

NEWFOUNDLAND AND LABRADOR  
REGULATION 58/03

Storage and Handling of Gasoline and Associated  
Products Regulations, 2003  
under the  
Environmental Protection Act  
(O.C. 2003-225)

Amended by:

40/04

NEWFOUNDLAND AND LABRADOR  
REGULATION 58/03

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Products Regulations, 2003  
under the  
Environmental Protection Act  
(O.C. 2003-225)

(Filed May 23, 2003 )

Under the authority of section 111 of the Environmental Protection Act, the Lieutenant-Governor in Council makes the following regulations.

Dated at St. John's , May 21, 2003 .

Deborah E. Fry

Clerk of the Executive Council

## REGULATIONS

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Short title

1. These regulations may be cited as the Storage and Handling of Gasoline and Associated Products Regulations, 2003 .

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## Definitions

### 2. In these regulations

- (a) "abandoned" means, when used in reference to a storage tank system, a storage tank system that has been in disuse for the purpose of conveying petroleum products for more than 12 consecutive months or when declared to be abandoned by the owner or by the minister;
- (b) "aboveground tank" means a tank which is located at or above grade, includes both horizontal and vertical tanks and tank truck and tank truck trailers that are being used as a stationary source of fuel storage;
- (c) "alter" means an enlargement of a storage tank system or a change in the configuration of the dyking, piping or tank or the replacement of a tank;
- (d) "approved" means approved by the department in writing;
- (e) "associated product" means petroleum or a derivative of it, except gasoline, which is in a liquid state at ambient temperature and pressure;
- (f) "atmospheric storage tank" means a storage tank designed to operate at pressures from atmosphere to 3.5 kilopascals (gauge);
- (g) "bulk plant" means one or more storage tanks, including the appurtenances of those tanks, where gasoline or associated products are received by pipeline, tank vessel, tank car or tank vehicle and are stored in bulk for subsequent transmission by pipeline or transportation or distribution by tank vessel, tank car or tank vehicle, but does not include a service station;
- (h) "closed container" means a container so sealed by means of a lid or other device that neither liquid nor vapour will escape from it at ordinary temperatures;
- (i) "contingency plan" means planned procedures for reporting, containing, removing and cleaning up after a spill or leak;

(j) "conveying" means the utilization of a storage tank system for the movement of gasoline or associated products;

(k) "critical area" means an area designated as a critical area by the minister, where ground water or surface water is contaminated by gasoline or associated products;

(l) "department" means the department presided over by the minister;

(m) "effective capacity" means that volume available for retaining liquid which would be determined by subtracting from the gross volume of the dyke all other volumes taken up by foundations, supports, equipment and other storage tanks within the dyke and include a freeboard on top of 15 centimetres;

(n) "empty" means, when used in reference to a storage tank system, void of its contents as far as is practicable by means of suction, pouring or pumping;

(o) "flash point" means the minimum temperature at which a liquid within a container gives off vapour in sufficient concentration to form an ignitable mixture with air near the surface of the liquid;

(p) "gasoline" means a liquid product of petroleum that has a flash point below 37.8° Celsius and is designed primarily for use in an internal combustion engine;

(q) "handling" means the storing, transmitting, transporting or distributing of gasoline or associated products and includes putting gasoline or an associated product into the fuel tank of a motor vehicle, motor boat or other water craft or into a container;

(r) "hydrostatic test" means a tank test involving the equilibrium of liquids and the pressure exerted by liquids;

(s) "leakage" means a discharge of gasoline or associated products from a storage tank system, pipeline, tank vessel, tank car or tank vehicle, other than through the usual function for which the storage tank system or pipeline was designed and "leak" and "leaking" have similar meanings;

(t) "low pressure storage tank" means a storage tank designed to operate at pressure from 3.5 kilopascals (gauge) to 100 kilopascals (gauge);

(u) "marina" means premises at which gasoline or associated products are put into the fuel tanks of water craft or into portable containers;

