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**AN ORDER OF THE CLEAN ENVIRONMENT COMMISSION
UNDER THE CLEAN ENVIRONMENT ACT**

RE: THE CLEAN ENVIRONMENT COMMISSION and SHELL CANADA LIMITED, Applicant,

WHEREAS

- (A) on the 13th day of November, 1968, Shell Canada Limited submitted an application to The Clean Environment Commission to prescribe limits in connection with the operation of an oil refinery located on Lots 1, 2, and 3, Plan 5383 in the Roman Catholic Mission property, at or near 250 Panet Road in the then City of St. Boniface, Manitoba; and
- (B) the Commission issued Interim Licence No. 1 in connection with the said operation on the 13th day of August, 1969; and
- (C) on the 12th day of January, 1971, the Applicant submitted an application to the Commission for the issuance of an Ordinary Licence and, on the 10th day of March, 1972, the Commission issued Ordinary Licence No. 156 prescribing limits on emissions to the atmosphere and requiring a monitoring program to be carried out in connection with the said operation; and
- (D) on the 28th day of October, 1976, the Applicant filed an application with the department in connection with the continued operation of the said refinery, and in the absence of limits prescribed by a regulation issued under the said Act, the application was referred to the Commission to prescribe limits; and
- (E) on the 10th day of March, 1977, Ordinary Licence No. 156 terminated five years after the date of issuance; and
- (F) after holding a hearing in Winnipeg on the 2nd day of May, 1977, the Commission issued Order No. 738 on the 27th day of July, 1977, prescribing limits on emissions to the atmosphere, requiring a monitoring program and stipulating that the said order would be subject to review on or about 4 years from the date of issuance; and
- (G) on the 19th day of August, 1977, the Applicant submitted a request to the Commission to vary the terms of Order No. 738 in accordance with the provisions of Section 14(7) of the said Act to modify details of the monitoring program therein, and, after holding a hearing in Winnipeg on the 7th day of November, 1977, the Commission issued varied Order No. 738VC on the 9th day of November, 1977; and

*Assigned
TO
APE/wfc*

*(UNDER B. Cowan)
May 29/84*

- (H) on the 22nd day of March, 1982, the Commission held a hearing, pursuant to the Section 14(7) of the said Act, to consider whether the order should be varied in the light of circumstances existing at that time, and the Applicant stated at the said hearing the intention to construct a plant for the recovery of sulphur from gaseous fuel with the intention of substantially reducing the emission of sulphur dioxide to the environment; and
 - (I) on the 23rd day of June, 1982, the Commission issued varied Order No. 738VCC; and
 - (J) on the 13th day of July, 1982, pursuant to Section 17(1) of the said Act, the Applicant filed an appeal from Order No. 738VCC with the Minister; and
 - (K) on the 1st day of February, 1983, the Applicant announced the said refinery would be shut down and converted to a product storage and distribution terminal; and
 - (L) on the 15th day of July, 1983, the Minister directed the Commission, pursuant to the provisions of Section 17(3)(e) of the said Act, to conduct a new hearing and issue a new order with respect to the said appeal;
- AND WHEREAS
- (M) on the 12th day of May, 1977, the Applicant filed a proposal with the department in connection with an operation of the disposal of hydrocarbon sludge onto land located on the premises of the said refinery; and
 - (N) in the absence of limits prescribed by a regulation issued under the said Act, the proposal was referred to the Commission to prescribe limits; and
 - (O) on the 22nd day of September, 1977, after giving notice of the proposal, the Commission issued Order No. 747 prescribing limits, terms and conditions on the sludge disposal operation; and
 - (P) on the 24th day of August, 1978, the Applicant requested a variation of Order No., 747 to increase the permissible concentration of hydrocarbons in the top 6 inches of soil to 8 percent; and

(Q) after awaiting the completion of an investigation of the matter, the Commission held a hearing in Winnipeg on the 10th day of December, 1979, and issued varied Order No. 747VC on the 4th day of February, 1980;

AND WHEREAS (R) on the 17th day of May, 1983, the Applicant filed a proposal with the department, pursuant to the provisions of Section 14(1) of the said Act, in connection with the alteration of premises to convert the refinery to a product storage and distribution terminal and to continue the disposal of hydrocarbon sluge onto land on the said premises; and

(S) in the absence of limits, terms and conditions prescribed by a regulation issued under the said Act, the proposal was referred to the Commission to prescribe limits, terms and conditions; and

(T) after giving notice of its intention of proceeding pursuant to Section 17(3)(e) of the said Act, of its intention to consider rescinding Orders No. 738VCC and 747VC, and of its intention of issuing a new order for the operation of the proposed product storage and distribution terminal, the Commission held a hearing in Winnipeg on the 6th day of February, 1984; and

(U) the Commission considered the matter on the 20th day February, the 19th day of March, and again on the 23rd day of May, 1984;

IT IS HEREBY ORDERED THAT

1. The Applicant shall limit odour emissions to such an extent that, at any point of impingement off the site of the said operation, odours emanating from the said operation are not detectable:

(a) in a residential area or area zoned residential when one volume of odorous air is diluted with one equal volume of odour-free air;

(b) in an industrial area or area zoned industrial when one volume of odorous air is diluted with six equal volumes of odour-free air.

