

**BHP Billiton Diamonds Inc.**  
Operator of the EKATI Diamond Mine



BHP Billiton Diamonds Inc.  
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October 24, 2007

File: 4.6.6.1

Ms. Violet Camsell-Blondin, Chair  
Wek'eezhii Land and Water Board  
#1, 4905-48 Street  
Yellowknife, NT X1A 3S3

Dear Ms. Camsell-Blondin:

**Re: Use of Dust Suppressant on the Misery Haul Road**

BHP Billiton Diamonds Inc. (BHP Billiton) is writing to request approval for the use of a chemical dust suppressant, DL10, on the Misery Haul Road in accordance with the Wek'eezhii Land and Water Board's Reasons for Decision for cancelling Water Licences MV2001L2-0004 and MV2002L2-0002 (page 7):

*"The Board is of the opinion that use of such [chemical dust suppressants] requires approval. Prior to the use of any dust suppressant on the Misery Road, [BHP Billiton] must submit a written request to the Board describing the preferred suppressant, the measures to be undertaken to prevent its entrance into surface waters, the frequency of use, and any other relevant details."*

Currently, BHP Billiton uses fresh water to control dust on the Misery Haul Road but this has proven to be less effective than other areas where dust suppressant is used (such as the plant site, for example) due to high evaporation and absorption rates at the road bed. Even with application times of every 1-2 hours, dust plumes are visible behind haul trucks under certain conditions. The reduced efficiency of watering over dust suppressant can create a safety hazard, increases the amount of fugitive dust, and requires higher fuel consumption and resultant exhaust emissions (for the watering truck).

Initially, chloride and petroleum based chemical dust suppressants were considered but chloride products (i.e. salts) were deemed unacceptable due to their potential for attracting wildlife to active haul roads. Of the petroleum products available, DL10 was considered most appropriate because it is approved for use on territorial roads by the GNWT. In addition, DL10 has the following characteristics that make it suitable for use at EKATI:

- Low potential for attracting wildlife
- Durable

- remains effective even when shipped or stored during the winter
- only needs to be applied once or twice (depends on traffic volume) during the summer season as it remains effective following repeated grading of roads
- Ready-to-use in its shipped form
  - Reduced risk of spills as no further handling or mixing with other substances is required before it is applied
  - No solvents or other chemicals need to be shipped or stored on site along side the DL10
- Compatible with the machinery and equipment on site (does not degrade rubber seals, tires or brakes)
- Readily available
- Easily controlled during application to prevent runoff from roads and into adjacent water bodies

BHP Billiton recognizes that while the potential for DL10 to enter surface water bodies along the Misery Haul Road is low, the risk still exists. To minimize this risk, the suppressant will not be applied within 30m of either side of all water bodies intersected or adjacent to the Misery Haul Road.

Thank you for considering this request. If you have any questions, please contact the undersigned at (867) 669-6156.

Yours sincerely,  
**BHP Billiton Diamonds Inc.**



Eric Denholm  
Superintendent – Traditional Knowledge and Permitting