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State of Connecticut
REGULATION
of

NAME OF AGENCY

Energy and Environmental Protection

Concerning

SUBJECT MATTER OF REGULATION

Amendment of Section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA) Control of Organic Compound Emissions

Section 1. Subsection (a) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

Sec. 22a-174-20. Control of organic compound emissions

(a) Storage of [“]volatile organic compounds[”] and restrictions for the Reid [Vapor Pressure] <u>vapor pressure</u> of gasoline.

[(a)](1) Definitions. For the purposes of this subsection and subsections (b) and (c) of this section:

(A) <u>“Aboveground” means located on or above the surface of the ground, partially buried, bunkered or located in a subterranean vault;</u>

(B) “Approved control system” means, a vapor balance system or a vapor recovery system[.]<u>;</u>

(C) <u>“Degassing” means the process of removing organic vapors from a storage tank in preparation for human entry;</u>

(D) “Delivery vehicle” means a tank truck, tank-equipped trailer, railroad tank car, or other [“]mobile source[”] equipped with a storage [“]tank[”] used for the transportation of gasoline from [“]sources[”] of supply to any stationary storage [“]tank[.”]<u>;</u>

(E) “Dispensing facility” means any site where gasoline is delivered to motor vehicles other than agricultural vehicles from any stationary storage [“]tank[”] with a capacity of 250 gallons or more[.]<u>;</u>

(F) <u>“Floating roof” means a movable roof in a storage vessel consisting of a floating deck resting on the surface of the liquid contents, a continuous seal supported against the inner surface of the tank shell, and an envelope closing the gap between the floating deck and the seal. The entire deck, seal and envelope combination is free to rise and fall with the surface of the liquid during filling and emptying of the storage vessel;</u>

(G) "Gasoline" means any petroleum distillate or petroleum distillate and alcohol blend [having a reid vapor pressure of four pounds or greater] commercially known or sold as "gasoline" and commonly used as [a motor vehicle] an internal combustion engine fuel[.];

(H) "Gasoline storage tank farm" means a ["premise"] premises with any individual [“]gasoline[”] storage [“]tank[”] with a capacity equal to or greater than forty thousand (40,000) gallons[.];

(I) "Leak-free" means a condition that exists when the reading on a portable hydrocarbon analyzer is less than 500 ppm, expressed as methane, above background, measured using EPA Method 21, as identified in 40 CFR Part 60, Appendix A, Determination of Volatile Organic Compounds Leaks;

(J) "Loading facility" means any combination of equipment located on a premises and used to load or unload any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions;

(K) "Reid [Vapor Pressure] vapor pressure" or "RVP" means the vapor pressure of a liquid in pounds per square inch absolute at one hundred (100) degrees fahrenheit as determined by American Society for Testing and Materials method [D323-82 "Standard Method for Vapor Pressure of Petroleum Products (Reid Method).] D5191-07 "Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method);"

(L) "Roof landing" means the reduction of the liquid level in a floating roof tank so that the floating roof is no longer floating on the surface of the stored liquid but is resting on its legs or is supported from above by cables or hangers;

(M) "Storage tank" means any tank, reservoir or vessel that is a container for liquids or gases, wherein:

(i) No manufacturing process, or part thereof, other than filling or emptying takes place, and

(ii) The only treatment carried out is treatment necessary to prevent change from occurring in the physical condition or chemical properties of the liquids or gases deposited into the container. Such treatment may include, but is not limited to, recirculating, agitating, maintaining the temperature of the stored liquids or gases, replacing air in the vapor space above the stored liquids or gases with an inert gas to inhibit the occurrence of a chemical reaction or adding a biocide to prevent microbial growth;

(N) "Throughput" means the number of gallons delivered through all equipment at a dispensing facility or a loading facility over a specified time interval[.];

(O) "Underground" means "underground" as defined in section 22a-449(d)-1(a)(2) of the Regulations of Connecticut State Agencies;

