

APPENDIX C
WASTE ANALYSIS PLAN

1.0 GENERAL OVERVIEW

Pursuant to 40 CFR 270.14 (b)(3), a hazardous waste management facility is required to develop and follow a Waste Analysis Plan (WAP) that meets the requirements of 40 CFR 264.13 (b) and (c). This waste analysis plan establishes the following:

- The procedures for quantifying, accepting and analyzing the contents of each waste container managed at US Ecology Burlington, Inc. (USEB).
- The parameters for which each waste will be analyzed and the rationale for selecting these parameters.
- The test methods used to test for each parameter.
- The methods used to obtain a representative sample of waste to be analyzed.
- The frequency at which analysis of waste will occur to ensure that waste is characterized accurately.
- The waste analyses and supplemental information that hazardous waste generators or their authorized agent (customers) will supply.

Emphasis is placed upon obtaining accurate information about the chemical and physical makeup of each waste received by USEB. This information, which is to be detailed in a waste-specific Waste Information Profile (WIP) maintained as part of the facility record, may be based on the generator knowledge of the waste and/or chemical and physical analyses of a representative sample of the waste.

USEB accepts “containerized” and “bulk” waste for storage prior to consolidation and/or shipment off-site (**Appendix D**). Wastes managed by USEB may be regulated under the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act (TSCA), Superfund (CERCLA), and Vermont’s Hazardous Waste Management Regulations (VHWMR). USEB accepts wastes in a variety of physical forms, including liquids, sludges, solids, and compressed gases. For the purposes of this WAP, “containerized” waste is waste managed in containers that can be moved manually or with a forklift (e.g., Department of Transportation (DOT) approved shippable containers, drums, pails, bags, boxes, pallets, ton sacks, flasks, cylinders). “Bulk waste” is received and shipped in accordance with applicable DOT regulations.

USEB also accepts “lab packs” which are containers that hold a variety of chemicals, products or small quantities of laboratory samples. Each lab pack container is prepackaged in accordance with applicable DOT regulations that are based on compatibility, content, and size of individual samples. An inventory-packing list accompanies each lab pack and identifies, among other things, the content, quantity and size of each container within the lab pack, and applicable RCRA and Vermont hazardous waste codes. Refer to **Attachment A** for an example Lab Pack form.

USEB also accepts “bulk or consolidation packs” that are containers that hold one type of material (e.g., paints). Each bulk or consolidation pack container is prepackaged in accordance with applicable DOT regulations.

2.0 WASTE PREQUALIFICATION PROCEDURES

All waste accepted by USEB must be approved through the prequalification process. As described below, the prequalification process requires completion of a Waste Information Profile (WIP) by the generator or its authorized agent, and review and approval of the WIP by USEB.

2.1 Waste Information Profile (“WIP”)

A WIP must be completed, signed and submitted by the waste generator or the generator’s authorized agent for each waste received by USEB. Each WIP is reviewed by USEB to determine if USEB can accept the waste. The hazardous waste codes that may be accepted at USEB are listed in **Appendix A**. The USEB WIP form is included in **Attachment B**. A generator may use a different WIP form, provided the form is reviewed by USEB and found to be equivalent to the USEB form.

Based on the information provided in the WIP, an USEB Supervisor, Senior Waste Technician, or Customer Service Specialist/Hazardous Waste Manager may either approve the WIP or determine that additional information is necessary prior to approving the waste. A WIP shall not be approved if any pertinent section of a WIP is omitted; an inconsistency is identified on the WIP (e.g., acidic solution with pH 14); the generator does not provide sufficient information about the waste generating process and/or materials used in the process; or there is any reason to suspect that a waste contains a listed hazardous waste, exhibits a hazardous waste characteristic, or meets a Vermont hazardous waste listing (i.e., “VT” codes).

In the event that a WIP is not approved, sufficient additional information (e.g. SDS) must be provided or the waste must be analyzed before the WIP can be approved by USEB. In general, chemical and/or physical analyses are performed to resolve any hazardous waste determination questions that cannot be resolved using “generator knowledge.” The WIP shall document the use of generator knowledge and/or analysis in making a hazardous waste determination. All supporting documentation must be included with the copy of the WIP maintained at the USEB facility. Any completed WIP for waste that is an unused “product”, with the exception of household-generated wastes, materials exempt from OSHA HAZCOM Standard, and waste contained within lab packs, must include a Safety Data Sheet. Laboratory analytical may be used in lieu of SDS in cases where an SDS is not available or non-existent. In all cases, if the USEB Supervisor, Senior Waste Technician, or Customer Service Specialist/Hazardous Waste Manager is not confident that a waste has been characterized accurately, he or she shall not approve the WIP.