(v) "minister" means the minister appointed under the Executive Council Act to administer the Environmental Protection Act ;

(w) "normal" means, when used in reference to an apparent loss of gasoline or associated products from an aboveground or an underground storage tank system, 1% of the capacity of the storage tank or 1% of the volume of gasoline or associated product conveyed through the storage tank system, whichever is greater or such lesser percentage as the minister may specify;

(x) "oil separator" means a device used to separate and remove oily wastes from oil/water mixtures;

(y) "operator" means

(i) a person who is responsible for the day to day maintenance and operation of a storage tank system or pipeline, or

(ii) when referring to a vehicle, the driver in charge of the vehicle;

(z) "owner" means that person having the possessory rights to and care, control or management of and over the storage tank system or pipeline or vehicle;

(aa) "sensitive area" means an area designated by the minister as a sensitive area, having regard to but not limited to criteria such as the permeability and corrosiveness of the soil, location of surface watercourses, location of water supply systems and activities of wildlife;

(bb) "service station" means premises, including self-service stations, at which gasoline or associated products are sold and are put into the fuel tanks of motor vehicles, water crafts or into portable containers;

(cc) "spill" means a loss of gasoline or associated products in excess of 70 litres from a storage tank system, pipeline, tank vessel or vehicle onto or into the soil or water and "spillage" has a similar meaning;

(dd) "storage tank system" means either an atmospheric or low pressure closed tank container and all vents, fill and withdrawal piping associated with it installed in a fixed location and includes temporary arrangement on cradles or skids;

(ee) "transport" means to convey in or on a vehicle gasoline or associated products, exclusive of the fuel carried for use in the vehicle, unless the amount of this fuel exceeds 200 litres;

(ff) "U.L.C." means the Underwriters' Laboratories of Canada;

(gg) "underground tank" means a tank which is installed so that at least 50% of its mass is below adjacent ground level; and

(hh) "vehicle" means a tank truck, stake truck, trailer, semi-trailer, tractor and other conveyance and appurtenances designed for or capable of transporting gasoline or associated products other than fuel used in the operation of that vehicle, unless this amount exceeds 200 litres.

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[Exemption](#)

3. Aboveground and underground storage tank systems of capacity of 2500 litres or less that are connected to a heating appliance are exempt from the provisions of this regulation.

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General requirements

4. A person shall not construct a storage tank system that does not meet the minimum requirements prescribed in section 27.

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Critical area

5. (1) The minister may designate, by an order published in the Gazette , an area of the province as critical for the purpose of these regulations.

(2) Within 30 days of designation of a critical area, the owner or operator of a storage tank system in a critical area shall

(a) have the tests as prescribed in section 28 performed; and

(b) where such tests show leakage, comply with sections 22 and 24; or

(c) where such tests show that the storage tank system is not leaking and the system does not meet the requirements of section 27, upgrade the system within one year of the designation in accordance with section 29; and

(d) in writing, notify the department of the upgrading method employed within 30 days of the completion of upgrading.

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Sensitive area

6. (1) The minister may designate, by an order published in the Gazette , an area of the province as sensitive for the purpose of these regulations.

(2) Upon the designation of a sensitive area and within the dates prescribed by the minister, the owner or operator of a storage tank system in the sensitive area shall

(a) have the tests prescribed in section 28 performed; and

(b) where those tests show leakage, comply with sections 22 and 24; or

(c) where the tests show that the storage tank system is not leaking and the system does not meet the requirements of section 27, upgrade the system in accordance with section 29; and

(d) in writing, notify the department of the upgrading method employed within 30 days of the completion of upgrading.

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Variation

7. The minister may vary the requirements of section 27 when a person affected by this regulation, upon written application to the department, satisfies the minister that his or her proposal meets or surpasses the requirements as prescribed in section 27.

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Prohibition

8. Notwithstanding section 3, an owner or operator shall not directly or indirectly cause pollution of the soil or water by causing, suffering or permitting leakage or spillage of gasoline or associated product from a storage tank system or vehicle.

