

## **TITLE 250 – DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

### **CHAPTER 140 – WASTE AND MATERIALS MANAGEMENT**

#### **SUBCHAPTER 25 – OIL & UNDERGROUND TANKS**

##### **PART 2 – Oil Pollution Control Regulations**

### **2.1 Purpose and Goals**

These Regulations are intended to prevent the discharge, escape or release of oil onto the land or into the waters of the State, and to preserve and protect the quality of the waters of the State, consistent with the purposes of the Federal Clean Water Act, 33 U.S.C. § 1251 *et seq.* (2018) and R.I. Gen. Laws Chapter 46-12.

### **2.2 Authority**

These Regulations are adopted pursuant to R.I. Gen. Laws Chapters 46-12, 42-17.1 and 42-35.

### **2.3 Incorporated Materials**

- A. These Regulations hereby adopt and incorporate NFPA 30: Flammable and Combustible Liquids Code, 2018 Edition (2017) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.
- B. These Regulations hereby adopt and incorporate NFPA 30A: Code for Motor Fuel Dispensing Facilities and Repair Garages, 2018 Edition (2017) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.
- C. These Regulations hereby adopt and incorporate API Standard 650, 12<sup>th</sup> Edition, March 2013 by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.
- D. These Regulations hereby adopt and incorporate UL 142, 10<sup>th</sup> Edition, May 2019 by reference, not including any further editions or amendments thereof, and only to the extent that the provisions therein are consistent with these Regulations.

## 2.4 Definitions

A. Whenever used in these Regulations, the following terms shall have the following meanings:

1. "Abandonment" means the relinquishment or termination of possession, ownership or control of a storage container by vacating, or by disposition.
2. "AST" or "aboveground storage tank" means any container used to store oil. These containers are used for purposes including – but not limited to – the storage of oil prior to use, during use, or prior to further distribution in commerce. DEM regulates ASTs greater than five hundred (500) gallons in size, and facilities with a combined storage capacity greater than five hundred (500) gallons.
3. "Bilge waste" means the waste from the lower part of a vessel's containment area or hold.
4. "Biological additives" means microbiological cultures, enzymes, or nutrient additives that are deliberately introduced into an oil discharge for the specific purpose of encouraging biodegradation to mitigate the effects of the discharge.
5. "Boom" means a structural device or devices used to contain and/or absorb oil or other pollutants that may be placed into water.
6. "Burning agents" means those additives that, through physical or chemical means, improve the combustibility of the materials to which they are applied.
7. "C.F.R." means Code of Federal Regulations.
8. "Chemical agents" means those elements, compounds or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or removal of the pollutant from the water.
9. "Container" means any barrel, bottle, drum, vessel, storage tank, or the like that holds any oil, chemical, or product derived from petroleum distillate.
10. "DEM" means the Rhode Island Department of Environmental Management.
11. "Director" means the Director of the Department of Environmental Management or any subordinate or subordinates to whom he/she has delegated the powers and duties vested in him/her by law or Regulation.

12. "Discharge" means the addition of any pollutant to the waters from any point source or placement where it is likely to enter waters of the State.
13. "Dispersants" means those chemical agents that emulsify, disperse or solubilize oil into the water column, or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.
14. "Facility" means any parcel of real estate or a contiguous series or parcels of real estate together with any and all structures, facility components, improvements, fixtures and other apparatuses located herein which constitutes a distinct geographic or commercial unit and at which petroleum products and/or oil are stored.
15. "GAA" means classification of groundwater suitable for public drinking water use without treatment pursuant to R.I. Gen. Laws § 46-13.1-4 and any Rules and Regulations promulgated thereunder. The GAA classification areas for the State of Rhode Island can be found at [www.dem.ri.gov/programs/benviron/water/quality/prot/pdfs/gwclass.pdf](http://www.dem.ri.gov/programs/benviron/water/quality/prot/pdfs/gwclass.pdf).
16. "GA" means classification of groundwater suitable for public or private drinking water without treatment pursuant to R.I. Gen. Laws § 46-13.1-4 and any Rules and Regulations promulgated thereunder.
17. "Groundwater" means all underground waters of whatever nature.
18. "NFPA code 30" means the National Fire Protection Association publication number 30 entitled, "Flammable and Combustible Liquids Code."
19. "NFPA code 30A" means the National Fire Protection Association publication number 30A entitled, "Code for Motor Fuel Dispensing Facilities and Repair Garages."
20. "Oceangoing ship" or "seagoing vessel" means a vessel that:
  - a. Is operated under the authority of the United States and engages in international voyages; or
  - b. Is operated under the authority of the United States and is certified for ocean service; or
  - c. Is operated under the authority of the United States and is certified for coastwise service beyond three (3) miles from land; or
  - d. Is operated under the authority of the United States and operates at any time seaward of the outermost boundary of the territorial sea of the United States; or