Upon approval of a WIP, the USEB Supervisor, Senior Waste Technician, or Customer Service Specialist/Hazardous Waste Manager shall ensure that the applicable “process code” and “approval code” information is added to the top of the WIP form.

Each WIP must be reviewed by the generator or the generator’s authorized agent on an annual basis. Following this review, the generator or authorized agent must provide a

signed statement to USEB that either certifies the waste generating process and the chemical and physical characteristics of the waste remain unchanged or specifies any changes to the waste or generating process. If a signed certification statement is not returned to USEB, the WIP will be canceled.

2.2 Determination of Outbound Designated Facility

As part of the prequalification process following WIP approval, the USEB Supervisor, Senior Waste Technician, or Customer Service Specialist/Hazardous Waste Manager also selects a designated facility to which USEB will likely ship the waste after the waste has been received by the USEB facility. Selection of the designated facility is based on the WIP, assigned RCRA and Vermont hazardous waste codes, any applicable land-disposal restriction regulations, generator request/requirement, and any requirements or restrictions of the designated facility's permit or license. Upon selection of a designated facility, approved waste may be scheduled for transport and delivery to USEB.

2.3 Lab Pack Waste

In addition to the prequalification requirements described in sections 1.1 and 1.2, above, for each lab pack waste stream, the USEB Supervisor, Senior Waste Technician, or Customer Service Specialist/Hazardous Waste Manager must review and approve a packing list compiled for each lab pack container using the Lab Pack Contents Form (**Attachment A**). If any incompatible or unacceptable material is listed on the Lab Pack Contents Form, the generator or generator's agent is given the option of either properly repacking that material or having the lab pack container rejected by USEB.

3.0 WASTE RECEIVING PROCEDURE

When a shipment of waste (containerized waste and/or lab packs) arrives at the USEB facility, a USEB Supervisor, Waste Technician, or Customer Service Specialist/Hazardous Waste Manager is responsible for either receiving or rejecting the waste upon completing the following procedure:

- Review the manifest or shipping paper for accuracy and completeness
- Unload containers to the USEB waste receiving area (i.e., Cell A-1)
- Check container labels for completeness and consistency with the WIP
- Check the condition of each container and verify that it is DOT-approved
- Verify that each container type is consistent with the information on the WIP, manifest and waste stored therein
- Assign a unique container number to each container using the facility computer system, and affix a sticker marked with that unique number to the container
- Perform the Level I waste analysis procedure described below
- If applicable, perform the Level II and/or Level III waste analysis procedures described below

3.1 Level I Analysis:

The USEB Supervisor or Waste Technician will open and inspect each container and bulk load in the waste receiving areas (i.e., Cell A-1 for containers, and within the outdoor secondary containment bays for bulk loads.) With the exception of multiple containers of the same waste (i.e., waste described by the same WIP and that appear consistent upon visual inspection), Lab Packs, and other “non-sampleable” wastes (e.g., fluorescent lamps, batteries, PPE), a sample will be collected from each container and bulk load in accordance with the facility’s Sampling SOP (**Attachment C**) for the purpose of performing Level I analysis. In the case of multiple containers of the same waste, each container will be opened to visually confirm consistency of the waste, but one sample will be collected from one of every ten containers received. For lab packs, the content of each container is compared to the Lab Pack Contents Form.

Upon opening each container, the waste will be visually compared to information on the container label (for containerized materials), manifest, and WIP. For liquids and semi-solids, a thief/tube will be used to check for layering and, if applicable, to determine the approximate percentage of each layer. The collected sample will be evaluated for the following properties:

- % Liquid, % Solid, % Sludge content (by USEB-1 method)
- Color (USEB-1)
- Viscosity (USEB-1)
- pH (USEB-2), except for solid and non-aqueous wastes

If the evaluation of waste properties indicates that the waste is potentially ignitable, USEB will screen the waste for flash point utilizing a bench-top screening procedure (USEB-5). Waste streams that are potentially subject to flash point screening include: non-lab pack wastes, non-virgin products, and liquid wastes that are not already characterized as exhibiting the characteristic of ignitability (D001). All material collected from waste containers for Level I Analysis is returned to the original container.