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Prohibition

9. Notwithstanding section 3, a person shall not directly or indirectly cause pollution of bodies of water or an underground water supply by causing suffering or permitting the dumping, depositing, dropping, throwing, discharging or leaving of gasoline or associated products.

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Prohibition

10. (1) A person shall not transfer gasoline or associated products from a storage tank system to a vehicle or from a vehicle to a storage tank system without supervising the transfer at all times in a manner that allows that person to immediately shut off the flow of gasoline or associated products during the transfer of products.

(2) A person shall not directly or indirectly cause or permit the overflow of gasoline or associated product from a storage tank system.

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Prohibition

11. A person shall not operate a new or existing bulk plant, a marina or other storage tank system that may be designated by the minister without an approved contingency plan.

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Exception to section 10 prohibition

12. Notwithstanding section 9, the use of gasoline or associated products is acceptable for

(a) approved application of pesticides; and

(b) other practices that the minister may consider acceptable.

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## Prohibition and registration

13. (1) A person shall not construct, install, alter or operate a storage tank system unless that construction, installation, alteration or operation is registered under these regulations.

(2) A person who

(a) constructs;

(b) installs;

(c) alters; and

(d) operates

a storage tank system, shall,

(e) in the form and manner required by the minister; and

(f) before carrying out the proposed construction, installation, alteration or operation of that storage tank system,

register that construction, installation, alteration or operation with the department.

(3) The minister may, at any time before or after the registration of a storage tank system construction, installation, alteration or operation under this section require

(a) the inspection of that storage tank system; and

(b) that the owner or operator of that storage tank system provide additional information relating to that system,

as the minister considers necessary to ensure compliance with the Act and these regulations.

(4) Notwithstanding subsections (1) and (2), where, immediately before the coming into force of this section, a storage tank system is in operation, the operation of that storage tank system shall be registered under this section by not later than November 30, 2004 .

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Used oil

14. Used or waste oil shall be collected either in a tank or closed container.

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Oil separator

15. Floor drainage from service stations and other facilities handling used or waste oil shall be routed through an oil separator for removal of oily wastes before being discharged.

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## Disposal

16. (1) The used or waste oil floating in the oil separator shall be removed regularly so that it does not drain into the sewer and the operator shall transfer it to the waste tank or to a closed container.

(2) The tank and the closed containers used for waste oil and waste material shall be emptied regularly and the waste oil and waste material shall be disposed of in a manner which does not cause pollution.

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## Testing

17. (1) A person shall not set into operation a storage tank system without first having the tests prescribed in section 28 conducted and the results submitted to the department.

(2) A person shall not set into operation a storage tank system on which alterations or repairs have been done without first having the tests prescribed in section 28 conducted and the results submitted to the department.

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## Operator duties

18. (1) The operator of an underground storage tank system, other than a storage tank system connected to a heating appliance or a waste oil collection tank, shall

(a) ensure that the tank or tanks are gauged or dipped, including a water dip, each day of operation;

(b) reconcile gauge or dip readings with meter readings at least daily;

(c) maintain a record of gauge, dip and water dip readings and reconciliations on a form approved by the department;

(d) retain the records described in paragraph (c) for at least 2 years and have the records available for inspection by the department;

(e) inform the department immediately of losses above normal as indicated by 4 consecutive reconciliations;

(f) in critical and sensitive areas, submit a copy of all reconciliations records every 3 months to the department;

(g) upon the request of the department, submit reconciliations records for a period specified by the department.

(2) The operator of an aboveground storage tank system, other than a storage tank system connected to a heating appliance or a waste oil collection tank, shall

(a) ensure that the tank or tanks are gauged or dipped, including a water dip, at least weekly or at such less frequent interval as the minister may approve in writing to accommodate remote installations;

(b) reconcile gauge or dip readings with receipt and withdrawal records at least weekly;

(c) maintain a record of gauge, dip and water dip readings and reconciliations on a form approved by the department;

(d) retain the records described in paragraph (c) for at least 2 years and have these records available for inspection by the department;

(e) inform the department immediately of losses above normal as indicated by 2 consecutive reconciliations;

(f) in critical and sensitive areas, submit a copy of all reconciliations records every 3 months to the department;

(g) upon the request of the department, submit reconciliations records for a period specified by the department.