2. The Applicant shall not cause or permit the emission of sound from any part of the said operation which, when measured in accordance with Appendix "A" to this order, in an area zoned residential, exceeds the following hourly equivalent continuous sound level limits:
 - (a) subject to (b):
 - (i) 60 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m., local time;
 - (ii) 50 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m., local time;
 - (b) when subjective evaluation or measurements indicate the intermittent or continuous noise has a significant impulsive character or predominant discrete tone:
 - (i) 55 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m., local time;
 - (ii) 45 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m., local time.
3. The Applicant shall not cause or permit the emission of sound from any part of the said operation which, when measured in accordance with Appendix "A" to this order in an area zoned industrial or commercial, is in excess of 70 dBA.
4. The Applicant shall ensure that the land area used for the disposal of hydrocarbon sludge:
 - (a) is not subject to ponding of water after heavy rains;
 - (b) is enclosed by a system of dykes and ditches to ensure that all run-off water is directed to a primary oil separation facility.
5. The Applicant shall ensure that, upon application, the hydrocarbon sludge is well mixed with the surface layers of soil to a depth of 4 inches.

6. The Applicant shall ensure that the concentration of hydrocarbons in the soil does not exceed 8 percent of soil weight when the total weight of hydrocarbons in the soil profile is calculated as a percentage of the weight of the top 6 inches of soil.

7. The Applicant shall ensure that a soil and groundwater sampling and analysis program is carried out and reported upon to the satisfaction of the Environmental Management Division for such period of time as is requested by the said Division, to determine:
 - (a) twice in each year, in the Summer and in the Fall, the rates and extent of hydrocarbon and nitrogen movement through the soil profile and in a lateral direction; and
 - (b) once in each year, in the Fall, the rates of degradation of hydrocarbon fractions;

and the Applicant shall submit reports of the said sampling and analysis to the said Division within 30 days of the date the samples are taken.

8. In this Order:
 - (a) "hydrocarbon sludge" means a waste product in the manufacture of petroleum products and consisting of hydrocarbons and water.
 - (b) "impulsive sound" means hammering type sound having peaks one second or more apart, with less than 60 impacts per minute;
 - (c) "predominant discrete tone" means a sound having a one-third octave band sound level which, when measured in a one-third octave band, exceeds the arithmetic average of the sound levels of the two adjacent one-third octave bands on either side of such one-third octave band by:
 - (i) 5 dBA for such one-third octave band with a centre frequency from 500 Hertz to 20,000 Hertz, inclusive, provided such one-third octave band sound level exceeds the sound level of each adjacent one-third octave band, or;

8. (c) (ii) 8 dBA for such one-third octave band with a centre frequency from 160 Hertz to 400 Hertz, inclusive, provided such one-third octave band sound level exceeds the sound level of each adjacent one-third octave band, or;
- (iii) 15 dBA for such one-third octave band with a centre frequency from 25 Hertz to 125 Hertz, inclusive, provided such one-third octave band sound level exceeds the sound level of each adjacent one-third octave band.
9. This Order shall be reviewed by the Commission in accordance with provisions of the said Act on or about 60 months from the date of issuance.
10. Order Nos. 738VCC and 747VC shall be and are hereby rescinded.

Order No. 1019

Dated at the City of Winnipeg
this 29th day of May, 1984.


Chairman,
The Clean Environment Commission.

File: 2625.0

NOISE LEVEL MEASUREMENTS

Noise level determinations, pursuant to Clauses 2 and 3 of this Order shall be based on measurements made as follows:

- (a) beyond the property line of Shell Canada Limited, Winnipeg Marketing Terminal;
- (b) excluding any significant interfering sounds from other sources; and
- (c) in terms of the equivalent continuous sound level averaged over a 1 hour period (60 consecutive minutes), using a sound level monitoring device which equals or surpasses the requirements of Canadian Standards Association Standard Z 107.1 - 1973 (or the equivalent) for Type 2 sound level meters, operated on the "A-weighting network" and "slow" meter response.