The results of the visual inspection and sample evaluation will be compared to the WIP. If the Level I analysis identifies a discrepancy with the WIP, USEB will immediately contact the generator or the generator’s agent and attempt to resolve the discrepancy.

Any waste that does not conform to the WIP will be quarantined in Cell A-1. If the discrepancy is resolved by contacting the generator or its agent, the waste will be moved to an appropriate storage cell by the end of the work shift. If the discrepancy cannot be resolved by the generator, USEB will follow the Level II procedure below, and the waste will remain quarantined in Cell A-1.

Level I analysis is documented using the Level I QA/QC report (**Attachment D**).

3.2 Level II Analysis:

If the Level I analysis identifies a discrepancy with the WIP, and the discrepancy cannot be resolved by the generator or its agent, then USEB will perform Level II analysis of the waste, reject the waste back to the generator, or ship the waste to an alternate treatment, storage, or disposal facility. USEB will make every effort to resolve the discrepancy and accept the waste. Vermont's Waste Management Division will be notified of any wastes rejected back to Vermont generators. Level II analysis includes the following tests, as appropriate:

- pH
- Water Reactivity
- Reactive Sulfide Spot Test
- Ignitability
- Reactive Cyanide Spot Test
- Oxidizer Screen
- Specific Gravity
- % Suspended Solids
- Chlorine Spot Test
- Polychlorinated Biphenyl (PCB) Screen
- Flash Point
- Free Liquids/Paint Filter Test
- RCRA 8 metals
- Volatile Organics
- Any other parameter deemed necessary

Any waste that is subject to Level II analysis will be quarantined in Cell A-1 until the discrepancy with the WIP is resolved.

Level II analysis will be subcontracted to an independent State certified or NELAC laboratory that uses ASTM and/or SW-846 analytical and test methods. The results of all Level II analyses will be documented in a log (**Attachment E**) maintained as part of the facility operating record.

3.3 Level III Analysis:

USEB will select and perform Level III analysis on waste samples received at the facility as follows:

The contents of one out of every 500 containers of waste (including solid and non-hazardous waste) received by USEB will be sampled and tested according to this Level III analysis procedure. USEB's container tracking system will be used to identify every 500th container received by USEB in sequential order. If the contents of the 500th container cannot be sampled (e.g., batteries, CRTs, lamps, lab packs, etc.), or is verified to be either an unused "product" material (SDS available), or household hazardous waste, USEB will count forward (i.e., 501st, 502nd, etc.) until a container of waste is received that can be

sampled. USEB will document the unique container number(s) of each waste container that is by-passed in the facility operating record along with the rationale for by-passing each container.

On an annual basis, USEB will review the Level III analysis procedure and the previous year's Level III analysis results (i.e., testing data) to ensure that a variety of waste types and customers have been, and will continue to be, represented. This annual review will be documented in the facility operating record. Any potential changes to the Level III analysis procedure that are identified by USEB based on this review will be documented in the facility operating record. Before implementing any changes to the Level III procedure, USEB will obtain VTDEC approval through modification of this WAP.

Once a container is identified for the purpose of conducting Level III analysis, the USEB Supervisor or Senior Waste Technician will collect a sample in accordance with USEB's SOP (**Attachment C**). In addition to completing Level I analysis and documenting the physical description of the waste, the following parameters will be tested, as appropriate:

- pH
- Water Reactivity
- Reactive Sulfide Spot Test
- Ignitability
- Reactive Cyanide Spot Test
- Oxidizer Screen
- Specific Gravity
- % Suspended Solids
- Chlorine Spot Test
- Polychlorinated Biphenyl (PCB) Screen
- Flash Point
- Free Liquids/Paint Filter Test
- RCRA 8 metals
- Volatile Organics
- Any other parameter deemed necessary

Level III analyses will be subcontracted to an independent state certified or NELAC laboratory that will use ASTM and SW-846 analytical and test methods.