(3) The operator of a storage tank system other than a storage tank connected to a heating appliance or a waste oil collection tank shall

(a) determine cumulative apparent losses from the tank or tanks on a semi-annual basis, with readings taken on January 15 or July 15 or within 7 days from these dates;

(b) inform the department immediately of the cumulative loss from the tank or tanks on a semi-annual basis exceed one-half of 1% of throughput for the period under consideration.

(4) The owner of a storage tank system or pipeline may be charged with an offence under subsection (1), (2) or (3) if the offence occurred because the owner failed to properly instruct the operator as to these requirements.

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Prohibition

18.1 (1) A person shall not operate, fill or cause to be operated or filled a storage tank system where the operation of that system is not registered under section 13.

(2) Subsection (1) shall not apply to the operation or filling of a storage tank system that is operating immediately before the coming into force of this section until after November 30, 2004 .

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Variation

19. Notwithstanding section 18, the minister may, subject to such terms and conditions as he or she considers appropriate, vary the requirements of section 18 where the owner or operator has filed a written proposal with the department outlining the methods and procedures to be used by the operator to conform with the intent and purpose of section 18.

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Test results

20. In accordance with sections 5, 6, 17 and 23, the owner or operator of a storage tank system shall, within 30 days of the completion of testing, complete and submit a test result report in the manner and form required by the minister.

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Records

21. The owner or operator of a storage tank system shall maintain records of all tests prescribed in section 28.

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Leaks and spills

22. (1) In the event of a spill or leak from a vehicle, pipeline or storage tank system, the operator of the vehicle, pipeline or storage tank system shall immediately

(a) notify the department; and

(b) take those steps that are necessary to abate the discharge, clean the area affected and restore the environment to the satisfaction of the department.

(2) Where the owner of a storage tank system or pipeline or vehicle violates subsection (1) that owner is guilty of an offence if the offence occurred because the owner failed to properly instruct the operator of the requirements under that subsection.

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Time for tests

23. Upon request of the department, the owner or operator of a storage tank system shall have the tests prescribed in section 28 conducted within 30 days or such other period of time as may be prescribed by the department.

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## Leaks

24. When a leak is demonstrated in accordance with sections 5, 6, 22 and 23, the owner or operator of a storage tank system shall promptly

- (a) empty that part of the system that is leaking;
- (b) affix an appropriate visible closure notice on the leaking system;
- (c) make those repairs that are necessary, and
  - (i) where the leak is from a tank, that tank shall be upgraded to the standards of section 27,
  - (ii) where the leak was caused by corrosion, all related storage tank systems which do not meet the requirements of section 27 shall be upgraded to meet the minimum requirements prescribed in section 30 within 12 months, or
  - (iii) where the leak is from the piping, ensure that the piping meets the minimum requirements as prescribed in section 27, or
  - (iv) where it can be demonstrated that the location of the storage tank system will be subject to a planned closure program upon application in writing to the minister, the minister may cancel the requirements of this paragraph;
- (d) where applicable, clean and restore the area affected within a specified time period satisfactory to the department.

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## Abandonment

25. (1) Where a storage tank system has been or will be out of use for a period exceeding 6 months or another period of time that the minister may designate, all liquid and vapours shall be removed from the storage tank, connected piping and dispensing facilities.

(2) Where an underground storage tank system has been abandoned, or when it is known that the underground tank will not be used again, the owner of the storage tank system shall within 30 days empty the system of all liquid and vapours, and

(a) remove the piping from the ground, or purge the piping of flammable vapours and products and permanently seal the ends of the piping by capping and remove the tank from the ground and remove contaminated soil and gasoline or associated products, if the soil around and under the tank is contaminated with the products; and

(b) clean and restore the area affected to the satisfaction of the department.

