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

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RE: THE CLEAN ENVIRONMENT COMMISSION and NORTH WEST SMELTING AND REFINING LTD., Applicant,

WHEREAS pursuant to the provisions of The Clean Environment Act, North West Smelting and Refining Ltd., submitted an application to The Clean Environment Commission to prescribe limits in connection with a non-ferrous metal smelting and refining plant located at or near 2185 Logan Avenue in the City of Winnipeg, Manitoba;

AND WHEREAS the Commission held public hearings in Winnipeg on the 9th day of May, 1972 and the 11th day of July, 1972 and issued Order No. 254 on the 30th day of March, 1973;

AND WHEREAS the department requested a variation of Order No. 245 on the 5th day of February, 1976, and the Commission held a hearing in Winnipeg on the 8th day of June, 1976 and issued varied Order No. 254VC on the 16th day of June, 1976;

AND WHEREAS in view of the control exercised by Canada under the Secondary Lead Smelter National Emission Standards Regulations, Part 2, such smelters were exempted from registration under The Clean Environment Act by Manitoba Regulation 140/77 on the 29th day of June, 1977, however, when new concerns were expressed respecting sulphur dioxide and acid mist emissions from such operations, Regulation 140/77 was repealed on the 22nd day of October, 1986;

AND WHEREAS the Applicant filed a registration in connection with the continued operation the said plant on the 9th day of February, 1987, and, in the absence of limits, terms and conditions prescribed by a regulation, the registration was referred to the Commission;

AND WHEREAS after giving notice of the registration and of its intention to prescribe limits, terms and conditions and to rescind Order No. 254VC, the Commission did not receive notice of representation from any person likely to be affected;

AND WHEREAS the Commission considered the matter on the 11th day of December, 1987;

IT IS HEREBY ORDERED THAT

1. Subject to Clause 4, the Applicant shall not cause or permit the emission of particulate matter from any point of emission of the said operation in excess of:

- (a) 0.046 grams per standard cubic metre for processes involving the use of the blast furnace, or the reverberatory furnace,

- (b) 0.023 grams per standard cubic metre for processes involving the use of holding furnaces, kettle furnaces or involving scrap and material handling, crushing, furnace tapping, furnace slagging, furnace cleaning or casting whether emitted separately or in combination with emissions from other sources,

when measured dry and undiluted in accordance with the methods described in Environment Canada Report EPS-1-AP-74-1, "Standard Reference Methods for Source Testing: Measurement of Emissions of Particulates from Stationary Sources" dated February 1974 or as measured in accordance with any other source testing method approved in advance in writing by the Environmental Management Division.

2. Subject to Clause 4, the Applicant shall not cause or permit the emission of lead from any point of the said operation in excess of

- (a) 0.029 grams per standard cubic metre, for processes involving the use of the reverberatory furnace or the blast furnace;

- (b) 0.0145 grams per standard cubic metre for all processes and procedures of the said operation, other than those involving the use of the reverberatory furnace or the blast furnace,

when measured by the methods described in Environment Canada Report EPS-1-AP-78-3, "Standard Reference Methods for Source Testing: Measurement of Emissions of Particulate Matter and Lead from Secondary Lead Smelters", dated June 1979 or as measured by any other method approved in advance in writing by the Environmental Management Division.

3. The Applicant shall not cause or permit the emission of particulate matter into the ambient air from the storage of lead-bearing scrap or lead-bearing material in or about the said secondary lead smelter, except as a result of handling.
  
4. The Applicant shall not exceed the emission limits prescribed by Clauses 1 and 2 except in the event of a malfunction or breakdown in the air pollution control equipment or the process equipment associated with the operations referred to in Clause 1 provided that the time during which the emission limits are exceeded does not exceed, with respect to a holding furnace, kettle furnace, reverberatory furnace or blast furnace:
  - (i) 15 minutes for a single malfunction or breakdown;
  
  - (ii) a total of one hour per month.
  
5. The Applicant shall in a manner satisfactory to the Environmental Management Division
  - (a) conduct emission testing for the emissions referred to in Clause 1 of this Order, not less than once within every three year period from the date of issuance of this Order, or as otherwise requested by the Division;
  
  - (b) submit a report containing the emission testing data and all other related data to the said Division within 90 days after the completion of testing.
  
6. Where the said Division requests information relating to malfunctions or breakdowns in the air pollution control equipment or the process equipment associated with the operations referred to in Clause 1, the Applicant shall submit to the Division the information requested on a regular monthly basis commencing not more than two months after the request is made by the Division.

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7. The Applicant shall limit the emission of the following contaminants from the said operation to such an extent that downwind ground level concentrations beyond the property line of the said operation are not in excess of the following limits:

Contaminant	Period of Time Contaminant is Measured	Limits	
		Concentration Per Cubic Metre of Air	Parts of Contaminant Per One Million Parts of Air by Volume
(a) Sulphur Dioxide	1-hour average	900 micrograms	0.34
	24-hour average	300 micrograms	0.11
	Annual Arithmetic Mean	60 micrograms	0.02
(b) Sulphuric Acid Mist	1-hour average	100 micrograms	0.025
(c) Hydrogen Sulphide	1-hour average	15 micrograms	.00044
	24-hour average	5 micrograms	.00015

8. The Applicant shall limit the emission of particulate matter from the said operation to such an extent that airborne particulate matter from any part or process of the said operation does not exhibit an opacity greater than 5 percent at any point beyond the property line of the said operation.
9. The Applicant shall not cause or permit the emission of sound from any part of the said operation which:
- (a) when measured in accordance with Clause 11, in a residential area:
    - (i) subject to (ii), exceeds the following hourly equivalent continuous sound level limits:
      - (A) 60 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m., local time;
      - (B) 50 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m., local time;

9. (a) (ii) when subjective evaluation or measurements indicate the intermittent or continuous noise has a significant impulsive character or predominant discrete tone, exceeds the following hourly equivalent sound level limits:
    - (A) 55 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m., local time;
    - (B) 45 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m., local time;
  - (b) when measured in accordance with Clause 10 in an industrial area or commercial area, is in excess of an  $L_{eq}(1)$  of 70 dBA.
10. Noise level determinations, pursuant to Clause 9 of this Order shall be based on measurements made as follows:
    - (a) beyond the property line of North West Smelting and Refining Ltd.;
    - (b) excluding any significant interfering sounds from other sources;
    - (c) in terms of the equivalent continuous sound level averaged over a 1 hour period (60 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.
11. In this Order:
    - (a) "impulsive sound" means hammering type sound having peaks one second or more apart, with less than 60 impacts per minute;

11. (b) "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 dB for such one-third octave band with a center 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;
  - (ii) 8 dB for such one-third octave band with a center 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 dB for such one-third octave band with a center 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.
- (c) "L<sub>eq</sub>", the equivalent, A-weighted sound level, means the intensity (dBA) of the constant or steady sound level that would result in exposure to the same total A-weighted energy as would the specified time varying sound, if the constant sound level persisted over an equal time interval and "L<sub>eq</sub>(1)" means the equivalent sound level for a 1 hour period.

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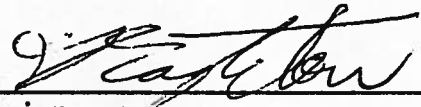
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12. The Applicant shall at all times maintain a high standard of equipment maintenance and good housekeeping practices consistent with meeting the limits, terms and conditions prescribed in this Order.
  
13. Order No. 254VC shall be and is hereby rescinded.

Order No. 1131

Dated at the City of Winnipeg

this 21st day of December, 1987.

  
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Chairperson,  
The Clean Environment Commission.

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