- e. Is operated under the authority of a country other than the United States.
- 21. "Oil" means petroleum, gasoline, tar, asphalt, or any product or mixture thereof, or any substance refined from petroleum or crude oil.
- 22. "Oil carrying vessel" means any floating craft or vessel equipped to carry bulk oil as cargo, or equipped to carry more than five thousand (5,000) gallons of fuel for its own use or which carries oil or chemical wastes.
- 23. "Oil spill cleanup debris" means waste resulting from the cleanup of oil debris caused by spilling, depositing, releasing or placing of oil onto the land or waters of the State and include but not be limited to soil, absorbent material, or any other material contaminated with oil.
- 24. "Operator" means the person or persons in control of or having responsibility for operating or maintaining any property which is subject to these Regulations.
- 25. "Owner" means the person who holds title to, or lawful possession of, real or personal property which is subject to these Regulations.
- 26. "Person" means an individual, trust, firm, joint stock company, corporation (including a quasi-government corporation), partnership, association, syndicate, municipality, municipal or State agency, fire district, club, non-profit agency, or any subdivision, commission, Department, bureau, agency or Department of State or Federal government (including quasi-government corporation), or any interstate or international body.
- 27. "Point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, tank, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.
- 28. "Place" or "release" means adding, spilling, releasing, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, spraying into the air, dumping or disposing oil into the environment that either poses a risk to human health or welfare, or has the potential to contaminate land and/or is likely to enter the waters of the State.
- 29. "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, or industrial, municipal, agricultural or other waste, petroleum products, including but not limited to oil.

30. "Reception facility" means a facility that has obtained a "certificate of adequacy" from the Coast Guard pursuant to 33 C.F.R. Part 158 (2018), and means anything capable of receiving shipboard oil or chemical wastes that includes, but is not limited to:
- a. Fixed piping that conveys wastes from the vessel to a storage or treatment system;
  - b. Tank barges, railroad cars, or tank trucks and other mobile facilities; and
  - c. Any combination of fixed and mobile facilities. This term shall also include "certified shore facility or terminal", as used in R.I. Gen. Laws § 46-12-37.
31. "Sinking agents" means those additives applied to oil discharges to sink floating pollutants below the water surface.
32. "Surface collecting agents" means those chemical agents that form a surface film to control the layer thickness of oil.
33. "Terminal" means an onshore facility or an onshore structure used or intended to be used as a port or facility for the transfer or other handling of oil. A ship repair yard is a terminal.
34. "Threat of release" means a reasonable likelihood of an imminent and substantial threat to public health or welfare, or the environment, that may require action to prevent or mitigate damage resulting from said release.
35. "Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, whether self-propelled or otherwise, and shall include barges, tugs and any other floating structure used for the storage and/or transportation of oil.
36. "Waters of the state" means all surface waters and groundwaters, including waters of the territorial sea, tidewaters, all inland waters of any river, stream, brook, pond or lake, wetlands and all underground waters of whatever nature.
37. "Wellhead protection area" means the critical portion of a three-dimensional zone surrounding a public well or wellfield through which water will move toward and reach such well or wellfield as designated by the Director.

## 2.5 Applicability and Construction

- A. These Regulations are applicable to activities conducted in or on the waters or land of the State, as well as to those activities conducted in a location where oil or other pollutants are likely to enter the waters of the State. All persons who engage in the storage, delivery, or transportation of oil, including industry and Federal, State, and local governments, as well as, to a limited extent, residential homeowners, may be subject to these Regulations.
- B. Persons and activities subject to these Regulations may also be subject to other State and Federal Regulations, including, but not limited to: Rhode Island Regulations for the Rhode Island Pollutant Discharge Elimination System ([Part 150-10-1 of this Title](#)), Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials ([Part 1 of this Subchapter](#)), Water Quality Regulations ([Part 150-05-1 of this Title](#)), Rules and Regulations for Solid Waste Management Facilities and Organic Waste Management Facilities ([Subchapter 05 Part 1 of this Chapter](#)) and Rules and Regulations for Hazardous Waste Management ([Subchapter 10 Part 1 of this Chapter](#)).
- C. These Regulations shall be construed in harmony with other Rhode Island Regulations and those Regulations promulgated by the Coastal Resources Management Council and Federal agencies who may have concurrent jurisdiction. In cases where these Regulations may conflict with other Regulations, the more restrictive Regulations shall govern.
- D. The DEM may require any person subject to these Regulations to provide additional information about any activity subject to these Regulations where such information is deemed necessary. Failure to disclose such information shall be cause for initiating appropriate enforcement action and shall constitute valid cause for denial of a permit or order of approval and may result in an order restricting certain activities.
- E. These Regulations shall be liberally construed to permit the DEM to effectuate the purposes of the State law.
- F. Nothing in these Regulations shall be deemed to interfere with the Director's power and duty to issue an immediate order pursuant to R.I. Gen. Laws §§ 46-12-10 and 42-17.1-2.

## 2.6 Prohibited Activities

- A. No person shall place oil or pollutants into the waters or onto the land of the State, or in a location where they are likely to enter the waters of the State, except in compliance with the terms and conditions of a permit or order issued by the Director. This prohibition shall include, but not be limited to, oil or pollutants from:

1. Storm water runoff from an oil refinery, oil storage tank farm, or oil manufacturing industry;
  2. Boat or ship repair and maintenance, including dry dock operations;
  3. Bilge or ballast water from any vessel;
  4. Exhaust steam from any coil or other device used to heat oil;
  5. Drainage from underground pipe gallery used as a conduit for oil pipes;
  6. Drainage from the floors of a boiler room;
  7. Drainage from dike areas around oil storage tanks;
  8. Drainage to unauthorized underground injection wells or lagoons;
  9. Drainage from automobile repair, maintenance or wrecking operations.
  10. Petroleum releases from vehicles.
  11. The abandonment of containers.
- B. This section shall not prevent the discharge into any public sewer system, provided that the local public sewer authority approves such discharge, and that such discharge complies with local, State and Federal pretreatment requirements.
- C. This section shall not prevent the discharge of oil waste or chemical waste or bilge waste from an oceangoing ship into a "reception facility" that has obtained a "certificate of adequacy" pursuant to 33 C.F.R. Part 158 (2018), provided, however, that the owner or operator of the oceangoing ship complies with the financial responsibility provisions § 2.15 of this Part.

