MEADOWBANK GOLD PROJECT

Incinerator Waste Management Plan

In Accordance with Water License 2AM-MEA1526

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Division

Version 8
October 2018

EXECUTIVE SUMMARY

This Incinerator Waste Management Plan (IWMP) describes the performance limits, waste management protocols, operation, monitoring and record keeping requirements for the incinerator and waste oil burning furnaces as well as the operations and management requirements of the composter. This updated IWMP is a component of the Meadowbank Environmental Management System. This IWMP will be maintained by Agnico Eagle to reflect the current operations at the Meadowbank Gold Project, permit requirements and regulatory setting. The IWMP will be reviewed on a regular basis and revised by Agnico Eagle when necessary to ensure that the project staff, operators and regulatory bodies are kept aware of any changes to project operations. Any changes in operation/procedures are communicated to all applicable Meadowbank Departments.

The main objective of waste management relating to the primary incinerator, waste oil furnaces, and composter is to minimize the amount of solid waste to be incinerated by implementing an effective waste segregation, composting, and reuse (in the case of waste oil) program to ensure that only appropriate types of waste are incinerated. The primary objective of incineration is to reduce the volume of burnable waste to manage the day to day waste generated on-site. The composting of organic waste generated at the Meadowbank camp provides an alternative to incineration that is expected to reduce overall emissions. On-site composting reduces greenhouse gas emissions and atmospheric pollutants related to the incineration of wastes. The primary incinerator is a dual chamber, high-temperature incinerator and is used to dispose of solid waste from the accommodation camp, kitchen, shops, and offices that cannot be composted or landfilled. The materials to be incinerated will be limited to wood and food packaging. In addition, a number of small waste oil burning furnaces will be utilized to recycle used petroleum products such as heavy lubricants and engine oil. Ash produced from the incineration process will be disposed of in the on-site landfills provided it meets criteria as stated in Industrial Waste Discharges into Municipal Solid Waste and Sewage Treatment Facilities (GN, 2011). A protocol is implemented for testing incinerator ash and contingent measures for alternate disposal of ash if quality is unsuitable for landfilling.

The incinerator at Meadowbank is manufactured by Eco Waste Solutions. The incinerator is designed to ensure the emissions meet Canadian Council of Ministers of the Environment (CCME) Canada-wide Standards for Dioxin and Furans (CCME, 2000a) and the CCME Canada-wide Standards for Mercury Emissions (CCME, 2000b). In addition to the incinerator technology, the implementation of a waste management and segregation plan will further limit emissions of dioxins and furans from the incinerator. Compliance with the performance limits is confirmed by stack testing conducted once every two years (providing that the waste stream has not changed). Should an exceedance of the CCME Standards occur, Agnico Eagle will change the frequency of stack testing to once per year for five years then return to biannual testing following ECCC approval. An investigation related to the cause of the exceedance (thoroughly check the waste stream).

To demonstrate compliance with performance limits, an annual incineration management report will be prepared and submitted to the NWB (as part of the water license annual report), Government of Nunavut (GN), Environment and Climate Change Canada (ECCC), and NIRB. The quantity of materials incinerated on site during operations and a record of performance temperatures together with results from stack testing and ash monitoring, will be included within the annual report. Quantity and performance information for the composter will also be included in the annual report.

IMPLEMENTATION SCHEDULE

As required by Water License 2AM-MEA1526, Part B, Item 11, the proposed implementation schedule for this Plan is outlined below.

This Plan will be implemented immediately (October 2018) subject to any modifications proposed by the NWB as a result of the review and approval process. This document will supersede the Incinerator Waste Management Plan Version 7 – 2017.

DISTRIBUTION LIST

Agnico Eagle – General Mine Manager

Agnico Eagle – Environment Superintendent

Agnico Eagle – Environmental Coordinator

Agnico Eagle – Environmental Technician

Agnico Eagle – Site Services Superintendent

Agnico Eagle – Field Services Supervisor

Agnico Eagle – Incinerator Operator

Agnico Eagle – Composter Operator

DOCUMENT CONTROL

Version	Date (YMD)	Section	Page	Revision
1	08/10/08	3 & 6	5 & 13	Revised to consider best management practices for ash
		App 1		Technical specifications for primary incinerator included
2	09/05/12	1; 3.3; 4.1	1; 7; 8	Revised to include regulatory comments
3	12/11/16			2012 Comprehensive Review
4	12/11/16	ES; 3.1, 6.1	II, 5, 13	Stack testing will be completed biennially
		5.5	12	Adjusted quantities for mass reduction
		APP III		Include Procedure for Loading Incinerator
5	14/07/21	All	All	2014 Comprehensive Review
6	16/03/31	All	All	2016 Comprehensive Review
7	17/03/31	3.1	5	Add details regarding the stack testing frequency following an exceedance
8	18/10/2	1.1 1.2 2 5.1 5.2 5.4.1 Figure 5-1 APP III	1 2 3 9 9 11 12	Added composter activities Added composter location Referred to Appendix III for regulatory framework for composter Updated section to reflect changes due to addition of composter Updated section to reflect changes due to addition of composter Adjusted to reflect changes due to addition of composter Adjusted to reflect changes due to addition of composter Composter Management Plan added.

Approved by:

Nancy Duquet Harvey
Superintendent - Environment

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SECTION 1. INTRODUCTION

1.1 PROJECT OVERVIEW

This Incinerator Waste Management Plan (IWMP) describes the performance limits, waste management plans, operation, monitoring and record keeping requirements for the primary incinerator, on-site waste oil burning furnaces, and composter. The body of this IWMP focuses on the operations and requirements of the Incinerator; information specific to the operations and management of the composter has been provided in Appendix III.

This update to the 2017 Incinerator Waste Management Plan (Version 7) is a component of the Meadowbank Environmental Management System. The objectives of this Plan are summarized as follows:

1. To define the operating procedures to be used in the incineration of appropriate non-hazardous solid waste generated at the Meadowbank Mine;
2. To define acceptable/non-acceptable types of solid waste to be placed in the Meadowbank incinerator; and
3. To define operating and monitoring requirements for the incinerator and waste oil burning furnaces.

Agnico Eagle will be responsible for managing and implementing this IWMP.

The primary incinerator is required for the disposal of solid waste from the accommodation camp, kitchen, shops, and offices that cannot be landfilled at the Meadowbank Gold Project Site and for the disposal of material that cannot be composted. The incineration and composting of waste will function such that no waste that could attract wildlife and/or create leachate (putrescible materials) is disposed of at the on-site landfill. The materials to be incinerated will be limited to wood and food packaging but may include compostable materials should issues with the composter arise due to maintenance or processing issues. The materials to be composted include putrescible waste, such as organic matter, including food, paper, and cardboard. A number of small waste oil burning furnaces, to provide space heating, will be utilized in order to recycle used petroleum products such as heavy lubricants and engine oil. The waste oil burning furnaces have been included within this IWMP.

Ash produced from the incineration process is disposed of within the on-site landfill according to the GN Environmental Guideline for Industrial Waste Discharges (GN, 2011). The incinerator ash will be tested to confirm its suitability for landfill disposal (Section 3.3 and 6.3). If monitoring indicates the ash is not suitable for landfilling, it will be buried within the Tailings Storage Facility (TSF). Materials buried within the TSF are expected to freeze over a period of time, resulting in permafrost encapsulation (Golder, 2014).

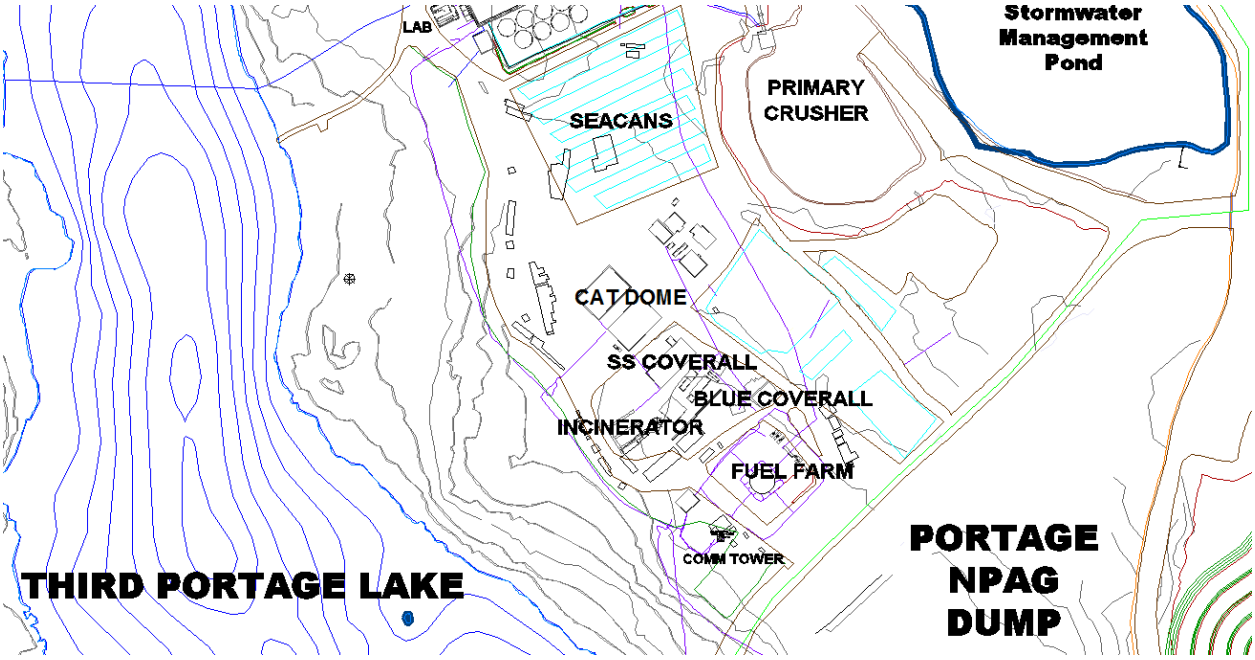
The product from the composter will initially be disposed in the on-site landfill, and in future its suitability for beneficial re-use may be considered.

The camp is currently accommodating ~520 persons on any given day during operations, and the expected life of operation of the incinerator is until 2020 (Golder, 2014).

1.2 LOCATION

The primary incinerator is located away from the plant site and accommodations complex, adjacent to the fuel storage facility. The composter is located in the same building as the incinerator. Thirteen waste oil burning furnaces were installed on site at the cat dome, SS coverall and, blue coverall to provide space heating (see Figure 1-1). One waste oil burner is also located in the incinerator.

Figure 1-1 Incinerator, Waste Oil Furnaces, and Composter Location



SECTION 2. REGULATORY CONTEXT

The following section outlines the regulatory context related to solid waste incinerators and waste oil furnaces and discusses how the regulations apply to the incinerator and waste oil furnaces at the Meadowbank site. Information pertaining to the composter is provided in Appendix III.

Performance parameters for the incinerator at Meadowbank will be in accordance with the emission guidelines set out by the Canadian Council of Ministers of the Environment (CCME) Canada-wide Standards for Dioxins and Furans (CCME, 2000a) and the CCME Canada-wide Standards for Mercury Emissions (CCME, 2000b).

Best management practices regarding the management of used oil and waste fuel are provided in the Environmental Guideline for Used Oil and Waste Fuel (GN, 2012). Agnico Eagle will ensure used oil is managed and controlled according to these guidelines.

Ash produced from the incineration and waste oil burning process will be disposed of according to the Nunavut Environmental Guideline for Industrial Waste Discharges (GN, 2011).

2.1 BACKGROUND INFORMATION

2.1.1 Dioxins and Furans

Polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs), commonly known as dioxins and furans, are toxic, persistent, bioaccumulative, and result predominantly from human activity. Due to the extraordinary environmental persistence and capacity to accumulate in biological tissues, dioxins and furans are slated for virtual elimination under the CEPA, the federal Toxic Substances Management Policy (TSMP) and the CCME Policy for the Management of Toxic Substances (CCME, 2000a).

2.1.2 Mercury

Mercury is a naturally occurring substance, which is transformed through biological processes to methyl mercury, a persistent substance which bioaccumulates in the food chain and is particularly toxic to humans and wildlife. Mercury levels originate from a combination of naturally-occurring mercury and anthropogenically emitted mercury. Under a variety of regional, national, bi-national and internal programs, treaties and agreements, mercury is being targeted for emissions reductions consistent with the CCME Policy for the Management of Toxic Substances, which identifies that mercury shall be managed through its lifecycle to minimize release (CCME, 2000b).

2.1.3 Used Oil and Waste Fuel

According to GN Environmental Guideline for Used Oil and Waste Fuel (GN, 2011) ‘used oil’ means engine, turbine and gear lubricating oil, hydraulic and transmission fluid and insulating coolant (i.e. transformer fluid) that is unsuitable for its intended purpose due to the presence of impurities or the loss of original properties, but does not include waste oil derived from animal or vegetable fat or a petroleum product spilled on land or water. ‘Waste fuel’ means a flammable or combustible petroleum hydrocarbon, that is unsuitable for its intended purpose due to the presence of impurities or the loss of original properties, and includes gasoline, diesel and fuel oil, aviation fuel, kerosene, naphtha, but does not include paint, solvent or propane.