(3) Where an aboveground storage tank system has been abandoned or when it is known that the aboveground storage tank system will not be used again, the owner of the storage tank system shall within 30 days empty the system of all liquid and vapours, and

(a) dismantle and remove or dispose of the storage tank system including the dyke and remove that contaminated material and gasoline or associated products, if the material around and under the tank is contaminated with the products; and

(b) clean and restore the area affected to the satisfaction of the department.

(4) Notwithstanding subsections (2) and (3), the minister may, subject to the terms and conditions that the minister considers appropriate, vary the requirements of subsection (2) or (3) where the owner or operator has filed a written proposal with the department outlining an alternative method

or procedure to be used which will provide a level of environmental protection acceptable to the minister.

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Relocation

26. (1) A welded aboveground storage tank may be relocated for similar use provided

(a) it is tested after installation but before use in accordance with subsection 28(5) and found to be sound; and

(b) it is dyked in accordance with subsection 27(8).

(2) Riveted aboveground storage tanks shall not be relocated for use.

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Construction and installation standards

27. (1) Steel underground storage tanks shall be constructed, shop tested, installed and maintained in accordance with the U.L.C.

(a) CAN4-S603.1 latest edition including the associated appendices and shall bear a U.L.C. label; or

(b) CAN4-S603 latest edition with impressed current cathodic protection and shall bear a U.L.C. label.

(2) Fibreglass underground storage tanks shall be constructed, shop tested and installed in accordance with U.L.C. CAN4-S615, latest edition and shall bear a U.L.C. label.

(3) An impressed current cathodic protection system shall consist of a number of anodes connected to an external direct current power source, installed in such a manner that the static potential between the storage tank system and a saturated copper/copper sulfate half cell in contact with the soil shall read negative 850 millivolts or more negative.

(4) The system referred to in subsection (3) shall be designed and installed employing sound engineering methods and taking into consideration factors such as the configuration of multiple tank systems, soil resistivity and existing structures in the immediate area.

(5) Shop fabricated aboveground horizontal storage tanks shall be constructed and shop tested in accordance with the U.L.C. CAN4-S601, latest edition, and shall bear a U.L.C. label.

(6) Shop fabricated aboveground vertical storage tanks shall be constructed and shop tested in accordance with the U.L.C. CAN4-S630, latest edition, and shall bear a U.L.C. label.

(7) Field erected aboveground tanks shall be constructed in accordance with American Petroleum Institute Standard 650, latest edition.

(8) Aboveground storage tanks shall be surrounded by a dyke which shall be designed and constructed as follows:

(a) where a dyked area contains only one storage tank, the dyked area shall retain not less than 110% of the capacity of the tank;

(b) where a dyked area contains more than one storage tank, the dyked area shall retain not less than 110% of the capacity of the largest tank or 100% of the capacity of the largest tank plus 10% of the aggregate capacity of all the other tanks, whichever is greater;

(c) the base and walls of the dyke shall have an impermeable lining of clay, concrete, solid masonry or other material designed, constructed and maintained to be liquid tight to a permeability of 25 litres/metre<sup>2</sup> /day; and

(d) a method for the elimination of water accumulations inside the dyke shall be incorporated in the dyke design and construction.

(9) The area immediately surrounding loading or unloading facilities at bulk plants shall be designed to drain to an oil separator or a storage tank and shall be on concrete flooring and the collecting device shall be of a size sufficient to contain a spill during loading or unloading.

(10) When the bulk storage tanks are not in operation or under competent supervision, the gates and other access ways shall be closed and locked and the loading valves, filling and gauging pipes shall be locked except those operated by electrical, remote controls.

(11) At the plant's main gate the operator shall install in full view a plate bearing his or her name, address and telephone number and the name, address and telephone number of his or her authorized representative.

