APPENDIX M

AIR EMMISSIONS

AIR EMISSION STANDARDS FOR EQUIPMENT, TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS - INSPECTION AND MONITORING PLAN

1.0 INTRODUCTION/APPLICABILITY

This Inspection and Monitoring Plan specifies the procedures that US Ecology Burlington, Inc., (USEB) follows to maintain compliance with the Air Emission Standards for Equipment, Tanks, Surface Impoundments, and Containers (Subparts BB and CC of 40 CFR Part 264), hereinafter referred to as "Subpart BB and CC." This document summarizes the requirements for labeling equipment, inspection and monitoring, equipment repairs, recordkeeping, and reporting under Subparts BB and CC.

Since USEB is not permitted to treat or store hazardous waste in surface impoundments these units are not discussed in this document.

USEB does manage equipment and containers subject to the Subpart BB and CC air emission standards in the container storage areas of the facility. Subpart CC standards are applicable to containers in which hazardous wastes are managed with the following exceptions:

1. Subpart BB air emission standards apply to equipment used to transfer hazardous waste containing greater the 10% organics from containers into transport vehicles, utilizing pumps. These pumps are labeled, identifying this equipment as being utilized for greater than 10% organic based hazardous waste. This equipment, that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight, is utilized for less than 300 hours per calendar year and is therefore excluded from the requirements of 40 CFR §§264.1052 through 264.1060;

2. Containers in which only hazardous waste with an average volatile organic concentration of less than 500 ppmw is managed;

3. Containers in which only hazardous waste that meets applicable organic hazardous constituent treatment standards under the land disposal restrictions is managed; and

4. Containers with a design capacity of less than or equal to $0.1 m^3$ (approximately 26 gallons).

The provisions of this plan also do not apply to products or virgin materials not regulated as hazardous waste, non-hazardous wastes, or used oils.

2.0 DEFINITIONS

The following definitions as specified in Subpart CC apply to this document:

Average volatile organic concentration or average VO concentration - The mass-weighted average volatile organic concentration of a hazardous waste as determined in

accordance with the requirements of 40 CFR 264.1083 of Subpart CC (Waste Determination Procedures).

Closure Device - A cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Container - Any portable device in which a material is stored, transported, disposed of, or otherwise handled.

Cover - A device that provides a continuous barrier over the hazardous waste managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment, which can be detached and removed from the unit, or a cover may be formed by structural features permanently integrated into the design of the unit. An example of a cover is a lid on a drum.

In light material service - The container is used to manage a material for which both of the following conditions apply: The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) (approximately 4.35×10^{-2} psi) at 20°C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa (approximately 4.35×10^{-2} psi) at 20°C is equal to or greater than 20 percent by weight.

No detectable organic emissions - No escape of organics to the atmosphere as determined using the procedure specified in 40 CFR 265.1084(d) of Subpart CC (i.e., by an instrument reading less than 500 parts per million by volume (ppmv) above the background level when measured in accordance with the requirements of Method 21 (Appendix A), and by no visible openings or defects in the device or system such as rips, tears, gaps, etc.).

Point of waste origination - When the facility owner/operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as defined in 40 CFR Part 261. When the facility owner/operator is not the generator of the hazardous waste, the point of waste origination means the point where the facility accepts delivery or takes possession of the hazardous waste.

Volatile organic concentration, or VO concentration - The fraction by weight of the volatile organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the waste in accordance with the requirements of 40 CFR 264.1083 of Subpart CC (Waste Determination Procedures). For the purpose of determining the VO concentration of a hazardous waste, organic compounds with a Henry's law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8 x

10^{-6} atmospheres/gram-mole/m^3) at 25 degrees Celsius must be included. Appendix VI of Subpart CC includes a list of compounds known to have a Henry's law constant value less than the cutoff level (i.e., those that are not included in the VO concentration determination).

3.0 CONTAINERS

40 CFR 264.1086 specifies three (3) levels of air emission controls for containers depending on the size of the container, the types of wastes managed, and how the wastes are managed. These control levels and USEB's container management procedures are specified in this section.

3.1 Container Level 1 Standards (see 40 CFR 264.1086(c))

USEB will manage the following types of containers in accordance with Container Level 1 standards:

1. **Containers with a design capacity greater than 0.1 m^3 (approximately 26 gallons) and less than or equal to 0.46 m^3 (approximately 119 gallons)** - Such containers may include, but not be limited to, 30-, 55-, and 80-gallon drums. Most containers managed by USEB fall into this category.