SECTION 3. PERFORMANCE LIMITS

3.1 PRIMARY INCINERATOR

Agnico Eagle selected a Primary Camp Waste Incinerator (model no, ECO 1.75TN 1P MS 60L) from Eco Waste Solutions, which is designed to comply with the regulations in Table 3-1, where the maximum emissions are expressed as a concentration in the exhaust gas exiting the stack of the facility. The specifications of the incinerator are available in Appendix I. In addition to incinerator technology, the implementation of the waste management plan is designed to limit emissions of dioxins and furans from the incinerator.

Table 3-1 Emission Standards for Solid Waste Incinerators

Emissions	Sector	Units	Guideline Maximum	Reference guideline
Dioxins and Furans	Municipal Waste	pg I-TEQ/m^3	80	CCME, CWS 2000a
Dioxins and Furans	Sewage Sludge Incineration	pg I-TEQ/m^3	80	CCME, CWS, 2000a
Mercury	Municipal Waste	µg/R m^3	20	CCME, CWS, 2000b
Mercury	Sewage Sludge Incineration	µg/R m^3	70	CCME, CWS, 2000b

Notes: Stack concentrations are corrected for 11% oxygen

At Meadowbank, the primary incinerator may be subject to either Municipal or Sewage Sludge standards based upon the total amount of waste type incinerated (>50% as one type) or upon the territorial designation of facility type. According to the Canada Wide Standards “municipal solid waste’ includes any waste that might be disposed of in a non-secure landfill site if not incinerated (i.e., non-hazardous wastes regardless of origin), but does not include “clean” wood waste.

Compliance to these performance limits will be confirmed by stack testing performed by an external contractor once every two years. Should the performance limits above be exceeded then an investigation will be undertaken to determine the cause of the exceedance. In most cases exceedances will be related to improper waste being fed into the incinerator. Following the exceedance, Agnico Eagle will conduct annual stack testing until five has been accumulated with all results reported below the Level of Quantification (emission standard), then stack testing frequency may be revised to a biennial. The return to biennial testing will be done following approval from ECCC.

3.2 USED OIL

Agnico Eagle manages used oil and waste fuel according to the GN Environmental Guideline for Used Oil and Waste Fuel (GN, 2012).

Table 3-2 summarizes some main points of the guideline that pertain to waste oil generated on site, as per the Environmental Guideline for Used Oil and Waste Fuel (GN, 2012).

Table 3-2: Summary of Used Oil and Waste Fuel Guideline

As per 'Used Oil and Waste Fuel Management Regulations'	
Disposal	Waste oil/Waste fuel will not be disposed of directly into the environment
Storage	Storage is not acceptable for the long-term management of these wastes except under extraordinary circumstances and should be considered as a temporary measure only. Store used oil and waste fuel in its original container or another container certified by the Canadian Standards Association for this purpose. Containers should be located so as to enable their physical inspection for damage or leakage and should be protected from the sun, weather and physical damage. Waste oil/Waste fuel will be stored as per the *Hazardous Materials Management Plan* (Version 3, October 2013)
Sampling and Analysis	Waste oil will be tested for: ***Flash point*** ***Existence and amount of each impurity Listed in Table 3-3***
Burning	Open burning used oil and waste fuel should be avoided. Used oil and waste fuel appliances should not be operated on property that is zoned residential. Waste Oil that exceeds guidelines will not be burned.
Records	The following is recorded in association with the incineration of used oil: ***Volume of Used oil generated*** ***Volume of used oil incinerated/consumed*** ***Name and Address of person in charge, management or control of the used oil*** ***A summary of maintenance performed on incinerator or processing equipment*** ***The destination of the used oil products shipped from the facility (if any)***

Table 3-3 summarizes the maximum level of contaminants in used oil that can be used as fuel for the incinerator or consumed by the waste oil burning furnaces as stipulated within the GN Environmental Guideline for Used Oil and Waste Fuel (GN, 2012). Under the regulations blending of used oil that exceeds one of more of the criteria listed in Table 3-3 is not allowed.

Table 3-3: Used Oil Impurity Limit

Impurity	Units	Maximum Level Allowed in Used Oil
Cadmium	ppm	2
Chromium	ppm	10
Lead	ppm	100
Total Organic Halogens (as chlorine)	ppm	1000
Polychlorinated biphenyls	ppm	2

3.3 INCINERATOR ASH

Ash resulting from the incineration of solid waste is disposed of in the landfill and tested for metals according to the GN Environmental Guideline for Industrial Waste Discharges (GN, 2011). Ash that does not meet these guidelines will be buried within the Tailings Storage Facility (TSF). Table 3-4 summarizes the guidelines for metals parameters based on leachate test results.

Table 3-4: Guidelines for Solid Waste/Process Residuals Suitable for Landfill

Parameter	Concentration maximum (mg/L)
Arsenic	2.5
Barium	100
Cadmium	0.5
Chromium	5
Lead	5
Mercury	0.1
Selenium	1
Silver	5
Zinc	500

NOTE: Standards based on leachate test results

SECTION 4. INCINERATOR OPERATION

4.1 PRIMARY INCINERATION

The controlled-air batch (dual chamber) incinerator used at Meadowbank is based on the principals of pyrolysis (starved-air burning condition) and complete oxidation (high temperature, excess oxygen and sufficient time). The incineration system is a two-stage process. In the first stage, waste is converted to gas in the primary chamber at approximately 650 to 850^{o}C. At this temperature any potentially infectious material is destroyed. This process is self-fueling until the volume is reduced by 90%. Gases from the primary chamber enter the secondary chamber of oxygen rich and turbulent conditions, which is typically at a higher temperature – around 1000^{o}C. Combustion is complete after a minimum retention time. A used oil burner is used in the secondary chamber to reduce the quantity of fuel needed for the operation of the incinerator.

Critical process parameters and process control data as per the incinerator operation specifications such as temperature, combustion air flow and burner output are computer controlled to maintain optimal combustion conditions. These parameters are recorded daily, and the records are kept for at least 2 years.

For an incinerator capacity suitable for the predicted volumes of waste to be generated at the Meadowbank site the total particulate matter (PM) generated is extremely low (confirmed through stack testing). Therefore, dust collection technologies such as bag house filters are not being employed, and no fly ash is generated. Ash residual from the incinerator is generated and is removed daily.

4.1.1 Emissions

The Eco Waste Solutions Incinerator used by Agnico Eagle is designed to meet performance limits described in Section 3.1. The Primary incinerator has been designed by Eco Waste Solutions using good engineering practice to ensure required dispersion of gases to meet applicable air quality standards/objectives.

The incinerator stack design incorporates appropriate sampling ports (with caps where necessary) at appropriate locations to allow for stack testing to be undertaken during incinerator operation.

4.1.2 Dust/Odour Control Measures

Modern incinerators are commonly designed such that the non-turbulent atmosphere in the primary burn chamber reduces the formation of particulate matter. Therefore, the need for additional dust and /or odour control measures is not required.

4.1.3 Staffing and Equipment

The computerized incinerator requires one person to operate and monitor the equipment for approximately 1 to 1.5 hours per day (for ash removal, loading and start-up). Operators are not required to be in attendance during the rest of the operation, as it is a fully automated process. This incinerator is designed so that the operators are not exposed to high temperatures during loading or ash removal due to complete cool down after the burn cycle. Also, the waste is not allowed to combust until the chamber is sealed thus isolating the worker from smoke and high temperatures. The operating procedure for the incinerator loading can be found in Appendix II.

4.1.4 Operator Training

Operator training was initially provided by an experienced technician from the incinerator supplier/manufacturer (Eco Waste Solutions). Training for operation of the incinerator is now given by the supervisor in charge of the incinerator.

4.2 USED OIL INCINERATOR AND FURNACES

Used oil is used as auxiliary fuel at the secondary chamber at the incinerator. This used oil burner at the incinerator has the capacity to handle approximately 200,000 litres of used oil per year. This used oil burner will reduce the amount of fuel used in the incinerator.

Thirteen (13) waste oil furnaces were installed in the existing blue coverall, cat dome and site services coverall to provide space heating. One waste oil burner is also located at the incinerator. These waste oil furnaces/burners have an aggregate capacity to handle approximately 410,000 litres of waste oil per year, however more may be put in service to expand the waste reduction program and minimize the shipment of this material south each year. The source of the waste oil will be from oil changes on the mining equipment and light vehicles as well as oil changes on mechanical gearboxes within the mill. The waste oil is filtered on-site prior to use as a fuel source.

In accordance with the Interim Closure and Reclamation Plan (Golder, 2014), salvageable buildings and surface structures, including the primary incinerator and used oil furnace, will be dismantled and demobilized from the site. No structural material will be incinerated during the closure phase of the mine.

SECTION 5. WASTE MANAGEMENT

The amount of waste will be reduced through purchasing policies that focus on reduced packaging and on-site diversion and segregation programs. At Meadowbank the main objective of the waste management plan relating to incineration is to minimize the amount of solid waste to be incinerated by following an effective waste segregation and reduction program to ensure that only appropriate types of waste are incinerated.

Figure 2 provides a schematic diagram for the management of solid waste and used oil produced on site.

5.1 APPROACH

A waste segregation and reduction program is implemented at the site (i.e., the separation of food and non-food waste items suitable for storage and subsequent transport and disposal, composting, or recycling). This will allow materials that are unsuitable for incineration to be either landfilled on site or hauled offsite to a licensed disposal/recycling facility. The waste segregation program will also document the quantities and types of materials that are incinerated. In addition, Agnico Eagle is now incorporating a waste reduction strategy for materials that originally were being incinerated. For example, styrofoam coffee cups and plastic lids were eliminated from general site use in 2012 and replaced with stainless steel mugs and re-washable plastic cups. Other materials will be considered during the life of mine for elimination from the incinerator waste stream.

5.2 ACCEPTABLE WASTE FOR INCINERATION/WASTE OIL FURNACES

Acceptable wastes for incineration, in the primary incinerator as per the operational instructions, include the following:

- Wood;
- Food containers and wrappings including plastics that are contaminated by food;
- Food waste (divert to composter);
- Paper and cardboard (divert to composter); and
- Dead animals - small size only (divert to composter);

Acceptable wastes for incineration in the used oil furnaces include the following:

- Waste oils; and
- Flammable or combustible petroleum hydrocarbons unsuitable for its purpose due to the presence or contaminants or loss of original properties (such as gasoline, diesel fuel, aviation fuel, kerosene, naphtha or fuel oil).

5.3 UNACCEPTABLE WASTE FOR INCINERATION

Materials that are not listed above are unacceptable for incineration. These materials include, but are not limited to:

- Uncontaminated plastics, including chlorinated plastics;
- Inert materials such as concrete, bricks, ceramics, ash;
- Bulky materials such as machinery parts or large metal goods such as appliances (shipped south and recycled in an accredited facility);
- Radioactive materials such as smoke detectors;
- Potentially explosive materials such as propane tanks, other pressurized vessels, unused or ineffective explosives;
- Other hazardous materials such as organic chemicals (PCBs, pesticides), other toxics (arsenic, cyanide);
- Electronics (shipped south and recycled in an accredited facility);
- Batteries (shipped south and recycled in an accredited facility);
- Asbestos;
- Dry wall;
- Vehicles and machinery (shipped south and recycled in an accredited facility);
- Fluorescent light bulbs;
- Whole tires; and
- Any materials containing mercury.

Unacceptable wastes for incineration in the used oil furnace include the following:

- Used oil that exceeds the Maximum Impurity Limits for parameters listed in Table 3.3;
- Waste oil with a flash point of less than 37.7 deg C;
- Paint;
- Solvents; and
- Propane.

5.4 WASTE VOLUMES

5.4.1 Solid Waste

The quantity of waste being incinerated is averaging 1,750 kg per day during operations with a camp size of ~520 persons during operations. This amount will decrease following the use of the composter.

5.4.2 Used Oil

The quantity of used oil generated from the servicing of machinery and generators is estimated at approximately 400,000 litres per year (Meadowbank Gold Project – 2015 Annual report).

5.4.3 Incineration Ash

The quantity of ash from the incinerator is approximately 240 tonnes/year, assuming that the incineration process results in a 63% reduction in mass. Assuming the ash has a total density of 1.2 tonnes /m^3, then a volume of approximately 200 m^3 /year of ash will require disposal. Incinerator ash will be disposed of in the on-site approved landfill.