(P) "Vapor balance system" means a combination of pipes or hoses [which] that creates a closed connection between the vapor spaces of an unloading ["]tank["] and receiving ["]tank["] such that vapors displaced from the receiving ["]tank["] are transferred to the ["]tank["] being unloaded and for which the vapor space connections on the unloading tank, the receiving tank and the pipes or hoses used are equipped with fittings [which] that are vapor-tight and [which] will automatically and immediately close upon disconnection so as to prevent the release of vapors. [The complete system as a whole and not just the individual components shall have been tested and approved by a nationally recognized testing laboratory.];

(Q) "Vapor recovery system" means a device or system [of devices with attendant valves, fittings, piping, and other appurtenances incorporating a means for the incineration of vapors or the liquefaction of vapors by absorption, adsorption, condensation or other means. The complete system as a whole and not just the individual components shall have been tested and approved by a nationally recognized testing laboratory.] that collects vapors to prevent release into the atmosphere. Collected vapors are recovered for use or destroyed; and

(R) "Vapor-tight" means not capable of allowing the passage of gases at the pressures encountered.

[(a)(2) No "person" shall place, store or hold in any stationary "tank" reservoir or other container of more than 40,000 gallons capacity any "volatile organic compound" with a vapor pressure of 1.5 pounds per square inch absolute or greater under actual storage conditions unless the "tank," reservoir or other container is a pressure "tank" capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed, and equipped, with one of the vapor loss control devices listed in subparagraphs (A) through (D) below. If the control devices specified in subparagraphs 22a-174- 20(a)(2)(A) or (a)(2)(D) are used to comply with the requirements of this subdivision, then the requirements of subdivision 22a-174-20(a)(8) must also be met.]

(2) No owner or operator shall place, store or hold in any aboveground storage tank of 40,000 gallons (150,000 liters) capacity or greater any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions unless the tank is designed and equipped with a vapor loss control device identified in either subparagraph (A), (B), (C) or (D) of this subdivision.

(A) The tank is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere;

[(A)](B) [A] The tank is equipped with a fixed roof and a floating roof[, consisting of a pontoon type, double deck type roof or internal floating cover, which will rest] that rests on the surface of the liquid contents and [be] is equipped with a closure seal or seals to close the space between the roof edge and ["]tank["] wall. This control equipment is not permitted if the ["volatile organic compound"] VOC has a vapor pressure of 11.0 pounds per square inch absolute (568 mm[.] Hg)[,] or greater under [actual storage] standard conditions. [All "tank" gauging or sampling devices must be gas-tight except when "tank" gauging or sampling is

taking place.] The owner or operator shall operate and maintain such a tank to ensure that:

(i) There are no visible holes, tears or other openings in the seal or any seal fabric or materials,

(ii) All openings except stub drains are equipped with covers, lids or seals such that:

(I) The cover, lid or seal is in the closed position at all times except when in actual use,

(II) Automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports, and

(III) Rim vents, if provided, are set to open to the manufacturer's recommended setting when the roof is floated off the roof leg supports or cables,

(iii) All tank gauging and sampling devices are vapor-tight except when tank gauging or sampling is taking place, and

(iv) No liquid accumulates on the top of the floating roof;

[(B)](C) [A] The tank is equipped with a fixed roof and a [“]vapor recovery system[” which collects all volatile organic compound vapors and gases discharged from the tank and a vapor return or disposal system which] that is designed and operated to [process such vapors so as to] reduce [their emission] emissions of VOC to the atmosphere by at least 95 percent by weight. An owner or operator limiting vapor loss according to this subparagraph shall perform the following actions no later than ten years after the effective date of this subsection if the tank is in existence prior to the effective date of this subsection or by the initial fill date if a tank is constructed on or after the effective date of this subsection:

(i) Equip any gauging or sampling device on the tank with a leak-free cover that shall be closed at all times, with no visible gaps, except during gauging or sampling,

(ii) Maintain the fixed roof in a leak-free condition with no holes, tears or uncovered openings, and

