impressed current systems are designed to allow determination of current operating status as required in subdivision 22a-449 (d)-103 (b) (3) of these regulations; and
 - (iv) Cathodic protection systems shall have permanent monitoring devices and shall be operated and maintained in accordance with subsection 22a-449 (d)-103 (b) of these regulations and manufacturer's specifications to the extent such specifications are no less stringent than subsection 22a-449 (d)-103 (b) of these regulations, or according to guidelines established by the implementing agency;
- or
- (C) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in subparagraphs 22a-449 (d)-102 (a) (3) (A) and (B) of these regulations and such protection has been approved in writing by the implementing agency and have permanent monitoring services; prior to the installation of the UST system.

(4) Piping Notes

- (A) The following codes and standards may be used to comply with subparagraph 22a-449 (d)-102 (a) (3) (A) of these regulations:
 - (I) Underwriters Laboratories Subject 971, ``UL Listed Non-Metal Pipe'';
 - (ii) Underwriters Laboratories Standard 567, ``Pipe Connectors for Flammable and Combustible and LP Gas'';
 - (iii) Underwriters Laboratories of Canada Guide ULC-107, ``Glass-Fiber-Reinforced Plastic Pipe and Fittings for Flammable Liquids''; and
 - (iv) Underwriters Laboratories of Canada Standard CAN 4-S633-M81, ``Flexible Underground Hose Connectors.''
- (B) The following codes and standards may be used to comply with subparagraph 22a-449 (d)-102 (a) (3) (B) of these regulations:
 - (I) National Fire Protection Association Standard 30, ``Flammable and Combustible Liquids Code'';
 - (ii) American Petroleum Institute Publication 1615, ``Installation of Underground Petroleum Storage Systems'';

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(iii) American Petroleum Institute Publication 1632, ``Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems"; and

(iv) National Association of Corrosion Engineers Standard RP-01-69, ``Control of External Corrosion on Submerged Metallic Piping Systems."

(5) Spill and overfill prevention equipment.

(A) Except as provided in subparagraph 22a-449 (d)-102 (a) (5) (B) of these regulations to prevent spilling and overfilling associated with product transfer to the UST system, owners and operators shall use the following spill and overfill prevention equipment:

(I) Spill prevention equipment that shall prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overfill prevention equipment that shall:

(a) Automatically shut off flow into the tank when the tank is no more than 95 percent full, or

(b) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm.

(B) Owners and operators are not required to use the spill and overfill prevention equipment specified in subparagraph 22a-449 (d)-102 (a) (5) (A) of these regulations if:

(I) Alternative equipment is used that is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified in subparagraphs 22a-449 (d)-102 (a) (5) (A) (i) and (ii) of these regulations and such equipment has been approved in writing by the implementing agency prior to installation of the UST system; or

(ii) The UST system is filled by transfers of no more than 25 gallons at one time.

(6) Installation. All tanks and piping shall be properly installed and maintained in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions, NFPA 30 requirements and sections 22a-449 (d)-102 and 22a-449 (d)-103 of these regulations. If the provisions of these requirements are inconsistent, the provision which imposes the most stringent and protective requirement shall control. All underground piping shall be designed, constructed and installed so as to allow line and tank tightness testing in accordance with section 22a-449 (d)-104 of these regulations without the need for substantial excavation.

(7) Tank and piping system installation practices and procedures described in the following codes, to the extent such practices and procedures are no less stringent and protective than the requirements of NFPA 30, may be used to comply with the requirements of subdivision 22a-449 (d)-102 (a) (6) of these regulations:

(A) American Petroleum Institute Publication 1615, ``Installation of Underground Petroleum Storage System"; or

State of Connecticut REGULATION of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(B) Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems"; or

(C) American National Standards Institute Standard B31.3, "Petroleum Refinery Piping," and American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System."

(8) Certification of Installation. Within thirty (30) days after completion of installation of an UST system component, the owner or operator shall submit to the Commissioner a statement signed by the installation contractor, certifying that the installation has been carried out in accordance with sections 22a-449 (d)-101 through 22a-449 (d)-113 of these regulations. In addition all owners and operators shall ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with subdivision 22a-449 (d)-102 (a) (6) of these regulations by providing a certification of compliance on the UST notification form in accordance with subsection 22a-449 (d)-102 (b) of these regulations:

(A) The installer has been certified by the tank and piping manufacturers; or

(B) The installer has been certified or licensed by the implementing agency; or

(C) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation; or

(D) The installation has been inspected and approved in writing by the implementing agency; or

(E) All work listed in the manufacturer's installation checklists has been completed; or

(F) The owner and operator have complied with another method for ensuring compliance with subdivision 22a-449 (d)-102 (a) (6) of these regulations that is determined by the implementing agency by prior written approval to be no less protective of human health and the environment.

