

Greater Vancouver Regional District
Gasoline Distribution Emission Regulation Bylaw No. 1085, 2008

WHEREAS:

- A. The Greater Vancouver Regional District has enacted the Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008; and
- B. That Bylaw contemplates that the Board of the Greater Vancouver Regional District may establish emission regulations.

NOW THEREFORE the Board of Directors of the Greater Vancouver Regional District in open meeting duly assembled enacts as follows:

General

- 1 This Bylaw may be cited for all purposes as the “Greater Vancouver Regional District Gasoline Distribution Emission Regulation Bylaw No. 1085, 2008” (in this Bylaw, “this Emission Regulation”).
- 2 (1) This Emission Regulation is an emission regulation for the purposes of section 26 of the Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008 (“the Bylaw”), and is deemed to be an integral part of the Bylaw.
(2) Terms defined in the Bylaw, or incorporated by reference into the Bylaw, have the same meaning in this Emission Regulation.
- 3 Any operator who complies with the Bylaw and this Emission Regulation is exempt from section 5 of the Bylaw and from section 6 (2) and (3) of the Environmental Management Act provided that it also complies with any further restrictions or conditions imposed by the Environmental Management Act, or a regulation, permit, order or approved waste management plan under the Environmental Management Act.

Definitions

- 4 In this Emission Regulation:

“**breakdown or malfunction**” means any unforeseeable failure or malfunction of any works which causes a violation of any emission control standard contained in this Emission Regulation or any limitation prescribed by the Bylaw, the Environmental Management Act or its regulations;

“**bulk plant**” means a gasoline distribution facility where gasoline is received by fuel transfer vehicle and stored in bulk for distribution by fuel transfer vehicle;

“**CGSB Standard**” means the standard in the Canadian General Standards Board document entitled “Vapour Control Systems in Gasoline Distribution Networks” (CAN/CGSB 3.1000-2007), as amended from time to time, and for the purposes of interpreting the CGSB Standard, “**authority having jurisdiction**” as used therein, means the Greater Vancouver Regional District;

“floating roof tank” means a tank which is equipped with a floating “pan” roof cover which floats on top of the gasoline, and is equipped with seals to the side wall to minimize vapour loss. The tank can also have a fixed roof above the floating roof;

“fuel transfer vehicle” means a motor vehicle having a bulk liquid fuel storage tank mounted on the frame or chassis of the vehicle, or a trailer having a bulk liquid fuel storage tank mounted on the trailer, used for the transportation in bulk of gasoline only or gasoline and other fuels between terminals, bulk plants or service stations;

“operating service factor” means, in respect of a vapour control system installed at a terminal, the ratio of hours (during terminal operation) that a vapour control system is operating normally to the total operating hours of the terminal, calculated over a calendar year;

“operator” includes:

- (a) a person who holds any interest in a terminal, bulk plant, service station or a fuel transfer vehicle, including a lessee, but not including a secured creditor; and
- (b) a person who has management or control, direct or indirect, over the operations of a terminal, bulk plant, service station or a fuel transfer vehicle;

“Reid vapour pressure” means the vapour pressure of gasoline or an associated product as defined by the CGSB Standard;

“secured creditor” means the holder of a mortgage, charge, debenture, hypothecation or other security interest in or with respect to a terminal, bulk plant, service station or a fuel transfer vehicle;

“service station” means a facility situated within the area of the Greater Vancouver Regional District used for the purpose of storing and dispensing gasoline to motor vehicles or vessels, and includes retail service stations, cardlock service stations or fleet refuelling stations but does not include

- (a) a facility located on a farm used solely for the fuelling of farm vehicles and equipment, and
- (b) a facility that is used solely for fuelling motor vehicles and equipment used only within the confines of the site where the facility is located;

“Stage I vapour controls” means any devices or equipment used to recover vapours during the bulk transfer of gasoline from fuel transfer vehicles to the fuel storage tanks of service stations, as described by the Canadian Council of Ministers of the Environment in "Environmental Code of Practice for Vapour Recovery in Gasoline Distribution Networks", CCME-EPC/TRE-30E and amendments and revisions thereto;

