



Wek'èezhii
Land and Water Board

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November 27, 2006

Files: MV2001L2-0004
MV2001L2-0008
MV2002L2-0002
MV2003L2-0013

Distribution List for BHPB

Regulation of Road Watering Activities at the Ekati Mine

1.0 Background

BHP Billiton Diamonds Inc. (BHPB) holds two Type B water licences that allow freshwater to be withdrawn and applied to roads for dust control: Water Licence MV2001L2-0004 and Water Licence MV2002L2-0002. The scopes of these water licences are presented below:

Water Licence MV2001L2-0004

This Licence entitles BHP Diamonds Inc. to use water for road watering from the Falcon road watering station for industrial undertakings in mining and milling production and associated uses by BHP Diamonds Inc., Ekati Minesite located at 110°36'39" - 110°36'48", 64°44'39" - 64°44'39" [sic], Northwest Territories.

Water Licence MV2002L2-0002

This Licence entitles BHP Diamonds Inc. to use water for road watering from Lac de Gras for industrial undertakings in mining and milling production and associated uses by BHP Diamonds Inc., Ekati Minesite located at 110°36'39" - 110°36'48", 64°44'39" - 64°44'39" [sic], Northwest Territories.

2.0 Proposed Regulatory Approach

To improve the effectiveness of the Board's regulation of water use and waste disposal at the Ekati Mine, the Wek'èezhii Land and Water Board (the Board) is considering regulating these road watering activities under the provisions of BHPB's two Type A water licences:

- The Sable Haul Road watering activities under Water Licence MV2001L2-0004 would be regulated through a drawdown plan in accordance with part E, item 2 of Water Licence MV2001L2-0008ⁱ (the Sable, Pigeon, Beartooth expansion licence).
- The Misery Haul Road watering activities under Water Licence MV2002L2-0002 would be regulated through a drawdown plan in accordance with part D, item 1 of Water Licence MV2003L2-0013ⁱⁱ (the main licence).

Implementing this approach would require the cancellation of the two Type B licences under the provisions of section 18(1)(c)(iii) of the *Northwest Territories Waters Act*, followed by BHPB's submission of the two drawdown plans described above. The drawdown plans would be subject to stakeholder review and would require approval by the Board before activities commence.

3.0 Factors for Consideration

For the Board to proceed with this approach to regulating road watering activities, it must be satisfied that the activities are within the scope of the corresponding Type A water licence; that the conditions of the corresponding Type A water licence allow for the activities; and that the conditions of the Type A licences ensure the protection of affected waters to an equal or greater extent than the existing Type B licences.

3.1 Scopes of the Type A water licences

The scopes of the two Type A water licencesⁱⁱⁱ both allow for the use of water for activities associated with diamond mining and milling in specific watersheds. The Board recognizes that the Misery and Sable haul roads and associated water intake structures cross areas between these watersheds, however, the road watering activities were assessed in the 1995 Environmental Impact Statement for the main licence^{iv} and the 2001 Environmental Assessment Report for the expansion licence^v.

3.2 Type A water licence conditions

Sable Haul Road: Road watering is a recognized use of water under part D, item 1 of Water Licence MV2001L2-0008 which states that BHPB "...shall obtain water for road watering and associated uses from Two Rock Lake Sedimentation Pond...or as otherwise approved by the Board." This implies that the Board has the flexibility to evaluate other sources of water for the watering of the Sable Haul Road.

Misery Haul Road: Part C, item 1 of Water Licence MV2003L2-0013 states that BHPB "...shall obtain water for domestic purposes, processing and associated uses from Grizzly Lake, Little Lake,...or as otherwise approved by the Board." This implies that the Board has the flexibility to evaluate other sources of water for the watering of the Misery Haul Road.

3.3 Protection of affected waters

If this regulatory approach is adopted, the road watering activities would be subject to all conditions of the Type A licences and would have to be carried out in accordance with the approved drawdown plans.