(9) Piping. The metallic piping that routinely contains regulated substances and is not in contact with the ground shall be properly maintained and designed, constructed and protected from contact with the ground and ground water for its operational life. Such piping protection shall be continuously monitored during its operational life for failure. Records of such monitoring shall be maintained to demonstrate compliance with this protection and monitoring requirement in accordance with subsection 22a-449 (d)-103 (e).

(10) Cathodic protection systems. All cathodic protection systems shall have permanent monitoring devices and all cathodic protection monitoring devices and cathodic protection systems for UST system components shall meet the specifications of the manufacturer of the component(s) being protected and shall be installed and maintained in accordance with the specifications and recommendations of the manufacturer(s) of the monitoring device, the cathodic protection system, and the component being protected, as applicable. If a manufacturer's specifications and recommendations

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

are inconsistent with any provision of sections 22a-449 (d)-102 and 22a-449 (d)-103 of these regulations, the provision which imposes the most stringent and protective requirement shall control. Within thirty (30) days after completion of installation, the owner or operator shall submit to the commissioner a statement signed by the installation contractor, certifying that the installation has been carried out in accordance with section 22a-449 (d)-102 and 22a-449 (d)-103 of these regulations.

(11) On and after August 8, 2012, no owner or operator shall replace, install, operate or use an underground storage tank system installed on or after August 8, 2012, unless such underground storage tank system is equipped with a new under-dispenser containment sump.

(12) On and after August 8, 2012, no owner or operator shall replace or install a piping containment sump unless such piping containment sump is a new piping containment sump.

(13) On and after August 8, 2012, no owner or operator shall replace or install an under-dispenser containment sump unless such under-dispenser containment sump is a new under-dispenser containment sump.

(14) On and after August 8, 2012, no owner or operator shall replace: (1) a dispenser and more than fifty percent of flex-joint or flexible piping, that is physically located directly beneath the dispenser, unless a new under-dispenser containment sump has been installed for such dispenser; or (2) more than fifty percent of the dispensers at a facility, unless a new under-dispenser containment sump has been installed for each dispenser at the facility, except that the requirement of this subdivision shall not apply to a dispenser that is replaced due to damage resulting from an accident or vandalism.

(15) Testing requirements for double-walled underground storage tank systems installed on or after August 8, 2012.

(A) Before using or operating an underground storage tank system installed on or after August 8, 2012, the owner or operator of any such underground storage tank system shall conduct tests which demonstrate that there is no release or loss of any liquids from any part of the double-walled underground storage tank system. Such tests shall include a demonstration that, should any liquid accumulate in a new piping containment sump and in a new under-dispenser containment sump, it will not leave such sump or be released into the environment. The owner or operator shall perform such test upon installation and every 5 years thereafter. Secondary containment systems where the continuous monitoring automatically monitors both primary and secondary containment, such as systems that are hydrostatically monitored or under constant vacuum, are exempt from the testing every 5 years required by this subparagraph.

(B) The owner or operator of any underground storage tank system repairing a piping containment sump or under-dispenser containment sump installed on or after August 8, 2012, shall conduct a test that demonstrates that the repaired piping containment sump or under-dispenser containment sump meets the

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

requirements of a new piping containment sump or new under-dispenser containment sump. The test and demonstration required for new under-dispenser containment sumps by this subparagraph shall be performed before the owner or operator begins to use or operate the dispenser associated with the new under-dispenser containment sump.

(C) The owner or operator of an underground storage tank system shall maintain the results of all testing to demonstrate compliance with this subdivision in accordance with the requirements of section 22a-449(d)-103(e)(4) of the Regulations of Connecticut State Agencies. The owner or operator of an underground storage tank system may store and retrieve electronically the results of all such testing. The owner or operator shall provide such results to the Commissioner upon request. The owner or operator shall use a qualified individual or company who has the expertise to perform and document the results of the testing required by this subdivision.

