

# Environment Act Licence

## Loi sur l'environnement Licence

Manitoba  
Conservation  
Conservation  
Manitoba



Licence No./Licence n° 2648  
Issue Date/Date de délivrance May 18, 2004

**IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)  
THIS LICENCE IS ISSUED PURSUANT TO SECTION 11(1) TO:**

**HUDSON BAY MINING & SMELTING CO., LIMITED "the Licencee"**

for undertaking a Development, being the withdrawal of water from Chisel Lake (in Sec. 34 Twp. 67 Rge 18W) at a rate in excess of 200 cubic decameters per year for transfer to their Chisel North Mine, complemented with the detouring of treated effluent (controlled by Environment Act Licence No. 1501 RR) from the Chisel North Mine into Chisel Lake at a point near to and upstream of the natural outflow of Chisel Lake, from where the overflow of Chisel Lake would meet up with Woosey Creek, being the currently licenced discharge route used to direct treated minewater effluent to Morgan Lake, and subject to the following specifications, limits, terms and conditions:

### DEFINITIONS

In this Licence:

**"accredited laboratory"** means an analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation to be equivalent to the SCC, or be able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the Director;

**"approved"** means approved by the Director in writing;

**"cubic decametre"** means 1,000 cubic metres;

**"Standard Methods for the Examination of Water and Wastewater"** means the most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation; and

**\*\* A COPY OF THIS LICENCE MUST BE KEPT ON SITE AT THE DEVELOPMENT AT ALL TIMES \*\***

**“treated minewater effluent”** means water contaminated with pollutants in the course of mining activities, or surface runoff contaminated with pollutants in the course of coming in contact with an area disturbed by present or past mining activities, whereby such minewater has been treated, if necessary, to the extent of satisfying the most stringent of the effluent quality criteria as laid out in Environment Act Licence No. 1501 RR, or in the federal *Metal Mining Effluent Regulations* dated June, 2003, or as otherwise imposed upon the Licencee by reason of any concerns that may be raised in respect of the findings of any Environmental Effects Monitoring program undertaken pursuant to the federal *Metal Mining Effluent Regulations* on the minewater effluent being released at the final discharge point of effluent being released from the Chisel Lake mine site.

### GENERAL TERMS AND CONDITIONS

1. The Licencee shall, unless otherwise specified in this Licence:
  - (a) carry out all preservations and analyses of liquid samples in accordance with the methods prescribed in the Standard Methods for the Examination of Water and Wastewater or in accordance with equivalent preservation and analytical methodologies acceptable to the Director; and
  - (b) have all analytical determinations undertaken by an accredited laboratory.
2. The Licencee shall report all the information requested through the provisions of this Licence in a manner and form acceptable to the Director.

### SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

#### Respecting Chisel Lake Water Withdrawal Activities

3. The Licencee shall not withdraw water from Chisel Lake in excess of 600 cubic decametres during any calendar year commencing with January 1, 2004.
4. The Licencee shall, at all times during the withdrawal of water from Chisel Lake, protect the resident fishery in Chisel Lake by incorporating and maintaining a fish screen, on the end of the intake pipe within Chisel Lake, that conforms to the Fisheries and Oceans Canada “Freshwater Intake-End-of-Pipe Fish Screen Guidelines”.
5. The Licencee shall manage the water withdrawal from Chisel Lake, and the diversion of treated minewater effluent into Chisel Lake, in such a way as to:
  - (a) prevent the drawdown of Chisel Lake from its normal operating level; and

- (b) prevent the degradation of the water quality of Chisel Lake to an extent that would be inconsistent with the "Final Draft – Manitoba Water Quality Standards, Objectives, and Guidelines", dated November 22, 2002, or any subsequent amendments thereto; or
- (c) prevent an increase in the concentration of any water quality parameter for which the natural background concentration already exceeds the "Final Draft – Manitoba Water Quality Standards, Objectives, and Guidelines", dated November 22, 2002, or any subsequent amendments thereto;

whereby, Sub-clauses 5(h) and 5(i) of this Licence relate to any monitoring data determined at any of the three established HBM&S limnological stations on Chisel Lake.

