



Greater Vancouver Regional District
4330 Kingsway, Burnaby, British Columbia, Canada V5H 4G8

General
Telephone (604) 432-6200
Fax (604) 432-6251

Air Quality and Source Control Department - Tel (604) 436-6700 Fax (604) 436-6707

PERMIT

(Under the provisions of the GVRD Air Quality Management Bylaw No. 725)

SHELL CANADA PRODUCTS LIMITED
IS AUTHORIZED TO DISCHARGE AIR CONTAMINANTS
FROM A PETROLEUM TANK FARM
LOCATED AT FOREST GROVE DRIVE AND UNDERHILL AVENUE, BURNABY, B.C.

This Permit has been issued under the terms and conditions
prescribed in the attached Schedules A, B, C, D, E, F, G & H
for emission sources and works existing or planned on March 9, 1993.


ASSISTANT AIR QUALITY DIRECTOR

PERMIT NUMBER GVA0262

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Schedule B General Requirements

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Schedule D Emission Sources and Discharge Points

Schedule E Authorized Rates of Discharge

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Schedule G Authorized Works and Procedures

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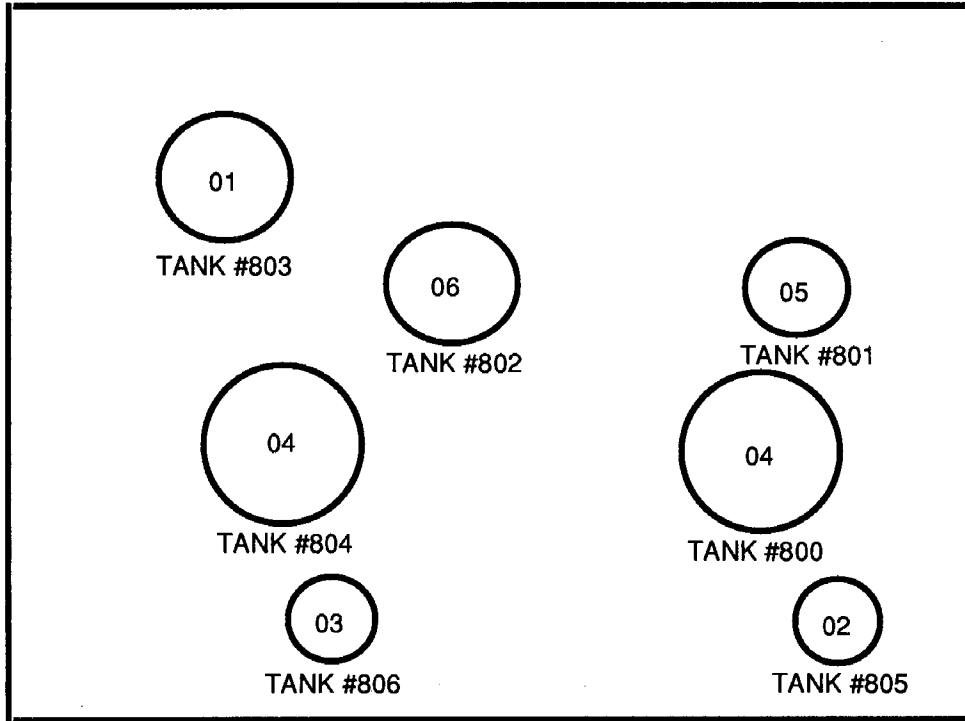