2. **Containers with a design capacity greater than 0.46 m^3 (approximately 119 gallons) that are not "in light material service" (see Section 2.0 - Definitions)** - Containers of this size are called "bulk containers" by DOT and include, but are not limited to, intermediate bulk containers (tote tanks), tank trucks, railcars, and roll-off boxes. Containers of this size for which a determination regarding "in light material service" status has not been made will be managed in accordance with Container Level 2 standards (see Section 3.2).

Where applicable, USEB will comply with Container Level 1 standards using one of the following control methods specified by 40 CFR 264.1086(c)(1):

1. The container will meet applicable DOT hazardous material packaging regulations. This will be USEB's primary method of complying with Container Level 1 standards.

2. Alternatively, the container will be equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces (e.g., a lid on a drum, a suitably secured tarp on a roll-off box, or a bulk cargo container equipped with a screw-type cap). The container, cover, and closure devices will be composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as the container is in service. Factors to be considered in selecting the materials of

construction and designing the cover and closure devices shall include organic vapor permeability and the effects of contact with the hazardous waste or its vapor managed in the container. All containers subject to these air emission standards will be managed inside the USEB facility. Therefore, the effects of outdoor exposure are not applicable.

3.2 Container Level 2 Standards (see 40 CFR 264.1086(d))

USEB will manage the following types of containers in accordance with Container Level 2 standards:

1. **Containers with a design capacity greater than 0.46 m^3 (approximately 119 gallons) that are "in light material service"** - Containers of this size are called "bulk containers" by DOT and include, but are not limited to, intermediate bulk containers (tote tanks), tank trucks, railcars, and roll-off boxes.

2. **Containers with a design capacity greater than 0.46 m^3 (approximately 119 gallons) for which a determination has not been made regarding their status as "in light material service."**

Where applicable, USEB will comply with Container Level 2 standards using one of the following control methods specified by 40 CFR 264.1086(d)(1):

1. Containers subject to Container Level 2 standards at USEB will meet applicable DOT hazardous material packaging regulations, as allowed by 40 CFR 264.1086(d)(1)(i). This will be USEB's primary method of complying with Container Level 2 standards.

2. Alternatively, USEB may choose to use a non-DOT specification packaging and perform organic vapor monitoring in accordance with Method 21 of 40 CFR Part 60, Appendix A, or use a container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 of 40 CFR Part 60, Appendix A. This method of compliance with Container Level 2 standards will only be used in very limited cases where the container is not to be shipped off-site.

3.3 Container Level 3 Standards (see 40 CFR 264.1086(e))

Containers with a design capacity greater than 0.1 m^3 (approximately 26 gallons) used for stabilization of hazardous waste are subject to the Container Level 3 standards. Since USEB does not perform stabilization of Subpart CC-regulated hazardous wastes in containers, the Container Level 3 standards are not specified in this document.

3.4 Container Management Procedures

Whenever hazardous waste subject to Subpart CC is in a container, all covers and closure devices for that container will be installed, secured, and maintained in the closed position except in the following situations:

1. A container is empty (see Section 7-203(j) of the Vermont Hazardous Waste Management Regulations).

2. A closure device or cover may be opened to add waste or other material to the container. If the container is filled in one continuous operation, the closure devices must be secured in the closed position and the cover installed promptly upon conclusion of the filling operation. If the container is filled in discrete quantities or batches, the closure devices must be promptly secured in the closed position and the covers installed upon either: the container being filled to its final fill level; the completion of a batch loading after which no additional material will be added within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material added to the container, whichever occurs first.

3. A closure device or cover may be opened to remove waste from the container. If the waste is removed in discrete quantities or batches, but the container is not RCRA-empty, the closure devices must be secured in the closed position and cover installed promptly upon completion of a batch removal after which no additional material will be removed within 15 minutes, or the person performing the unloading leaves the immediate vicinity of the container, whichever comes first.

4. A closure device or cover may be opened when access inside a container is needed to perform routine activities other than transfer of waste. Following completion of the activity, the closure device must be promptly secured in the closed position and the cover reinstalled.

5. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to atmosphere during normal operations for the purpose of maintaining the container's internal pressure in accordance with the container's design specifications, such as during loading or diurnal temperature fluctuations (see 40 CFR 264.1086(c)(3)(iv) for details). The device must be designed to operate with no detectable organic emissions when closed.

6. Opening of a safety device to avoid unsafe conditions.

Transfers of hazardous wastes subject to Subpart CC into or out of containers subject to Container Level 2 standards will minimize exposure of the waste to the atmosphere, to the extent practical, considering the physical properties of the waste and good engineering and safety practices applicable to the hazards of the material.

4.0 INSPECTION AND MONITORING SCHEDULE

Containers at USEB that are subject to Subpart CC standards will be inspected and monitored in accordance with the requirements of 40 CFR 264.1088, and the following schedule.

Containers managed under the Container Level 1 standards, or under the Container Level 2 standards meeting applicable DOT packaging requirements - Perform a visual inspection of these hazardous waste containers, including covers and closure devices. Check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. ORGANIC VAPOR MONITORING IS NOT REQUIRED FOR CONTAINERS MEETING APPLICABLE DOT PACKAGING REQUIREMENTS. Perform these visual inspections in accordance with the following schedule:

1. **Initial visual inspection** - at the time the containers are first accepted (i.e., prior to signing the manifest); and for containers generated on-site at the time hazardous waste subject to Subpart CC is added to the container. Refer to Appendix C Attachment D of this permit (Level I QA/QC Report).

2. **Annual visual inspection (at least once every 12 months)** - only for containers that remain at the facility for one (1) year or more. Refer to Appendix F Attachment A of this permit (Table F-2).

USEB will not manage hazardous waste subject to Subpart CC in containers that do not meet DOT packaging requirements.

5.0 INSPECTION AND MONITORING PROCEDURES

5.1 Inspection Procedures

USEB will visually inspect containers subject to Subpart CC and their covers and closure devices as follows:

1. View the entire container, its cover and closure devices (e.g., bungs, valves, caps, etc.) for evidence of any defect that could result in air pollutant emissions.

2. Defects include, but are not limited to, visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. In addition, visible vapor or liquid leakage may indicate a leak is present.

3. Note any visible evidence of any defect and immediately report such observations to the Supervisor or Senior Waste Technician for repair in accordance with Section 6.0.

5.2 Monitoring Procedures

Since USEB only manages hazardous waste subject to Subpart CC in DOT specification packaging, monitoring is not conducted.

6.0 REPAIRS

When a defect is detected by either a visual inspection, as described in Section 5.1, or by leak detection monitoring, as described in Section 5.2, repair the container in the following manner:

1. The first attempt at repairing a container will be no later than twenty-four (24) hours after the defect is detected.

2. Repair the container as soon as possible, but no later than five calendar days after detection of the defect.

3. If repair of the defect cannot be completed within five calendar days, then remove the hazardous waste from the container and do not use the container to manage hazardous waste until the defect is repaired.

7.0 RECORDKEEPING

Record and maintain the information described in this section in accordance with 40 CFR 264.1050 (f) and 264.1089. USEB will maintain the records specified in this section in the facility operating record for a minimum of three years. These records include the documentation of the initial visual inspections and annual inspections described in paragraph 4.0, above, and documentation of hours of service per calendar year for pumps (See Appendix B of this permit).

For containers exempted from Subpart CC because they hold only wastes with an average volatile organic concentration of less than 500 ppmw, or for which volatile organics have been destroyed or removed, USEB will maintain the following records:

1. For wastes with an average volatile organic concentration of less than 500 ppmw, information used for each waste determination in the facility operating record. If analytical results are used, record the date, time and location of each sample.

2. For wastes treated to remove volatile organics, the identification number of the incinerator, boiler, or industrial furnace in which the waste was treated.

3. For wastes that are exempt because they meet applicable organic treatment standards under the land disposal restrictions (LDR) (40 CFR 265.1083(c)(4)), USEB already maintains LDR notifications as required by 40 CFR 268.7. These records are not required by Subpart CC but can be used to document these determinations.

8.0 REPORTING

In the event that USEB manages hazardous waste containing volatile organics > 500 PPM in containers that do not meet U.S. DOT requirements, USEB will submit a written report to Regional Administrator and Vermont's Waste Management Division Director within 15 calendar days of the time that the facility becomes aware of the occurrence. The written report will contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report will be signed and dated by an authorized representative.