(D) Any test conducted to satisfy the requirements of this subdivision shall be capable of determining if there is a release or any loss of liquids from any part of the double-walled underground storage tank system, including any part of new piping containment sumps and new under-dispenser containment sumps. The owner or operator of an underground storage tank system shall perform the tests required by this subdivision using the best available technology or in accordance with the manufacturer's guidelines and standards. If there are no manufacturer's guidelines or standards, the owner or operator shall perform such tests in accordance with an applicable method specified in an industry code or engineering standard. If there are no applicable manufacturer's guidelines or standards, industry codes, or engineering standards, the owner or operator shall perform such tests using a test method that, before use, is approved by a registered professional engineer licensed in the state of Connecticut.

(16) If an alarm, sensor or similar device in a new under-dispenser containment sump or a new piping containment sump indicates that liquid is present in such sump, the owner or operator of such sump shall (A) immediately investigate to determine if liquid is present and identify the cause for the presence of such liquid; (B) immediately take corrective measures in accordance with all applicable federal, state, and local requirements; (C) remove all petroleum from such sump not later than twenty-four hours after any alarm or similar device indicates that liquids are present in such sump; and (D) remove all other liquids, including but not limited to, water, from such sump not later than seventy-two hours after any alarm or similar device indicates that liquids are present in such sump. Any liquids removed from any such containment sump shall be managed and disposed of in accordance with all applicable requirements.

(17) No person, including but not limited to an owner or operator, shall remove, disable or otherwise render inoperable any sensor in a new under-dispenser containment sump or new piping containment sump or any alarm or other device used to indicate whether liquids are present in any such sump. No owner or operator shall dispense petroleum or any hazardous substances from an underground storage

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

tank system equipped with a new under-dispenser containment sump or a new piping containment sump if any sensor in such sump, or any alarm or other device used to indicate whether liquids are present in any such sump, is removed, disabled or otherwise inoperable.

(18) The requirements of this subsection regarding an under-dispenser containment sump shall not apply to an underground storage tank system that does not have a dispenser.

(b) Notification requirements.

(1) Any owner or operator of an UST system shall give notice to the commissioner in accordance with this subsection.

(2) By May 8, 1986, the owner or operator of each petroleum UST system, the construction or installation of which began prior to November 1, 1985, shall notify the commissioner and the office of the local fire marshal of the results of the life expectancy determination required by section 22a-449 (d)-111 of these regulations.

(3) Within 180 days of the effective date of these regulations, the owner or operator of each hazardous substance UST system, the construction or installation of which began prior to the effective date of these regulations, shall notify the commissioner and the office of the local fire marshal of the results of the life expectancy determination required by section 22a-449 (d)-111 these regulations.

(4) Within thirty (30) days following the completion of installation of a petroleum UST system, the construction or installation of which begins on or after November 1, 1985, including, but not limited to, UST systems which replace UST systems and UST systems which are moved from one location to another; an owner or operator shall notify the commissioner and the office of the local fire marshal of the results of the life expectancy determination required by section 22a-449 (d)-111 of these regulations.

(5) Within thirty (30) days following the completion of installation of a hazardous substance UST system, the construction or installation of which began on or after the effective date of these regulations, including, but not limited to, UST systems which replace UST systems and UST systems which are moved from one location to another; an owner or operator shall notify the commissioner and the office of the local fire marshal of the results of the life expectancy determination required by section 22a-449 (d)-111 of these regulations.

(6) The notification required by subdivisions 22a-449 (d)-102 (b) (2), (3), (4), and (5) of these regulations shall include but not be limited to the following: UST system location and capacity, date of installation, contents, type of UST system, and type of monitoring systems, if any, results of life expectancy determinations, and other information which the commissioner deems necessary.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(7) By May 8, 1986, the owner or operator of an abandoned or temporarily out-of-service UST system shall notify the commissioner of the location, type, and capacity of such UST system and the date it was abandoned or removed from service.

(8) An owner or operator of a UST system shall notify the commissioner in writing within thirty (30) days when a UST system is abandoned or rendered temporarily out-of-service.

(9) No person or municipality shall use or operate a temporarily out-of-service UST system without giving prior written notice to the commissioner that such UST system shall be used or operated.