(12) All piping systems associated with a storage tank system shall be designed, constructed and installed to comply with the minimum requirements of the pertinent subsection of Part 4 of the latest edition of the National Fire Code.

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Testing of systems

28. (1) All piping systems shall be pressure tested with air, water or product to at least 350 kilopascals or 1.5 times the maximum operating pressure, whichever is greater.

(2) When piping systems are pressure tested

(a) with air, the lines shall be soaped and shall retain the pressure for a minimum period of 2 hours after the source of pressure has been removed; or

(b) with liquid, the lines shall retain the pressure for a minimum of 6 hours after the source of pressure has been removed; and

(c) the pressure shall be measured by an instrument calibrated in increments not greater than 3.5 kilopascals.

(3) Underground storage tanks, when back filled to finished grade and with the fill pipe installed, shall be tested before operating, and a tester system approved by the department shall be utilized.

(4) Underground storage tanks installed in accordance with subsection 27(1)

(a) shall have maintenance checks on the proper operation of corrosion protection systems carried out in accordance with U.L.C. Standard CAN4-S603.1 for sacrificial anode systems and with the National Association of Corrosion Engineers publication RP-01-69 for impressed current systems and these monitoring checks shall be done at the following time intervals:

(i) before energizing the impressed current system (ICS),

(ii) immediately after completing the installation (ICS energized),

(iii) one month and one year after installation, and

(iv) every 2 years starting in the third year after installation;

(b) all records of maintenance checks shall be retained by the owner of the storage tank system and shall be made available for inspection by the department.

(5) Aboveground vertical storage tanks shall be tested immediately after first filling with product, in the following manner:

(a) the tank shall be dipped every 12 hours for 2 consecutive days;

(b) temperature readings at the top, bottom and middle of the tank shall be taken and a mean temperature of product determined;

(c) corrections for expansion and/or contraction of product shall be applied to the calculations; and

(d) variations from the original liquid levels other than those accounted for by the expansion or contraction will indicate leakage.

(6) Aboveground horizontal tanks shall be visually inspected for leaks.

(7) Dyking shall be tested utilizing a method approved by the department to measure the permeability of the construction.

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Upgrading of existing storage tank systems

29. (1) When a test shows an underground storage tank system to be sound, it may be upgraded with the addition of

(a) impressed current cathodic protection; or

(b) installation of an approved internal non-corrosive tank lining.

(2) A dyke shall be constructed around aboveground tanks as prescribed in subsection 27(8).

(3) An underground storage tank that has been removed from the ground or that has been abandoned may

(a) if potentially suitable for reuse for underground storage of flammable or combustible liquids, be recertified by the manufacturer according to the

(i) U.L.C. Technical Supplement for steel tanks, or

(ii) National Standard of Canada Technical Supplement for tanks other than steel tanks;

(b) if potentially suitable for reuse for aboveground storage of flammable or combustible liquids, be refurbished by the manufacturer to meet the requirements of U.L.C. Standard CAN4-S601M which must be confirmed by the attachment to the tank of an U.L.C. Special Acceptance Tank label; and

(c) if not suitable for reuse under paragraph (a) or (b) shall be rendered harmless by

(i) purging the tank of hydrocarbons and vapours by a method approved by the department,

(ii) using a gas detection meter approved by the department to verify gas-free condition of the tank,

(iii) cutting sufficient openings in the tank to render it unfit for further use, and

(iv) disposing of it in a manner acceptable to the department.

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Failure to comply

30. When a person fails to comply with the requests from the department under these regulations, the department may take those steps that it considers necessary to abate or control the discharge, deposit or emission of the contaminant or to clean the area affected by the discharge, deposit or emission of the contaminant and restore the environment to a condition satisfactory to the department and the costs incurred in that abatement, control, cleaning or restoration will be a debt due and recoverable by the department from the person who fails to comply with the request.

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Repeal

31. The Storage and Handling of Gasoline and Associated Products Regulations , Consolidated Newfoundland and Labrador Regulation 775/96, are repealed.

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