A record of all Level II and Level III analysis will be maintained by USEB for each waste sampled and analyzed, as part of the facility operating record. The Level II and Level III record will include:

- A copy of the chain of custody document (**Attachment F**)
- Copies of all applicable analytical and test results and lab reports including the results of the Level I analysis
- A copy of the original (incoming) manifest
- A copy of the original WIP
- Documentation of any discrepancies identified by the Level I, II or III analysis

- If applicable, a copy of any written correspondence with the generator related to resolving a WIP discrepancy and documentation of relevant conversations with the generator regarding same.
- If applicable, copies of any written correspondence with the generator and Vermont Waste Management Division related to resolving a manifest discrepancy and documentation of relevant conversations with the generator or Vermont Waste Management Division regarding same.
- If applicable, a copy of the revised WIP
- The completed Level II/Level III QA/QC checklist (**Attachment G**)

3.4 Final Acceptance and Placement of Waste in Storage

Upon verification that a containerized waste is consistent with the corresponding WIP, the waste will be moved from the receiving area (Cell A-1) to an appropriate storage cell. Movement to an appropriate storage cell shall occur within 36 hours of off-loading waste from the transport vehicle, excluding weekends and holidays. Any containerized waste that does not conform to the corresponding WIP will be quarantined in Cell A-1 until the discrepancy is resolved with the generator. Upon resolution of the discrepancy, the waste will be moved to an appropriate storage cell by the end of the work shift.

4.0 OUTBOUND WASTE SCREENING PROCEDURES

Containerized wastes that are compatible materials, supplemental fuels, used oil, or wastewater may be consolidated into bulk transportation vehicles at the USEB facility (**Appendix D**). Prior to transferring waste into a bulk transport vehicle, the USEB Supervisor Waste Technician will test for compatibility (see method USEB-12). For supplemental fuels, USEB will also test for PCBs.

Waste that is bulked on-site for outbound shipments will be tracked using the Bulk Consolidation Tracking Sheet (**Attachment H**). Upon completion, the Bulk Consolidation Tracking Sheets will be maintained with the facility copy of the outbound manifest as part of the facility operating record.

Bulk transport vehicles may be kept on-site for a maximum of 72 hours from the time/date when waste is first loaded onto the vehicle. All bulk transport vehicles will be located within secondary containment throughout loading (and/or unloading) operations.

5.0 MANIFEST DISCREPANCIES

When a significant discrepancy is discovered for a shipment received by USEB, USEB will attempt to resolve the discrepancy with the generator. If the discrepancy is not resolved within 15 days, USEB will submit a letter to the Vermont Waste Management Division in accordance with Section 7-704(g)(3) of the VHWMR.

6.0 UNKNOWNNS

USEB does not accept “unknown” wastes. All wastes received by USEB, must be approved prior to shipment to the USEB facility. If an unknown waste is left at the USEB facility during off hours, USEB will immediately contact the Vermont Waste Management Division. Following consultation with the Vermont Waste Management Division, USEB will attempt to identify the waste using Level I and/or Level II analyses for the purpose of USEB accepting the waste or preparing the waste for shipment to an appropriate off-site facility.

7.0 WASTE SAMPLING

Procedures for collecting representative samples are identified below. Collected samples will either be returned to their original container or consolidated with compatible materials prior to shipment off-site for proper disposal. Any “waste” material generated by sampling activities is either returned to the original waste container or USEB will utilize a new container.

7.1 Sampling Methods

The methods and equipment used for sampling waste vary with the form and consistency of the waste to be sampled. USEB will select the most appropriate representative sampling methods, techniques, devices, and containers from those included/described in either the EPA document “Test Methods for Evaluating Solid Wastes” (SW-846) or the “American Society for Testing and Materials” (ASTM) standards. A representative sample is defined as a sample exhibiting average properties of the whole waste.

USEB standard operating procedures designed to protect worker health and ensure worker safety while sampling the variety of waste types received by the USEB facility are included in **Attachment C**.

7.2 Sample Tracking Documentation

All sampling will be performed by USEB personnel.

Samples collected for on-site Level I analysis will be documented utilizing the Level I QA/QC report (**Attachment D**).