(10) Within thirty (30) days of completion of a tank tightness test or line tightness test required by sections 22a-449 (d)-101 through 22a-449 (d)-113 of these regulations, the owner or operator shall notify the commissioner and the office of the local fire marshal of the result of such tightness test.

(11) Owners and operators shall report any changes in information provided in accordance with section 22a-449 (d)-102 of these regulations within thirty (30) days.

(12) Each notification required by this section shall be submitted on forms furnished or prescribed by the commissioner.

(13) Notices required to be submitted in accordance with subsection 22a-449 (d)-102 (b) of these regulations for tanks installed after December 22, 1988 shall also provide all of the information in section VII of the form as required in subsection 22a-449 (d)-109 (x) for each tank for which notice shall be given.

(14) All owners and operators of new UST systems shall certify in the notification form compliance with the following requirements:

(A) Installation of tanks and piping under subdivision 22a-449 (d)-102 (a) (8) of these regulations;

(B) Cathodic protection of steel tanks and piping under subdivisions 22a-449 (d)-102 (a) (1) and (3) of these regulations;

(C) Financial responsibility under section 22a-449 (d)-109 of these regulations; and

(D) Release detection under subsection 22a-449 (d)-104 (c) and (d) of these regulations.

(15) All owners and operators of new UST systems shall ensure that the installer certifies in the notification form that the methods used to install the tanks and piping complies with the requirements in subdivision 22a-449 (d)-102 (a) (6) of these regulations.

(16) Beginning October 24, 1988, any person who sells a tank intended to be used as an underground storage tank shall notify the purchaser of such tank of the owner's notification obligations under 40 CFR 280.22 (a). The form provided in subsection 22a-449 (d)-109 (z) of these regulations may be used to comply with this requirement.

(Effective July 28, 1994)

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

Section 4. The Regulations of Connecticut State Agencies are amended by adding Section 22a-449(d)-108 as follows:

Sec. 22a-449 (d)-108. Operator Training Required.

(a) Training and certification

(1) Effective August 8, 2012, no person shall own or operate a UST or UST system without designating Class A, B, and C Operators who have been trained and certified in accordance with an approved training program.

(2) On or before August 8, 2012, for each existing underground storage facility in the state, owners or operators shall submit to the commissioner a statement, in a format approved by the commissioner and signed by the owner or operator and the designated Class A and Class B Operators, identifying the following: (A) the names of the designated Class A and B Operators, (B) the approved training programs from which they obtained their certification, (C) the dates of certification and (D) the dates such certification expires. For underground storage facilities whose USTs or UST systems begin operation after August 8, 2012, this information shall be submitted prior to beginning operation.

(3) Effective August 8, 2012, at each underground storage facility, owners or operators shall post operator response guidelines meeting the requirements of subsection (c) (1) of this section.

(4) Effective August 8, 2012, at each underground storage facility, owners or operators shall post an information sheet regarding all Class C Operators assigned to that underground storage facility. Such information sheet shall include: (A) the names of each designated Class C Operator, (B) the name of the approved training program(s) from which each Class C Operator obtained her or his certification, or the name of the certified Class A or B Operator who trained each Class C Operator, (C) the certification dates for each Class C Operator, (D) the expiration dates of each such certification, and (F) the most recent date of Class C Operator training.

(5) After August 8, 2012, owners or operators shall revise and resubmit to the commissioner a signed statement that includes the information required in subsection (b) of this section whenever there is a change in designated Class A or B Operators, a change of approved training programs, or when a designated Class A or B Operator has been retrained as ordered by the commissioner pursuant to subsection (e) of this section, not more than 30 days after the change for each affected underground storage facility.

(6) After August 8, 2012, newly designated Class A and B Operators shall be trained in accordance with an approved training program not more than 30 days after being designated and newly designated Class C Operators shall be trained in accordance with an approved training program or by a certified Class A or B Operator before assuming the responsibilities of the Class C Operator.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(7) If an approved operator training program has had its approval revoked pursuant to subsection (d) (1) of this section, any Class A, B, or C Operator who has been trained and certified by this program shall remain trained and certified unless (A) they are directed by the commissioner to retrain pursuant to subsection (e) of this section, or (B) their certification expires pursuant to the previously approved training program curriculum.

(b) Operator Training Program Requirements.

Any operator training program shall either be approved by the commissioner pursuant to subdivision (1) or (3) of this subsection, or deemed approved pursuant to subdivision (2) of this subsection to meet the requirements of this section.