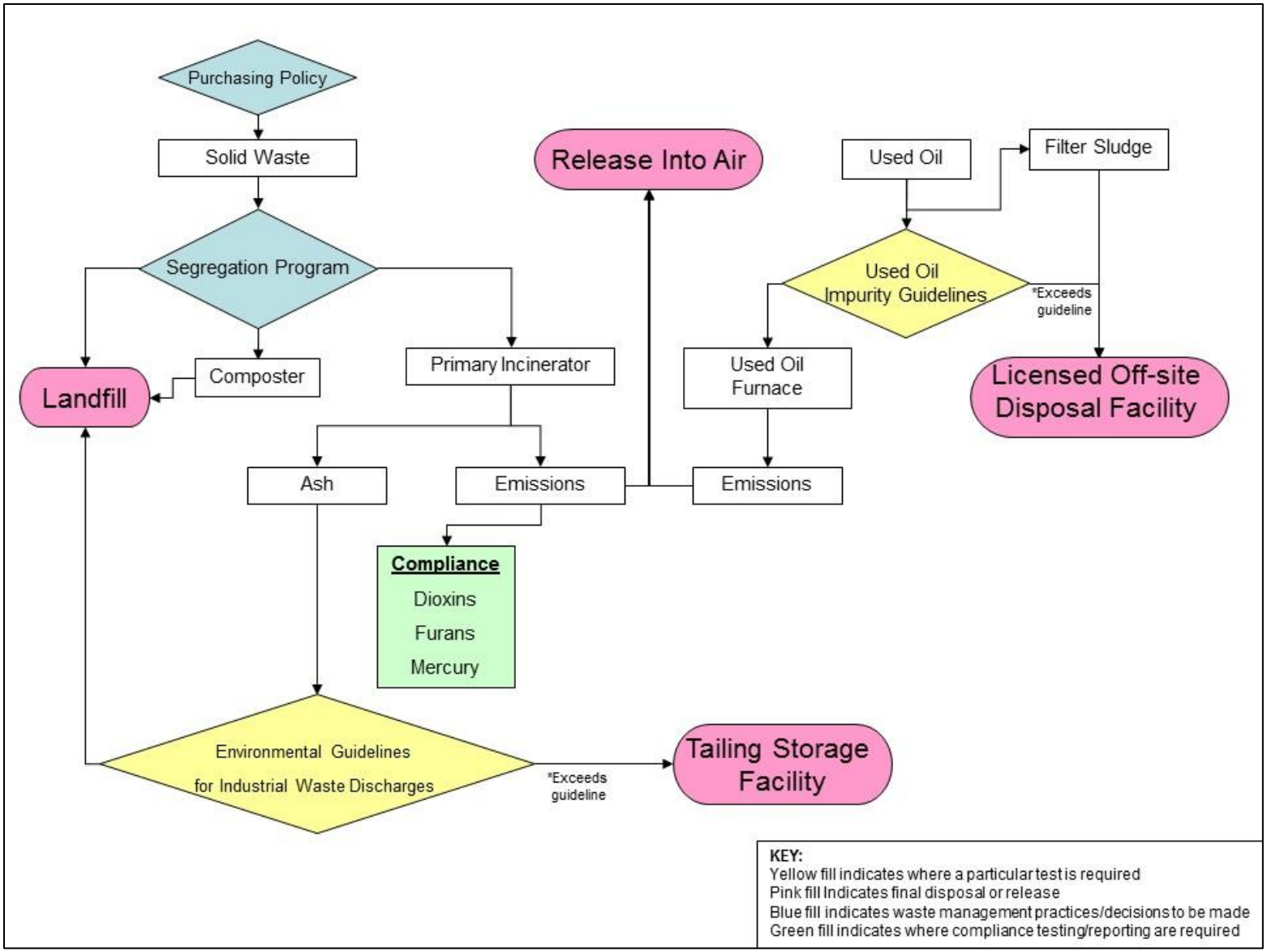
5.5 WASTE INCINERATION RATE

The incinerator has an approximate incineration capacity of 1,750 kg / h based on a 10 hour burn cycle. If this cannot be achieved the primary chamber can be used as storage. According to the Eco Waste Solution, the type of waste that is used will never exceed the weight limit. To ensure maximum efficiency, 3 quarters of the chamber has to be filled to ensure that the gas outlet of the primary chamber is never blocked.

The system has a sizable front door for easy access to manually load feed waste into the unit with a front-end loader. Dry waste (wood) and wet waste (food containers) will be layered to ensure proper combustion and maximum efficiency according to the incinerator operational instructions.

The batch cycle for the Primary Chamber typically lasts approximately 10 hours for the burn cycle and is followed by a cool down of approximately 6 hours. The Secondary Chamber operates with a retention time of approximately 2 seconds.

Figure 5-1: Process Flow Chart for Waste Incineration and Compost



SECTION 6. MONITORING AND TESTING

The following presents the monitoring and testing plan for the incinerator.

6.1 INCINERATOR EMISSIONS TESTING

The incinerator stack incorporates appropriate sampling ports at appropriate locations, in right angle configuration, to allow for stack testing to be undertaken during incinerator operation. Table 6-1 summarizes the frequency of testing that is completed.

Table 6-1: Summary of Incinerator Emissions Testing

	Frequency	Number of Tests Required	Relevant Guideline
Furans and Dioxins	Biennial	3	CCME, CWS 2000a
Mercury	Biennial	3	CCME, CWS 2000b

6.2 WASTE OIL TESTING

No sampling frequency for waste oil is specified in the GN Environmental Guideline for Used Oil and Waste Fuel (2012). To ensure compliance with the Guideline parameters, Agnico Eagle will sample the waste oil feedstock twice a year. Waste oil that does not meet the regulation impurity limits is drummed and shipped off site as hazmat to a re-refining facility or licensed disposal facility. Agnico Eagle may increase the testing frequency of the waste oil if any exceedance to GN Environmental Guideline for Used Oil and Waste Fuel (GN, 2012). (Section 3.2 above)

6.3 ASH TESTING

The purpose of sampling ash is to determine its acceptability for disposal in the landfill, pursuant to the GN Environmental Guidelines for Industrial Discharge (2011). No sampling frequency is specified in this guideline. To ensure compliance with the Guideline parameters, ash will be sampled twice a year by Agnico Eagle. Should an exceedance be measured, an investigation will be undertaken to identify the cause and eliminate the source for this exceedance. Agnico Eagle may increase the testing frequency of the ash following an exceedance. Ash with metals concentrations exceeding the GN Guidelines will be buried within the Tailings Storage Facility (TSF); materials buried within the TSF are expected to freeze over a period of time, resulting in permafrost encapsulation (Golder, 2014). If deemed necessary, the ash will be packaged in drums and sent to a licensed hazardous waste disposal facility in the south.

SECTION 7. MAINTENANCE

Maintenance of the incinerator is scheduled annually. This maintenance is performed to evaluate the insulation and structural integrality of the incinerator. This is done to ensure the incinerator is functioning at its optimal standard.

When maintenance is performed, four small single chambered incinerators are used to incinerate the waste that would normally be disposed in the Eco Waste main unit, to prevent a back log of putrescible waste which would attract wildlife.

SECTION 8. REPORTING

In order to demonstrate compliance with performance limits, an annual incineration management report will be submitted as an Appendix in the Meadowbank Gold Projects Annual Report to the NWB, Government of Nunavut (GN), Environment and Climate Change Canada (ECCC), and NIRB. The quantity and type of materials incinerated on site during operations, together with results from stack emission testing, waste oil testing and ash monitoring, are to be included within the annual report.

8.1 NATIONAL POLLUTANT RELEASE INVENTORY

The National Pollutant Release Inventory (NPRI) is a Canadian database containing information on the annual on-site release of specific substances to the air, water and land from industrial and institutional sources (EC, 2007). The NPRI provides a list of tracked substances and requirements for reporting incinerator emissions. Table 8-1 lists the substances under the NPRI that Meadowbank is required to report annually. In addition, there are certain substances as indicated in Table 8-1 that may require reporting depending on the quantity of incinerator emissions. Whether or not reporting is necessary will depend on results of the periodic stack emission testing data and the quantity of annual emissions calculated with emission factors.

Table 8-1: NPRI Incineration Reportable Substance List

Substance Name	Notes
Hexachlorobenzene	Required to Report
Dioxins and Furans	
Carbon Monoxide	Required to Report if released to air from facility in a quantity of 20 tonnes or more per annum
Oxides of nitrogen	
Sulphur dioxide	
Total Particulate matter with diameter <100 microns	
Particulate matter with diameter less than or equal to 10 microns (PM10)	Required to Report if released to air from facility in a quantity of 0.5 tonnes or more per annum
Particulate matter with diameter less than or equal to 2.5 microns (PM2.5)	Required to Report if released to air from facility in a quantity of 0.3 tonnes or more per annum

8.2 GREENHOUSE GAS EMISSIONS

Agnico Eagle is committed to reporting greenhouse gas emissions (GHG) in support of Canada's Voluntary Challenge Registry; currently termed the Canadian GHG Challenge Registry. Agnico Eagle has developed a baseline and monitoring system for GHG to evaluate and report on progress in improving efficiency and reductions in GHG.

SECTION 9. PLAN REVIEW AND CONTINUAL IMPROVEMENT

This IWMP will be maintained by Agnico Eagle to reflect the current operations at the Meadowbank Gold Project, permit requirements and regulatory setting. The plan will be reviewed on a regular basis and revised when necessary to ensure that the project staff, operators and regulatory bodies are kept aware of any changes to operational procedures.

The latest IWMP will be made available at all times by Agnico Eagle for review by the NWB, Government of Nunavut, and Environment Canada.

SECTION 10. REFERENCES

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Environment Canada (EC), 2007. National Pollutant Release Inventory (NPRI). http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm

Golder (Golder Associates Ltd.), 2007. Final Report On Landfill Design and Management Plan, Meadowbank Gold Project Nunavut, *Project 06-1413-089/9000, Doc. No. 458, Rev. 0,* submitted to Meadowbank Mining Corporation, dated August 27, 2007.

Golder (Golder Associates Ltd.), 2014. Interim Closure and Reclamation Plan, Meadowbank Gold Project, *Project 13-1151-0131.* Submitted to Meadowbank Division on January 7 2014.

Letter from Nunavut Impact Review Board to Cumberland Resources Ltd, dated December 30, 2006
Re: Meadowbank Gold Mine Project Certificate; Nunavut Land Claims Agreement Article 12.5.12.

National Guidelines for Hazardous Waste Incineration Facilities - Design and Operating Criteria, Volume 1, March 1992, (CCME).

APPENDIX I

TECHNICAL SPECIFICATIONS: ECO WASTE SOLUTIONS INCINERATOR MODEL NO. ECO 1.75TN 1P MS 60L

TECHNICAL DATA SHEET

Technical Data

Supply all technical data for each item applicable, in the format shown on the following pages. Include drawings necessary for a technical evaluation of each item.

Equipment Number	TBD
Equipment Description	Camp Waste Incinerator
Manufacturer	Eco Waste Solutions
Model Number	ECO 1.75TN 1P MS 60L
Total Installed Weight, kg	44,500 kg (estimated with building)
1 Waste Incinerator	
Waste classification: (TYPES)	1. Camp Waste
	2. Sewage Sludge
	3. Waste Oil
Mixed waste charge classification: Break-down of each type of waste (%)	1. Camp Waste - 75%
	2. Sewage Sludge - 25%
	3. Waste Oil - N/A charged into secondary
****Emissions:**	
SO_2 (mg/m^3)	50 mg/m^3
CO (mg/m^3)	7 mg/m^3
NOx (ppm)	< 50 ppm
VOCs $\mu g/m^3$	50 - 2000 $\mu g/m^3$
Particulate (mg/m^3)	20 mg/m^3
PM_{10} (g/s)	N/A
Dioxins/Furan (pg I-TEQ/m^3)	< 80
Mercury ($\mu g/Rm^3$)	N/A - Materials cotaining Mercury to be excluded from incinerator waste stream
Flue Gas Temperature (°C)	1000°C
Flue Gas Flow Rate (kg/s)	1.996 kg/s (max)
Incineration capacity: (kg/h)	175 kg/h (10 hour burn)
Charge per cycle: (kg)	1750kg
Burning rate: (kg/h)	175 kg/hr average
Off-time per cycle: (h)	6 hr cool down
Heat value: (kJ/kg or BTU/lb)	5125 BTU/lbs (Solid and Sewage sludge mixed waste)

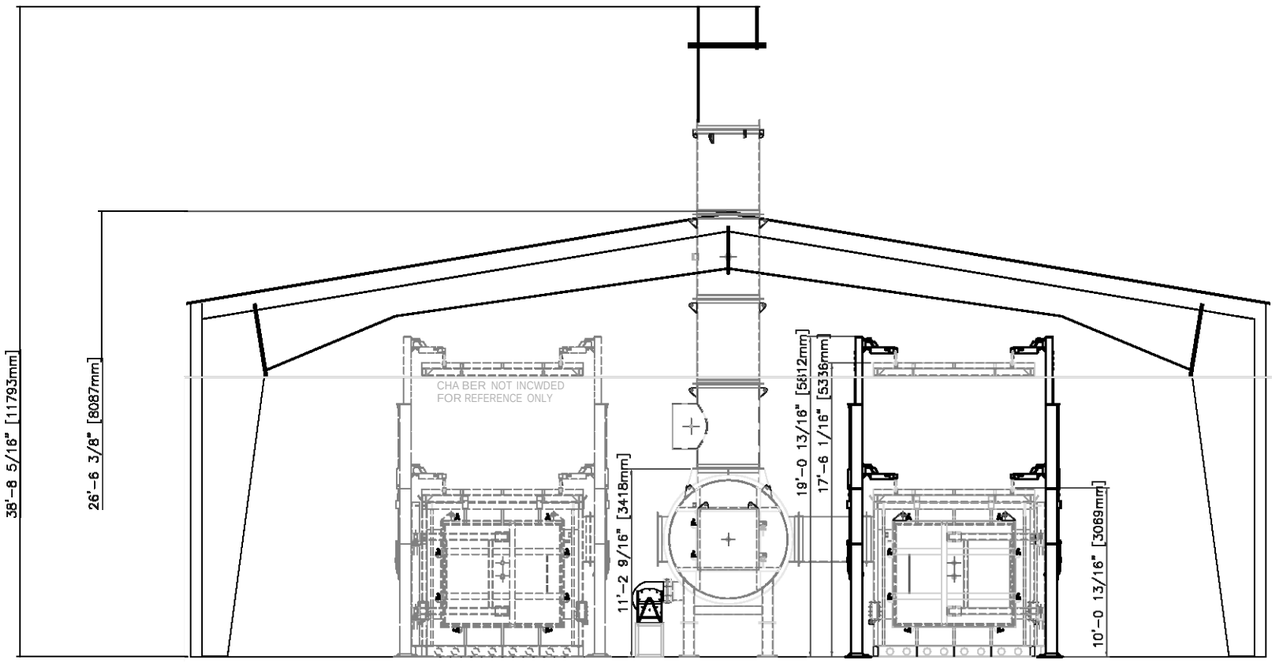
**The emission estimates provided are given as volumetric concentrations or pollutants; as per test reporting standards. Estimates are based on previous air emission tests.