All Level II and III sampling will be documented utilizing the “Sample Record” log and the “Level II/Level III QA/QC Checklist” included in **Attachments E and G**. Chain-of-custody forms (**Attachment F**) are used for tracking Level II and Level III samples sent for off-site laboratory analyses and testing.

7.3 Sampling Personnel

Level I sampling is performed in the waste receiving area (Cell A-1) by properly trained USEB Waste Technicians. Level I QA/QC reports are reviewed by USEB Supervisor or

Senior Waste Technicians. Level II or III sampling is performed by a USEB Supervisor or Senior Waste Technician. Level I samples are usually returned to the original container immediately following the conclusion of the Level I evaluation.

7.4 Sample Labels

When samples are retained labels are affixed to each sample container prior to, or at the time of sampling. At a minimum, the labels include the following information, if applicable:

- Generator name
- Common name of waste
- Name of sample collector
- Date of collection
- Unique container number
- WIP/waste stream number

A unique container number sticker, that matches the unique container number assigned to the original waste container, is also affixed to sample containers used for Level II and III analyses.

8.0 PARAMETERS AND RATIONALE

Table C-1 summarizes the analytical parameters and rationales used to determine the general and specific characteristics of a waste stream. ASTM and SW-846 are used as guidelines in developing the following analytical methods:

Table C-1. Sampling Parameters and Rationale

PARAMETER	METHOD	RATIONALE FOR SELECTION
Physical Description	USEB-1	Used to determine the general characteristics of the waste stream. This facilitates subjective comparison of the sample waste with prior descriptions. USEB personnel check for color, general form, layering, and consistency.
pH Screen	USEB-2	Required of all water-bearing liquid, solid, and semi-solid waste streams to determine the corrosivity of the waste. The apparent pH of non-aqueous wastes will also be performed.
Water Reactivity	USEB-3	Used to determine whether the waste has a potential to react with water to generate heat, flammable gases, or other products. The test does not apply to wastes already in contact with excess water.
Reactive Sulfides Screen (Spot Test)	USEB-4	Used to indicate whether the waste produces hydrogen sulfide upon acidification below pH 2. It is not required

PARAMETER	METHOD	RATIONALE FOR SELECTION
		if the pH of the waste is <6 or if the waste is not water-soluble. Wastes containing sulfides with concentrations less than 500 ppm are considered non-reactive
Ignitability	USEB-5	Indicates the fire-producing potential of the waste and determines whether the waste is RCRA-ignitable. This test will be applied as appropriate to all waste liquids, solids, and sludges that are selected for Level II or III analysis.
Reactive Cyanides Screen (Spot Test)	USEB-6	Indicates whether the waste produces hydrogen cyanide upon acidification below a pH of 2. It is not required for wastes with pH <6 or if the waste is not water-soluble. Wastes that contain cyanide at concentrations less than 250 ppm are considered non-reactive.
Oxidizer Screen	USEB-7	A general qualitative test used to determine if a waste is an oxidizer. Oxidizers have the potential to react with a wide range of wastes and therefore often need to be segregated.
Specific Gravity	USEB-8	Used in conjunction with other test data to determine probable characteristics of materials and their conformance to the WIP.
Percent Suspended Solids	USEB-9	Used in assessing the feasibility of wastewater treatment.
Chlorine (Spot Test)	USEB-10	Indicates if the material is chlorinated. Information is used to check conformance to the WIP, as well as disposal options.
Polychlorinated Biphenyls Screen	USEB-11	Determines PCB content in order to verify WIP information and assess applicability under TSCA.
Compatibility Testing	USEB-12	Prior to a waste being commingled with other wastes, it is tested to verify compatibility. Liquid or sludge wastes are combined to assess their compatibility. Solid waste compatibility is determined based on generator-provided information and records of bulk materials previously received and/or currently stored.
Total RCRA 8 Metals	USEB-13	Determines if the concentration of arsenic, barium, cadmium, chromium, lead, mercury, silver and selenium exceeds the limits in 40 CFR 261.24.
Total RCRA characteristic Volatile Organics	USEB-14	Determines if the waste is potentially listed (e.g., contains a volatile organic compound potentially used as a solvent) and if the concentration of any volatile organic compound exceeds the limits in 40 CFR 261.24.

9.0 TEST METHODS

The test methods used to confirm that waste received by USEB conforms to the corresponding WIP are described below.