(1) An operator training program shall be approved in writing by the commissioner. The commissioner shall approve a program if after submittal of the training curriculum and instructor's qualifications to the commissioner for review, the commissioner finds that the program meets the following requirements:

(A) Class A Operator training shall include, but not be limited to:

(i) Familiarization with applicable federal, state, and local law regarding the operation of USTs and UST systems, including those provisions which apply to notification requirements, spill prevention, overfill prevention, release detection, corrosion protection, emergency response, product compatibility, release and suspected release reporting, temporary and permanent closure requirements, operator training, and financial responsibility documentation requirements;

(ii) Certification that an appropriately administered and evaluated test demonstrating knowledge of the applicable statutes and regulations regarding the operation of USTs and UST systems, including, but not limited to, those provisions listed in subparagraph (A)(i) of this subdivision, has been passed;

(iii) Requirement for retraining or refresher training at least every 2 years following initial training.

(B) Class B Operator training shall include, but not be limited to:

(i) Familiarization with applicable federal, state, and local law regarding the operation of USTs and UST systems;

(ii) Familiarization with the components of USTs and UST systems, the materials of which UST and UST system components are composed, methods of UST and UST system release detection, including the best available technology, UST and UST system spill protection, overfill prevention, release detection, corrosion protection, emergency response requirements, product compatibility, reporting and recordkeeping requirements, and Class C Operator requirements;

(iii) Familiarization with conducting and documenting monthly maintenance inspections pursuant to subsection (c) of this section and yearly maintenance inspections as applicable.

(iv) Certification that an appropriately administered and evaluated test demonstrating such knowledge has been passed;

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

- (v) Requirement for retraining or refresher training at least every 2 years following initial training.
- (C) Class C Operator training shall include, but not be limited to:
 - (i) Familiarization with the operator response guidelines, including, but not limited to, thorough knowledge of the required response to emergencies and alarms;
 - (ii) Familiarization with the layout of a typical UST system, as well as familiarity with the particular layout of the UST System or UST Systems at the underground storage facility or facilities at which the Class C Operator has responsibilities;
 - (iii) Familiarization with reading alarm enunciation panels;
 - (iv) Certification, signed by the Class A or B Operator or the approved training program, that an appropriately administered and evaluated test demonstrating such knowledge has been passed;
 - (v) Requirement for retraining or refresher training at least every 2 years following initial training.
- (2) The following operator training programs shall be deemed approved by the commissioner:
 - (A) For Class A Operator training, certification as a Connecticut Class A UST System Operator by the International Code Council (ICC) every 2 years.
 - (B) For Class B Operator training, certification as a Connecticut Class B UST System Operator by the International Code Council (ICC) every 2 years.
 - (C) For Class C Operator training, training provided by the designated Class A or Class B Operator at the underground storage facility. Such training shall include a physical tour of the underground storage facility, instruction regarding the alarm enunciation panel and appropriate responses to emergencies and alarms as set forth in the posted operator response guidelines. Following the initial training, retraining or refresher training shall be completed at least every 2 years.
- (3) The commissioner may also approve, as meeting Connecticut requirements, Class A, B, and C Operator training programs conducted or approved by other states or the ICC.

(c) Additional Operator Requirements.

- (1) Operator Response Guidelines shall be in written form and include reporting procedures for releases and suspected releases, emergency contact phone numbers, malfunctioning equipment lock-out/tag-out and notification procedures, and initial mitigation protocol for releases, suspected releases and other emergencies.
- (2) Monthly visual inspections meeting the following minimum requirements shall be conducted at all underground storage facilities:
 - (A) Inspections shall be conducted by or under the direction of the Class A or B Operator.
 - (B) The results of each inspection shall be recorded in a monthly inspection report and maintained on-site for a period of no less than three years.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(C) The items listed in subclauses (i) through (ix), inclusive, of this subparagraph shall be inspected periodically, as indicated. For each item, the inspector shall inspect the item and record on the inspection report either “no defect” or “defect”, to reflect the status of the item. For any items for which a “defect” status has been recorded, repairs shall be performed not later than thirty days after discovery. Each such repair shall be recorded in the inspection report with details as to how such defect was resolved. Such activities as required by this subparagraph shall be performed in accordance with the Petroleum Equipment Institute RP900-08, “Recommended Practices for the Inspection and Maintenance of UST Systems”.