(iii) Install and maintain each roof opening in a leak-free condition at all times except when the cover is open for access or when a vent is required to be open to relieve excess pressure or vacuum in accordance with the manufacturer’s design, or

(iv) Once per month, demonstrate compliance with this subsection by inspecting the fittings located on the roof, piping, pressure relief valves and all other valves to ensure they are leak-free using EPA Method 21 or

using another method approved by the commissioner and the Administrator; or

[(C)](D) [Other] The tank is equipped with other equipment or means of air pollution control with an efficiency equal to or greater than that required under subparagraph [22a-174-20(a)(2)(B)] (C) of this subdivision [for purposes of "air pollution" control as may be] that is approved by the ["Commissioner"] commissioner [by] in a permit or order, where such permit or order has been approved by the Administrator.

[(D) On or after June 1, 1985 a floating roof, consisting of a pontoon type, double deck type roof or external floating cover, which will rest on the surface of the liquid contents and be equipped with primary and secondary closure seals to close the space between the roof edge and the tank wall. This control equipment is not permitted if the volatile organic compound has a vapor pressure of 11.0 pounds per square inch absolute (568 mm. Hg), or greater under actual storage conditions. All tank gauging or sampling devices must be gas-tight except when tank gauging or sampling is taking place. The owner or operator of any tank subject to this provision shall ensure that:

(i) Any seal is intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall;

(ii) The total area of gaps, determined in accordance with the requirements of subdivision 22a-174-20(a)(9), exceeding 0.125 inches in width between the secondary closure seal and the tank wall does not exceed 1.0 square inch per foot of tank diameter;

(iii) A secondary closure seal gap measurement as specified in (ii) above is made annually;

(iv) A visual inspection of the secondary closure seal is conducted semi-annually;

(v) Any emergency roof drain is provided with a slotted fabric cover which covers at least ninety percent (90%) of the area opening.]

(3) An owner or operator limiting vapor loss according to subdivision (2)(B) of this subsection shall conduct inspections as follows:

(A) Once per month visually inspect the floating roof deck, deck fittings and rim seal system through the roof hatches of the fixed roof to determine compliance with the requirements of subdivision (2)(B) of this subsection; and

(B) Whenever the tank is emptied and degassed, but no less than once every 10 years, conduct an inspection from within the tank by:

(i) Visually inspecting the floating roof deck, deck fittings and rim seal system to determine compliance with the requirements of subdivision (2)(B) of this subsection and ensure that the seal between the floating roof and the tank wall is uniform, and

(ii) Physically measuring gaps between any deck fitting gasket, seal or wiper and any surface that it is intended to seal. Gaps shall not exceed 0.125 inches.

(C) The inspection specified in subparagraph (B) of this subdivision may be performed entirely from the top side of the floating roof as long as there is visual access to all deck components specified in subdivision (2)(B) of this subsection.

(4) For any tank subject to subdivision (2) of this subsection, if any piping, valves, vents, seals, gaskets or covers of roof openings are found to have defects or visible gaps or the VOC control requirements of this subsection are not met, the owner or operator shall:

(A) If the tank is not storing liquid, complete repairs or replacements prior to filling the tank;

(B) If the tank is storing liquid, complete repairs or replacements or remove the tank from service within 45 days after discovery of the defect or visible gap. If the owner or operator anticipates that a repair or replacement cannot be completed or the tank cannot be emptied within 45 days, the owner or operator shall notify the commissioner prior to the end of the 45-day period. The owner or operator shall make repairs or completely empty the tank as soon as possible; and

(C) Any evidence of leakage as described in this subsection shall also be treated as a malfunction of control equipment as described in section 22a-174-7 of the Regulations of Connecticut State Agencies. An inspection in accordance with the provisions of this subdivision (3) if this subsection shall be performed immediately after all required repairs are complete.