Greater Vancouver Regional District

4330 KINGSWAY, BURNABY, BRITISH COLUMBIA, V5H 4G8 TELEPHONE 436-6777

GVRD Air Quality Management Bylaw No. 725

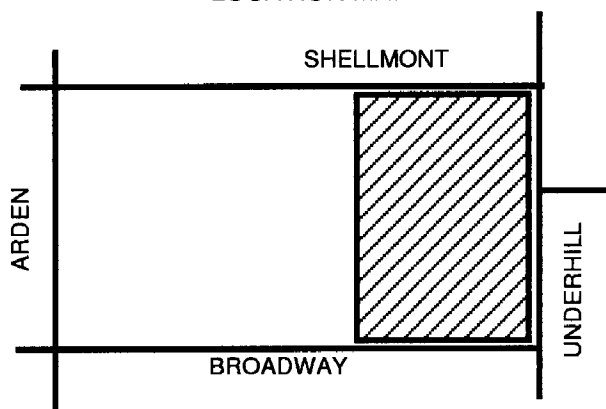
SITE PLAN



THE NUMBERED LOCATIONS OF THE DISCHARGE POINTS ARE APPROXIMATE

N.T.S.

LOCATION MAP



NOVEMBER 30, 1992
MARCH 9, 1993


ASSISTANT AIR QUALITY DIRECTOR

SCHEDULE A TO PERMIT NO. GVA0262

GREATER VANCOUVER REGIONAL DISTRICT

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SCHEDULE B - PAGE 1  
to PERMIT GVA0262

A. OBJECTIVES AND AMENDMENTS

Ambient air quality guidelines and objectives are prescribed under provisions of applicable legislation. If the level of air quality as prescribed by these criteria is exceeded, the conditions of this Permit may be revised, in order that the desired air quality can be maintained. This Permit may also be amended for other reasons, as authorized by applicable legislation.

B. MAINTENANCE AND OPERATION OF WORKS

Works and procedures, which this Permit authorizes to control the discharge of air contaminants, shall be employed during all operating periods of the related facilities. The Permittee shall regularly inspect and maintain all such works in good repair.

C. EMERGENCY PROCEDURES

An emergency or other condition may prevent the continuous utilization of the above authorized works and procedures, or may result in a discharge of air contaminants which is not authorized by this Permit. If such a situation occurs, the Permittee shall report the circumstances of this event to the Greater Vancouver Regional District, Air Quality and Source Control Department at 436-6777 (24 hours), at the first available opportunity.

No discharge that has bypassed control works is authorized unless the Air Quality Director's approval has been obtained. In the event of an emergency, bypassing facilities may be used for such periods as are necessary to effect a shutdown of the related processes.

D. AIR CONDITIONING, HEATING AND VENTILATION SYSTEMS

Air contaminants discharged from any natural gas-fired air conditioning, heating or ventilation systems for buildings located at the discharge site are not specified in this Permit. These works shall be maintained and operated in a manner prescribed by the manufacturer to ensure good combustion of the fuel with minimum discharge of air contaminants. Notwithstanding the above, the Air Quality Director may at his discretion stipulate limits for emission of contaminants from these sources in the Permit at a future date under provisions of the Bylaw.

March 9, 1993

  
ASSISTANT AIR QUALITY DIRECTOR

SCHEDULE B - PAGE 1

GREATER VANCOUVER REGIONAL DISTRICT



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E. GENERAL SITE RESTRICTIONS

No air contaminant(s) from any single source, or combination of sources shall pass the boundary of the property, described in Section H of this Schedule B, such that the Air Quality Director determines that air pollution has occurred.

F. ENGINEERING UNITS

The engineering units specified in this Permit are in accordance with the Metric System of measure. Approximate equivalent values for the British System can be calculated using the following conversion factors.

|                              |   |                 |
|------------------------------|---|-----------------|
| mg/m <sup>3</sup> x 0.000437 | = | gr/cf           |
| m <sup>3</sup> /min x 35.3   | = | cf/min          |
| kg/m <sup>3</sup> x 0.0624   | = | lbs/cf          |
| kg/L x 10.0                  | = | lbs/gal         |
| mg/m <sup>3</sup> x 24.0/M   | = | ppm (by volume) |

where

|                |   |             |     |   |                   |
|----------------|---|-------------|-----|---|-------------------|
| m <sup>3</sup> | = | cubic metre | min | = | minute            |
| mg             | = | milligram   | cf  | = | cubic feet        |
| s              | = | second      | lb  | = | pound             |
| kg             | = | kilogram    | gal | = | gallon            |
| L              | = | litre       | M   | = | molecular weight  |
| gr             | = | grain       | ppm | = | parts per million |

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G. STANDARD CONDITIONS AND DEFINITIONS

Except where otherwise indicated, the following standard conditions and definitions apply to this Permit.

