



## **CHESPROCOTT HEALTH DISTRICT**

1247 HIGHLAND AVENUE • CHESHIRE • CONNECTICUT

PHONE (203) 272-2761 • FAX (203) 250-9412

[www.chesprocott.org](http://www.chesprocott.org)

**Maura A. Esposito RS, MPH, Director of Health**

### **A Regulation Pertaining to Underground Petroleum Storage Facilities**

Pursuant to Section 19a-243 of the General Statutes of the State of Connecticut. Be it ordained by the Board of Directors of the Chesprocott Health District that these regulations are amended by adding sections (1) – (12) as follows:

**Purpose:** The purpose of the proposed regulation is to prevent or minimize contamination of the waters of this district resulting from a failure of underground facilities which store oil and petroleum liquids. Concurrently, this ordinance regulates the transmission lines of all facilities which are not underground. Lastly, this ordinance will establish standards defining the criteria for the design, installation, operation, maintenance, and monitoring of such facilities.

**Scope:** The provisions of sections (1) – (12) inclusive shall be applicable to all residential facilities in this district. In addition these regulations will apply to all small commercial and industrial facilities which are not under the jurisdiction of section 22a-449 (d)-1, the State regulation governing the control of non-residential underground storage of soil and petroleum liquids.

#### **Section 1. Definitions:**

- “abandoned” means rendered permanently unfit for use in accordance with Section 10 of these regulations
- “discharge” means the emission of any water, substance, or material into the waters of this district, whether or not such a substance causes pollution
- “facility” means a system of interconnected tanks, pipes, pumps, vaults, fixed containers, and appurtenant structures including any monitoring devices singly or in any combination which are used or designed for use in the storage, transmission, or dispensing of oil or petroleum liquids
- “failure” means a condition which can or does allow the uncontrolled passage of liquid into or out of a facility, including but not limited to a discharge to the waters of this district
- “failure determination” means the evaluation of a facility component in accordance with section 8 of these regulations in determining the occurrence of a failure
- “ground water” means water present in the zone of saturation

- “life expectancy” means the time period in which a failure is not expected to occur as determined in accordance with section 7 of these regulations
- “life expectancy determination” means the evaluation of a facility component in accordance with section 7 of these regulations
- “liquid” means any liquid including but not limited to oil and petroleum liquids
- “new facility” means a facility in which the construction or installation begins on or after the effective date of these regulations including but not limited to facilities which replace existing facilities and facilities that are moved from one location to another
- NFPA 30” means the national fire protection association publication number 30 entitled “flammable and combustible liquid code” as enforced by the fire marshals of the district
- “non-residential facility” means a facility which serves any commercial, industrial, institutional, public, or other building or use including but not limited to hotels and motels, boarding houses, hospitals, nursing homes, and correctional institutions, and not including residential buildings. “Non-residential buildings” as used in these regulations refers only to non-residential underground facilities that are not regulated by the State of Connecticut Regulation section 22a-449(d)-1
- “oil petroleum liquid” or “product” means oil or petroleum or any kind in liquid form but not limited to waste oils and distillation products such as fuel oil, kerosene, naphtha, gasoline, and benzene
- “operator” and/or “owner” means a person who is ultimately responsible for maintaining the facility in conformance with applicable statutes, regulations, and the required facility permits
- “residential building” means any house, apartment, trailer, mobile home, or other structure occupied by any individual as a dwelling
- “substantial modification” means the construction or installation of any addition to a facility or any 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
- “transmission lines” means the pipes and/or tubing that extend from an above ground storage tank to the main furnace

## **Section 2. Prohibitions:**

- A. Underground tanks are hereby prohibited in areas of high groundwater.
- B. No owner and/or operator is allowed to install underground oil tanks or bury transmission lines in this district without first obtaining a permit for such an installation from the local health department.
- C. The burial of oil transmission lines in an above ground facility is not permitted without the protection of a safety shield or sleeve.