[(a)(3)](5) No [“]person[”] shall place, store, or hold in any stationary storage vessel of more than 250-gallon (950 liter) capacity any [“volatile organic compound”] VOC with a vapor pressure of [1.5] 0.75 pounds per square inch or greater under [actual storage] standard conditions unless such vessel is equipped with a permanent [“]submerged fill pipe[” with a discharge point eighteen (18) inches or less from the bottom of the storage vessel] or is a pressure [“]tank[”] as described in subdivision [22a-174-20(a)(2)] (2)(A) of this subsection. Submerged fill pipes installed on or prior to the effective date of this subsection shall have a discharge point no more than 18 inches from the bottom of the storage tank or be compliant with the requirements of 40 CFR 63 Subpart CCCCCC. Submerged fill pipes installed after the effective date of this subsection shall have a discharge point no more than six inches from the bottom of the storage tank.

[(a)(4)](6) The provisions of subdivision [22a-174-20(a)(3)] (5) of this subsection shall not apply to the following:

(A) [loading] Loading of [“volatile organic compounds”] VOC into any storage vessel having a capacity of less than one-thousand (1,000) gallons [which was] installed prior to June 1, 1972[,];

(B) [nor to any] Any underground storage vessel installed prior to June 1, 1972, where the fill pipe between the fill connection and the storage vessel is an [“]offset fill pipe[.”]; or

(C) Any aboveground storage tank equipped with a floating roof.

(7) The external surfaces of any storage tank containing VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions that has a maximum capacity of 2,000 gallons (7,570 liters) or greater and is exposed to the rays of the sun shall be either mill-finished aluminum or painted and maintained white upon the next painting of the tank, or upon being returned to service after being out of service for the first time after the effective date of this subsection, whichever is sooner, and no less than 10 years after the effective date of this subsection, except the requirement to use mill-finished aluminum or white paint shall not apply to words and logograms applied to the external surface of the storage tank for purposes of identification provided such symbols do not cover more than 20 percent of the external surface area of the tank's sides and top or more than 200 square feet (18.6 square meters), whichever is less.

(8) When performing a roof landing of a floating roof tank, the owner or operator of any tank shall:

(A) When the roof is resting on its leg supports or suspended by cables or hangers, empty and refill the tank as a continuous process; and

(B) After the tank is degassed for the first time after the effective date of this subsection, any in-service roof landing shall be with the landed height of the floating roof at its minimum setting.

(9) An owner or operator of an aboveground storage tank shall perform degassing and cleaning as set out in this subdivision.

(A) Beginning with the first June 1 after the effective date of this subsection, an owner or operator shall not perform degassing of any aboveground storage tank subject to subdivision (2) of this subsection during the period from June 1 through August 31 of any calendar year, except as provided in subparagraph (B) of this subdivision;

(B) Notwithstanding subparagraph (A) of this subdivision, an owner or operator may degas an aboveground storage tank at any time for the purpose of performing a repair that is necessary for safe and proper function of the tank. An owner or operator shall notify the commissioner when a tank is emptied and degassed under this subparagraph within 72 hours of completing the degassing and repair. Such notification shall be submitted to the Compliance Assistance and Coordination Unit of the Bureau of Air Management and shall include the following information:

(i) Identification of the facility and the tank degassed,

(ii) Identification of the VOC stored,

(iii) An explanation of the need to degas the tank during the period from June 1 through August 31,

(iv) The date the owner or operator determined that degassing and repair would be necessary,

(v) The dates that degassing commenced and was completed,

(vi) The date that inspection, repair and refilling was or is anticipated to be completed; and

(C) An owner or operator shall clean an aboveground storage tank subject to subdivision (2) of this subsection using one or more of the following methods:

(i) Using any of the following cleaning agents:

(I) Diesel fuel,

(II) A solvent with an initial boiling point of greater than 302 degrees Fahrenheit,

(III) A solvent with a vapor pressure less than 0.5 pounds per square inch,

(IV) A solvent with 50 grams per liter VOC content or less, or

(V) Another cleaning agent approved by the commissioner and the Administrator, or

(ii) Steam cleaning.

