

*Binder Copy*

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

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**RE: THE CLEAN ENVIRONMENT COMMISSION and HUDSON BAY MINING AND SMELTING CO., LIMITED, Applicant,**

**WHEREAS** pursuant to the provisions of The Clean Environment Act, Hudson Bay Mining and Smelting Co., Limited filed a proposal with the department in connection with the operation of a zinc and copper mine, known as Trout Lake Mine, located in Section 21, Township 67, Range 29 WPM in Manitoba, with discharge of liquid effluent into Flin Flon Creek;

**AND WHEREAS** in the absence of limits, terms and conditions set by a regulation issued under the said Act, the proposal was referred to The Clean Environment Commission to prescribe limits, terms and conditions;

**AND WHEREAS** after giving notice of the proposal, the Commission did not receive a representation from any person likely to be affected by an order of the Commission prescribing limits, terms and conditions;

**AND WHEREAS** the Commission considered the proposal on the 16th day of May, 1983, the 20th day of June, 1983, and again on the 25th day of July, 1983;

**IT IS HEREBY ORDERED THAT**

1. The Applicant shall not:
  - (a) discharge effluent from the said operation except at the final discharge point;
  - (b) discharge effluent from the said operation into or towards the Trout Lake Sanitary Area.
2. The Applicant shall not discharge effluent from the final discharge point where:
  - (a) the concentrations of the following contaminants in the effluent are in excess of the corresponding maximum allowable concentrations shown for those categories listed under Columns I, II, and III of the following table:

*Assigned  
to  
WPC*

## 2. (a) Continued . . . .

Contaminant	Column I	Column II	Column III
	Maximum Monthly Arithmetic Mean Concentration	Maximum Concentration In a Composite Sample	Maximum Concentration In a Grab Sample
Total Arsenic	0.5 mg/L	0.75 mg/L	1.0 mg/L
Total Copper	0.3 mg/L	0.45 mg/L	0.6 mg/L
Total Lead	0.2 mg/L	0.3 mg/L	0.4 mg/L
Total Nickel	0.5 mg/L	0.75 mg/L	1.0 mg/L
Total Zinc	0.5 mg/L	0.75 mg/L	1.0 mg/L
Total Suspended Matter on or before December 31, 1984	50.0 mg/L	--	--
Total Suspended Matter after December 31, 1984	25.0 mg/L	37.5 mg/L	50.0 mg/L

- (b) where the pH of the effluent is below the minimum allowable values shown for those categories listed under Columns I, II and III of the following table:

Minimum Monthly Arithmetic Mean pH	Minimum pH In A Composite Sample	Minimum pH In A Grab Sample
6.0	5.5	5.0

3. The Applicant shall, on or before the 15th day of October, 1983:

- (a) carry out such studies as are necessary to make final determinations as to the equipment, facilities and measures that will be necessary to comply with the limits prescribed in clause 2;
- (b) file a report with the Environmental Management Division describing in detail:
- (i) the equipment, facilities and measures to be purchased, installed or adopted to comply with the said limits, including a determination as to whether a settling pond or surface sump settling facility will be installed;

3. (b) (ii) the dates on which the said equipment, facilities and measures mentioned in (i) will be constructed, installed or placed in operation in order to comply with the said limits.

4. Subject to 5, the Applicant shall sample and analyze the effluent at the final discharge point:

- (a) for the following substances at no less a frequency than is specified in the table below where the applicability of Columns I, II, III and IV for each substance listed shall be determined on the basis of the arithmetical mean concentration of that substance in the samples of effluent collected and reported in those preceding six months during which effluent discharge occurred:

Substance	Column I At Least Weekly If Concentration Is Equal To Or Greater Than	Column II At Least Every Two Weeks If Concentration Is Equal To Or Greater Than	Column III At Least Monthly If Concentration Is Equal To Or Greater Than	Column IV At Least Every Six Months If Concentration Is Less Than
Total Arsenic	0.5 mg/L	0.2 mg/L	0.10 mg/L	0.10 mg/L
Total Copper	0.3 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L
Total Lead	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L
Total Nickel	0.5 mg/L	0.2 mg/L	0.10 mg/L	0.10 mg/L
Total Zinc	0.5 mg/L	0.2 mg/L	0.10 mg/L	0.10 mg/L
Total Suspended Matter	25.0 mg/L	20.0 mg/L	15.0 mg/L	15.0 mg/L

- (b) for pH at no less a frequency than as is specified in the following criteria:

- (i) once a week where the pH of the effluent was less than 5.0 at any time in those preceding six months during which effluent discharge occurred;
- (ii) once every two weeks, where the pH of the effluent was between 5.0 and 5.5 at any time in those preceding six months during which effluent discharge occurred;
- (iii) once a month if (i) and (ii) do not apply.

5. The Applicant shall sample and analyze the effluent from the said operation at the final discharge point in such a manner and for such additional parameters and characteristics and for such frequency and duration of time as is specified in writing by the Commission.
6. The Applicant shall determine the volume of effluent discharged monthly from the final discharge point by a suitable measurement technique or by estimation where the measuring equipment malfunctions.
7. The Applicant shall submit the analysis and measurement data determined in accordance with 4, 5 and 6 to reach the Environmental Management Division, in a form acceptable to the said Division, not later than 30 days following the end of the month in which the samples and measurements were taken.
8. The Applicant shall, at the request of the Commission, from time to time, investigate specific areas of concern regarding any segment or component of the wastewater treatment or handling systems of the said operation and provide the Commission with such engineering studies, drawings, specifications, analyses of wastewater streams and such other information as is so requested.
9. The Applicant shall dispose of solid waste and bulky metallic waste, as defined in regulations issued pursuant to the said Act, in accordance with the provisions of such regulations and shall not dispose of such waste in any area other than a waste disposal ground designated and registered for that purpose.
10. The Applicant shall:
  - (a) on or before the 1st day of June, 1984, submit to the Commission a preliminary rehabilitation plan for the site of the said operation with respect to the eventual closing and abandonment of the Trout Lake Mine, for review, possible amendment and approval of the Commission;
  - (b) upon termination of the said operation, take all necessary steps to carry out the approved rehabilitation plan within the interval of time specified by the Commission.

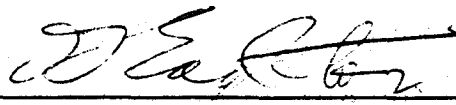
11. In this order:

- (a) "final discharge point" means the end of pipe at or near Flin Flon Creek where the final liquid effluent from the Trout Lake Mine is discharged from the effluent pipeline, unless otherwise designated in writing by the Commission;
- (b) "Trout Lake Sanitary Area" means a sanitary area designated by 172 (a) of Division XI of Manitoba Regulation P210-R3 issued pursuant to The Public Health Act as recharge area for the City of Flin Flon water supply;
- (c) "monthly arithmetic mean" means for each substance, the average of all concentrations of the substance determined from the analysis of all composite and grab samples collected and reported during that month with the exception that, if the Applicant collects only one composite or grab sample during a single month, the single set of analytical results shall be construed to be representative of the effluent quality for that month and hence shall be treated as the monthly arithmetic mean;
- (d) "composite sample" means a quantity of effluent consisting of a minimum of three equal volumes of effluent collected at approximately equal time intervals over a sampling period of not less than 7 hours and not more than 24 hours, or consisting of effluent collected continuously at an equal rate over a sampling period of not less than 7 hours and not more than 24 hours.

Order No. 997

Dated at the City of Winnipeg

this 15th day of August, 1983.

  
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Chairman,  
The Clean Environment Commission.

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