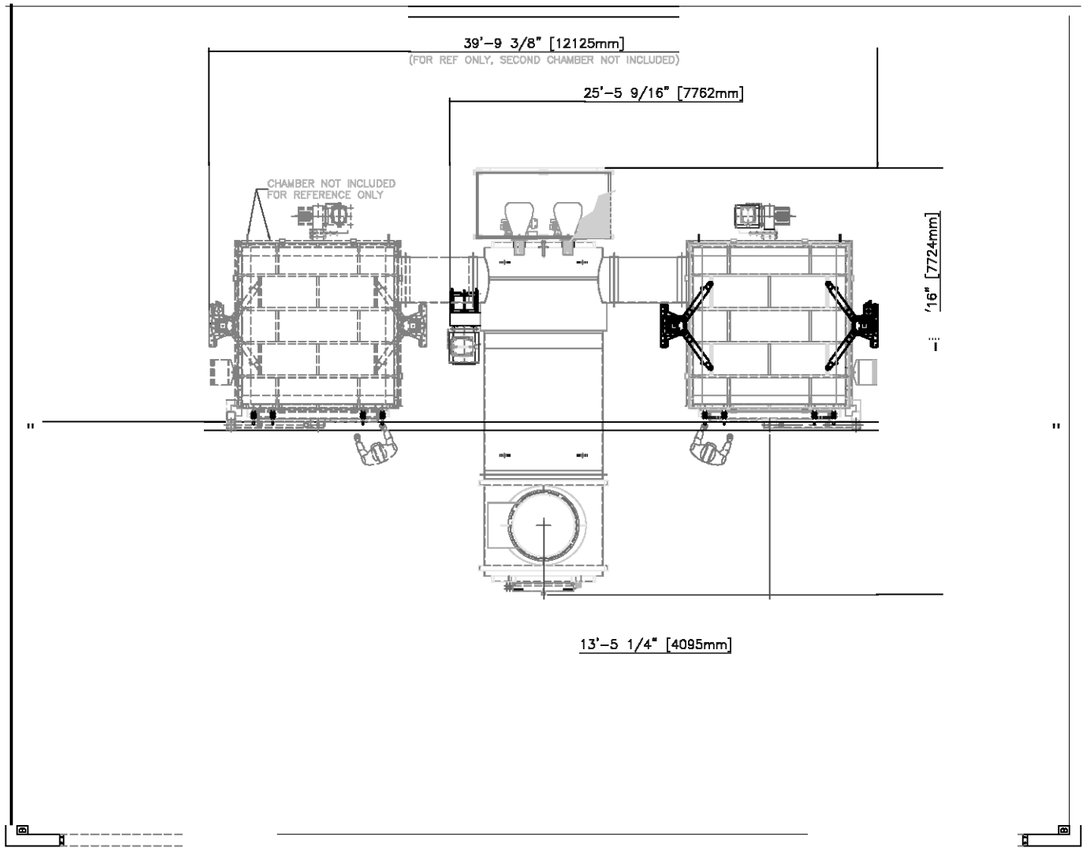
	Fuel mixing ratio with waste oil (if applicable)	N/A
	Capability to burn waste oil with loading rate (kg/h)	60.6 kg/h (8 hour liquid burn)
	Applicable auxiliary burner.	N/A
	Incinerator to bear CSA label?	All electrical components CSA or UL approved. Approval of complete incinerator package at additional cost..
	Temperature: Primary chamber (°C):	705°C
	Temperature: Secondary chamber (°C):	1000°C
	Burner Efficiency:	High
	Internal Volume of Primary Chamber:	2.43(l) x 2.43(w) x 2.29(h) m
	Internal Volume of Secondary Chamber:	1.83 (dia) x 5.49(l) m
	Destruction efficiency	95% DRE
	Tested Emission results (rates)	- See Section 1 (Emissions)
	Stack internal diameter (mm)	965mm
	Height of Stack (m)	7.62m
	Stack materials of construction	Refractory Lined - Mild Steel (44W HSLA)
	Spark Arrester length (mm)	1092mm
	Spark Arrester open area (m^2)	0.425m^2
	Burner System	Primary Burner - Riello RL28/2
		Secondary Burner - Qty(2) Riello RL100/M
		Liquid Waste Burner - Eco Waste Solution Liquid Waste Oxidizer
	Valve Train	N/A - Integrated in Burners
	Charging System	N/A - Batch System
	Charging opening size	1.78m (w) x 1.43m(h)
	Charging Chute size	N/A - no chute
	Ash Removal System	N/A - Manual
	Expected ash production per cycle (kg)	200kg (estimated)
	Maximum Capacity of ash removal system	N/A
2.	**Materials of Construction**	
	External Casing	Mild Steel (44W HSLA)
	Spark Arrester	Stainless Steel (SS 304)
	Insulation in Primary Chamber	Walls - Ceramic Fibre Blocks (152mm (6") Thick)
		Floor, Door Sills & Breech entrance - Castble (101 - 152mm (4-6") Thick)
	Insulation in Secondary Chamber	Walls - Ceramic Fibre Blocks (152mm (6") Thick)
		Breech exit & Stack Entrance - Castable - (76 -152mm (3-6") Thick)
	Insulation in Stack (materials and thickness)	Insulating Castable (76mm (3") Thick)
	Charging Chute	N/A
	Paint System Used	Carboline - Silicon Zinc Primer, Silicon Finish
	Dry Film Thickness of Paint	Primer - 2 mils (50 micron)
		Final Coat - 2 mils (50 micron)
	Primary Chamber Burner Rating	(663 - 1266)x10^3 KJ/hr
	Secondary Chamber Burner Rating	(1582 - 6119)x10^3 KJ/hr
3.	**BLOWERS**	
	Blower Manufacturer	New York Blower
	Primary Chamber Blower Capacity (m^3/hr)	2696
	Primary Blower Pressure (kPag)	0.25
	HP/ RPM	1.15 hp @ 2200rpm
	Secondary Chamber Blow Capacity (m^3/hr)	4247
	Secondary Blower Pressure (kPag)	0.5
	HP/ RPM	1.9hp @ 4900 RPM
4.	**CONTROL SYSTEM**	
	Please list all instrumentation and details including	- Please See Appendix A (Attached)
	CSA approval and labelling:	

5.	**INCINERATOR BUILDING (if applicable)**	
	Overall Length (mm)	12 192mm
	Overall Width (mm)	12 192mm
	Overall Height (mm)	6420 mm
	Shipping Dimensions (mm)	6660 x 3050 x 914 mm
6.	**DIMENSIONS**	
	Overall Length (mm)	6 858 mm
	Overall Width (mm)	7 188 mm
	Overall Height (mm)	11 049 mm
	Shipping Dimensions (mm)	**Largest Pieces (L x W x H) mm**
		Primary Chamber - 3403 x 3225 x 2895
		Secondary Chamber - 6172 x 2413 x 2794
		Shipping Container - 12 000 x 2438 x 2591
7.	**WEIGHTS (KG)**	
	Incinerator	20 275 kg
	Stack	4082 kg
	Blowers & Burners	400 kg (Blowers) 580 kg (Burners)
	Total Weight	25 337kg

FOR: REVIEW ONLY.

BILL OF MATERIAL		
11M. QIY.	DESCRII'TION	WEIGHT kg.





REV.	DESCRII'TION	APPROVED

DRAWN: J.S.	DAIE: 19-08-0B	BCO WASTE !, !: TIONS
CHECKED:	DAIE:	
PROJECT NAL.E: HATCH — MEADOWBANK		CUSTOLIER P.O.
PROJECT NUMBER: MDB-S-268		CUSTOMER EQUIPMENT. T
SCALE:	JOB .NO: OB-2MS	TITLE: BUILDING DRAWING HATCH MEADOWBANK
THIRD ANII.E -$8		DWG. NO. MDB-EC01.75TN1PMS60L-XXX REV.

APPENDIX II

ANNUAL COMPLIANCE AND REPORTING TEMPLATE

Appendix 2
Annual Report for
Incinerated Waste Management

Contact Information			
Company Name:			
Contact Name:		**Position**	
Contact Email:			
Address			
City/Town:		**Province:**	
Postal Code:			
Telephone:		**Fax:**	

Incinerator Data and Information

Name of Emission Unit	

Type of Process	

Description of Process	

Description of Material Produced from incineration	

Manufacturer of Emission Unit	

Model No.	

Dates of Commencing:	**Date**
Construction	
Operation	
Modification	

Operating Information	**Hour/day**	**Days/week**	**Weeks/year**
Maximum Operating hours			
Average Operating hours			

Annual Throughput	Dec-Feb (%)	Mar-May (%)	Jun-Aug (%)	Sep-Nov (%)

Incinerator Charging Rate	Maximum (kg/day)	Average (kg/day)	Annual (tonnes/year

Appendix 2
Annual Report for
Incinerated Waste Management

Waste Description	Maximum Rates		Average Rates	
Type of Waste Material	kg/day	tonnes/year	kg/day	tonnes/hour

Fuel Usage Data	Maximum	Typical
Firing rate		

Fuel Type	

Sector Determination:	Check Applicable Box
Municipal Waste Incineration	
Sewage Sludge Incineration	

Stack Emissions Tests For Compliance (must be corrected for 11% oxygen)

	Date	Test 1	Test 2	Test 3	Average	**Compliance (check)**
Furans and Dioxins						
Mercury						

Provide Test method details:

Appendix 2
Used Oil Impurity Limits

Contact Information			
Company Name:			
Contact Name:		**Position**	
Contact Email:			
Address			
City/Town:		**Province:**	
Postal Code:			
Telephone:		**Fax:**	

Volume of Used Oil Generated:	

Volume of Used Oil incinerated/Cons	

Sample Analysis:

Flash Point:	

Impurity	**Units**	**Maximum Level Allowed**	**Sample #**			
Cadmium	ppm	2				
Chromium	ppm	10				
Lead	ppm	100				
Total Organic Halogens (as chlorine)	ppm	1000				
Polychlorinated biphenyls	ppm	2				
Ash content	%	-				

Volume of Products Produced from Used Oil Use:

Maintenance Performed on Incinerator:

Destination of Used Oil not Incinerated:

Appendix 2
Guidelines for Ash Testing
Environmental Guidelines for Industrial Waste Discharges

Parameter	Concentration maximum (mg/L)	Sample Number		
Ammonia Sulphide	100			
Benzidine	100			
Benzyl Chloride	100			
Enthalamine	100			
Ethylenediamine	100			
Maleic Anhydride	100			
Potassium Permanganate	100			
Quinoline	100			
Strychnine	100			
Tetrachloroethanes	100			
Arsenic	2.5			
barium	100			
Cadmium	0.5			
Carbon tetrachloride	0.5			
Chromium	0.5			
Cyanide (free)	20			
DDT	3			
Endrin	0.02			
Heptachlor + Heptachlor epoxide	0.3			
Lead	5			
Lindane	0.4			
Mercury	0.1			
Methoxychlor	10			
Methyl ethyl Ketone	200			
Metolachlor	5			
PCBs	50*			
Selenium	1			
Silver	5			
Tetrachloroethylene	3			
Toxaphene	0.5			
Trialomethanes	10			
2, 4, 5-TP (Silvex)	1			
Zinc	500			

* based on concentration by mass

APPENDIX II

MBK-SIT-0011 – INCINERATOR LOADING

Incinerator Loading

	PROCEDURE NUMBER:	**MBK-SIT-0011**	
People concerned	• **Agnico-Eagle employees working on the AWPR**	**Prepared by**	Site Services
		Approved by	Roger Sauvé, Site Services General Foreman
Issuing date :	2011-11-30		
This procedure corresponds to the required minimum standard. Each and every one also has to comply with the rules and regulations of the Nunavut Government in terms of health and safety at work.			