(10) Records.

(A) An owner or operator shall maintain records including, at a minimum, the information described in subparagraph (B) of this subdivision. All such records shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(B) An owner or operator shall maintain records of the following information:

(i) For a tank equipped with a vapor loss control device specified in subdivision (2) of this subsection:

(I) Type of VOC stored, vapor pressure and monthly throughput,

(II) A Material Safety Data Sheet or Environmental Data Sheet for each VOC stored, and

(III) Records of the inspections conducted under subdivision (3) of this subsection including, but not limited to, date of the inspection, results and corrective actions taken, if applicable,

(ii) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator,

(iii) Date and type of maintenance performed on air pollution control equipment, if applicable,

(iv) Documentation of any leak detected pursuant to subdivision (4) of this subsection, including, but not limited to, the date the leak was detected, location of the leak, type of repair made and the date of repair and explanation of the reason for delaying repair, if applicable,

(v) For each floating roof landing event, the tank contents before landing and after refilling, landed height of the floating roof, height of any liquid remaining in the bottom of the tank after landing, duration of landing and landing emissions calculated using AP-42 Chapter 7 methodology,

(vi) Dates of all tank degassing activities performed pursuant to subparagraphs (A) or (B) of subdivision (9) of this subsection,

(vii) Date, cleaning method and cleaning agents used for any cleaning performed pursuant to subparagraph (C) of subdivision (9) of this subsection, and

(viii) Any approval by the commissioner or Administrator issued pursuant to this subsection.

[(a)(5)](11) Between May 1 and September 15 the owner or [“]operator[”] of any [“]gasoline storage tank farm[”] shall not offer for sale, sell or deliver to any [“]dispensing facility[”] in Connecticut [“]gasoline[”] with a [“]Reid Vapor Pressure[”] in excess of 9.0 pounds per square inch.

[(a)(6)](12) In addition to the requirements of section 22a-174-4 of the Regulations of Connecticut State Agencies, the [“Commissioner”] commissioner may by permit or order require the owner or [“]operator[”] of any [“]gasoline storage tank farm[”] to provide records of the analysis of [“]gasoline[”] samples to determine compliance with the provisions of subdivision [22a-174-20(a)(5)] (11) of this subsection.

[(a)(7) Any “person” who samples or tests “gasoline” for the purposes of determining compliance with subdivision 22a-174-20(a)(5) shall use the following American Society for Testing and Materials (ASTM) test methods:

(A) ASTM Method D323-82, “Standard Method for Vapor Pressure of Petroleum Products (Reid Method)”;

(B) ASTM Method D4057-81, “Standard Practice for Sampling of Petroleum and Petroleum Products”; or

(C) ASTM Method D270 “Standard Method of Sampling of Petroleum and Petroleum Products.”

(a)(8) The owner or operator of any “tank” which uses the control devices specified in subparagraphs 22a-174-20(a)(2)(A) or (a)(2)(D) shall ensure that such “tank” meets the requirements of subparagraphs (A) through (F) of this subdivision.

(A) There are no visible holes, tears or other openings in the seal or any seal fabric or materials.

(B) All openings except stub drains are equipped with covers, lids or seals such that:

(i) the cover, lid or seal is in the closed position at all times except in actual use; and

(ii) automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports; and

(iii) rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(C) Routine inspections are conducted through roof hatches once per month.

(D) A complete inspection of cover and seal is conducted whenever the “tank” is emptied for non-operational reasons but in any event at least once per year; and

(E) Records of the average monthly storage temperature, true vapor pressure, monthly throughput and type of volatile organic compounds stored are maintained and kept for a minimum of two (2) years after such record is made.

(F) Records of the results of the inspections conducted under subparagraphs (C) and (D) of this subdivision are maintained and kept for a minimum of two (2) years after such record is made.