1. The Restrictions in the attached Schedules are maximum limits.
2. Gaseous volumes are corrected to dry conditions of 20° Celsius & 760mm Hg.
3. Particulate matter from combustion sources is corrected to 12% Carbon Dioxide.
4. Opacity is measured at the point of maximum density, nearest the discharge point.
5. Opacity measurements exclude the effect of condensed, uncombined water droplets.
6. Definitions in the Waste Management Act and GVRD Air Quality Management Bylaw No. 725 apply to terminology used in this Permit.
7. Threshold Limit Values (TLV) refer to the Time Weighted Average (TWA) exposure limits for substances specified in the American Conference of Governmental Industrial Hygienists Threshold Limit Values handbook for the years 1991 - 1992.
8. Any production, storage, transportation, handling, treatment, processing or ownership of a special waste must comply with the requirements of the Waste Management Act, Special Waste Regulation.

H. DESCRIPTION OF DISCHARGE SITE

The land from which the air contaminants are discharged is described as "Municipality of Burnaby Lot Three (3) BLOCK SIX (6) of Lots Fifty-seven (57) and Fifty-eight (58) Group One (1) Plan Three Thousand and Fifty-eight (3058) SAVE AND EXCEPT the East Forty (40) feet of said Lot Three (3) AND SAVE AND EXCEPT Part (One decimal Twenty-one (1.21) acres more or less) of said lot Three (3) as shown on Right-of-Way Plan Twelve Thousand One Hundred and Sixty-nine (12169) New Westminster District. Municipality of Burnaby Lot Fifty-two (52) of District Lot Fifty-seven (57) Group One (1) Plan Thirty-one Thousand and Fifty (31050) New Westminster District. "

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SCHEDULE C - PAGE 1
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This Schedule describes emission monitoring, sampling and reporting requirements.

The Permittee shall conduct the following monitoring and sampling program on the discharges and submit the results to the Air Quality Director. The need for increased or decreased monitoring may be reviewed periodically by the Air Quality Director.

EMISSION NUMBER	DUE DATE(S)	REQUIREMENT(S)
01 - 06	November 30, 1993 and annually thereafter	Written report on the condition of all floating roof tank seals, and all conservation vents associated with the tanks. All evidence of seal and vent deterioration and/or malfunction shall be reported, as well as all action taken or proposed to resolve any seal or venting problems.
01 - 06	March 31, 1993 and annually thereafter	Written report detailing the storage tank capacity, the material stored and the annual throughput for each tank for the preceding calendar year.
01 - 06	March 31, 1993 and annually thereafter	Written report detailing hydrocarbon losses from storage and handling operations. Hydrocarbon loss estimates shall be based on standard API methods for each tank.
General	See requirement	The Air Quality Director shall be notified 60 days prior to any tank cleaning operation.

Emission testing and ambient air sampling and monitoring, shall be undertaken by the Permittee when required by the Air Quality Director.

