

MEETING REPORT

Main Issue: Incinerators

Meeting Date: October 21, 2009.

Attendees:

1. Dave Fox, EC (email)
2. Todd Paget, GNWT – ENR (email)
3. Linda Zurkirchen, Deze consultant (email)

Summary of Discussion:

Commitment 41: DE to provide clarity on whether or not DE commits to follow the information provided in the technical document for batch-waste incinerators.

Currently, NWT does not have publically available regulations in regard to camp incinerators and associated incineration temperatures. The Environment Canada “Technical Document for Batch Waste Incineration” (only Executive Summary available at time of writing) provides guidance for owners and operators of waste incinerators. The document states that modern Canadian-built incinerators are capable of meeting Canadian standards for dioxins and furans emissions. For facilities incinerating more than 26 tonnes of waste per year, Environment Canada recommends dual chamber controlled air incinerators with a minimum residence time of 1 second at temperatures higher than 1000 °C in the secondary chamber. Ontario “Regulation Guideline A-7” and BC “Emission Criteria for Biomedical Waste Incinerators” also call for a minimum residence time of 1 s at 1000°C.

For facilities incinerating less than 26 tonnes of waste per year, Environment Canada recommends “determined efforts” to reduce emissions of dioxins and furans. The use of dual-chamber incinerators is preferred at all camps. However, if circumstances restrict the ability to use a dual-chamber incinerator with a large secondary chamber, a single chamber incinerator with an after burner should be used. The primary chamber should operate in the temperature range specified by the manufacturer. The guidelines also recommends that batch incinerators do not get equipped with heat recovery devices or air pollution control systems, and that stack gases are released into atmosphere at temperatures higher than 700 °C to control PCDD/F emissions.

The temporary Twin Gorges camp would accommodate a maximum of 200 people during peak construction and over the three-year life would accommodate an estimated 160,000 person-days. The temporary Nonacho Lake camp would accommodate a maximum of 50 people during peak construction and over the three-year life would accommodate an estimated 55,000 person-days.

Small camps would be necessary for construction of the transmission line. Small camps would be highly self-contained modular facilities suitable for accommodating up to 40 people. Currently, small camps dedicated to transmission line construction in the

southern sector are forecast to be installed at Twin Gorges between the airstrip and the South Valley Spillway, Taltson Lake staging area, and Sparrow Bay on Nonacho Lake. For the East Arm Sector, small camps at both Charlton Bay and McLeod Bay staging areas and at treeline south of Gahcho Kué would be used. For the northern sector, small camps at Gahcho Kué, East Mackay Lake and Ekati are planned. For the Gahcho Kué to Snap Lake sector, small camps would be necessary at the mine sites if accommodations are not available.

Waste production will likely exceed 26 tonnes per year for the Twin Gorges camp (maximum of 200 people). The double chamber control forced air model with minimum residence time of 1 second at temperatures higher than 1000 °C (such as CY50/CA or CY100/CA produced by Westland Environmental Services or CA-50 or CA-100 produced by Eco Waste Solutions) would be used for the camps that produce more than 26 tonnes of waste per year.

With proper best management practices, such as reduction, reusing and recycling, waste generation of less than 26 tonnes per year may be achieved for the Nonacho Lake camp and small camps. The smaller single chamber with an afterburner forced air incinerators (such as CY 2200 and 2500 produced by Westland Environmental Services) would be used for camps producing less than 26 tonnes of waste per year. These models are cost-efficient and are relatively mobile. The combustion temperature largely depends on the type and amount of waste burned therefore waste batching and charging of incinerators will be designed and to ensure BTU value limits as specified by the manufacturer's operational requirements for this type of incinerator is maintained. Best management practices such as waste segregation and insuring that incinerator is not overloaded will be employed to minimize air pollution.

An Incineration Management Plan will be developed to detail the following:

- waste diversion programs (reduce, reuse, and recycle);
- types and quantities of wastes expected to be generated at each camp;
- types and quantities of wastes expected to be incinerated at each camp;
- the selection of incineration and monitoring equipment is designed for use with the types and amounts of waste for incineration for each camp;
- waste segregation, storage and batching procedures designed and employed to ensure compliance with manufacturer's specified waste types and device operating conditions are maintained for each camp; and
- operator training.

The Incineration Plan will include an annual report that will provide the following information:

- types and quantities of waste incinerated at each camp;
- quantity of auxiliary fuel used at each camp;
- record of operation of each incinerator;
- a list of trained staff and type of training they have received;
- record of all maintenance for each incinerator;
- quantity of incinerator ash generated and how it was disposed; and

- results of any stack testing or ash sampling.

The exact make and model of incinerator used will be the responsibility of the camp contractor; however, Deze commits to following the Environment Canada guidelines as presented in the technical document Executive Summary.

Developer Commitments

Deze commits to following the Environment Canada guidelines as presented in the technical document Executive Summary and 6 Step Process. Deze also commits to developing an Incineration Management Plan with annual reports.

Outstanding Issues:

None

Signature of Party Representative: _____

Jed M. Paet

Signature of Party Representative: _____

Deze

Signature of Developer Representative: _____

W. J. J.

Date: _____

October 29, 2009