(a)(9) Compliance with the requirements regarding the total area of gaps under subparagraph 22a-174-20(a)(2)(D) shall be determined by physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a O.32 cm (1/8 in.) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and the tank wall and summing the area of the individual gaps. Any person who proposes to conduct this test shall notify the Department's Air Compliance Unit not less than thirty (30) days before the test so the Department may, at its option, observe the test.

(a)(10) The owner or operator of any tank with a capacity in excess of 40,000 gallons and which is equipped with an external floating roof shall maintain records of the average monthly storage temperature, the type of liquid stored and its vapor pressure, for any "volatile organic compound" with a vapor pressure under actual storage conditions which is greater than 1.0 pounds per square inch but less than 1.5 pounds per square inch.]

(13) Samples to be analyzed for RVP shall be collected and handled according to the applicable procedures in American Society for Testing and Materials method D 5842–95(2000), "Standard Practice for Sampling and Handling of Fuels for Volatility Measurement."

(14) RVP shall be determined using American Society for Testing and Materials method D5191-07 (2007), except that the following correlation equation shall be used:

RVP psi = (0.956 * X) − 0.347.

Sec 2. Subdivisions (1) through (4) of subsection (b) of section 22a-174-20 of the Regulations of Connecticut State Agencies are amended to read as follows:

(1) [Additional definitions. For the purposes of this subsection the following definition shall apply:

"Loading facility" means any aggregation or combination of equipment located on a premises and used to load or unload any volatile organic compound with a vapor pressure of 1.5 pounds per square inch or greater under actual storage conditions.] Reserved.

(2) No person shall load or permit the loading of any [volatile organic compound] VOC with a vapor pressure of [1.5] 0.75 pounds per square inch or greater under [actual storage] standard conditions into any delivery vehicle from any loading facility with a throughput of 10,000 gallons or more in any one day unless such loading facility is equipped with a vapor collection and [disposal] vapor recovery system or its equivalent, properly installed, in good working order, and in operation, and:

(A) [the] The vapors discharged from the delivery vehicle during loading are processed by a vapor recovery system; and

(B) [the] The amount of [volatile organic compounds] VOCs released to the ambient air is less than 80 milligrams per liter of liquid loaded over a six (6) hour period. To determine compliance with this requirement the reference methods and test procedures found in [Title] 40 [Code of Federal Regulations Part] CFR 60.503(a) and [Part] 60.503(c), respectively, shall be used.

(3) No person shall load or permit the loading of any [volatile organic compounds] VOC with a vapor pressure of [1.5] 0.75 pounds per square inch or greater under [actual storage] standard conditions into any delivery vehicle having a capacity in excess of 200 gallons (760 liters) from any loading facility with a throughput of 10,000 gallons or more in any one day unless such loading facility is equipped with a loading arm with a vapor collection adaptor, pneumatic, hydraulic, or other mechanical means to force a vapor-tight seal between the adaptor and the hatch. A means shall be provided to prevent liquid organic compounds drainage from

the loading device when it is removed from the hatch of any delivery vehicle, or to accomplish complete drainage before such removal. When loading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings [which] that make vapor-tight connections and [which] close automatically when disconnected.

(4) Subdivisions (2) and (3) of this subsection shall apply only to the loading of [volatile organic compounds] VOC with a vapor pressure of [1.5] 0.75 pounds per square inch or greater under [actual storage] standard conditions at a facility from which at least 10,000 gallons of such organic compounds are loaded in any one day. The applicability of subdivisions (2) and (3) of this subsection shall be based upon a thirty day rolling average, and once a loading facility exceeds this limit, the requirements of subdivisions (2) and (3) of this subsection shall [always] apply.

Sec 3. Subsection (b) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended by adding subdivision (17):

(NEW)

(17) The owner or operator of a loading facility with a throughput of 4,000 gallons or more in any day shall not cause, allow or permit leakage from any equipment in VOC service, including but not limited to pumps, valves and compressors. The owner or operator of any equipment in VOC service that is leaking as determined by sight, smell, sound or measurement of VOC in excess of 5000 parts per million shall repair such leak no later than fifteen days after detection. A request to delay a repair of a leak may be made to the commissioner and the Administrator in writing if the repair is infeasible for technical or safety reasons. Such a request shall be submitted no later than 15 days after detection of the leak.