4.0 Request for comments

In response to the Board's notification that it was considering this regulatory approach for the road watering activities (letter dated October 17, 2006), BHPB indicated that the company has no objections to the Board considering the cancellation of the Type B water licences. As such, the Board is now requesting comments from reviewers on this proposal, which if approved, will allow all activities currently licensed under the Type B licences to continue under the Type A licences. In particular, the Board seeks input on the following three questions:

- a) Do the scopes of the Type A water licences allow for the use and deposit of water for road watering?
- b) Do the conditions of the Type A water licences provide for the use and deposit of water for road watering?
- c) Do the conditions of the Type A water licences ensure the protection of affected waters to an equal or greater extent that the conditions of the Type B water licences?

Written submissions from reviewers are due by December 15, 2006. BHPB will have the opportunity to respond by December 31, 2006 to any written submissions received by the Board. A specific date for the Board's ruling on these questions has not yet been set, but will probably occur in early January 2007.

5.0 Outcomes of the Board's Ruling

Once the Board notifies all parties of its ruling on the three questions listed above, BHPB will have the opportunity to notify the Board whether or not the company agrees with the initiation of cancellation proceedings for the Type B water licences. If BHPB agrees, the Board will provide all parties with a work plan for the cancellation proceedings, which will include a hearing in accordance with section 21(2)(b) of the NWTWA.

If BHPB does not agree with initiating cancellation proceedings, the Board will accept a renewal application for Water Licence MV2001L2-0004 within 60 days of the date of BHPB's notice.

If you have any questions regarding this letter, please contact Sarah Baines at (867) 766-7457 or Lynn Carter at (867) 766-7471.

Yours sincerely,



Violet Camsell-Blondin
Interim Chair

Attachments

ⁱ Part E, item 1 of Water Licence MV2001L2-0008 reads as follows:

Prior to the commencement of dewatering or draw-down of and lakes, the Licensee shall submit to the Board for approval, a Dewatering Plan for each lake that shall include, but not be limited to, the following information:

- a) *volume of water to be dewatered from each source;*
- b) *the expected quality of water to be discharged to the receiving environment;*
- c) *a schedule for dewatering and daily discharge rates;*
- d) *pumping methods including locations of intake and outflow structures;*
- e) *the design of any erosion protection structures in the discharge areas;*
- f) *the description of procedures for visual inspections of any erosion along the affected water course;*
- g) *the frequency and locations for water quality monitoring as referred to in the "Surveillance Network Program";*
- h) *the frequency, location and procedures for monitoring flow rates in the discharge stream;*
- i) *the design of pipeline and related facilities;*
- j) *the procedures and rates for dewatering during the winter months to minimize erosion of the downstream watercourses, adjacent shorelines and damage to fish habitat; and*
- k) *the identification of any treatment that may be used to ensure that effluent quality criteria are met, in accordance with Part G, Item 11(d).*

ⁱⁱ Part D, item 1 of Water Licence MV2003L2-0013 reads as follows:

Prior to the commencement of Dewatering or Drawdown of any natural water bodies, excluding the Drawdown of Grizzly Lake, Little Lake and Thinner Lake (Misery Camp), the Licensee shall submit to the Board for approval, a Dewatering or Drawdown Plan for each water body that shall include, but not be limited to, the following information:

- a) *volume of water produced by Dewatering or Drawdown of each water body;*
- b) *a schedule for Dewatering or Drawdown and maximum pump rates;*
- c) *pumping methods including locations of intake and outflow structures;*
- d) *the design of any erosion prevention structures in the areas where water or Waste is discharged;*
- e) *the description of procedures for inspecting any erosion along the affected watercourse;*
- f) *a description of and mitigation measures for any predicted hydrological or water quality impacts to downstream water bodies;*
- g) *the schedule and locations for water quality monitoring;*
- h) *the frequency, location and procedures for monitoring flow rates in the discharge stream and in the receiving water body;*
- i) *the design of any pipelines and related facilities; and*
- j) *the procedures and rates for Dewatering or Drawdown to minimize erosion of downstream water bodies and adjacent shorelines, and, in winter, damage to spawning habitat from the development of icings, overflows or glaciation.*

