



Water Resources Division
Nunavut Regional Office
Iqaluit, NU
X0A 0H0

NWB File: 2BE-HAK0915
CIDMS #: 776157

Jan 27, 2014

Re: 2BE-HAK0915 – Request for Open Burning – Hackett River – Xstrata Zinc (Xstrata).

Please be advised that Aboriginal Affairs and Northern Development Canada (AANDC) have completed a review of the request for open burning for water license 2BE-HAK0915 (Hackett River) submitted by Xstrata Zinc. The NWB circulated the request for open burning for comments on January 6, 2014. All documents related to the request posted on the NWB ftp site under 2BE-HAK0915 were included in my review (See attached Technical Review Memo).

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4282 or by email at Ian.Parsons@aandc-aadnc.gc.ca.

Sincerely,

Original signed by

Ian Parsons
Regional Coordinator

Cc. Murray Ball, Manager of Water Resources – AANDC, Nunavut Regional Office



Technical Review Memorandum

To: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board

From: Ian Parsons – Regional Coordinator, AANDC.

Re: 2BE-HAK0915 – Request for Open Burning – Hackett River – Xstrata Zinc (Xstrata).

Background

The Hackett River project is located in the Kitikmeot Region of Nunavut 104km South of Bathurst Inlet. Xstrata currently has facilities and infrastructure to support the running and maintaining of an advanced exploration drilling operation that can accommodate approximately 100 people.

Recommendations/Comments

First, AANDC would like to state that the burning of wood waste as a form of disposal is not encouraged. AANDC has concerns that long-term burning has the potential to contribute to acid rain, and ineffective burning, or burning of high-risk materials, will likely produce toxic carcinogens including dioxins, furans, and PAHs that may affect local water bodies.

AANDC would also like to recommend that the licence require the licensee to follow the best management practice of shipping waste out on re-supply return flights, when there is a suitable alternative disposal available, so as to avoid collecting burnable waste on site and therefore minimize the number and quantity of open-burning events.

AANDC therefore recommends either the re-use of products or, if this is not possible, the removal, off site, of all waste products and supplies to an appropriately approved waste management facility rather than burning.

In the event that reuse or removal cannot be accomplished, AANDC is not opposed to a limited and effective open burn with the following recommendations:



1. Burning should be conducted in compliance with GN Environmental Guideline for the Burning and Incineration of Solid Waste (2012) *(or the Appendix A Practices as currently issued)*
2. Other considerations when open burning include, but are not limited to:
 - a) Only wood products that have **not** been treated in any form shall be burned.
 - b) No treated wood or wood products, plywood or any other material treated or contaminated with petroleum based products should be burned.
 - c) All non-combustible materials associated with the waste wood (i.e., plastics, tar paper, floor coverings, shingles, insulation, wiring, and tents) shall be thoroughly **removed** prior to the burning of the waste wood
 - d) The products mentioned in (a) above shall be in a size that is manageable and will ensure that a complete burn of the product(s) will occur.
 - e) The burn shall remain in a '**hot phase**' or '**hot burn**' until complete combustion of the product(s) has taken place and no unburned wood debris is left over. Air assistance to the fire should be considered to improve complete combustion of the waste.
3. Burning should only occur within a confined area (e.g.: – within a cage or a ventilated burn box);
4. Burning practices should minimize scorching of the ground;
5. Burning practices should minimize impacts to surface or groundwater;
6. 10-day notification to be provided to the Inspector which includes the following:
 - a. Quantity and details of waste to be burned
 - b. Proposed dates
 - c. Protocol to be followed for open burning
 - d. Person responsible for carrying out the burn; and
7. A report of burn site cleanup with photos is to be provided in the Annual Report (every year open burning is permitted).
8. After the burn is complete, any ash or other residual debris (i.e nails) found shall be collected and and disposed of as per incinerator ash after every burn
9. Little evidence should remain that a fire occurred at the chosen location.
10. Soil sampling may also be required at the inspector's discretion.



AANDC would like to remind the proponent that if approval for open burning is granted by the NWB, then strict adherence to the conditions of issuance is required. AANDC Inspectors will include open burning permits in their site inspection to ensure compliance.

Cc. Murray Ball, Manager of Water Resources – AANDC, Nunavut Regional Office
Erik Allain, Manager of Field Operations - AANDC, Nunavut Regional Office