Objective:

To load the incinerator

Concerned departments:

Site services

Required equipment

- Proper Protective Equipment: mask, glasses, fire retardant coveralls, welding gloves, rechargeable mask, face shield

Impacts

Health & Safety

Process/Quality

Costs

Environment

Incinerator Loading

Procedure	Risks/ Impacts
1. There are 2 BLUE ash bins, one of which has an ORANGE spray on it. There is a sign on the yard which indicates a cold and hot side. The one with the cold side could be dumped into the roll off. 24 hours after ash deposition	 Prevent incident and /or accident
2. After the dumping of the ash bin, inspect the roll off bin to ensure there is no red hot ash that will start a fire	
3. If there is smoke or red ash seen, ask the team leader to arrange for the small water truck located in the incinerator to give it a good spray of water to avoid a fire	
4. Bring empty ash bin into the incinerator building for the new batch	
5. Go outside of the incinerator and move the ash bin from the hot side to the cold side	
6. Close the breaker switch to the OFF position for the primary chamber and lock it using Ensure a “Zero State of Energy” and follow lock-out- Tag out Standard MBK- HSS-0010	
7. Turn on the primary chamber exhaust vacuum system	
8. Open the door and make sure the burn is good; If not: call the supervisor or team leader	
9. Tie the door in the open position for safety	

10. Empty the chamber and remove all ashes using large shovels into the ash bin	
11. When taking out the fresh ash bin, make sure to put on the hot side of the sign	
12. Once the chamber is completely cleaned, load the bottom row with medium wet bags	
13. Put two layers of contaminated cardboards and contaminated rags	
14. Put one row of dry garbage bags	
15. Put two more layers of cardboard and rags	
16. Put one row of dry to wet bags	
17. Continue the same way and finish with the wet bags on top and no cardboards (this will help keep the flames from coming up and also prolong the life of the chamber since the flames are not in direct contact with the top wall of the chamber, it will also cut down on having to reset the burner which is caused by the flame being high at the top)	
18. Close the door and make sure all the locking latches are in proper position	

19. Turn off the primary chamber exhaust vacuum system	
20. Unlock the primary chamber breaker and turn it to the ON position	
21. Start the burning cycle - Never open the door after the start - If the burner does not start, call team leader or supervisor	
22. Do not store any flammable products around the primary and secondary chambers within the marked area - Never add any accelerant into the chamber to help the start	

APPENDIX III

COMPOSTER MANAGEMENT PLAN

MEADOWBANK GOLD PROJECT

Composter Management Plan

In Accordance with Water License 2AM-MEA1526

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Division

Version 1
October 2018

Table of Contents

LIST OF FIGURES

LIST OF APPENDICES

SECTION 1. INTRODUCTION

1.1 PROJECT OVERVIEW

This Composter Management Plan (CMP) describes the requirements and guidelines for the safe and efficient operation of the in-vessel composter at the Meadowbank Mine. Composting is a waste treatment process that decomposes waste organic materials under controlled conditions, prior to disposal of the end-product in a landfill. Agnico Eagle has decided to include composting in the on-site operations for the purpose of reducing the amount of waste going to the incinerator and thus reduce emissions fuel consumption at the Meadowbank Mine site.

This CMP (Version 1) is an appendix to the Incinerator Waste Management Plan (IWMP) and is a component of the Meadowbank Environmental Management System. The objectives of this CMP are summarized as follows:

1. To define the operating procedures to be used in the composting of appropriate non-hazardous solid waste generated at the Meadowbank Mine;
2. To define acceptable/non-acceptable types of solid waste to be placed in the Meadowbank composter; and
3. To define operating and monitoring requirements for the composter.

Agnico Eagle will be responsible for managing and implementing this CMP. Agnico Eagle will introduce one in-vessel composter in the fall of 2018, with the intention of adding an additional composter should this project be successful. The first in-vessel composter is scheduled to be commissioned at the end of October 2018.

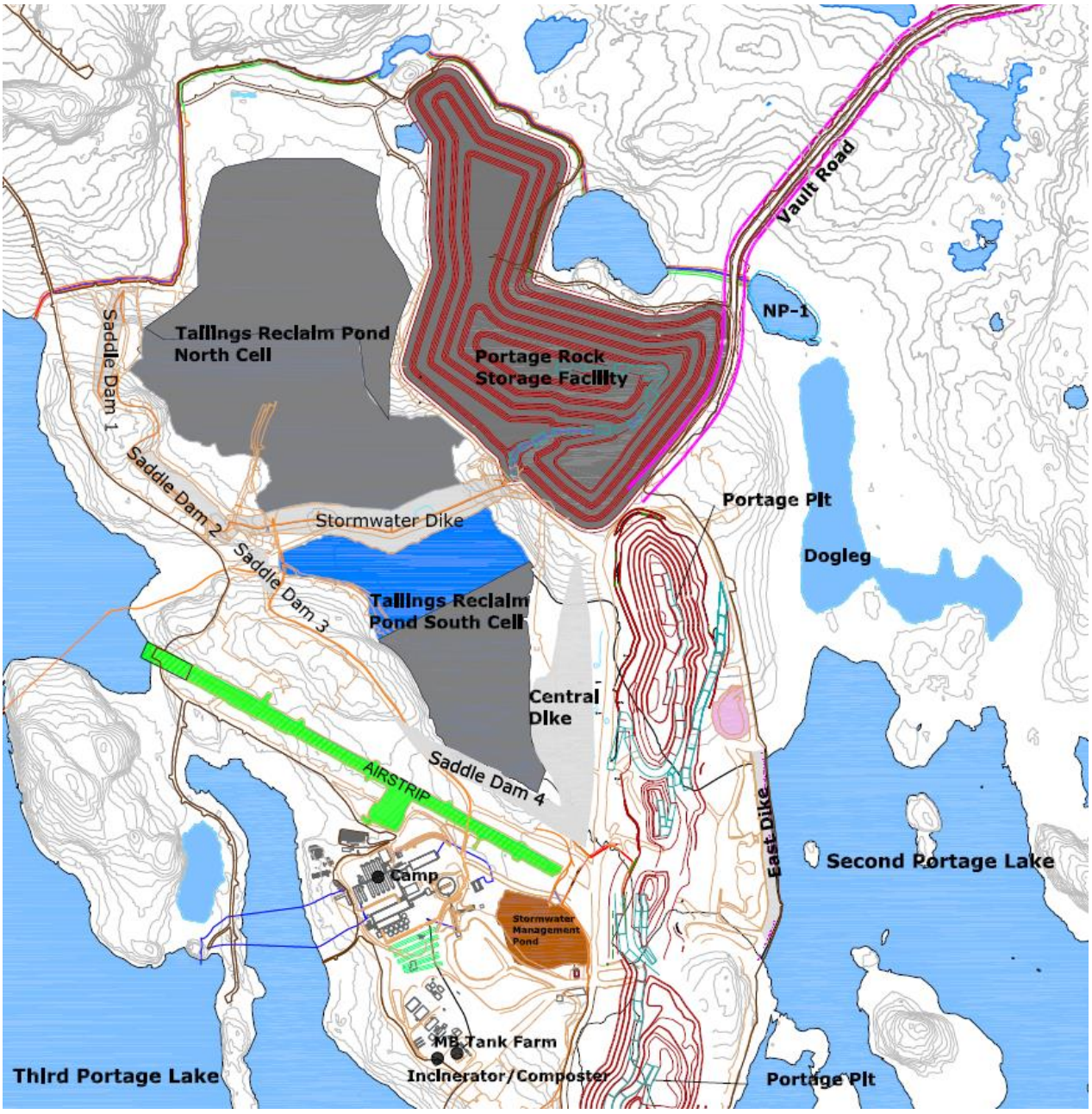
Prior to the introduction of the in-vessel composter, organic material at the Meadowbank facility was being sent to the on-site incinerator. The incineration process utilizes fuel for its operation. Diverting organic material to the composting operation instead will result in a potential reduction in fuel consumption for the incinerator of approximately 1,500 litres of fuel per day and has the potential of reducing greenhouse gas emissions and atmospheric pollutants associated with incineration.

Composting is an efficient means of reducing the mass and volume of organic waste generated. During the composting process, various microorganisms break down organic matter. Composting in general can be undertaken either in the presence of oxygen (aerobic conditions) with appropriate moisture and in specific temperature conditions, or in the absence of oxygen (anaerobic conditions) with appropriate moisture and temperature control. The aerobic process naturally occurs in the environment. In-vessel composting provides an opportunity to break down organic matter in an enclosed environment with accurate temperature control and monitoring. It also provides the benefit of mechanical assistance to reduce the organics in size and to turn over the compost materials to speed up and improve the composting process. The composter that is planned for the Meadowbank Mine will utilize an aerobic composting process. Agnico Eagle will use experience with composting acquired from another northern Canada mine site (Ekati Diamond Mine) that started composting a few years ago using the same composter equipment supplier.

1.2 COMPOSTER LOCATION

The in-vessel composter will be located in the same building as the incinerator away from the plant site and accommodations complex, adjacent to the fuel storage facility (see Figure 1-1).

Figure 1-1 Composter Location



SECTION 2. REGULATORY CONTEXT

The following section outlines the regulatory context related to composters, and discusses how the regulations apply to the composter at the Meadowbank site.

There are several standard-setting organizations across Canada that are mandated to regulate compost quality and provide standards concerning compost. These include federal, provincial and territorial governments.

Within the federal government, the Canadian Food Inspection Agency (CFIA) regulates compost when it is sold either as a soil amendment or as a product with plant nutrient claims under the *Fertilizers Act*. The provinces and territories regulate the disposal and beneficial use of wastes on land, and therefore, the production and use of compost.

In Nunavut, there is currently no organics waste strategy. However, guidelines developed for Nunavut focus on diverting materials from disposal and proper safe management. According to the Government of Nunavut, in an effort for planning for effective solid waste management, there are plans to focus its resources on a number of targeted initiatives. The plans include the development of a Nunavut-wide Solid Waste Management Strategy, whose purpose is to evaluate all aspects of waste management with a focus on available land, fencing, environmental concerns, recycling, re-use, segregation, sequestration, composting and various other options. The Nunavut *Environmental Protection Act* (Nunavut, 2010) prescribes the requirements for activities relating to the environment.

A guideline from Environment and Climate Change Canada, dated 2017 and entitled, “Solid Waste Management for Northern and Remote Communities, Planning and Technical Guidance Document,” provides guidance on the complex waste management issues faced by northern and remote communities and provides planning and technical guidance and best practices relevant to the northern communities. Composting is included in the solid waste management diversion strategies in this guideline and states that diverting organic waste from landfills through composting reduces greenhouse gas emissions. According to the guidance document, compost output is considered residual waste if it is sent to landfill for disposal, and composting represents an opportunity for northern and remote communities to reduce leachate quantity and improve leachate quality, reduce greenhouse gas emissions, preserve landfill capacity and produce a compost product that can be used for other purposes.

Agnico Eagle initially plans to place the final compost product from the composting process into the on-site landfill but may explore other potential uses of the compost product in the future. In Nunavut, there are no regulations or guidelines specific to the quality or uses of compost product, however, guidelines for compost quality and categorization exist in other provinces and at the federal level. Should Agnico Eagle wish to employ compost for other potential uses, this management plan will be updated to incorporate the above-mentioned guidelines.

SECTION 3. COMPOSTER OPERATION

3.1 Compost Waste Stream

The Meadowbank Mine generates organics as part of its waste stream. On-site composting has the potential to reduce greenhouse gas emissions and atmospheric pollutants related to the incineration of wastes. Diverting the organic waste to the composting operation will provide an opportunity to reduce the volume of waste that will eventually go to the landfill by turning it into compost and avoid fuel consumption and emissions typically associated with burning the organic material in an incinerator.

3.1.1 Acceptable Wastes for Composting:

- Organic matter including food (e.g., coffee grounds and tea bags, eggs and egg shells, fruit and vegetable peelings, meat, chicken and fish including bones, nut shells, pasta, rice, sauces and gravy, solid dairy products, table scraps and plate scraping etc. as well as leaf and yard organic material including brush and tree trimmings);
- Paper and cardboard; and,
- Dead animals (small size only).

During daily composter operation, waste materials will be segregated at the source to ensure non-compostable waste streams do not enter the composter.

3.1.2 Unacceptable Wastes for Composting:

Materials that are not listed above are unacceptable for composting. These materials include, but are not limited to:

- Food containers and wrappings including plastics that are contaminated by food;
- Uncontaminated plastics, including chlorinated plastics;
- Inert materials such as concrete, bricks, ceramics, ash;
- Bulky materials such as machinery parts or large metal goods such as appliances (shipped south and recycled in an accredited facility);
- Radioactive materials such as smoke detectors;
- Potentially explosive materials such as propane tanks, other pressurized vessels, unused or ineffective explosives;
- Other hazardous materials such as organic chemicals (PCBs, pesticides), other toxics (arsenic, cyanide);
- Electronics (shipped south and recycled in an accredited facility);
- Batteries (shipped south and recycled in an accredited facility);
- Asbestos;
- Drywall board;
- Vehicles and machinery (shipped south and recycled in an accredited facility);
- Fluorescent light bulbs;
- Whole tires;
- Waste oils;
- Flammable or combustible petroleum hydrocarbons unsuitable for its purpose due to the presence or contaminants or loss of original properties (such as gasoline, diesel fuel, aviation fuel, kerosene, naphtha or fuel oil);

- Any materials containing mercury;
- Used oil that exceeds the Maximum Impurity Limits for parameters listed in Table 3.3;
- Waste oil with a flash point of less than 37.7 deg C;
- Paint; and,
- Solvents.