ⁱⁱⁱ Scope of Water Licence MV2001L2-0008

This Licence entitles BHP Billiton Diamonds Inc. to use water, dewater Sable, Pigeon, and Beartooth Lakes for the purpose of mining, to drawdown Two Rock Lake, divert Pigeon Stream around the Pigeon Pit, pipe water from Bearclaw Lake outflow around Beartooth Pit, use water from Ursula and Upper Exeter Lake, deposit processed kimberlite into the Beartooth Pit for the purpose of creating a pit lake, and dispose of waste for industrial undertakings in diamond mining and milling production and associated uses in the Koala, Pigeon and Sable Watersheds, Northwest Territories as shown on Figure 6, 8 & 10 of the Class A Water Licence and Land Use Permits supporting document, submitted August 21, 2001... [emphasis added]

Scope of Water Licence MV2003L2-0013

This Licence entitles BHP Billiton Diamonds Inc. (the Licensee) to divert water from Upper Panda Lake to Kodiak Lake, and to use water and dispose of Waste for the purpose of mining the Panda, Koala, Koala North, Misery and Fox kimberlite pipes and for operating the processing facilities and infrastructure associated with diamond mining within the Koala, Misery, King-Cujo and Desperation-Carrie Watersheds of the Lac de Gras basin, Northwest Territories. [emphasis added]

The activities listed above are to be conducted as described in the 1994 NWT Diamonds Project Description which was assessed in the 1995 Environmental Impact Statement, as subsequently amended through approvals by the Board during the term of Water Licence N7L2-1616, and as described in the Water Licence Renewal Application.

^{iv} Volume 3, Section 6.4 in the 1995 Environmental Impact Statement.

^v Section 4.5.3 in the 2001 Environmental Assessment Report.

PART A: SCOPE AND DEFINITIONS

MV2001L2-0004
Sable Haul Rd

Scope

This Licence entitles BHP Diamonds Inc. to use water for road watering from the Falcon road watering station for industrial undertakings in mining and milling production and associated uses by BHP Diamonds Inc., Ekati Minesite located at 110°36'39 - 110°36'48, 64°44'39 - 64° 44'39, Northwest Territories.

This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Northwest Territories Waters Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.

Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

Definitions

In this Licence: MV2001L2-0004

“**Act**” means the *Northwest Territories Waters Act*;

“**Regulations**” means Regulations proclaimed pursuant to Section 33 of the *Northwest Territories Waters Act*;

“**Minister**” means the Minister of Indian Affairs and Northern Development;

“**Board**” means the Northwest Territories Water Board established under

“**Inspector**” means an Inspector designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

“**Analyst**” means an Analyst designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

“**Licensee**” means the holder of this Licence:

"Waste" means waste as defined by Section 2 of the *Northwest Territories Waters Act*;

"Water Supply Facilities" comprises the area and associated intake infrastructure as identified in Figure 1, titled "Falcon Lake Access Road Preliminary Design", and attached to the response to information requests dated June 1, 2001;

"Waste Rock" means all rock materials, except ore and tailings, which are produced as a result of mining operations;

"Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion.

PART B: GENERAL CONDITIONS

1. The water use fee shall be paid annually in advance.
2. The Licensee shall file an Annual Report with the Board not later than March 31st of the year following the calendar year reported which shall contain the following information:
 - a. the monthly and annual quantities in cubic metres of fresh water obtained from all sources;
 - b. tabular summaries of all data generated under the "Surveillance Network Program";
 - c. a list of unauthorized discharges;
 - d. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
 - e. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
 - f. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported;
 - g. any revisions to the approved Contingency Plan;
 - h. any revisions to the approved Abandonment and Restoration Plan;

3. Meters, devices or other such methods used for measuring the volumes of water used and waste discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.
4. The Licensee shall ensure a copy of this Licence is maintained at the site of operation at all times