## **2.7 Oil and Waste Transfers**

- A. The owner and operator of an oil carrying vessel and the owner and operator of a terminal shall take the following precautions prior to and during the transfer of oil and wastes:
1. Any flexible hose used in the transfer shall be tested at a pressure in excess of that to which it will be subjected in use, and such test shall be conducted annually.
  2. Drip pans shall be placed under hose connections on the oil carrying vessel, and drip pans and a tight wharf or pier section enclosed by a curb raised to not less than four inches (4") above the deck level is provided under the hose connections on the wharf or pier. Drip pans must be in

place before tight blank, as provided in § 2.7(A)(6) of this Part, is removed and they must remain in place until the blank is replaced and the hose is moved. This Rule shall not prevent the installation of a drain to a tight curbed wharf or pier section for the removal of storm water, provided the drain is tightly closed during any oil or waste transfer and no oil or waste contaminated drainage from the tight section is discharged into the waters of the State when the drain is open.

3. Hoses shall be supported so as not to become crushed between the oil carrying vessel at the wharf or pier and to prevent undue strain on the hoses and manifolds caused by sharp bends in the hoses.
4. Hoses shall be long enough so that they will not be strained by any movement of the oil carrying vessel if the vessel's mooring lines are adequately tended.
5. Mooring lines shall be tended frequently to prevent excessive movement of the oil carrying vessel at the wharf or pier.
6. Hose ends shall be blanked tightly when hoses are moved into position to be connected, and also immediately after they are disconnected, before they are moved away from their connections.
7. Throughout the transfer operation, a person shall be stationed on the deck of the oil carrying vessel in site of the hose and its connections, and another person shall be stationed on shore in sight of the hose and its shore connection. Other trained personnel, as necessary, shall be on duty so as to insure immediate action in case of a malfunction.
8. The scuppers on the oil carrying vessel shall be plugged watertight during the oil transfer or ballasting operation.
9. If the transfer is to take place after sunset and before sunrise, the decks and wharf or pier area, as well as the water area between the vessel and the wharf, shall be brightly illuminated and emergency auxiliary lighting and generating equipment shall be readily available.
10. All sea valves connected to the cargo piping, stern discharge, and ballast discharge valves shall be closed and sealed with a numbered seal.
11. All hose riser valves not to be used shall be closed and blank flanged, and all air valves on headers shall be closed.
12. Means of communication between the oil carrying vessel and shore shall be checked and all signals between the vessel and shore thoroughly understood.



13. Loading shall be started at a slow rate and an inspection made of the oil carrying vessel's tanks to determine that all is going according to plan before loading is increased to desired rate.
14. No more tanks shall be loaded at one time than can be safely watched and controlled.
15. Special attention shall be paid during the topping-off process to the loading rate, the number of tanks open, the danger of air pockets, and the inspection of tanks already loading.
16. To allow time for orderly control, the slow down for topping-off shall be anticipated and notice given to shore personnel.
17. Water around the oil carrying vessel's side shall be inspected frequently, especially in the area of the seacocks, to ensure that no oil is escaping overboard.
18. Upon completion of loading, all tank valves and loading valves shall be closed. After draining, hoses shall be disconnected and hose risers blanked.
19. Lines and valves in the pump rooms and on deck shall be checked by the ship's master or senior deck officer to see that they are properly set for discharging cargo. An additional check shall be made for the same purpose each time the setting is changed.
20. A check valve to prevent backflow shall be located in the discharge line of each oil cargo pump of a centrifugal type; the check valve shall be located at a point in the discharge line ahead of any connection the line makes with the discharge line from any other cargo pump on the vessel.
21. A copy of the "Declaration of Inspection", required by the United States Coast Guard pursuant to 33 C.F.R. § 156.150 (2018), shall be handed to the terminal superintendent or his representative, who shall, on demand, be given the opportunity to satisfy himself that the condition of the oil carrying vessel is as stated in the "Declaration of Inspection."
22. The terminal shall have readily available essential equipment to contain and remove any oil spillage, and have personnel available on a twenty-four (24) hour emergency basis who are familiar with such salvage or cleanup operations.
23. The owner/operator shall meet all sample collection requirements of the Coastal Resources Management Council.

24. The owner/operator shall obtain a permit, as required by the Coastal Resources Management Council, and comply with all permit terms and conditions.
25. No oil carrying vessel, while at anchor, shall transfer oil while gale warnings (wind velocity thirty-five (35) knots or more) are in effect.
26. Vessel-to-vessel transfers may be carried on at the dock with prior notification and approval of the United States Coast Guard. Offshore transfers may only be conducted in anchorage areas designated by the Coastal Resources Management Council, except for the transfer of fuel for a vessel's own use. Prior to conducting any vessel-to-vessel transfer the owner or operator of such vessels shall notify DEM of the date, time, and volume of such transfer and shall contract for emergency, stand-by cleanup services. The Director of DEM may, on an emergency basis, further restrict such vessel-to-vessel transfers and require that such transfers be limited to onshore terminal facilities.
27. If two (2) or more cargo pumps discharge into a common line on the vessel or on the shore, assurance shall be made that a check valve, in good working order, is in each line to prevent backflow of cargo in the event that one (1) pump stops.
28. In all other respects, conform to applicable Coast Guard Regulations.