3.2 Waste volumes

It is expected that approximately 7000 kg of waste will enter the composter weekly.

3.3 Composter Description and Installation

Agnico Eagle will select an appropriate in-vessel composter from the Brome series and commissioning of the composter is planned for the fall of 2018. A composter operating manual has been provided in Appendix III-I for the Brome series of composters. The composter will be one of the composters described in this manual. This manual must be referred to for all installation, operational and maintenance requirements.

Precautions must be followed for the indoor installation of this composting equipment as per the composter operating manual and include the following:

- Plan a ventilation shaft or a sanitary drain that exits the building for the elimination of composting gas and odours;
- Do not place the air exit near an air intake, a door or a window;
- Take care to place the system in a separate room to avoid any contact with human food preparation or food storage areas to minimize contamination risks;
- Make sure the building's foundation can support the weight of the composter when it's both empty and full; and
- Allow sufficient space around the composter to provide ease of movement related to composting operations (addition of matter, collecting compost at the exit, etc.).

The composter will be located in the same building as the incinerator, as described in Section 1.2 above. The building where the composter will be located allows personnel to operate and repair the composter and incinerators in a temperature controlled environment. In the event that unplanned maintenance is required for the composter, the incinerator provides an alternate temporary means for handling compostable waste. For additional information regarding the incinerator, refer to the Incinerator Waste Management Plan, to which the CMP is as an Appendix.

During daily composter operation, waste should be segregated at the source to ensure non-compostable waste streams do not enter the composter. Collected compostable waste will be stored in dedicated waste containers, located throughout the Meadowbank Mine site where organic material may be produced.

Prior to loading the waste into the composter, the waste will be visually inspected by the composter operator on sorting tables to ensure it does not contain inappropriate types of waste materials. Materials that do not meet the criteria for composting will be incinerated, recycled, or disposed of as hazardous material.

Personnel operating or performing maintenance on the composter will be trained by a Brome Composter representative. The training will include a composting theory portion and a practical, hands-on portion. A more detailed discussion of individual components, features and functions of the composter can be found in the Brome Composter Operating and Maintenance Manual (available on site) and referenced in Appendix III-I of this CMP.

3.4 How the Composter Works

The Brome series in-vessel composter will consist of an insulated cylinder that rotates according to pre-set timed intervals. The rotation of the cylinder allows the material inside of the chamber to mix while providing aeration. Aeration is important to provide oxygen for the microorganisms that are digesting organic material to make the compost. Heat will be produced during the composting process from the breakdown of organic material by the microorganisms. The cylinder will be insulated to preserve the heat generated inside the cylinder during the winter months, thereby avoiding the need for additional heating and consumption of extra energy for the process.

The composter will operate in a continuous-feed manner. As more material is added and the cylinder rotates, the digesting material is moved along the vessel and is then discharged at the cylinder's extremity through an opening that also serves as an air inlet for oxygen. The amount of finished compost depends on the rotation intervals and the amount of organic material added to the vessel.

This composter is designed to work year-round, indoors or outdoors. The selected composter and installation process will consider the conditions in the context of the climate at the Meadowbank Mine. Key performance indicators such as temperature and humidity will be developed with the composted supplier during commissioning, based on the model of composter selected and the site conditions.

3.5 Chemical Process

The composter uses an aerobic, biological process involving the succession of various microorganisms decomposing organic materials and converting them into a biologically stable product. The predominant types of microorganisms present during composting are bacteria, fungi and actinomycetes. Composting is different than the decay process that occurs in nature, as composting is monitored and controlled, aerobic conditions are maintained and includes a high-temperature phase for a specified amount of time (e.g., above 55 ˚C) that reduces or eliminates pathogens and weed seeds.

Almost any organic material is suitable for composting, as described in Section 3.1.1. The composter requires a certain ratio of carbon-rich materials, or "browns," and nitrogen-rich materials, or "greens." Examples of brown carbon-containing materials are dried leaves, paper and cardboard. Nitrogen-containing materials are fresh or green, such as grass clippings and kitchen scraps. Food scraps provide nitrogen to the system whereas paper and cardboard provide high carbon values. A specific strategy is used to achieve the required balance of nitrogen-rich and carbon-rich materials fed into the composting system such that optimum conditions are provided for the bacteria in the composter. The carbon to nitrogen ratio required will be confirmed by the supplier for the specific model of composter selected by Agnico Eagle prior to commissioning.

3.6 Process Duration

An agricultural mixer will be used to break down and mix the material, which is then transferred to the composter. The breakdown of materials increases the surface area to volume ratio and allows for increased aeration and biological activity within the composter.

The compostable material will spend a minimum of nine days in the composter. This duration will be assessed during commissioning and reviewed if needed. During the composting process the operators will review the temperature of the compost within the composting chamber to ensure proper targets are being reached (minimum of 55˚C unless otherwise specified by the supplier). The operators will visually inspect the compost for foreign matter and check that the texture and consistency of the compost appears normal. Depending on the amount of material composted, the material may have a residency time of between 9-20 days in the composter, during which time the cylinder completes one full revolution at regular intervals

throughout the day. Rotating the material causes an aerobic environment to be maintained for maximum bacterial growth. The bacteria generate heat, water, and gases such as carbon dioxide during aerobic respiration. The insulated composting chamber traps heat and produces favorable temperatures for aerobic respiration. Gases produced during the composting (e.g. carbon dioxide) process will be ventilated from the building using a hood vent at the output of the composting unit. The compost will be discharged once the material has reached the end of the composting cylinder. Compost will only be discharged during the cylinder revolutions, and thus the amount of product being discharged can be manipulated based on the time intervals between revolutions and the amount of product added to the composter.

3.7 Output

As the compost is discharged, it will run across a screen/sifter that will remove any large material that may have been accidently introduced into the composter. The material discharged from the composter will be typically equal to roughly half of the tonnage fed into the composter (i.e. 3500 kg per week). Most of the weight loss will be due to the dehydration of the material as it breaks down. The solid decomposed material is discharged and stored in a bin. The full bin of compost will be then transported to the landfill for disposal.

Composting the material will provide a significant environmental benefit by reducing the amount of material being incinerated. The type of material that will be diverted from the incinerator to the composter coincidentally also has higher water content and takes longer to incinerate which will help to further reduce greenhouse gas emissions at the Meadowbank Mine.

3.7.1 Disposing of Residual Materials

The residual material that will be discharged from the composter will mainly consist of materials that are too large to fit through the sizing screen/sifter. The residual materials will be sorted into incinerator waste, recyclable material, landfill material, or hazardous goods that will be shipped off site. Larger organic material may be reintroduced into the mixer to begin the composting process again. If the composting process does not break down the material effectively after the second cycle, or if the composter is temporarily out of service for any reason, the material will then be sent to the incinerator.

3.8 Odour and Dust Control

Since the composter will be in an enclosed area, a ventilation shaft or a sanitary drain that exits the building for the elimination of composting gas and odours will be included in the building design. Odours during the operation of the equipment will be mitigated by sweeping the floor, cleaning up any organic matter debris on or around the composter, and removing any material that has fallen on the floor. Waste will also be cleaned up in the loading and unloading areas. Loads of organic matter arriving at the composting building will be promptly mixed and added to the composter.

For the operation of the incinerator, waste is stored prior to incineration. With the diversion of the organic waste to the composter, the waste will no longer need to be stored and instead will be introduced promptly into the composting process. This will help to reduce potential odours associated with the material management prior to processing.

Careful monitoring of the composting process using appropriate carbon to nitrogen ratios as discussed with the supplier as well as using regular log book entries and adherence to the procedures and recipes will aid in avoiding the generation of odours. The monitoring of humidity is an important factor in controlling odours from the composting process. Composting often proceeds well at a moisture content of 40-60% by weight. At lower moisture levels, microbial activity is limited. At higher levels, the process is likely to become anaerobic and foul-smelling.

The site staff will monitor the landfill where possible to ensure that wildlife does not become attracted to the compost material being added to the waste.

3.9 Introduction of Invasive Species

Composting will be monitored and controlled. Aerobic conditions will be maintained and includes a high-temperature phase for a specified amount of time (e.g. above 55 ˚C) that reduces or eliminates pathogens and weed seeds. Adherence to the composting instructions will avoid concerns over introduction of invasive species to the landfill.

SECTION 4. TRAINING, INSPECTIONS, MAINTENANCE AND MONITORING

4.1 Staffing and Training

The computerized composter requires at least one dedicated person to operate and monitor the equipment at a given time. Personnel operating or performing maintenance on the composter will be trained by a Brome Composter representative. The training will include a composting theory portion and a practical, hands-on portion.

4.2 Inspections

Inspection criteria and work instruction checklists will be developed with assistance from the composter supplier to ensure proper operation of the equipment. Routine inspections of the composter and associated facilities will be conducted by a competent, trained operator prior to every use. Work Instruction checklists are to be used so that each operator diligently operates and inspects the composter consistently. These checklists are also a source of information when trouble shooting or maintenance is required for the unit and include pre-operational checks and operational checks. The inspection could include the following depending on the equipment model type chosen for the operation:

- Feed transfer conveyor;
- Patz grinder;
- Grinder transfer conveyer;
- Brome In-Vessel Composter components;
- Discharge sifter/screen;
- Discharge conveyor;
- Air discharge fans;
- Collection bins;
- Curing pad where applicable;
- Waste feedstock;
- Composter internal temperatures;
- Compost in vessel; and
- Mature compost piles where applicable.

4.3 Monitoring and Testing

The compost output will be visually inspected each time it exits the sieve as described in Section 3.6. Should Agnico Eagle decide to explore other options for potential uses of compost, further analytical testing will be undertaken as detailed in relevant compost quality guidelines.

4.4 Maintenance

Maintenance of the composter will be scheduled annually or as specified by the Brome supplier/manufacturer. This maintenance will be performed to evaluate the insulation and structural integrality of the cylinder. This will be undertaken so that the composter is functioning at its optimal standard.

SECTION 5. REPORTING

To demonstrate compliance with site requirements, annual reporting on the performance of the composter will be submitted as part of the Meadowbank Gold Project Annual Report to the Nunavut Water Board (NWB), Government of Nunavut (GN), Environment and Climate Change Canada (ECCC), and Nunavut Impact Review Board (NIRB).The quantity and type of materials composted as well as the quantity of compost produced and sent to landfill on-site during operations will be included within the annual report.

The Meadowbank Mine will maintain detailed records for the operation of the composter including site specific operational and maintenance checklists. Records will be kept on file for each day composting occurs. Out-of-specification situations such as temperature readings below the minimum of 55˚C or maintenance issues with the composter will be reported to the Energy and Infrastructures Superintendent immediately. The composter will not be used until maintenance or remedial measures have been applied.

SECTION 6. PLAN REVIEW AND CONTINUAL IMPROVEMENT

This CMP will be maintained by Agnico Eagle to reflect the current operations at the Meadowbank Mine, permit requirements and regulatory setting. The plan will be reviewed on a regular basis and revised when necessary to ensure that the project staff, operators and regulatory bodies are kept aware of any changes to operational procedures.

The latest CMP will be made available at all times by Agnico Eagle for review by the NWB, NIRB, GN, and ECCC.

Should Agnico Eagle determine the need to add additional composters to the on-site operation, the CMP will be reviewed and updated to reflect this change to the operation. Should Agnico Eagle wish to employ compost for other potential uses, this management plan will be updated to incorporate the above mentioned guidelines.

SECTION 7. REFERENCES

Agnico Eagle Mines Limited (Agnico), 2018. Landfill Design and Management Plan, Meadowbank Gold Project Nunavut, *Ver. 4* dated October, 2018.

Agnico Eagle Mines Limited (Agnico), 2018. Incinerator and Composter Waste Management Plan, Meadowbank Gold Project Nunavut, *Ver. 8* dated October, 2018.

Canadian Council of Ministers of the Environment (CCME), 2005. Guidelines for Compost Quality, 2005. PN 1340.