USEB-1: Physical Description

The waste is sampled, visually inspected, and its physical appearance is recorded, the description is to include:

- color
- physical state (% solid, % sludge, % liquid)
- layers (single, bi-layered, multi-layered)
- presence of freestanding liquid using SW846-9095 as a guideline (Paint Filter Liquids Test)

If necessary, a Coliwasa tube or thief tube is to be used to check for layering and to determine the approximate percentage of each layer and approximate percentage of solid, sludge, and liquid.

USEB-2: pH Screen

The pH of a solid is measured by placing 20 grams of sample into a cup. 20 milliliters (ml) of deionized water is added and the mixture is stirred for 30 seconds. The pH of the slurry is then taken and recorded using SW846-9040 and SW846-9041 as guidelines. The pH of liquids and sludges is taken using SW846-9040 and SW846-9041 as guidelines.

USEB-3: Water Reactivity

The water reactivity of a liquid or solid is determined by adding approximately 3 mL of water to 0.1 mL of liquid or 0.1 gram of solid. The mixture is observed to detect heating (more than 15° C temperature rise) or turbulent gas evolution (more than 10% of the mixture volume). If the mixture reacts as described above, the test is considered positive. If the addition of water causes the material to be considered reactive under any definition of 40 CFR 261.23 and Section 7-207 of the VHWMR, the material is considered water-reactive.

USEB-4: Reactive Sulfides Screen (Spot Test)

2 to 4 drops of the material are placed on a spot plate. Then, a strip of lead-acetate paper moistened with 1 drop of water is placed over the spot plate cavity containing the waste. Next, 2 to 3 drops of 3M HCl is added. Black PbS forms in the paper after 0.5 to 1 minute if sulfide is present. The threshold limit of this method is around 4 PPM sulfide.

USEB-5: Ignitability

Ignitability screening is performed with Seta Flash Series 3 (or similar) automatic flashpoint tester following manufacturers operating instructions.

USEB-6: Reactive Cyanides Screen (Spot Test)

Cyanide is determined by placing 2 to 4 drops or a small spatula tip of the sample on a spot plate. Two drops of water are then added to the waste. Next, one drop of chloramine-T solution followed by one drop of pyridine-barbituric acid solution is added to the waste. If the solution turns dark red or carmine after 10 to 30 seconds, this is a positive response.

The presence of cyanide can be detected above 60 ppb in aqueous samples (3 drop size) and 10 ppm in solid samples (1-gram size).

Reagents:

- Chloramine-T solution: 1 gram of Chloramine-T is dissolved in 100 ml of distilled water.
- Pyridine-barbituric acid: 1.5 g of barbituric acid is mixed with 5 mL of water and 7.5 mL of pyridine. The mixture is treated with 1.5 mL of concentrated HCl and diluted to 25 mL.

USEB-7: Oxidizer Screen

The method used is a qualitative examination for the presence of oxidizing materials in liquid, sludge, and solid samples.

- Liquids and Sludges
The procedure for liquid and sludge waste consists of wetting a strip of KI-Starch paper in HCl. The wetted strip is then dipped into the sample. The color change is then noted. If the color turns light brown to dark purple or black, then the result is interpreted as positive, and the waste is managed as an oxidizer. The color is indicative of the type of oxidizer present.
- Solids
The procedure requires that 2 mL of deionized water be added to 11 grams of sample. The mixture is then stirred for 30 seconds. A strip of KI-starch paper is wetted in HCl and then dipped into the slurry. The color change of the KI paper is then noted. If the color turns light brown to dark purple or black, then the result is interpreted as positive and the waste is managed as an oxidizer. The light brown color is indicative of nitric acid while the purple/black color results from the presence of peroxides.

USEB-8: Specific Gravity

The Specific Gravity of a liquid is determined by weighing 10 mL of the sample (at room temperature) and dividing this value by 10. The alternate method of using a hydrometer may be used if sufficient sample is present.

USEB-9: Percent Suspended Solids

Total suspended solids are determined by bringing the sample pH to approximately 3 using 10% sulfuric acid. A determination of the sample's pumpability is made without stirring. The sample must not gel or turn to sludge. The sample is centrifuged for five minutes and the percent solids are calculated.