## **2.8 Ballasting of Oil-Carrying Vessels**

- A. The owner and operator of an oil-carrying vessel shall take the following precautionary measures prior to and during the ballasting operation:
  1. The transfer of cargo shall be completed and all hose riser valves closed and connections blanked.
  2. If ballast is to be pumped in, whether through deck lines or bottom line, valves on the lines used are set first; then the valves to the tanks to be ballasted shall be opened; the necessary valves in the pump rooms, except seacocks, shall be set next; and cargo or ballast pumps shall be started before opening seacocks.
  3. If ballasting is done by gravity, ballast shall be pumped in first for ten (10) minutes in accordance with the procedure outlined above in § 2.8(A)(2) of this Part to clear all bottom lines of oil.
  4. When ballasting has started, all tanks shall be inspected to see that only the tanks intended are receiving ballast.
  5. The same attention shall be given to ballasting as to topping-off tanks when loading cargo.

6. When completing the loading of ballast, seacocks shall be closed before stopping the pumps.
- B. The provisions §§ 2.8(A)(1), (2), (3), and (6) of this Part shall not apply to any oil-carrying vessel whose ballast piping system and ballast pumps are wholly independent and not connected to the cargo system.

## **2.9 Boiler Rooms and Remote Fill Tanks**

- A. Within one (1) year of the effective date of these Regulations the owner and operator of a facility shall:
1. Install oil traps or manually operated drain valves, or eliminate drains from boiler rooms. All oil traps shall be adequately maintained and cleaned. All drain valves shall be maintained in the closed position except when the operator is in the process of draining oil-free clean water in compliance with all applicable State and Federal Regulations.
  2. All above ground and underground storage tanks with a remote fill and a capacity greater than five hundred (500) gallons shall be equipped with a high-level warning alarm system.
  3. All tanks with a capacity greater than five hundred (500) gallons shall be equipped with spill containment around fill areas.

## **2.10 Aboveground Storage Tank Facilities**

- A. Applicability; This section applies to all AST facilities with a combined storage capacity of over five hundred (500) gallons.
- B. Overfill Prevention
1. Responsibility for transfer; The facility operator or owner, when on the premises and in control of an oil transfer, shall be responsible for transfer activities. If the facility operator or owner is not on the premises or not in control of an oil transfer, the carrier (the person delivering the oil) will be responsible for transfer activities. The operator or carrier must employ practices for preventing transfer spills and accidental discharges. Prior to the transfer, the operator or carrier must determine that the receiving AST has an available capacity to receive the volume of oil to be transferred. The operator or carrier must monitor every aspect of the delivery and take immediate action to stop the flow of oil when the working capacity of the AST has been reached, or should an equipment failure or emergency occur.
  2. Shutoff valves for remote pumping units at motor fuel dispensers; All dispensers of motor fuel under pressure from a remote pumping system, must be equipped with a shear valve (impact valve) located in the supply

line at the inlet of the dispenser. This valve must be designed to close automatically in the event that the dispenser is accidentally dislodged from the inlet pipe. A valve meeting the standards set forth in NFPA 30A, § 6.3.9, incorporated above at § 2.3(B) of this Part meets the requirements of this subdivision.

3. Shutoff valves for gravity fed motor fuel dispensers; All tanks which cause a gravity head on a dispenser of motor fuels must be equipped with a device such as a solenoid valve which is positioned adjacent to and downstream from the operating valve. The valve must be installed and adjusted so that liquid cannot flow by gravity from the tank in case of piping or dispenser hose failure. A valve meeting the standards set forth in NFPA 30A, § 4.2.4, incorporated above at § 2.3(B) of this Part meets the requirements of this subdivision.
4. Gauges for ASTs;
  - a. All ASTs must be equipped with a gauge that accurately shows the level of product in the tank. The gauge must be accessible to the facility operator or oil carrier during transfer and easy to read.
  - b. The design capacity, working capacity, product type and identification number of the tank must be clearly marked on the tank and at the gauge.
  - c. A high-level warning alarm (visible or audible at the fill), a high-level liquid pump cutoff controller or equivalent device may be used in lieu of the gauge required above.
5. Check valve for pump filled tanks; All fill pipes leading to a pump filled oil tank must be equipped with a properly functioning check valve, or equivalent device, to provide automatic protection against backflow. A check valve is required only when the fill pipe arrangement poses a risk for backflow.
6. Operating valves for gravity drained tanks; Each tank connection through which oil can normally flow must be equipped with an operating valve to control flow. A valve which meets the standards set forth in NFPA 30, § 22.13.1, incorporated above at § 2.3(A) of this Part meets the requirements of this paragraph.

C. Secondary Containment System for ASTs

1. A secondary containment system must be installed around any ASTs regulated by DEM. The secondary containment system must be constructed so that spills of oil and chemical components of oil will not permeate, drain, infiltrate, or otherwise escape to the groundwater or surface water before cleanup can occur. The secondary containment

system may consist of a combination of dikes, liners, pads, impoundments, curbs, ditches, sumps, receiving tanks or other equipment capable of containing the product stored. The minimum capacity of the containment system shall be one hundred ten percent (110%) of the AST's volume, or one hundred ten percent (110%) of the largest AST's volume in a multiple AST containment system. Construction of the containment system, with the exception of the containment requirements, shall be in accordance with NFPA 30, § 22.11, incorporated above at § 2.3(A) of this Part.