Sec 4. Subsection (c) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(c) [“]Volatile organic compound[” /] and water separation. No [“person”] owner or operator shall use any compartment of any single or multiple compartment [“]volatile organic compound[”/ “] and waste water separator[” which] that receives effluent water containing 200 gallons (760 liters) a day or more of any [“volatile organic compound”] VOC with a vapor pressure of 1.5 pounds per square inch or more from any equipment processing, refining, treating, storing, or handling [“volatile organic compounds”] VOC unless such compartment is equipped with one or more of the following vapor loss control devices, properly installed, in good working order, and in operation:

(1) A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be [gas-tight] vapor-tight except when gauging or sampling is taking place[.];

(2) A container equipped with a floating roof[, consisting of a pontoon type, double deck type roof, or internal floating cover, which will rest] that rests on the surface of the contents and [be] is equipped with a closure seal or seals to close the space between the roof edge and container wall. All gauging and sampling devices shall be [gas tight] vapor-tight except when gauging or sampling is taking place[.];

(3) A container equipped with a [“]vapor recovery system[” which collects all volatile organic compound vapors discharged from the container and which processes such vapors to reduce their] that reduces VOC emissions by at least 95 per cent by weight[.]; or

(4) A container having other equipment of [equal] equivalent efficiency [for the purpose of “air pollution” control as required by subdivision (3) of this subsection] may be approved by the [“Commissioner”] commissioner [by] in a permit or order, where such permit or order has been approved by the Administrator.

Sec 5. Subsection (x)(12) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(12) Notice and retests.

Any evidence of leakage as described in this subsection shall [also] be treated as a malfunction of control equipment or methods as described in section 22a-174-7 of the Regulations of Connecticut State Agencies. [Corrective actions shall be taken in accordance with the provisions of subsection [22a-174-7(c).] A retest in accordance with the provisions of subdivision [(x)(8)] (8) of [section 22a-174-20] this subsection [must] shall be performed [immediately] not more than two business days after all required repairs are complete.

Statement of purpose

The main purpose of this proposal is to update existing and add new requirements to control volatile organic compound (VOC) emissions from large aboveground storage tanks (AST). The requirements are consistent with those in other Northeastern states and generally conform to measures used by AST owners and operators to limit product loss. The proposal will also assist Connecticut in meeting the reasonably available control technology requirements necessary under the 2008 8-hour national ambient air quality standard for ozone.

The Department of Energy and Environmental Protection (DEEP) currently regulates VOC emissions from storage and transfer of VOC-containing substances through various provisions of section 22a-174-20 of the Regulations of Connecticut State Agencies. The main provisions of the proposal include: termination of the option of using an undomed floating roof tank to store VOC; clarification of the inspection requirements; and the addition of requirements for roof landing events and degassing and cleaning operations. (Section 1) For storage and transfer of VOC, DEEP is proposing to include a lower vapor pressure floor for determining applicability and simplify that provision by basing it on vapor pressure at standard conditions, a constant, rather than the actual vapor pressure that changes with ambient temperature. (Sections 1 and 2) To minimize fugitive emissions facility-wide, DEEP is proposing to require timely repair of leaks from loading facilities. (Section 3) In addition, DEEP is proposing to revise the floating roof requirements for VOC and water separators to clarify that roof designs are not limited to pontoon-type or double deck covers. (Section 4)

Minor revisions are proposed to the leak control provisions for synthetic organic chemical and polymer manufacturing equipment by removing an outdated regulatory reference and clarifying the time limit for retesting. (Section 5)

The proposal has no legal impact beyond the direct impact on operations of the owners and operators of equipment subject to the revised requirements.