“submerged fill” means the method of filling a fuel storage tank with liquid fuel using a fill pipe which provides entry below the liquid surface, in order to minimize splash and vapour formation;

“terminal” means a gasoline distribution facility where gasoline is received by pipeline, rail car or marine vessel, or is stored in a fuel storage tank at a refinery site, and is stored in bulk for distribution by fuel transfer vehicle;

“vapour balancing system” means a vapour retrieval system where gasoline vapours displaced from a tank receiving gasoline are returned to the tank that is the source of the gasoline;

“vapour control system” means a vapour balancing system or a vapour recovery system;

“vapour recovery system” means a system for the removal of gasoline vapour from a fuel transfer vehicle and for the recovery of the vapour in a vapour recovery unit;

“vapour recovery unit” means the part of a vapour recovery system that receives gasoline vapour and recovers it for subsequent use.

Application of Emission Regulation

- 5** Every operator of a terminal, bulk plant, service station or fuel transfer vehicle must comply with the requirements set out in this Emission Regulation.

Registration

- 6** All operators except those who hold motor vehicle fuel dispensing facility permits must register by January 1, 2009.
- 7** All operators of facilities or vehicles that commence operations after the date on which this Emission Regulation comes into force must register prior to commencing operations.

Fees

- 8** All operators must pay a registration fee of \$100.
- 9** The registration fee is waived for all operators who register before January 1, 2009.
- 10** Each year, beginning 1 April 2009, each registered operator of a terminal or bulk plant must pay to the District a fee of \$200 plus the total emission fee calculated in accordance with procedures approved by the district director for that calendar year or portion thereof, payable by April 1 of each calendar year, or upon registration if registration occurs after April 1 of that year.
- 11** Each year, beginning 1 April 2009, each registered operator of a fuel transfer vehicle must pay to the District a fee of \$200 plus \$50 per fuel transfer vehicle for that calendar year or portion thereof, payable by April 1 of each calendar year, or upon registration if registration occurs after April 1 of that year.
- 12** Each year, beginning 1 April 2009, each registered operator of a service station must pay to the District a fee of \$150 per service station for that calendar year or portion thereof, payable by April 1 of each calendar year, or upon registration if registration occurs after April 1 of that year.

General Requirements and Standard Conditions

- 13** Every operator immediately upon becoming aware of a breakdown or malfunction must take corrective action to restore normal operations, and during the period of breakdown or

malfunction until the necessary actions can be completed, minimize the discharge of air contaminants to the lowest possible level.

- 14** For the purpose of applying the CGSB standard, all gaseous volumes must be corrected to dry conditions of 20°C and 760 mm Hg.

REQUIREMENTS FOR GASOLINE DISTRIBUTION TERMINALS

- 15** For the purposes of sections 16 to 27 “**operator**” means the operator of a gasoline distribution terminal.

Equipment and Operating Requirements

- 16** Every operator must ensure that it is equipped with a vapour recovery system that complies at all times with the CGSB Standard and the vapour recovery system is installed, operated and maintained in accordance with the recommendations and requirements of the CGSB Standard.
- 17** No operator may permit the transfer of gasoline from its terminal to a fuel transfer vehicle unless the fuel transfer vehicle is equipped with a vapour balancing system.
- 18** No person may transfer gasoline from a terminal to a fuel transfer vehicle unless:
- (1) the transfer is carried out by submerged fill;
 - (2) the fuel transfer vehicle is equipped with a vapour balancing system; and
 - (3) the vapour balancing system of the fuel transfer vehicle is properly connected to the vapour recovery system of the terminal during the transfer.
- 19** Every operator must ensure that each vapour recovery system installed at its terminals:
- (1) includes and utilizes equipment for the collection of condensed gasoline vapour;
 - (2) has a minimum of one (1) vapour connection at every fuel transfer vehicle loading bay;
 - (3) has a minimum of two (2) vapour connections at every loading bay capable of loading two or more fuel transfer vehicles simultaneously; and
 - (4) has an operating service factor of 95% or greater.
- 20** No operator may conduct, between May 1 and September 15 of each year, any scheduled maintenance at its terminals that could reduce the operational efficiency of a vapour recovery system installed at such terminals.
- 21** Every operator must notify the district director in writing of any occasion during which a vapour recovery system installed at any of its terminals is inoperative, or is expected to be inoperative, for a period exceeding 24 hours.
- 22** Every operator must:
- (1) provide to its employees operating a vapour recovery system, written operating procedures and sufficient training to operate the vapour recovery system in accordance with the CGSB Standard;
 - (2) provide to fuel transfer vehicle operators operating a vapour recovery system at its terminal, written instructions to operate the vapour recovery system in accordance with