2. If soil is used for the secondary containment system, it must be of such character that any spill onto the soil will be readily recoverable and will result in a minimal amount of soil contamination.
3. Stormwater which collects within the secondary containment system must be removed by a manually operated pump or siphon, or a gravity drain pipe with manually controlled dike valves. All pumps, siphons and valves must be properly maintained and kept in good condition. If gravity drain pipes are used, all dike valves must be locked in a closed position except when the operator is in the process of draining clean water from the diked area.

D. Facilities Inspection

1. Monthly inspections; The owner or operator of any facility with ASTs regulated by DEM must inspect the facility monthly. These inspections must include:
  - a. Inspecting exterior surfaces of tanks, pipes, valves and other equipment for leaks, maintenance deficiencies and any other equipment deficiency;
  - b. Identifying cracks, areas of wear, corrosion and thinning, poor maintenance and operating practices, excessive settlement of structures, separation or swelling of tank insulation, malfunctioning equipment and structural and foundation weaknesses; and
  - c. Inspecting and monitoring all leak detection systems, cathodic protection monitoring equipment, or other monitoring or warning systems which may be in place at the facility.
2. Ten (10) year inspections;
  - a. Schedule;
    - (1) In addition to monthly inspections required above, the owner or operator must perform a detailed inspection of AST with a capacity of ten thousand (10,000) gallons or greater. The

initial inspection must be performed when the tank is ten (10) years old, or within five (5) years of the effective date of these Regulations, whichever comes first.

- (2) Any AST of an unknown age must be inspected within five (5) years of the effective date of these Regulations.
- (3) If an AST is due for an initial inspection but has previously been inspected in a manner consistent with the criteria set forth, within a ten (10) year period to the due date, the Director may accept this previous inspection.
- (4) Reinspection of all tanks is required no later than ten (10) years from the date of the previous inspection.

b. Exemptions: Ten (10) year inspections are not required for the following unless otherwise specified:

- (1) ASTs entirely above ground, such as tanks on racks, cradles or stilts, are exempt from §§ 2.10(D)(2)(c)((1)) through ((5)) of this Part;
- (2) ASTs storing No. 5 or No. 6 fuel oil or tanks storing asphalt products;
- (3) ASTs installed in conformance with standards for new construction as set forth in §§ 2.10(I)(1) through (7) of this Part.

c. Requirements for ten (10) year inspection; A ten (10) year inspection must consist of an appropriate tightness test of the tank and connecting piping or an inspection which consists of the following:

- (1) Cleaning the AST in accordance with generally accepted practices;
- (2) Removal, transportation and disposal of sludge in a manner consistent with all applicable State and Federal laws and Regulations;
- (3) Inspecting the AST shell for soundness and testing all welds and seams on the AST bottom for porosity and tightness. The test must be consistent with accepted industry testing and inspection practices. This may include one (1) or a combination of the following: a tightness test, an air pressure, hydrostatic or vacuum test, a penetrant dye test and a non-destructive test to detect thinning of the AST;

- (4) Visual inspection of the internal surface of the AST for corrosion or failure;
- (5) Inspection of internal coatings for any sign of failure of the coating system such as cracks, bubbles, blisters, peeling, curling or separation; and
- (6) A tightness test of any connecting underground pipes.

3. Inspection reports

- a. Reports for each monthly inspection and ten (10) year inspection must be maintained and made available to DEM upon request for a period of at least ten (10) years. An annual inspection report, comprised of the monthly inspection reports or a yearly summary and any ten (10) year inspection reports completed in the previous twelve (12) months, shall be submitted to DEM, Office of Emergency Response. Reports shall be submitted by December 31<sup>st</sup> of each year.
- b. The reports must include the following information:
  - (1) General information including contact information, report year, facility address, and tank identification number(s);
  - (2) Important updates such as a change in facility ownership or contact information;
  - (3) A summary of important information collected during inspections, including specific inspection procedures, any deficiencies and their respective corrective actions;
  - (4) Certification by the inspector that the inspection has been performed in accordance with these Regulations; and
  - (5) Signature and address of the inspector.

- 4. Repair of equipment; If an inspection reveals an AST equipment failure, monitoring equipment failure, excessive thinning of a tank shell which would indicate structural weakness when the tank contains oil, remedial measures must be taken promptly to eliminate any leak potential. See § 2.11 of this Part.
- 5. Uninspected facilities; If any portion of a facility is not inspected as required, the uninspected portion of the facility must be taken out-of-service pursuant to these Regulations.

E. Closure of tanks

1. Temporary closure; ASTs or facilities with ASTs which are temporarily closed for thirty (30) days or more must be closed as follows:
    - a. All product must be removed from AST(s) and the piping systems. Any waste product removed must be disposed of in accordance with all applicable State and Federal requirements.
    - b. All manways must be locked or bolted securely and fill lines, gauge openings or pump lines must be capped, plugged or blanked.
  2. Permanent closure; Any AST or facility with ASTs which are closed for a period of one hundred eighty (180) days or more shall be considered permanently closed and shall comply with the following:
    - a. Liquid and sludge must be removed from the AST(s) and connecting lines. Any waste products must be disposed of in accordance with all applicable State and Federal requirements.
    - b. AST(s) must be rendered free of oil vapors.
    - c. All connecting lines must be disconnected or blanked. Manways must be securely fastened.
    - d. AST(s) must be stenciled with the date of permanent closure.
- F. ASTs or facilities with AST(s) which have not been closed pursuant to § 2.10(E) of this Part, are subject to all requirements of § 2.10(D) of this Part.
- G. Used ASTs; ASTs which are removed and do not meet the requirements of §§ 2.10(I)(1) through (7) of this Part are prohibited from being reused for the purpose of oil storage.
- H. Groundwater Monitoring Program (GMP); All facilities with a combined storage capacity greater than or equal to fifty thousand (50,000) gallons, or any facility with a storage capacity greater than five thousand (5,000) gallons and located in a Wellhead Protection Area or any area with a groundwater classification of GAA – as designated by the Director pursuant to the Rhode Island DEM Groundwater Quality Rules, Part [150-05-3](#) of this Title, shall within six (6) months of the effective date of these Regulations implement a GMP approved by DEM. The monitoring program shall consist of a sufficient number of wells to detect the release of hydrocarbon product from storage tanks, pumping facilities, manifolds and other appurtenances.
1. Minimum Well Construction Standards; Wells shall be screened above and below the water table. The screened interval shall be sufficient to detect free phase product during seasonal fluctuations of the water table. The minimum inside well diameter shall be two inches (2"). Each well shall be equipped with a locking tamper proof cover. A locus map and site plan