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SCHEDULE D - PAGE 1  
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The authorized emission sources and discharge points located approximately as shown on Schedule A are indicated below and become effective July 1, 1993. The authorized emission sources and discharge points in Schedule D of Permit GVA262 dated November 30, 1992 remain in effect until June 30, 1993.

| EMISSION NUMBER | EMISSION SOURCE                                                           | DISCHARGE POINT |
|-----------------|---------------------------------------------------------------------------|-----------------|
| 01              | 131,500 barrel untreated mogas storage Tank #803                          | Tank roof seals |
| 02              | 96,000 barrel gasoline storage tank #805                                  | Tank roof seals |
| 03              | 80,000 barrel petroleum distillate storage tank #806                      | Tank roof seals |
| 04              | Two 150,000 barrel petroleum distillate products storage tanks #800 & 804 | Tank vents      |
| 05              | 131,500 barrel untreated mogas storage Tank #801                          | Tank roof seals |
| 06              | 135,000 barrel untreated mogas storage Tank #802                          | Tank roof seals |

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SCHEDULE D - PAGE 1



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SCHEDULE E - PAGE 1
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The authorized rates of discharge for the emission sources described in Schedule D are:

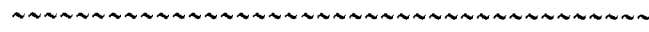
EMISSION NUMBER	MAXIMUM AUTHORIZED RATE OF DISCHARGE			NOTES & ADDITIONAL REQUIREMENTS
	FLOW m ³ /min	DURATION hours/day	FREQUENCY days/week	
01, 02, 03, 04, 05 & 06	See notes	24	7	The authorized maximum rate of discharge is that resulting from vapour venting during tank filling, withdrawing and breathing.

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SCHEDULE E - PAGE 1

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SCHEDULE F - PAGE 1
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The authorized maximum discharge criteria for emission sources described in Schedule D are:

EMISSION NUMBER	PARAMETER	RESTRICTION	NOTES
01 - 06	Odour	See notes	None past the plant boundary such that the Air Quality Director determines that air pollution has occurred.

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SCHEDULE G - PAGE 1
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The authorized works and procedures to control the discharge of air contaminants from the emission sources described in Schedule D are indicated below and become effective July 1, 1993. The authorized works and procedures for the emission sources described in Schedule D and indicated in Schedule G of Permit GVA0262 dated November 30, 1992 remain in effect until June 30, 1993.

The Air Quality Director may require that further works be installed, if the existing works, in his opinion, do not provide an acceptable level of emission control. New works or alterations to existing works must be approved, in principle, by the Air Quality Director.

Where the Air Quality Director has specified that additional works are required, the maximum discharge criteria described in Schedule F of this Permit are applicable as specified by the Completion Date(s) listed below. Prior to the specified date(s) the existing control works and procedures must be maintained in good operating condition and operated in a manner to minimize emissions.

EMISSION NUMBER	COMPLETION DATE	DESCRIPTION OF WORKS/PROCEDURES
01	Completed	External floating roof equipped with a mechanical shoe primary seal and a rigid secondary seal, in good repair.
02	Completed	External floating roof equipped with a mechanical shoe primary seal, in good repair.
03	Completed	External floating roof equipped with a mechanical shoe primary seal, in good repair. The maximum true vapour pressure of products stored in this tank shall not exceed 5.2 kPa.
04	Completed	Existing vents and related appurtenances together with good operating practices. The maximum true vapour pressure of products stored in these tanks shall not exceed 5.2 kPa

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SCHEDULE G - PAGE 1

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| EMISSION<br>NUMBER | COMPLETION<br>DATE | DESCRIPTION OF<br>WORKS/PROCEDURES                                                                     |
|--------------------|--------------------|--------------------------------------------------------------------------------------------------------|
| 05                 | Completed          | External floating roof equipped with a mechanical shoe primary seal and a rigid secondary seal.        |
| 06                 | Completed          | External floating roof equipped with a primary foam bag seal and rigid secondary seal, in good repair. |

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SCHEDULE H - PAGE 1
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RECORD OF PERMIT ISSUANCE

DATE	ACTION	SECTIONS AFFECTED
November 30, 1992	Issuance	Face, Schedules A, B, C, D, E, F, G & H
March 5, 1993	Amended	Face, Schedules A, B, C, D, E, F, G & H

March 9, 1993


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SCHEDULE H - PAGE 1