USEB-10: Chlorine (Spot Test)

A small amount of the sample is placed in a test tube. Litmus paper is placed over the sample as heat is applied. A red coloration of the paper indicates the presence of chlorine. An additional test is done by placing a small amount of the material in a flame on a wire loop. A green color indicates the presence of chlorine.

USEB-11: Polychlorinated Biphenyls Screen

Method SW846-8082 is used to determine PCB content.

USEB-12: Compatibility Testing

Prior to a waste being commingled with other wastes, it is tested to verify compatibility. A representative sample of the waste is mixed with a representative sample of the wastes to be commingled. This is done under controlled conditions by personnel trained regarding chemical reactions.

Representative portions of the wastes to be commingled are mixed together at the same measured temperature to verify compatibility. For example, if a partially full container is to be consolidated into another partially full container, a representative sample is drawn from both containers, the samples are mixed. The mixture is then observed for the following:

- Evolution of gas characterized by bubbling or foaming
- Heat release evidenced by a temperature increase of more than 15 degrees over the measured temperature
- Polymerization of the mixture to an un-pumpable viscosity within 30 minutes
- Miscibility or the formation of layers
- Precipitate formation
- Emulsification

If any of these conditions are observed, the wastes are considered incompatible.

USEB-13: RCRA 8 Metals (totals with digestion)

- Liquids
Methods SW846-6010/7470
- Solids
Methods SW846-6010/7471

USEB-14: Volatile Organic Compounds (totals)

- Liquids
Volatile Organic Compounds – Method SW846-8260C
- Solids
Volatile Organic Compounds (with extraction) – Methods SW846-5035/8260

APPENDIX C: ATTACHMENT B

Waste Information Profile Form



NRC Environmental of Maine, Inc.
106 Main St, S. Portland, ME 04106
MED019051069

US Ecology Burlington
54 Avenue D, Williston, VT 05495
VTR000517052

Profile #: _____ Process Code: _____ Approval Code: _____

1. Generator Information:
 Generator Name: _____ Phone: _____
 Mailing Address: _____ City: _____ State: _____ Zip: _____
 Site Address: _____ City: _____ State: _____ Zip: _____
 Technical Contact: _____ Phone: _____
 EPAID#: _____ NAICS Code: _____

2. Billing Information:
 Customer Name: _____ Phone: _____
 Address: _____ City: _____ State: _____ Zip: _____
 Billing Contact: _____ Email: _____
 Phone: _____ Fax: _____

3. Waste Description:
 Common Name of Waste: _____
 Process Generating Waste: _____

4. Physical & Chemical Properties
 Color: _____ Odor: None Mild Strong Describe: _____

Flash Point (F°) <input type="checkbox"/> <100 <input type="checkbox"/> 100-140 <input type="checkbox"/> 140-200 <input type="checkbox"/> >200 <input type="checkbox"/> N/A	BTU/LB <input type="checkbox"/> <2,000 <input type="checkbox"/> 2,000-6,000 <input type="checkbox"/> >6,000-10,000 <input type="checkbox"/> >10,000 <input type="checkbox"/> N/A	<input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Sludge <input type="checkbox"/> Semi-Solid <input type="checkbox"/> Powder/Dust <input type="checkbox"/> Gas	Free Liquids <input type="checkbox"/> Yes <input type="checkbox"/> No _____ % Solids _____ % Liquids Will waste dump out of drums? <input type="checkbox"/> Yes <input type="checkbox"/> No Is the waste pumpable? <input type="checkbox"/> Yes <input type="checkbox"/> No Debris? (List type in Section 7) <input type="checkbox"/> Yes <input type="checkbox"/> No Is the waste dusty? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Specific Gravity	Viscosity	pH	Other Components
<input type="checkbox"/> <0.8 (light oil) <input type="checkbox"/> 0.8-1.0 (water based) <input type="checkbox"/> >1.0 Chlorinated Solvents/Acid/Base	<input type="checkbox"/> Low (Water) <input type="checkbox"/> Medium (pump on) <input type="checkbox"/> High (Molasses) <input type="checkbox"/> N/A	<input type="checkbox"/> ≤2.0 <input type="checkbox"/> >2.0-5 <input type="checkbox"/> >5-9 <input type="checkbox"/> >9-12.49 <input type="checkbox"/> ≥ 12.5	Total Cyanides (PPM) _____ Total Sulfides (PPM) _____ PCBs (PPM) _____ Total Halogens/HOC (%) _____ Total VOC (PPM) _____