shall be submitted to DEM with locations of the monitoring wells, well casing elevations, and the location of all significant site structures. Well completion logs shall be submitted to DEM with the site plans.

2. Minimum Site Monitoring Requirements; Monitoring wells shall be checked monthly for the presence of a discernible layer of hydrocarbon product in the wells. The static water table elevation shall also be recorded at the time of monitoring. A log shall be maintained at the facility. The log shall contain the static water table measurements, the free phase product elevation and the product thickness for each monitoring well. An annual report of the groundwater monitoring program shall be submitted to DEM, who may require additional monitoring at facilities which may impact underground drinking water supplies.
3. Reporting Requirements; Upon the discovery of free phase product in a monitoring well, the facility owner or operator shall notify DEM verbally within twenty-four (24) hours and submit a written report within ten (10) working days. The owner or operator shall submit to DEM a site assessment plan, subject to DEM approval, within thirty (30) days of the discovery of free phase product in a monitoring well.

I. New and Substantially Modified Facilities

1. Design and construction standards; New AST facilities must install ASTs constructed of steel and meet or exceed one (1) of the following design and manufacturing standards:
  - a. UL 142;
  - b. UL 58;
  - c. API Standard 650;
  - d. API Standard 620;
  - e. CAN4-S601-M84; or
  - f. CAN4-S630-M84;
2. Any AST which does not comply with the above requirements, such as a riveted or bolted steel, wood, concrete, aluminum or fiberglass reinforced plastic AST, must be constructed in accordance with all applicable manufacturing standards and must be designed for the above ground storage of oil products, and may not be installed without prior approval of the Director.
3. Cathodic protection for tank bottom; Bottoms of new ASTs which rest on or in the ground must be cathodically protected with sacrificial anodes or

an impressed current system which is designed, fabricated and installed in accordance with recognized engineering practices.

- a. The cathodic protection system must be designed to provide a minimum of thirty (30) years of protection.
  - b. A qualified engineer or corrosion specialist must supervise the installation of the cathodic protection system where this is necessary to assure that the system has been installed as designed.
  - c. Each cathodic protection system must have a monitor which enables the owner or operator to check on the adequacy of cathodic protection.
4. Painting of exterior tank surfaces; The exterior surfaces of all new ASTs must be protected by a primer coat, a bond coat and two (2) or more final coats of paint or have an equivalent surface coating system designed to prevent corrosion and deterioration.
5. Impermeable barriers under tank bottom; Any new stationary AST which is designed to rest on the ground must be constructed with a double bottom or underlain by an impervious barrier such as a concrete pad or a cutoff barrier. If a barrier is used, it must have a permeability rate of water equal to or less than  $1 \times 10^{-6}$  cm/sec and must not deteriorate in an underground environment or in the presence of oil.
6. Secondary Containment for new ASTs; A secondary containment system must meet or exceed the requirements of § 2.10(C)(1) of this Part and be constructed with a permeability rate of water equal to or less than  $1 \times 10^{-6}$  cm/sec.
7. Monitoring systems for new ASTs; All new ASTs must have equipment for monitoring between the tank bottom and the impermeable barrier, and when pertinent the interstitial space. This includes, but is not limited to, perforated gravity collection pipes or channels in a concrete foundation pad which may be monitored for the presence of oil visually, electronically or by other satisfactory methods. Observation wells or other systems which monitor the soil or groundwater beneath the impermeable barrier do not satisfy the leak detection requirements of this section.
8. Foundation design; New ASTs must be supported on a well-drained stable foundation which prevents movement, rolling or settling of the tank and is designed to minimize corrosion of the tank bottom.
9. Avoiding traffic hazards; New ASTs, pipes and distribution equipment must not be located along highway curves or otherwise exposed to traffic hazards.

10. Testing of new ASTs; Before placing in service, all new ASTs must be tested for tightness and inspected in accordance with requirements outlined in API Standard 650, 12<sup>th</sup> Edition, incorporated above at § 2.3(C) of this Part or UL 142, 10<sup>th</sup> Edition, incorporated above at § 2.3(D) of this Part. If a pneumatic test is used, all fittings, welds and joints must be coated with a soap solution and inspected for air leaks.