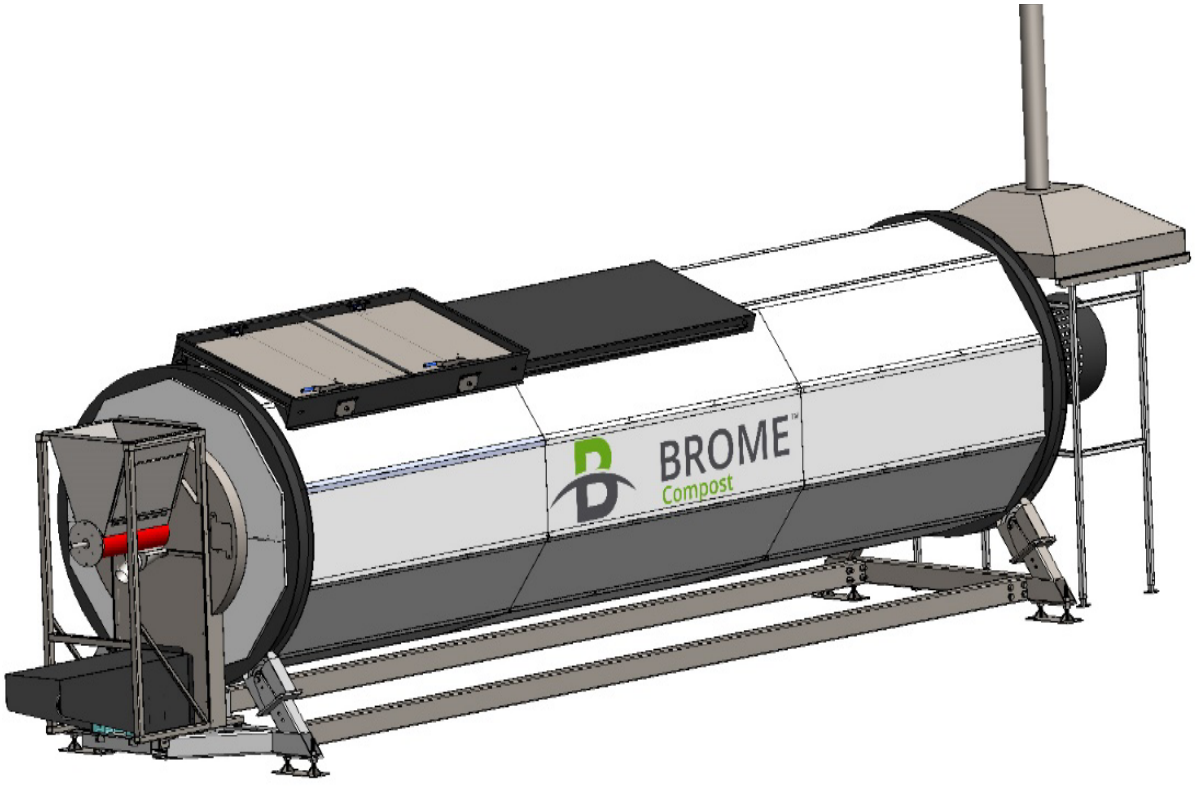
Environment and Climate Change Canada, 2017. Solid Waste Management for Northern and Remote Communities, Planning and Technical Guidance Document. March 2017.

APPENDIX III-I

Brome Composter Instruction Manual

BROME Compost inc.

Brome Composter Instruction Manual



Operator Manual

Before using this composter, please be sure to carefully read the following instructions and become familiar with its operation in order to prevent problems and accidents.

INTRODUCTION

Composting is the ideal solution for the disposal of organic waste, especially when the alternative is sending it to landfill sites. Composting on-site greatly reduces greenhouse gas emissions and atmospheric pollutants related to the transport of organic residual matter to landfills or to industrial composting sites.

Brome Composters are easy to install and use. They have low operating costs and low maintenance requirements, making on-site composting accessible to many types of industries, commercial business and institutions (ICI), as well as farms and municipalities.

Brome Composters are designed to convert many types of organic waste including food scraps, animal products, green waste, animal carcasses, sceptic mud, etc., into high-quality compost in a short period of time and with little handling. Brome Composters are available in a variety of different models, which can easily be adapted to the user's needs.

Models :

Composter 400 Series	Brome 406 Brome 410 Brome 416 Brome 424 Brome 430
Composter 500 Series	Brome 506 Brome 510 Brome 516 Brome 524 Brome 530
Composter 600 Series	Brome 608 Brome 616 Brome 624 Brome 630

Model: (capacities can vary depending on the type of material, the required residency time, and whether the input is pre-treated).

The composter is an insulated cylinder that self-rotates according to the user's pre-set time intervals. These rotations mix the contents while at the same time providing aeration, allowing the bacteria to breathe and break down the organic waste (O.W.) into compost more rapidly than other composting methods. The decomposition process produces heat. The cylinder is insulated with a 1½" insulating material (R 7.5) to preserve heat inside the cylinder during the winter months. The compost is discharged at the cylinder's extremity through an opening that also serves as an air inlet.[1] The rotation intervals and the amount of matter added regulate the amount of finished compost being discharged.

This composter is designed to work year-round, indoors or outdoors, and can compost a wide variety of O.W. In certain extreme conditions, adaptation may be required during the installation process.

Figure 1 -- Interior view of the cylinder

[1] Composters are pre-perforated to accommodate an optional ventilation system. Valves can also be installed as an option (passive ventilation).

Safety

Before operating this equipment, make sure that each employee understands and follows the safety, operation and maintenance rules described in this document.

No modifications should be made to this equipment without authorization from Brome Compost. Equipment modification will automatically invalidate the warranty offered by the manufacturer and could cause serious injuries.

Table of Content

Section 1-- Safety

1.1 Safety instructions

- Never go into the cylinder unless you are trained to work in confined spaces and have authorization from your immediate superior; always follow the appropriate lockout procedure;
- Make sure all the warning labels are in place and visible
- Repairs and maintenance on the equipment must be made by qualified personnel only;
- Respect all established safety standards while performing maintenance on the equipment;
- Make a visual inspection of the equipment as often as possible
- It is recommended to use replacement parts from the manufacturer
- It is recommended to restrict access to the equipment by installing a fence or other barrier
- We recommend that the doors be locked when there is no surveillance or operator present

1.2 Operating the Equipment Safely

Before operating the composter, please note that a support service is offered for the installation, the initial start-up, and the training of personnel designated for the equipment's operation and maintenance.

Start-up support is available once the installation is completed. A remote monitoring service, as well as an interactive data tracking system are available upon request. Please contact Brome Compost for more information on this subject.

1.3 Performing Maintenance Safely

- Always ensure that the electrical current is switched off and that the lockout procedure is done properly when performing maintenance on the composter. If you must go inside the composter, be sure to have adequate ventilation and to respect the regulations governing work in enclosed spaces.
- If you need to rotate the cylinder during maintenance, please remove toolboxes, stepping stools, ladders, etc. and ensure that there are absolutely NO OBSTACLES within the rotational axis in front, in back, and on each side of the composter.

1.4 Precautions Against the Risk of Electrocution and Physical Damage

- Always cut the electrical current if you need to open the control panel
- Never go beneath the composter
- Always ensure the doors are closed and locked before operating the composter
- Pay close attention to the turning of the wheels
- Never climb on the composter
- ***Screw option : never clear or clean matter without first cutting the electrical current and locking the composter.***

Feeder Mechanism : Feeding Screw

Never place hands or tools inside the composter's feed shaft without first cutting the electrical current and always respect the recommended lockout and safety procedures.

If the screw mechanism becomes jammed, you should under no circumstances try to remove matter with your hands or with a tool without first having followed the safety lockout procedure.

1) Operate the screw for only a few seconds in reverse to unblock it. Stop the screw and start it again in the right direction

2) If this does not work, follow the lockout procedure;

3) Remove the screw or the lock from the access door and remove the blocked matter carefully with an appropriate tool in order to avoid injuries;

4) Once the matter is removed, close the access door, put the screw or lock back in its proper position and restart the composter and the screw according to the proper procedure;

Section 2 – Important Information for Delivery

Composter Model	Weight (empty) (Kg)	Weight (in operation) (kg)	Working Volume (m3)
Brome 406	599	1291	1.8
Brome 410	1796	2950	2.3
Brome 416	2199	4041	3.7
Brome 424	2595	5364	5.4
Brome 430	3193	6656	6.9
Brome 506	3492	4443	1.9
Brome 510	2023	3609	3.1
Brome 516	2381	4918	5.0
Brome 524	2821	3201	7.5
Brome 530	3401	8159	9.5
Brome 608	798	3113	4.6
Brome 616	3493	8121	9.2
Brome 624	5189	12132	13.8
Brome 630	5988	15245	18.3

2.1 Transport and Unloading

- Transport of the composter from the manufacturer to the installation site is the responsibility of the client.

- The unloading, on-site transport and installation of the composter are the responsibility of the client. The client is responsible for providing the machinery needed to unload the composter and a foundation on which to place it according to the technical data sheet provided by *Brome Compost*.

Place the strap firmly around the grooves by passing through the composter's support beams

Lift the composter with the appropriate lifting equipment (ensure that the composter is empty first).

Section 3 -- Installation

3.1 Site selection and preparation

The client is responsible for choosing the layout for the composting site and providing the correct type of surface required for the equipment, as specified in the information provided by Brome Compost. The composter must be installed on a level surface. The surface or structure must be strong enough to support the composter with its full load and ensure it stays level at all times. For example, a concrete slab or steel plate can serve as a foundation depending on the type of soil underneath it.

When the composter is used with mechanized loading equipment (e.g. a bin lift), we recommend securing the composter to the ground with an appropriate anchor depending on the type of surface it is resting on.

Respect all current regulations regarding the installation of a composting site.

3.2 Precautions for Outdoor Installation

- Install the composter as far from houses as possible;
- Avoid placing the composter near an air intake, a ventilation system, windows and doors;
- Avoid placing the composter in busy areas;
- Unless the composter is equipped with a cover (available as an option), we recommend the installation of a fence around the equipment.

3.3 Precautions for Indoor Installation

- Plan a ventilation shaft or a sanitary drain that exits the building for the elimination of composting gas and odours;
- Do not place the air exit near an air intake, a door or a window;
- Take care to place the system in a separate room to avoid any contact with human food preparation or food storage areas in order to minimize contamination risks;
- Make sure the building's foundation can support the weight of the composter when it's both empty and full;
- Allow sufficient space around the composter to ensure ease of movement related to composting operations (addition of matter, collecting compost at the exit, etc.).

3.4 Electrical Installations

- The client is responsible for the electrical installations for the equipment.
- It is possible, however, to deliver the equipment with an electrical connection as specified by the client.
- Please contact Brome Compost to schedule your electrical installation before the delivery of the equipment.

Section 4 – Operating Procedures

4.1 Sanitary Precautions When Composting

Composting is considered a safe activity for operators and compost users when certain basic rules are respected and followed. It is the owner's duty to give all necessary information to operators to ensure composting activities are conducted safely. Brome Compost is a manufacturer and is not responsible for the client's use of the equipment.

4.2 Verifying the Installation and Assembly Before Start-up

Verify that the surrounding area is free of all equipment, tools, etc. and that the safety guards are installed before the initial start-up.

4.3 Initial Start-up

Before adding matter:

1- Ensure that the emergency stop button is in the OFF position;
2- Wear personal safety equipment such as a mask, safety goggles, gloves;
3- Ensure that the doors are open facing the operator
4- If necessary, use a platform to ensure a safe and ergonomic operation
5- Verify that the composter is free from all possible collisions with equipment or work tools when it is rotating.

Always make sure the emergency stop button is pulled (composter is working) after each use.

Figure 2 -- Brome Composter Control Panel

Adding Matter into the Composter
Step 1:

Push the emergency stop button before working on the composter. This will prevent the rotation of the composter while you are working around the machine and when the door is open.

Step 2: Open the composter door.

Sliding door:

Unlock the door padlocks (on both handles) if you have this option. Pull the door locks at the same time as you pull on the handles. Pull on both handles alternately for ease of opening. When the handles are completely free, slide the door to the right.

Out-swing doors:

Unlock the door padlock (on the handle) if you have this option. Pull the handle slightly up and then towards you. Open both doors by pulling them towards you.

Step 3: Closing the door and starting the composter.

Close the door and lock the padlocks, if you have this option.

Start the composter by pulling the emergency stop button. A green light on the control panel will indicate that the composter is in operation.

Check the Organic Matter Before Adding It Into the Composter:

Before adding organic matter to the composter, check the contents to be sure there is no foreign or contaminating matter (i.e. plastic, metal, glass, etc.). If you see foreign material, take out as much of it as you can before you add the bin contents into the composter.

** **If you notice that most of the contents of the bin have a bad smell, throw it out.** **

4.4 Monitoring the Temperature in the Composter

Temperature is the best indicator of the composting process and it is crucial to monitor it daily. The best temperature range for aerobic composting is between 45°C and 70°C2.

• To read the temperature, check the thermometer(s) on the cylinder.

Using a portable thermometer is recommended for taking temperature readings at various locations through the door opening, especially during the initial start-up phase.

Figure 3 -- Composter Thermometer

4.5 Odours

Odour control is important to maintaining a good image of your composting installation and to avoid disagreements with your neighbours. By following good maintenance habits, you will prevent odour problems.

A good maintenance plan consists of:

1. Sweeping the floor and cleaning up splotches of O.W. on and around the composter;
2. Removing any waste that has fallen on the floor;
3. Carefully monitoring the composting process (make regular logbook entries, respect the procedures and recipes, etc.);[3]
4. Install an odour dispersion or treatment system if there is a possibility that odours may eventually bother neighbours in close proximity to your installation (available as an option).

[2] Check the standards in effect.

[3] An online calculator for composting recipes and monitoring is available as an option.

4.6 How to Set Rotation Intervals

The Brome composter can be set to rotate at different intervals by adjusting the programmable timer located in the control panel.