(i) Inspect monthly vent risers;

(ii) Inspect monthly pressure/vacuum vent caps;

(iii) Inspect monthly spill buckets, new piping containment sumps and new under-dispenser containment sumps;

(iv) Inspect monthly dry break poppet valves to ensure that each such valve forms a continuous seal, including but not limited to ensuring that each valve depresses evenly across the valve seat and that it reseats properly;

(v) Inspect monthly motor fuel dispenser hoses to ensure that there are no tears, leaks, holes, kinks, crimps or defects of any kind;

(vi) Inspect monthly motor fuel dispenser cabinet interiors;

(vii) Inspect monthly transfer and dispensing areas to ensure that any release has been reported and cleaned in accordance with all applicable federal, state, and local requirements;

(viii) Inspect monthly leak and product monitoring device alarm enunciation panels to ensure the proper operation of leak and product monitoring and detection systems;

(ix) Inspect annually overfill prevention devices.

(D) Should any oil, water, or debris be discovered in any secondary containment component of any UST of UST system, such oil, water, or debris shall be removed and disposed in accordance with all applicable federal, state, and local requirements.

(3) The Class A Operator shall ensure that all UST system components, including but not limited to, tanks, pumps, and appurtenances, that will contact, store or dispense petroleum are compatible with the petroleum or bio-fuel blends that will be stored or dispensed.

(4) Delegation of the responsibilities of this subsection to designated Class A, B, and C Operators shall not relieve the owner or operator of a UST or UST system from liability for non-compliance with the requirements of this subsection.

(d) Revocation of Operator Training Program Approval.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(1) If the commissioner determines that an approved or deemed approved operator training program has become insufficient to adequately train Class A, B, or C Operators, the commissioner shall revoke the approval of the operator training program. Evidence of such insufficiency shall include, but not be limited to, inadequately trained Class A, B, or C Operators; compliance issues; or a failure to document completion of required training.

(2) An operator training program may be re-approved if it is demonstrated that all program defects have been corrected and if a revised curriculum and instructor's qualification is submitted to the commissioner and approved pursuant to subsection (b) of this section.

(3) An approved operator training program may withdraw as an approved operator training program by making such a request in writing to the commissioner.

(e) Operator Retraining.

If the commissioner determines that a UST or UST system is not in compliance with the release prevention and release detection measures, then the commissioner shall order that the responsible Class A, B, or C Operator assigned to that UST or UST system be retrained and recertified in accordance with an approved training program, not later than 30 days after being so ordered or within such other time as the commissioner specifies. Retraining pursuant to this subsection shall not excuse non-compliance nor create a presumption against any related enforcement.

State of Connecticut
REGULATION
of

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

Concerning

**Amendments to Regulations of Connecticut State Agencies Regarding
Underground Storage Tanks, Sections 22a-449(d)-1, 22a-449(d)-101, 22a-
449(d)-102, and 22a-449(d)-108**

(Statement of Purpose Page)

Statement of Purpose:

The federal Energy Policy Act of 2005 (EPAAct) sets forth several requirements that states must meet in order to be eligible for federal funding pursuant to the act. One such provision mandates that, by February 8, 2007, states require Secondary Containment for any USTs or UST systems. The Department of Environmental Protection (DEP) twice proposed legislation to put Secondary Containment requirements in place, but those bills did not get called before the session ended. To avoid jeopardizing future federal funding, EPA has proposed that the DEP use the regulatory revision process to impose the Secondary Containment requirements. One of the primary goals of the UST regulations as a whole is to minimize the risk of releases from USTs and UST systems. Secondary Containment requirements are entirely consistent with this goal. The existing requirements for double-walled tanks and piping combined with the proposed requirements for containment sumps at tank tops and under dispensers minimize the risk that petroleum and hazardous materials will ever reach the environment.

In addition to the Secondary Containment Requirements, the EPAAct further requires states to institute an Operator Training program. A schedule must be in place by August 8, 2009 and operators must be trained by August 8, 2012. As with Secondary Containment requirements, Operator Training programs are entirely consistent with the goals of the UST regulations. The Operator Training programs aim to reduce the risk of releases by ensuring that operators have the training necessary to conduct proper inspection and maintenance of UST or UST system components, operate and monitor early detection equipment and respond immediately to any suspected releases so as to minimize harm to the environment.