### **Section 3. Reporting**

- A. Effective December 1, 1986, the owner and/or operator of any existing underground storage facility shall notify the local director of health.
- B. Effective December 1, 1986, the owner and/or operator of any proposed facilities must notify the director of health for a permit to install an underground facility or to bury a transmission line in a basement.
- C. Fifteen days prior to the installation of a new underground facility, an owner and/or operator shall notify the director of health as to the date of installation.
  - a. This notification is imperative because the director of health or his representative is to be present at the time of installation.
  - b. At the time of the notification, the owner and/or operator of a proposed facility shall provide the following information:
    - i. Facility location and capacity
    - ii. Proposed date of installation
    - iii. Type of facility and any monitoring systems present
    - iv. Results of the life expectancy determination and any other information the director of health deems necessary
  - c. The notification required by the director of health shall be submitted on forms furnished and prescribed by the director of health.
  - d. Within 30 days upon the completion of a failure determination, the owner and/or operator shall notify the results to the director of health.

### **Section 4. Design, Construction, Installation, Maintenance:**

- A. All new facilities and any new components of a substantially modified facility shall conform to the following standards:
  - a. Each underground tank shall:
    - i. Be listed-fiberglass-reinforced plastic (FRP) tank which is equipped with overfill protection and contact plates under all fill and gauge openings and is chemically compatible with the contained oil or petroleum liquids as determined by the tank manufacturer's warranty;
    - ii. Be a listed steel tank with overfill expansion and externally coated with a factory applied resistant coating approved by the manufacturer for the proposed purpose, and equipped with cathodic protection and permanent cathodic protection monitoring devices, and contact plates under all fill and gauge openings.
  - b. Be designed specifically for the purpose of underground installation.
  - c. All underground facility components shall be designed, constructed, and installed so as to allow failure determination of all underground storage and piping without substantial excavation.
  - d. All cathodic protection systems that protect underground tank components shall be tested annually. A structure to soil test voltage reading of at least negative 0.85 volts measured between the structure and the 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. This yearly record of voltage output shall be maintained by the owner and/or operator. 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 30 days from the date of discovery that the measures are not sufficient to maintain the structure to soil test voltage of at least negative 0.85 volts.

- i. It is the responsibility of the owner and/or operator to correct any malfunction of the cathodic protection system and report correction to the director of health within 15 days.
- e. No owner and/or operator of an existing tank shall use or operate any component of a facility beyond three years after the effective date of these regulations, or longer than three years beyond its life expectancy, whichever is later, unless the existing facility is tested every three years. Otherwise, the existing facility shall be removed or abandoned in accordance with procedures specified in NFPA 30.
- f. No underground storage facility shall be moved from one location to another without prior written approval by the director of health.
- g. The installation and maintenance of all underground components of a new facility shall comply in accordance with the NFPA 30 and the following specifications:
  - i. For coated steel components, the excavation shall be free from materials that may cause damage to the tank coating. Extreme care shall be taken during installation to prevent the introduction of foreign material into the excavation or backfill.
  - ii. The excavation shall extend a distance of at least one foot around the perimeter of the underground facility component.
  - iii. To insure compliance to these regulations the tank and piping shall be pressure tested at the jobsite before being covered, enclosed, or placed in use. The pressure shall not exceed 5 pounds per square inch (psi) during which time a soap solution shall be brushed over the weld seams and pipe joints. Tin caps shall be replaced with pipe plugs or cap piping before testing.
  - iv. The bottom of the excavation should be firm and level and then covered with at least a foot of non-corrosive material such as sand, pea gravel, or #8 crushed stone. A full length concrete pad shall be placed into the excavation.
  - v. At least 6 inches, and preferably 12 inches, of clean sand, pea gravel, or #8 crushed stone must be placed on the entire surface of the pad to separate the tank from the concrete pad.
  - vi. The remainder of the excavated area shall be contained with at least 6 inches of clean sand, pea gravel, or #8 crushed stone. Ashes, stones, and other corrosive materials are not to contact the tank or its components.
  - vii. The tank must be 24-36 inches below the grade or paving. If the need arises to install a tank greater than 36 inches, the tank manufacturer must be consulted for additional specifications and recommendations.
  - viii. If a manufacturer's specifications or recommendations are inconsistent with any of the provisions of these regulations, the provisions which

impose the most stringent and protective requirements shall prevail. Within thirty days following the completion of installation, the owner and/or operator shall submit to the director of health a statement signed by the installation contractor and the representative of the health department that the installation has been carried out in accordance with this subsection.