## **2.11 Repairing and Reconditioning of ASTs**

- A. Permanent repairs; All repairs must be permanent in nature and equal to or better than the standards of original construction.
- B. All welds associated with the repair of an AST must be inspected and tested for tightness before the AST is returned to service.
- C. Linings, coatings, grouts and other sealing materials which are chemically compatible with the oil product being stored may be used in conjunction with a permanent steel AST repair as outlined above, but by themselves are not acceptable permanent repairs.
- D. Cleaning of tank prior to repair; Prior to repair, an AST must be cleaned in accordance with generally accepted practices. Sludge which has accumulated on the bottom of the AST must be removed, transported and disposed of in a manner consistent with all applicable State and Federal requirements for solid waste disposal.
- E. Coating (lining) specifications; Any non-corrodible epoxy-based resins, isophthalic polyester-based resins or equivalent coating which is bonded firmly to the interior surfaces may be used as a coating to protect an AST from future corrosion.
  1. The coating must be applied as soon as possible, but not later than eight (8) hours after sandblasting and cleaning of the internal surface. Visible rust, moisture or foreign matter must not be present.
  2. The coating must be of sufficient thickness, density and strength to form a hard-impermeable shell which will not crack, soften or separate from the interior surface of the AST. The coating when applied to properly prepared steel must maintain a permanent bond to the AST.
  3. The coating's coefficient of thermal expansion must be compatible with steel so that stress due to temperature changes will not be detrimental to the soundness of the coating.
  4. The coating must be chemically compatible with oil products and product additives.

5. The coating material must be applied and cured in strict accord with manufacturer's specifications.
6. Coatings used to protect the bottom of the AST must extend up the side of the AST a minimum of eighteen inches (18").
7. Inspection of coating; The coating must be checked for blisters, air pockets and electrically tested for pinholes. The coating thickness must be checked assure compliance with manufacturer's specifications. Any defects must be repaired.
8. Manufacturer's guarantee; An interior coating must be installed under the direction of the lining manufacturer or a certified representative. The manufacturer or representative must guarantee to the owner in writing that the coating will not leak the product specified in storage for the period specified in the coating product warranty. A copy of the guarantee must be kept by the owner for the life of the AST.

## **2.12 Oil and Waste Release Response**

- A. This section is applicable to any person or company engaged in the:
  1. Transfer or storage of oil, including, but not limited to, the owner and operator of: an oil-carrying vessel, terminal, reception facility, oceangoing ship, AST, facility with AST(s), oil tanker truck, or oil delivery company;
  2. Release of an oil product to the environment; and
  3. Owner of property where an oil release has occurred.
- B. When a release of oil occurs, it is the responsibility of any person subject to these Regulations to take the following actions. However, only one (1) person needs to make and file the written reports:
  1. Immediately cease all further oil transfer operations until such time as the release is stopped and any oil spill debris material is removed;
  2. Immediately stop discharge, begin containment and removal of the oil and waste material;
  3. Immediately report the incident DEM, Office of Emergency Response by calling 401-222-1360 from 8:30 a.m. to 4:00 p.m. Monday through Friday or contact the Division of Law Enforcement dispatcher at 401-222-3070 all other times.
  4. Notify other appropriate local, State and Federal officials, which may include, but are not limited to, the local Fire Chief, Coast Guard,

Environmental Protection Agency, Coastal Resources Management Council, and the National Response Center (800-424-8802).

5. Within ten (10) calendar days of the time the release is first discovered, submit a written report to DEM, Chief of the Office of Emergency Response, which should include, but not be limited to:
  - a. Date, time and place of release
  - b. Names, addresses and telephone numbers of all persons potentially responsible or liable for such release, including all persons described in § 2.12(A) of this Part;
  - c. Amount and type of material released;
  - d. Complete description of containment and removal operation, including costs of these operations;
  - e. Complete description of circumstances causing the release;
  - f. Description any third-party damages;
  - g. Procedures, methods and precautions instituted or planned to prevent an event from recurring.
- C. Mechanical methods initially shall be used to clean up oil and chemical releases unless otherwise permitted under § 2.12(D) of this Part.
- D. No chemical agents, dispersants, surface collecting agents, biological additives, burning agents, or sinking agents, shall be used without the prior consent of the Office of Emergency Response.
- E. In the event of an oil release or if the Director has reason to believe that a release has occurred, the Director may require any person subject to these Regulations to initiate monitoring, remedial, and cleanup action. Such action may include, but not be limited to, removal of oil from surface waters, placement of containment devices, water quality sampling, installation of groundwater monitoring recovery and/or treatment systems, restoration of areas impacted by the release, and removal of all oil-contaminated soil and debris. Such actions shall continue until the oil release has been remediated or mitigated, subject to the approval of the DEM.
- F. All persons to whom these Regulations are applicable shall have an ongoing obligation to update and supplement all information delivered to DEM with new information regarding a release or spill as it becomes available.

## **2.13 Storage and Removal of Oil Spill Cleanup Debris**

- A. Oil spill cleanup debris may be stored temporarily at the site of the spill or leak, or at another site approved by DEM provided that:
  - 1. The material is stored on an impermeable base or liner;
  - 2. The material is fully covered and secured so as to prevent the material from leaching into the groundwater, or particulates being dispersed by the wind;
  - 3. Representative composite samples are immediately taken and analyzed for oil and grease, lead, PCB and flammability unless otherwise specified by an authorized DEM representative;
  - 4. Samples are analyzed and the results are submitted to the DEM Office of Emergency Response within (30) days of sample collection;
  - 5. If the sample results show the material to be a hazardous waste, the owner or operator of the site shall take immediate measures to properly store and dispose of the material in accordance with State and Federal hazardous waste Regulations;
  - 6. The temporary storage of the oil spill cleanup debris does not exceed thirty (30) days unless the owner or operator of the site demonstrates to DEM in writing that there is good cause for extending temporary storage and DEM issues written authorization for extended temporary storage.
- B. Oil spill cleanup debris shall be removed from the site only in secured drums or canisters or in a vehicle which is covered.
- C. Oil spill cleanup debris shall be removed only to one (1) of the following facilities:
  - 1. Special facilities constructed within a licensed sanitary landfill designed and constructed in accordance with Solid Waste Regulations No. 2, Subchapter 05 Part 2 of this Chapter;
  - 2. Asphalt manufacturers or others that are licensed as solid waste management facilities and approved by DEM to accept Oil Spill Debris; or
  - 3. Any out-of-State facility that will agree to take the material and that is allowed to accept the material by the State in which it is located.
- D. Within ten (10) days of removal of the oil spill cleanup debris from the site, the owner or operator of the site shall submit to DEM documentation showing when the material was removed, the amount of material and to where the material was removed.