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all water for road watering from Falcon Lake using the Water Supply Facilities as described in the application dated April 25, 2001 with supplementary information or as otherwise approved by the Board.
2. The annual quantity of water used for all purposes shall not exceed 100, 000 cubic metres.
3. The water intake hose used on the water pumps shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

PART E: CONDITIONS APPLYING TO MODIFICATIONS

The Licensee may carry out modifications to the planned undertakings:

1. without written approval from the Board, provided that such modifications are consistent with the terms of this Licence and the Licensee has notified the Board in writing of such modifications at least five (5) days prior to beginning the modifications; or
2. with the written approval of the Board and under such conditions decided by the Board.

PART F: CONDITIONS APPLYING TO CONTINGENCY PLANNING

1. The Licensee shall, by November 15, 2001, submit to the Board for approval an update to the existing Contingency Plan in accordance with the NWT Water Board's "Guidelines for Contingency Planning, January 1987."
2. If not approved by the Board, the update Contingency Plan referred to in Part F, Item 1, shall be revised and resubmitted within three (3) months of receiving notification of the Board's decision.

3. The Licensee shall review the Contingency Plan annually and modify the Plan as necessary to reflect changes in operation and technology. Any proposed modifications shall be submitted to the Board for approval.
4. If, during the period of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. employ the appropriate contingency plan;
 - b. report the incident immediately via the 24 Hour NWT Spill Report Line. Currently the number is (867) 920-8130; and
 - c. submit to an Inspector, a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.

PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

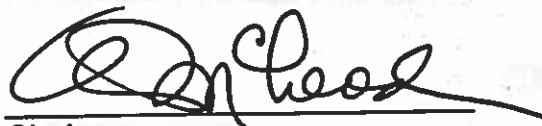
1. The Licensee shall, by the end of three months from the approval date, submit to the Board for approval an update to the existing Abandonment and Restoration Plan in accordance with the NWT Water Board's "Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories, September 1990."
2. The Licensee shall address the following when completing or revising the Abandonment and Restoration Plan:
 - a. the water intake facilities;
 - b. the petroleum and chemical storage areas;
 - c. any site affected by waste spills;
 - d. the potential for groundwater contamination;
 - e. any facilities or areas which may have been affected by development such that potential pollution problems exist;
 - f. a phased approach and implementation schedule;
 - g. a proposal identifying measures by which restoration costs will be financed by the Licensee upon abandonment;
3. The Licensee shall revise the Plan referred to in Part G, Item 1 if not approved. The revised Plan shall be submitted to the Board for approval within six (6) months of receiving notification of the Board's decision.

4. Notwithstanding the time schedule referred to in the Abandonment and Restoration Plan, the Licensee shall endeavour to carry out progressive restoration of areas which are abandoned prior to closure of operations.
5. The Licensee shall complete the restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board.
6. Upon implementation of the Abandonment and Restoration Plan, the Licensee shall provide to the Board updates of all abandonment and restoration activities by March 31st and October 31st of each year.
7. Compliance with the Abandonment and Restoration Plan specified in this Licence does not limit the legal liability of the Licensee, other than liability arising from provisions of the Act and its Regulations.

PART H: CONDITIONS APPLYING TO CONSTRUCTION

MACKENZIE VALLEY LAND AND WATER BOARD


Witness


Chair

MV 2002 L2-0002
Misery Haul Rd

PART A: SCOPE AND DEFINITIONS

Scope

This Licence entitles BHP Billiton Diamonds Inc. to use water for road watering from Lac De Gras for industrial undertakings in mining and milling production and associated uses by BHP Billiton Diamonds Inc., Ekati Minesite located at 110°36'39 - 110°36'48, 64°44'39 - 64° 44'39, Northwest Territories.

This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Northwest Territories Waters Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.