the CGSB Standard; and

- (3) provide to its employees maintaining a vapour recovery system, written standard maintenance procedures to maintain the vapour recovery system in accordance with the CGSB Standard.

Monitoring, Record Keeping and Reporting Requirements

- 23** Every operator must report to the district director as soon as practicable, and not later than twelve (12) hours after any breakdown or malfunction, the date, time, duration, specific location, the equipment involved, to the extent known the causes, and the corrective actions taken to prevent a reoccurrence of the breakdown or malfunction. The estimated time for repairs and a written report confirming the cause(s) of the breakdown or malfunction must be submitted to the district director as soon as possible and not more than ten (10) days thereafter .
- 24** Every operator must conduct periodic visual inspections of each vapour recovery system installed at its terminals to ensure that it is in good working order.
- 25** Every operator must, at least once in every 12 months, for each vapour recovery system installed at its terminals:
 - (1) conduct tests, in accordance with the method specified in the CGSB Standard, to ensure that vapour recovery unit emissions do not exceed the level specified by the CGSB Standard; and

- (2) test the vapour control system for leaks.

All deficiencies must be subject to immediate corrective action under section 13.

- 26** Every operator must keep, in accordance with section 27, accurate records and supporting documentation setting out, in respect of each of its terminals:
 - (1) records of all inspections and maintenance conducted on the vapour recovery system located at the terminal, including without limitation all boilers and heaters, and must record the date and time of the inspection or maintenance, the condition of the vapor recovery system, boilers and heaters observed during the inspection or maintenance, and the name and signature of a responsible person who is able to verify the information contained in the record;
 - (2) the volumes of gasoline received by the terminal and dispensed from the terminal;
 - (3) full details of every breakdown or malfunction or other shut-down of any vapour recovery systems installed at the terminal, for any reason, including maintenance and repair thereof;
 - (4) full details of any abnormalities observed during visual inspections of any vapour recovery systems installed at the terminal;
 - (5) the results of any tests conducted on any vapour recovery systems installed at the terminal; and
 - (6) the operator's compliance with the employee training requirements of section 22.

- 27** Every operator must:

- (1) keep all records and supporting documentation kept under section 26 for at least three (3) years after the date of preparation or receipt thereof;
 - (2) upon the request of the district director or an officer, produce for inspection any records or supporting documentation kept under section 26 within 48 hours; and
- upon the request of the district director or an officer, deliver copies of any records or supporting documentation kept under section 26 to the requesting party within 48 hours of such request.

REQUIREMENTS FOR BULK PLANTS

28 For the purposes of sections 29 to 36 “**operator**” means the operator of a bulk plant.

Equipment and Operating Requirements

- 29** Every operator must equip each gasoline storage tank with vapour balancing systems both for unloading from a fuel transfer vehicle and for delivery to a fuel transfer vehicle. Every operator must ensure that the vapour balancing system complies with the CGSB Standard and is installed, operated and maintained in accordance with the recommendations and requirements of the CGSB Standard.
- 30** Section 29 does not apply to unloading from a fuel transfer vehicle or loading a fuel transfer vehicle if the gasoline storage tank is a floating roof tank.
- 31** No person may transfer or assist in the transfer of gasoline between a bulk plant equipped with a vapour balancing system and a fuel transfer vehicle equipped with a vapour balancing system unless:
- (1) the vapour balancing system between the bulk plant and the fuel transfer vehicle has been properly connected prior to the transfer;
 - (2) the transfer from a bulk plant to a fuel transfer vehicle, or from a fuel transfer vehicle to a bulk plant is carried out by submerged fill; and
 - (3) the vapour balancing system includes a system for condensate collection.
- 32** Every operator must provide to its employees and fuel transfer vehicle operators, written operating procedures and sufficient training to transfer gasoline in accordance with the CGSB Standard, including when the operator is prohibited by this emission regulation from transferring gasoline.