## **2.14 Spill Prevention and Emergency Plans**

- A. This section is applicable to any owner or operator of a reception facility, terminal, or facility with outdoor ASTs exceeding a combined storage capacity of five hundred (500) gallons. This section is not applicable to facilities with ASTs storing oil for heating with a capacity of five hundred (500) gallons or less.
- B. Any person subject to this section shall, within six (6) months of the effective date of these Regulations, have readily available at the facility an emergency plan, which shall, at a minimum, contain the following information:
  - 1. Up-to-date schematic diagrams showing the location of all outdoor tanks and piping used for the storage and conveyance of oil, including the location of all emergency shutoff valves;
  - 2. A description of on-site emergency containment and cleanup equipment;
  - 3. Description of off-site auxiliary emergency equipment that can be readily obtained, including a listing of cleanup contractors to contact for such equipment;
  - 4. Emergency telephone numbers of local, State and Federal officials who should be contacted in case of an oil spill.
- C. Upon request by an employee or agent of DEM, emergency plans shall be made available for inspection and copying.
- D. Emergency plans or other similar spill prevention control plans required under other Federal or State requirements may be substituted for the plan required by this section provided the plan contains at a minimum, the requirements of §§ 2.14(B)(1) through (4) of this Part.

## **2.15 Discharges to Reception Facilities**

- A. The owners or operators of any vessel ship which intends to transfer or discharge any shipboard oil to a reception facility shall, prior to the discharge or transfer, file with the Director evidence of financial responsibility, which shall include a surety bond, letter of credit, certificate of insurance, or corporate guarantee in the amount of at least fifty thousand dollars (\$50,000.00) payable to the State of Rhode Island and Providence Plantations.
- B. Prior to accepting any shipboard oil from a vessel ship, the owner or operator of the reception facility shall require the owner or operator of the vessel to produce evidence of financial responsibility consistent with the provisions of this section.
- C. The money pledged or guaranteed by the requirement of this section shall be used to satisfy:

1. Costs incurred by the State to rectify and clean up any damage to the environment and natural resources; and
  2. Fines or penalties imposed for violation of any laws or Regulations designed to prevent or control water pollution.
- D. The forfeiture of such money pledged pursuant to this section shall not relieve the owner or operator of liability to the State if the costs incurred by the State and the fines imposed are greater than the amount forfeited.
- E. The evidence of financial responsibility shall be subject to review and approval by DEM, but should conform as much as possible to those documents referenced in 40 C.F.R. § 264.151 (2018), recognizing, of course, that those referenced documents are designed for a somewhat different purpose.
- F. The Director may require evidence of financial responsibility in an amount greater than fifty thousand dollars (\$50,000.00) based on the following factors:
1. Volume of discharge;
  2. Composition of the discharge;
  3. Location of the discharge;
  4. History of spills or noncompliance by the owner or operator; or
  5. Other factors that may pose an increased threat to the State's environment and natural resources.
- G. The owner or operator of a vessel also may be considered a generator of hazardous waste and subject to Federal and State hazardous waste Regulations.

## **2.16 Variances**

- A. Any owner or operator of a facility may submit a written request to the Director or his designee for a variance of some or all provisions of these Regulations.
- B. The owner or operator shall have the burden of proving by clear and convincing evidence that a variance should be granted because alternative design or operating standards are substantially equivalent to the regulations and will have no adverse effect on public health and/or the environment.
- C. If the Director determines that there is sufficient public interest or that the variance request raises significant issues that could affect other facilities, then the Director may schedule a public hearing to solicit public comment prior to rendering a decision on the variance request.



- D. The Director's decision to grant or deny a variance shall be in writing and may, as a condition of granting the variance, impose appropriate requirements necessary to protect the public health and the environment.
- E. Any person affected by the grant or denial of a variance request may, in accordance with the Rules and Regulations for the Administrative Adjudication Division ([Part 10-00-1 of this Title](#)) for DEM, Administrative Adjudication Division, petition for an adjudicatory hearing to review the initial decision.

## **2.17 Penalties**

Administrative and civil penalties, for any violation of these Regulations, may be assessed in accordance with R.I. Gen. Laws Chapters 46-12, 42-17.1 and 42-17.6.

**250-RICR-140-25-2**

**TITLE 250 - DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**CHAPTER 140 - WASTE AND MATERIALS MANAGEMENT**

**SUBCHAPTER 25 - OIL & UNDERGROUND TANKS**

**PART 2 - OIL POLLUTION CONTROL REGULATIONS (250-RICR-140-25-2)**

Type of Filing: Amendment

**Agency Signature**

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Agency Head Signature

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Agency Signing Date

**Department of State**

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Department of State Date