## **Section 5.           Transfer of Ownership**

In the event that an owner and/or operator shall transfer the ownership of an underground facility a full disclosure to the transferee of the status of the facility with respect to these regulations shall be submitted at least 15 days prior to the transfer. The disclosure shall include any information previously submitted to the director of health.

## **Section 6.           Records**

The owner of a new or existing facility shall assure the maintenance of up-to-date records of significant installation activities, substantial modification, abandonment, removal, or replacement of underground components or any protective devices for such components, and any other information required by the director of health. An owner and/or operator shall review all records and attest to their accuracy by signing the records no later than 7 days following the completion of the recorded activity. All records must be copied and submitted to the director of health within thirty days of the completion.

## **Section 7.           Life Expectancy:**

Life expectancy is defined as follows:

- A. For a fiber-glass reinforced plastic (FRP) facility and component, the period of the manufacturer's corrosion warranty.
- B. For a cathodically protected facility component which meets the requirements of subsection 4a(1)-(7) of these regulations, the period of the manufacturer's corrosion warranty or the life expectancy of the existing or replaced anode(s) as calculated using standard formulas approved in writing by the director of health.
- C. For existing facility components that are not in compliance of these regulations, 15 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 director of health.

## **Section 8.           Failure Determination:**

- A. The failure determination on all existing facility components not in compliance with these regulations shall be carried out within 33 to 36 months prior to the end of the life expectancy. These existing facility components shall undergo hydrostatic pressure testing or other approved means every 3 years. If the existing facility is not functioning adequately, it shall be abandoned, replaced, or substantially modified in accordance with these regulations.

- B. Failure determination on new facility components shall be done at least 6-12 months prior to the end of the life expectancy. At this time, the facility components shall undergo hydrostatic pressure testing or other approved means by the director of health. If the facility is determined to be in good condition and will remain in use, hydrostatic pressure testing shall be repeated in 3 years. No new facility shall remain underground greater than 5 years beyond its life expectancy. At this time, the facility component shall be abandoned, replaced or substantially modified in accordance to these regulations.

## **Section 9. Failures:**

- A. An owner and/or operator of a new or existing facility shall report any failures to the director of health immediately.
- B. An owner and/or operator of a leaking transmission line must report any failure to the director of health immediately.
- C. An owner and/or operator of a new or existing facility in which a failure occurs shall immediately empty the failed facility component with 24 hours and discontinue use of the failed facility component; and
  - a. Remove, repair, or abandon it within 90 days in accordance to the procedures specified in NFPS 30; or
  - b. Replace all damaged components with 30 days in accordance with the standards listed in these regulations.
  - c. If the repair to an existing oil transmission line is made, a sleeve or shield shall be placed on the line at the time of the repair.
  - d. An owner and/or operator of a new or existing facility which discharges oil or petroleum liquid to the environment shall immediately cease such a discharge and reclaim, recover, and properly dispose of the discharged liquid and any other substances contaminated by it. Restoration of the environment shall be of a quality and condition acceptable to the director of health.

## **Section 10. Abandoned Facility**

- A. An owner and/or operator shall notify the director of health in writing within 30 days when a new or existing facility component part is abandoned.
- B. A facility or facility component shall be abandoned in accordance with procedures specified in NFPA 30.
- C. No owner and/or operator shall use or operate an abandoned facility.

## **Section 11. Penalties for Violations**

An owner and/or operator in violation of any of these regulations adopted under sections (1)-(12), inclusive, shall be fined no greater than \$100.00 nor less than \$25.00 depending upon the violation. Each day that a violation of these regulations continues constitutes a separate violation.

**Section 12. Severability Clause:**

Should any section, paragraph, sentence, clause, or phrase of these regulations be declared unconstitutional or invalid for any reason, the remainder of said regulations shall not be affected thereby.

Adopted: October 15, 1986

Reviewed and Accepted January 21, 2015