Monitoring, Record Keeping and Reporting Requirements

- 33** Every operator must conduct periodic visual checks of the vapour balancing system to ensure that it is in good working order.
- 34** Every operator must, at least once in every 24 months, test the vapor balancing system for leaks. Leak testing must be conducted while the vapour control system is in use, using a combustible gas meter in accordance with the CGSB Standard.
- 35** Every operator must keep, in accordance with section 36, accurate records and supporting documentation setting out, in respect of such bulk plant:

- (1) the volumes of gasoline received by the bulk plant from fuel transfer vehicles;
 - (2) the volumes of gasoline delivered by the bulk plant to fuel transfer vehicles;
 - (3) records of all inspections and maintenance conducted on the vapour balancing system located at the bulk plant and must record the date and time of the inspection or maintenance, the condition of the vapor balancing system observed during the inspection or maintenance, and the name and signature of a responsible person who is able to verify the information contained in the record;
 - (4) full details of each occurrence of any breakdown or malfunction or other shut-down of the vapour balancing system installed on each bulk storage tank, for any reason, including maintenance and repair thereof;
 - (5) full details of any abnormalities observed during visual checks of the vapour balancing system installed on each gasoline storage tank;
 - (6) the results of any tests conducted on any vapour balancing systems installed at the bulk plant; and
 - (7) the operator's compliance with the employee training requirements of section 32; and must maintain these records in accordance with the requirements of section 36.
- 36** Every operator required to keep records and supporting documentation in accordance with Section 35 must:
- (1) keep all records and supporting documentation for at least three (3) years after the date of preparation or receipt thereof;
 - (2) upon the request of the district director or an officer, produce for inspection any records or supporting documentation kept under section 35 within 48 hours; and
 - (3) upon the request of the district director or an officer, deliver copies of any records or supporting documentation kept under section 35 to the requesting party within 48 hours of such request.

REQUIREMENTS FOR FUEL TRANSFER VEHICLES

- 37** For the purposes of sections 38 to 45 “**operator**” means the operator of a fuel transfer vehicle.

Equipment and Operating Requirements

- 38** Every operator must ensure that each of its fuel transfer vehicles is equipped with a vapour recovery system that complies at all times with the CGSB Standard and the vapour recovery system is installed, operated and maintained in accordance with the recommendations and requirements of the CGSB Standard.
- 39** No operator may allow any person to transfer gasoline from a terminal, bulk plant or service station to a fuel transfer vehicle or from a fuel transfer vehicle to a bulk plant or service station unless the fuel transfer vehicle is equipped with a vapour balancing system.
- 40** No operator may allow any person to transfer or assist in the transfer of gasoline between a terminal, bulk plant or service station and a fuel transfer vehicle unless:

- (1) the vapour balancing system between the terminal, bulk plant or service station and the fuel transfer vehicle has been properly connected prior to the transfer;
- (2) the transfer from a terminal or bulk plant to a fuel transfer vehicle, or from a fuel transfer vehicle to a bulk plant or service station is carried out by submerged fill.

41 Every operator must:

- (1) provide to its employees operating a fuel transfer vehicle written operating procedures and sufficient training to transfer gasoline in accordance with the CGSB Standard , including when the operator is prohibited by this Emission Regulation from transferring gasoline;
- (2) provide to its employees maintaining a fuel transfer vehicle, written standard maintenance procedures to maintain the vapour balancing system in accordance with the CGSB Standard;
- (3) ensure the proper use of the vapour balancing system by fuel transfer vehicle operators.

Monitoring, Record Keeping and Reporting Requirements

42 Every operator must conduct periodic visual checks of the fuel transfer vehicle vapour balancing system to ensure that it is in good working order.