- 6. The Licencee shall, if the Director determines (in consultation with Water Quality Management of Manitoba Water Stewardship) that the water quality of Chisel Lake is being impaired by the undertaking of the Development:
  - (a) modify the Development, to the satisfaction of the Director, and to the extent that would satisfactorily mitigate any identified adverse water quality impact; or
  - (b) terminate the Development.

#### **Respecting Monitoring and Reporting**

- 7. The Licencee shall throughout each calendar year during which water is withdrawn from Chisel Lake for transfer to the Chisel North Mine:
  - (a) continuously measure the monthly volumes of water being withdrawn from Chisel Lake using a water metre showing a cumulative read-out to an accuracy within  $\pm 5\%$ ;
  - (b) record the monthly volumes of water (i.e. the treated minewater effluent released from the minewater treatment plant at the Chisel Lake minesite) being returned to Chisel Lake;
  - (c) submit to the Director, by January 31<sup>st</sup> of each year, the monthly and annual total volumes of:
    - (i) water withdrawn from Chisel Lake; and
    - (ii) treated minewater effluent returned to Chisel Lake;during the preceding calendar year.
  
- 8. The Licencee shall, before implementing the Development, and in consultation with Water Quality Management of Manitoba Water Stewardship:
  - (a) collect one set water samples, at each of the three established HBM&S limnological stations on Chisel Lake to establish a water quality baseline;
  - (b) repeat the sampling of Chisel Lake water at the three established HBM&S limnological stations a minimum of 3 times (spring, summer and fall) each calendar year;
  - (c) collect water samples, once each month at approximate equal time intervals, of the water being withdrawn at the Chisel Lake pump house;
  - (d) analyze the water samples collected pursuant to Sub-clauses 8(a), 8(b) and 8(c) of this Licence for:
    - (i) pH;



- (ii) conductivity;
  - (iii) alkalinity;
  - (iv) hardness;
  - (v) major total cations (calcium, magnesium, potassium, sodium, iron and manganese);
  - (vi) major dissolved anions (chlorides and sulfates);
  - (vii) total nitrogen and total phosphorus; and
  - (viii) total metals (using an ICP or ICP-MS scan);
- unless and only with respect to the monthly sampling events, the Licencee is advised in writing by Water Quality Management of Manitoba Water Stewardship, that specific parameters can be temporarily or permanently discontinued; and
- (e) carry out the analyses the water samples collected pursuant to Sub-clauses 8(a), 8(b) and 8(c) of this Licence to detection limits satisfactory to the Director.
9. The Licencee shall, no later than 60 days following each water quality sampling event undertaken pursuant to Sub-clauses 8(a), 8(b) and 8(c) of this Licence, submit to the Director a signed report, and an electronic copy in Excel format, listing the determined water quality monitoring data in relation to the established baseline data and the criteria identified for the protection of aquatic life in the "Final Draft – Manitoba Water Quality Standards, Objectives, and Guidelines", dated November 22, 2002, or any subsequent amendment thereto.

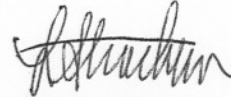
#### **Respecting Decommissioning and Rehabilitation**

10. The Licencee shall, upon the permanent cessation of the withdrawal of water from Chisel Lake for the Chisel North Mine:
- (a) dismantle and remove the installed water pumping station and intake pipe;
  - (b) remove any resulting foreign debris for recycling, or for disposal in a waste disposal ground licenced under *The Environment Act*, or permitted under *MB Regulation 150/91 of The Environment Act*; and
  - (c) restore Chisel Lake's natural outlet berm elevation, and any shore disturbances, to their historical and natural norm.

#### **REVIEW AND REVOCATION**

- A. If, in the opinion of the Director, the Licencee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms, or conditions set out in this Licence, the Director may, temporarily or permanently, revoke this Licence.
- B. If the Licencee has not commenced construction of the Development within three years of the date of this Licence, the Licence is revoked.

- C. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 11(1) of *The Environment Act*.



---

**Larry Strachan, P. Eng.**  
**Director**  
**Environment Act**

**Client file: 5017.0**