Compliance with the terms and conditions of this Licence does not absolve the Licencee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

Definitions

In this Licence: MV2002L2-0002

"Act" means the *Northwest Territories Waters Act*;

"Regulations" means Regulations proclaimed pursuant to Section 33 of the *Northwest Territories Waters Act*;

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"Board" means the Northwest Territories Water Board established under

"Inspector" means an Inspector designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

"Analyst" means an Analyst designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

"Licencee" means the holder of this Licence:

“Waste” means waste as defined by Section 2 of the *Northwest Territories Waters Act*;

“Modification” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion.

PART B: GENERAL CONDITIONS

1. The water use fee shall be paid annually in advance.
2. The Licencee shall file an Annual Report with the Board not later than March 31st of the year following the calendar year reported which shall contain the following information:
 - a. the monthly and annual quantities in cubic metres of fresh water obtained from all sources;
 - b. tabular summaries of all data generated under the “Surveillance Network Program”;
 - c. a list of unauthorized discharges;
 - d. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
 - e. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
 - f. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported;
 - g. any revisions to the approved Contingency Plan;
 - h. any revisions to the approved Abandonment and Restoration Plan;
3. Meters, devices or other such methods used for measuring the volumes of water used and waste discharged shall be installed, operated and maintained by the Licencee to the satisfaction of an Inspector.
4. The Licencee shall ensure a copy of this Licence is maintained at the site of operation at all times

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licencee shall obtain all water for road watering from Lac De Gras using the Water Supply Facilities as described in the application dated May 14, 2002 with supplementary information or as otherwise approved by the Board.
2. The daily quantity of water used for all purposes shall not exceed 1,400 cubic meters.
3. The annual quantity of water used for all purposes shall not exceed 100,000 cubic metres.
4. The water intake hose used on the water pumps shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.
5. No chemical dust suppressants shall be used on the Misery Road without prior approval of the Board.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licencee shall ensure that any unauthorized wastes associated with the undertaking do not enter any waters.

PART E: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licencee may carry out modifications to the planned undertakings:
 - a. without written approval from the Board, provided that such modifications are consistent with the terms of this Licence and the Licencee has notified the Board in writing of such modifications at least five (5) days prior to beginning the modifications; or
 - b. with the written approval of the Board and under such conditions decided by the Board.

PART F: CONDITIONS APPLYING TO CONTINGENCY PLANNING

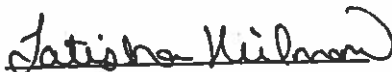
1. The Licencee shall, by November 01, 2002 submit to the Board for approval an update to the existing (N1L2-1616) Contingency Plan in accordance with the NWT Water Board's "Guidelines for Contingency Planning, January 1987."

2. If not approved by the Board, the update Contingency Plan referred to in Part F, Item 1, shall be revised and resubmitted within three (3) months of receiving notification of the Board's decision.
3. The Licencee shall review the Contingency Plan annually and modify the Plan as necessary to reflect changes in operation and technology. Any proposed modifications shall be submitted to the Board for approval.
4. If, during the period of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licencee shall:
 - a. employ the appropriate contingency plan;
 - b. report the incident immediately via the 24 Hour NWT Spill Report Line. Currently the number is (867) 920-8130; and
 - c. submit to an Inspector, a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.

PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. The Licencee shall, by the end of three months from the approval date, submit to the Board for approval an update to the existing (N1L2-1616) Abandonment and Restoration Plan in accordance with the NWT Water Board's "Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories, September 1990."
2. The Licencee shall address the following when completing or revising the Abandonment and Restoration Plan:
 - a. Restoration plans for the staging area for water intake along Lac Des Gras.

MACKENZIE VALLEY LAND AND WATER BOARD


Witness


Chair



Wek'èezhìi
Land and Water Board

Facsimile Coversheet

File: All BHPB WL	
To: BHPB Distribution List	From: Sarah Baines for Violet Camsell-Blondin
Fax: See attached list	Pages: 15
Phone: Not applicable	Date: November 28, 2006
Re: Type B WL amalgamation	CC: Not applicable

Urgent For Review Please Comment Please Reply Please Recycle

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Request for input on a proposal to regulate BHPB's road watering activities (Sable and Misery Roads) under their Type A water licences (first phase)