43 Every operator must, at least once in every 12 months, pressure test and vacuum test the fuel transfer vehicle, including all vapour balancing system hoses and fittings, for vapour tightness in accordance with the method specified in the CGSB Standard.

- (1) if a fuel transfer vehicle fails either the pressure test or the vacuum test, the operator must, within 48 hours after it has failed the test, remove the fuel transfer vehicle from service until it has been repaired in accordance with the CGSB Standard.
- (2) when a fuel transfer vehicle passes the pressure test and vacuum test, the operator must identify the most recent testing date by marking the date of the vacuum and pressure tests in a visible location on the front right side of the fuel transfer vehicle. The testing dates must be indicated, in bold print of a minimum 50 mm size, with references to "vacuum test" or "vacuum" and "pressure test" or "pressure", and the corresponding testing dates in a day/month/year format.

44 Every operator must keep, in accordance with section 45, accurate records and supporting documentation setting out, in respect of each fuel transfer vehicle:

- (1) records of all inspections and maintenance conducted on the fuel transfer vehicle, and must record the date and time and the reasons for the inspection or maintenance, and the name and signature of a responsible person who is able to verify the information contained in the record;
- (2) full details of each occurrence of any breakdown or malfunction or other shut-down of any vapour balancing equipment installed on the fuel transfer vehicle, for any reason, including maintenance and repair thereof;
- (3) full details of any abnormalities observed during visual checks of the vapour balancing system installed on the fuel transfer vehicle;
- (4) all testing required by this Emission Regulation;

(5) all employee training required by this Emission Regulation;

and must maintain these records in accordance with the requirements of section 45.

45 Every operator required to keep records and supporting documentation in accordance with section 44 must:

(1) keep all records and supporting documentation for at least three (3) years after the date of preparation or receipt thereof;

(2) upon the request of the district director or an officer, produce for inspection any records or supporting documentation kept under section 44 within 48 hours; and

upon the request of the district director or an officer, deliver copies of any records or supporting documentation kept under section 44 to the requesting party within 48 hours of such request.

REQUIREMENTS FOR SERVICE STATIONS

46 For the purposes of sections 47 to 52 “**operator**” means the operator of a service station.

Equipment and Operating Requirements

47 Every operator of a service station must install Stage I vapour controls and equipment for the submerged filling of gasoline fuel storage tanks at the service station and must ensure that all such devices and equipment are operated, maintained and repaired in accordance with the recommendations and requirements of the CGSB Standard.

48 No operator may transfer or allow the transfer of gasoline from a fuel transfer vehicle to a fuel storage tank at a service station unless:

(1) Stage I vapour controls and equipment at the service station and on the fuel transfer vehicle are properly utilized for the transfer;

(2) All Stage I vapour controls and equipment are operated, maintained and repaired in accordance with the recommendations and requirements of the CGSB Standard; and

(3) The transfer is effected by submerged filling.

49 Every operator must ensure that vapour recovery adapters on all underground gasoline storage tanks at the service station are accessible to fuel transfer vehicle operators.

Process Monitoring, Record Keeping and Reporting Requirements

50 Every operator must keep, in accordance with section 51, accurate records and supporting documentation setting out, in respect of such service station:

(1) the volumes of gasoline received by the service station from fuel transfer vehicles;

(2) full details of each occurrence of any breakdown, malfunction or other shut-down of any Stage I vapour controls installed at the service station, for any reason, including maintenance and repair thereof; and

(3) full details of any abnormalities observed during the use of any Stage I vapour controls installed at the service station.

- 51 Every operator must keep records and supporting documentation required by section 50 and maintain all records and supporting documentation for at least 3 years after the date of preparation or receipt thereof.
- 52 All operators must make the records under section 50 available for inspection by an officer during ordinary business hours, and must deliver such records to the district director in the manner and within the time that the district director requires.

Read a first time this *25 day of July, 2008.*

Read a second time this *25 day of July, 2008.*

Read a third time this *25 day of July, 2008.*

Reconsidered, passed and finally adopted by the Board of Directors of the Greater Vancouver Regional District this *25 day of July, 2008.*



Chair



Secretary