1. Locate the timer on the control panel:

- The clock can be set for different units of time (hours, seconds and minutes) to meet the needs of the user;
- Turn the screw located at the lower left on the clock (see red circle on the photo) to change the time intervals;
- Turn the screw located at the top right on the clock (see the red circle on the photo) to change the time units (hours, minutes).

Figure 4-- Rotation Programmed Every Hour

2. Turn the plastic wheel to change the hand position.

During normal use, the composter's rotation intervals should be around an hour. During special operations, it can be programmed differently.

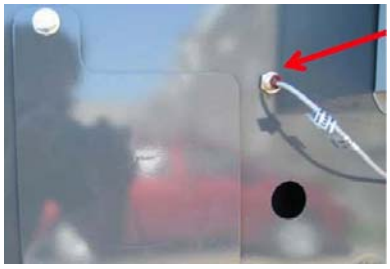
3. When you are finished setting the adjustments, close the panel.

4.7 How to Set the Door Position

The rotations can be stopped at a specific spot so that the door's position is always the same.

1. Press the red emergency stop button on the composter before you work on or near it.

2. Unscrew the panel located to the side of the control box.



3. When you look inside the composter, on the right-hand side, you will see a red magnet. The magnet stops the composter after a full rotation when it passes in front of the sensor. Remove the magnet and put it aside.

4. Pull the emergency stop button and set the composter on manual mode. Turn the composter to set the door at the desired position. Push the emergency stop button.

5. Put the magnet in front of the sensor. Pull the emergency stop button and allow one rotation on automatic mode to test the door stop position (set the clock at 0 to make a rotation on automatic mode).

6. After one rotation, the door should stop at the same position from which it started (if you still hear the alarm, put the composter back on manual mode to prevent a second rotation).

7. If the position is correct, you can screw the panel back on, set the clock back to its original position and return the composter to automatic mode.

Section 5 -- Maintenance

5.1 Performing Maintenance Safely (in Enclosed Spaces)

Work Procedures for Enclosed Spaces

Never enter the cylinder without having the proper training for work in closed spaces and without your organisation's authorisation. Always use the appropriate lockout procedure.

Generally speaking, an enclosed space refers to a partially or completely closed site that:

- Is not adapted nor destined for prolonged human occupation
- Has limited or restricted access and exit routes, or has a configuration that complicates first aid, rescue and evacuation procedures, as well as other emergency intervention practices
- Presents a potential risk to the health and security of persons entering the space, due to one or more of the following factors:
    - Its conception, its construction, its location and its atmosphere
    - The matter or substances that it contains
    - The nature of the work to be done
    - Risks related to the mechanisms and procedures used, as well as dangers to personal security

Please visit the following Government of Canada website for more information on enclosed spaces:
https://www.cchst.ca/oshanswers/hsprograms/confinedspace_intro.html

Securing the Composter and/or the Screw Feeder (Dispenser)

For your safety, it is vital to lock the composter in position during all maintenance procedures, whether it be according to the established schedule or when a malfunction occurs.

Composter:

It is important to cut contact and lock the control panel while performing your maintenance routine in order to prevent someone else from accidentally starting or turning the composter. If you are inside the composter, make sure that another person is there to monitor you or make sure that you clearly indicate your presence.

Feeding Screw (Dispenser):

Never attempt to clean, unblock or perform maintenance on the feeding screw with your hands unless the power is cut and the screw is locked in position. Serious injuries could result. In addition, the lateral panel should always be blocked so that it cannot open when in operation.

5.2 Checking the Condition of the Composter

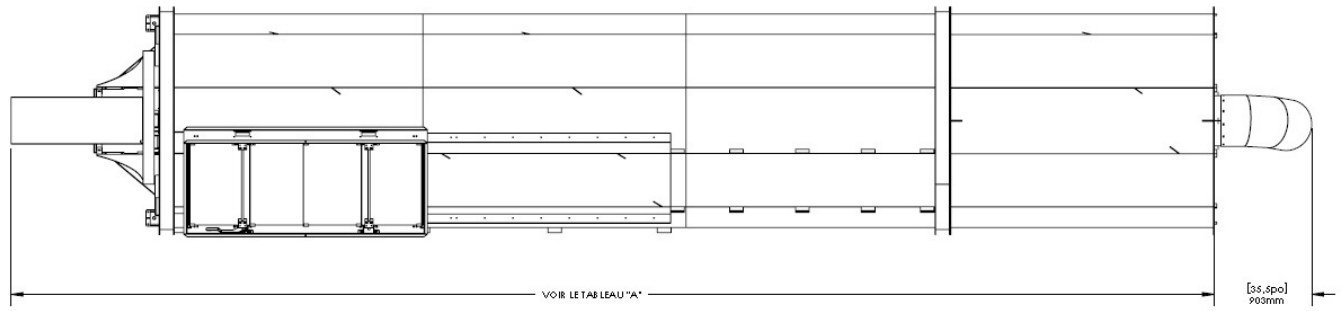
The Brome Composter is designed to function with only minimal maintenance. To ensure the composter's optimal operation, you must:

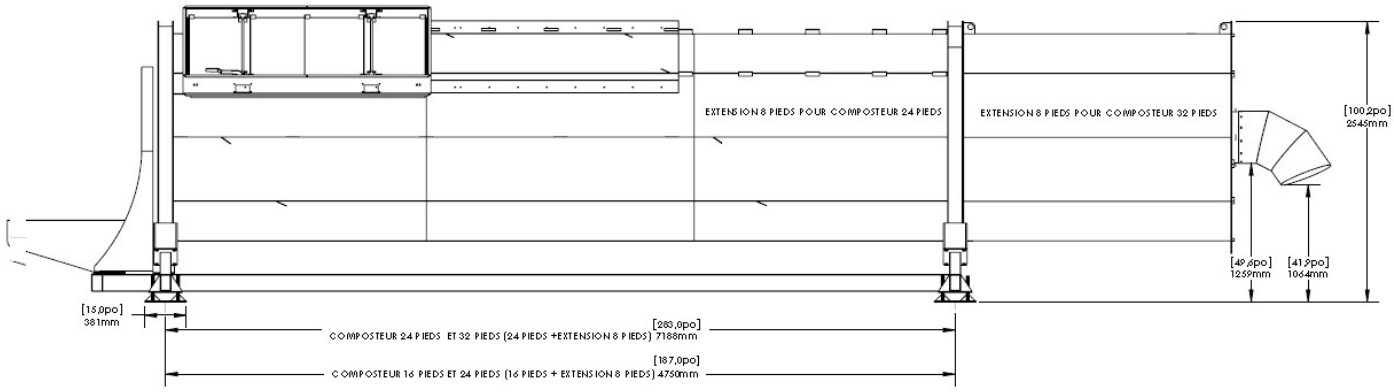
- Regularly inspect the inside of the cylinder to identify any damage that could cause premature deterioration. Remove the output end cap occasionally to allow an unobstructed inspection of the interior surfaces of the cylinder.
- Inspect and clean the area surrounding the cylinder. If material accumulates around the exterior, it can hinder the cylinder's rotational movements, contribute to the development of fly larvae, attract animals and create odours.
- Regularly inspect the opening through which the finished compost exits the cylinder (exit outlet) and clean it, if necessary.
- Do not operate the composter during prolonged periods of inactivity during the wintertime (in freezing conditions), and when if the material inside is frozen. This could damage the equipment.

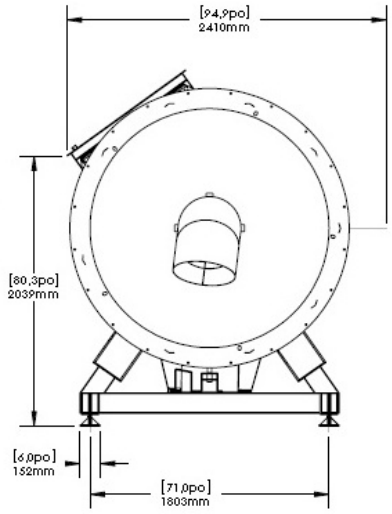
5.3 Maintenance Schedule

	Component	Check	Frequency
1	Door	Rubber Seal	Weekly
	Door	Easy to open	Each use
3	Compost exit outlet	Compost height	Each use
4	Ventilation	Working well	Weekly
5	Composter level	Keep it leveled	Twice a year
6	Control panel	➢ Waterproof ➢ Broken buttons	Monthly
7	Sifter	Holes are free of waste	Weekly
8	Interior of composter	Visual inspection	Annually
9	Mechanical components (motor, gear box, panel)	See manufacturer recommendations	As recommended
10	Wheel (Rotating and guide wheels)	➢ Visual inspection ➢ Rolling smoothy ➢ Check bearings	Each use

Section 6 – Brome Composter Dimensions





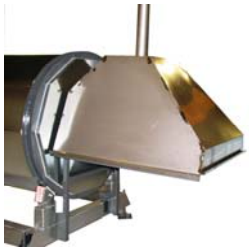


7 Equipment options / accessories

Brome Compost offers a wide range of accessories to facilitate on-site composting. Contact us for more information or if you have questions regarding the different options we offer.

Loading Ramp

Dumping Bin

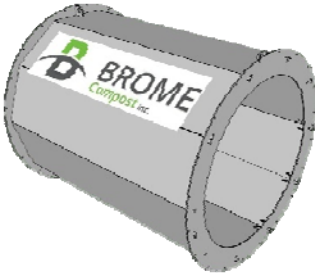


Ventilation option (With full air extraction)

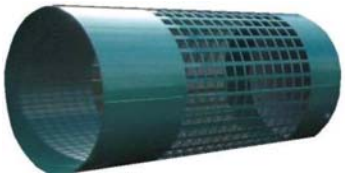
Valve for passive ventilation

Universal Bin Lifter

Protected safety cage



Extension



Sifter

Out-swinging doors

Sliding door

Stainless steel finish

For more information, contact: Brome Compost

450 574-2000

Always inform your immediate superior of any incidents and/or damage to the equipment.

Section 8 – Problem Solving

8.1 Broken Chain

- Are the four wheels in good working condition? Perform a visual inspection of the rotating and guide wheels, and their bearings. A visual inspection should suffice.
- Are the two guide wheels located under the front part of the composter in good condition? Are they misaligned or rubbing against the groove thread?
- Is the composter rotating well on all four wheels when in operation?
- Is the composter level? 50%, 60%, 70% or more?
- Is the chain tensioner in good working condition? This prevents the chain from jumping off the sprocket.
- Are the two groove threads allowing the four wheels to turn correctly or are they problematic?
- Are the motor sprocket, the chain tensioner and the large composter sprocket all aligned?
- What is the internal temperature of the cylinder?
- According to you, are the humidity levels of the matter in the cylinder high, low or normal?
- To what height is the composter filled?
- Is the composter turning clock-wise when you look at the cylinder from the head / motor end?
- Is the overload mode on the control panel activated and causing the composter to restart?
- Could some material have become stuck in the chain or sprocket and damage either one?
- Are all the sprockets correctly aligned?

Section 9 – Warranty

The Brome Composter is guaranteed against manufacturing defects for one (1) year after the invoicing date. The warranty includes reimbursement, replacement, correction and/or the repairing of the defect. Brome Compost will repair or replace equipment that displays a defect during normal usage at our discretion. This warranty covers parts and labour.

Mechanical parts (the control panel and the motor/gear box) are guaranteed against manufacturing defects, according to the current guarantees of the supplier of these parts. This guarantee includes replacement, correction and/or the repairing of the defect. It covers parts and labour.

In case of damage, the supplier's/manufacturer's corroboration and assessment will aid in determining the decision to repair or replace a defective part.

All travel and/or delivery expenses, brokerage and customs fees are at the expense of the client.

Any damage due to environmental conditions are not covered by the warranty for the modular composter and its mechanical parts.

Any modification to the modular composter and its components made by a third party not authorised by Brome Compost will result in the automatic cancellation of the warranty.

Components	**Warranty**	**Conditions**	**Duration**
Modular Composter	Manufacturing defaults	Remplacement, correction and/or repairing of the defect.	! year after the invoicing date
Mechanical Parts	According to the manufacturer	Remplacement, correction and/or repairing of the defect.	According to the manufacturer

Brome Compost rejects all other damages sought due to defects or breakage of its equipment such as profit loss, travel, transport and labour costs.

Only this warranty applies to Brome Compost's equipment. No other person is authorised to interpret this warranty.

Operating the composter when the condition of the organic matter is such that it has a higher than 63% humidity level may result in mechanical and/or operating problems, as well as a premature deterioration of the system, which may limit the warranty.

9.1 Limitation of Liability

Please note that *Brome Compost inc.* is not responsible for problems that may present themselves due to the nature of the biological process involved in composting activities and releases itself from all such liability. We cannot guarantee that no problems will arise during the operation of the composter, as this is contingent upon the nature and variety of the organic matter to be processed, the operator's experience as well as the influence of weather conditions.

The equipment is under guarantee for normal use. A mechanical breakdown or premature wear of the equipment caused by abusive use will invalidate the manufacturer's warranty.

Brome Compost inc. reserves the right to make changes to the conception and manufacturing of their line of equipment at any time without obligation to change or modify the products already sold.