

Re: Application for Permit under Pollution Control Act
Imperial Oil Lougheed Tank Farm and Tank Car Unloading Facilities
3232 Underhill Avenue

Council on July 8, 1974 requested information on Imperial Oil Company's application to discharge effluent into Silver Creek and Brunette River, as more particularly explained in the following advertisement which recently appeared in a local newspaper:

425 LEGALS
DEPARTMENT OF LANDS, FORESTS
AND WATER RESOURCES
WATER RESOURCES SERVICE
POLLUTION CONTROL BRANCH
APPLICATION FOR
A PERMIT UNDER THE
POLLUTION CONTROL ACT, 1967
(EFFLUENT)

The application is to be filed with the Director, Pollution Branch, Parliament Buildings, Victoria, British Columbia. Any person who wishes to object to the application under section 13 (2) of the Pollution Control Act, 1967, may, within 30 days of the date of application, or within 30 days of the date of publication in The British Columbia Gazette or in a newspaper, or where service is required within 30 days of the serving of a copy of the application, file with the Director an objection in writing to the granting of a permit, stating the manner in which he is affected. Those who do not so notify may file with the Pollution Control Board an objection in writing under section 13 (6), in the same manner and time period as described above.

1. Imperial Oil Limited of 1251 West Georgia Street, Vancouver, B.C. hereby apply to the Director for a permit to discharge effluent from Lougheed Tank Farm and Tank Car Unloading Facility located 3232 Underhill Avenue, South Burnaby, B.C. into Silver Creek which flows south and discharges into the Brunette River and give notice of my application to all persons affected.
2. The land upon which the works are located is 1st Lot of Parcel C of Blocks 2, 3 and 4 of Lots 57 and 58, Group 1, Plan 1379, Municipality of Burnaby, S.W.D.
3. The discharge shall be located at 1000 ft. east and 200 ft. south of the intersection of Underhill Avenue and East Lake Drive.
4. The quantity of effluent to be discharged is as follows: Average annual daily discharge (based on operating period 24/7) Maximum daily discharge 422 m³. The operating period which the effluent will be discharged is continuous.
5. The characteristics of the effluent discharged shall be equivalent to or better than 4190 mg/l. Sulfide, 20 mg/l. Suspended Solids, 20 mg/l. BOD₅ 20 mg/l. pH 6.5-8.5 and ambient discharge temperature.
6. The type of treatment to be applied to the effluent before discharge is as follows: a neutralization stage.
7. I, H. H. Hanson, Registrar, hereby certify that a copy of this application has been received by the Regional District of Greater Vancouver Regional District.
8. This notification, dated on the 23rd day of June, 1974, was posted on the ground in accordance with the Pollution Control Regulations.
E. B. Jakeman, P. Eng.
H. H. Lovell & Associates Agent

The Chief Public Health Inspector offers the following comments on the basis of his review of the application:

" The Imperial Oil Company has an existing bulk tank farm located at 3232 Underhill Avenue, containing six (6) tanks with the following capacities:

1 Diesel Tank	42,500 Barrels
1 Furnace Oil Tank	20,000 Barrels
1 Esso Extra Tank	24,000 Barrels
1 Esso Extra Tank	24,000 Barrels
1 Turbo Al Tank	20,000 Barrels
1 Stove Oil Tank	3,750 Barrels
TOTAL	154,250 Barrels

Continued ...

Re: Application for Permit under Pollution Control Act - Cont'd.

The Imperial Oil Company has submitted plans to add one 10,000 barrel Turbo AI tank and replace the existing oil separator with a new type oil separator in the Tank Farm area. In addition, the Company is constructing a tank car unloading facility west of the Tank Farm.

TANK FARM

The six (6) tanks are protected by a perimeter dyke, which has a safety height 3 feet above the minimum requirement. The capacity is 4,370,000 gallons. Surface waters (rain) and seepage, which accumulate within the dyked area flow to an oil separator located within the dyked area. Storm waters are then lifted above the dyke by pump and discharged to Silver Creek. The system is also designed to prevent siphonage. This area is inspected three times daily and no pollutants from tank cleanings or other sources are allowed to enter this dyke area. This was evident during our inspection. There will be one exception in the future as the Company will connect the yard drainage from the new tank car unloading zone to this system.

OTHER PROTECTIVE DEVICES

Tanks within the dyked area are filled via pipe line from the loco Refinery. Each tank is equipped with high level alarm systems, which when activated by a lowering of pressure in the pipe line or the possible overflowing of a tank, automatically shuts off the flow at the loco Plant. This warning system is set at a level on the tank with a safety factor, which will allow the tank to take the full capacity of the pipe line without mishap. There is no manual loading or unloading of product in this area, which eliminates spillage or human error.

INSTALLATION OF ONE 10,000 BARREL TURBO AI TANK

This installation will have no effect on the quality of effluent being discharged.

INSTALLATION OF A NEW OIL INTERCEPTOR

The new oil interceptor will be an improvement over the existing one as it is equipped with an oil skimmer. The pump is designed for manual operation, which gives the Company control over any discharge.

TANK CAR UNLOADING FACILITY

The Company has submitted plans for a fourteen (14) car unloading zone. Each car will have a 14,000 - 19,000 gallon capacity with a total maximum capacity of 240,000 gallons. The loading zone will be perimeter dyked with a holding capacity of 60,000 gallons. Storm water within the loading zone will be discharged through the Tank Farm oil separator and discharged to Silver Creek.

VOLUME OF DISCHARGE

Average - This is the volume of rain water entering the Tank Farm and Tank Car Loading zone (approximately four (4) acres) during a 24 hour period. This is arrived at by taking a 10 year average rainfall for Burnaby Mountain area and calculating the amount of water that would accumulate on four (4) acres in a day. This, mathematically, is the amount of water expected to be discharged to Silver Creek every 24 hours or 20,000 gallons.

Maximum - Four hundred and thirty-two thousand (432,000) gallons is the volume of storm water the discharge pump is capable of pumping from the dyked area in 24 hours.

Total Solids - Fifteen hundred (1,500) mg/L is the standard set forth in the Pollution Control Objectives for the Chemical and Petroleum Industries of British Columbia, Level 'A' Discharges to Fresh Water.

Suspended Solids - Twenty (20) mg/L, (all storm water carries some suspended material) is the standard set forth in the Pollution Control Objectives for the Chemical and Petroleum Industries of British Columbia, Level 'A' Discharges to Fresh Water.

Toxic Constituents - Five (5) mg/L is the maximum amount of oil that may be discharged as set forth in the standards of the Pollution Control Objectives for the Chemical and Petroleum Industries of British Columbia, Level 'A' Dyked Tank Storage Areas.

ITEM 35

MANAGER'S REPORT NO. 51

COUNCIL MEETING July 22/74

Re: Application for Permit under Pollution Control Act - Cont'd.

Connection to Sanitary Sewer - Storm water cannot be accepted into a sanitary sewer.

SUMMATION

In summary, we would state that the tanks are situated within a dyked area as a precautionary measure in case of spill or accident. There is no manual loading or unloading activities carried out in this area. As the dyked area is a moat, rain water must be removed by pump. The pump is a manual start with an automatic shut-off. The oil interceptor is an added precaution. The area, as noted in this report, is inspected at least three times daily (once per shift).

RECOMMENDATION

We have reviewed the Company's Application for a Pollution Control Permit, assessed the present operation and proposed expansion programme and can find no reason to file an objection to this Application."

RECOMMENDATION:

THAT the Municipality not file an objection to the subject application.