5. Hazardous Properties: (Check all that apply)

<input type="checkbox"/> None	<input type="checkbox"/> Radioactive	<input type="checkbox"/> Pyrophoric	<input type="checkbox"/> Oxidizer
<input type="checkbox"/> Water Reactive	<input type="checkbox"/> Dioxins	<input type="checkbox"/> Explosive	<input type="checkbox"/> Medical Waste/Infectious
<input type="checkbox"/> Shock Sensitive	<input type="checkbox"/> Air Reactive	<input type="checkbox"/> Reactive Cyanide	<input type="checkbox"/> Reactive Sulfide
<input type="checkbox"/> Asbestos	<input type="checkbox"/> Benzene NESHAP	<input type="checkbox"/> Pesticide/Herbicide	<input type="checkbox"/> Peroxide Forming Compound

6. Regulatory Status (check all that apply)

Y N USEPA Hazardous Waste per 40CFR261 (if yes list codes) _____

Y N Do any State waste codes apply? (if yes, list codes) _____

Y N Is this waste subject to Land Disposal Restrictions (LDR)?
Is this a wastewater or non-wastewater

Y N If D001-D043, are any underlying hazardous constituents (UHCs) present

Y N Does this waste contain VOCs ≥ 500ppm (subpart CC)

Form Code (Wxxx): _____ Source Code (Gxxx): _____

APPENDIX C: ATTACHMENT C

Sampling Standard Operating Procedures (“SOP”)

1.1.1 Sampling of Containers

Coliwesas, tubes, drum thieves, and corers are examples of the devices used to sample containers. Samples are taken from locations displaced both vertically and horizontally throughout the waste. For liquids (or liquids with precipitated solids), the sample collector uses a Coliwasa or equivalent. The sampling device is inserted into the container from the top and is pushed down slowly until the bottom of the container is reached. The device is sealed to retain the contents. The contents of the sampling device are then transferred to a polyethylene or glass bottle that is labeled with waste identification information.

A corer or equivalent device is used to sample containers that are solid in nature. These containers are generally filled with dirt and sludges. Several areas from the container are sampled and composited into a jar in order to ensure a representative sample. The sample collector removes a sample that uniformly represents the waste composition of the container (i.e., all layers and phases are represented in the sample).

1.1.2 Sampling of Bulk Material

Bulk solids are sampled using a simple random sampling strategy. The bulk solids container, usually a roll-off box or a dump trailer, is divided into sections. A corer is used in each section to draw a sample from as deep as possible. On occasion, a shovel is used to access lower levels of a bulk container. The samples are composited together so that there is one sample that represents that particular bulk solids shipment.

Bulk liquids are sampled using a Coliwasa or similar device that can sample vertical anomalies. Each compartment of tanker truck is sampled. Compartment samples from the same generator and waste stream will not be composited prior to analysis.

Tank trucks without manways are sampled through a valve. The valve is flushed prior to the sample being drawn.

1.1.3 Debris

Debris is sampled as much as possible; however, not all wastes are amenable to sampling (e.g., universal waste batteries, CRTs, lamps or ballasts, lab packs, etc.). A container of debris often contains a wide variety of materials. For example, it may contain spill absorbent, Tyvek suits, rubber booties, gloves, and paper towels. It may be difficult to obtain a representative sample.

In virtually all situations, debris has one thing in common: non-hazardous materials are contaminated with very small to trace amounts of organic and inorganic hazardous constituents.

1.1.4 Frozen Waste

USEB will not sample waste that is frozen. The container will remain in the receiving area until the waste can be sampled.

APPENDIX C: ATTACHMENT G

Level II/III QA/QC Checklist

Sample Date: _____

Generator: _____

Waste Stream (WIP) #: _____

Drum #: _____

If not the 500th container, justification for bypassing: _____

Results of Level II/III Analysis:

Documents to be included in Level II/III WAP file:

1. Copy of Original Manifest _____
2. Copy of Original WIP _____
3. Copy of Level I QA/QC Report _____
4. Original Chain of Custody _____
5. Analytical Results _____

Additional documentation to be included in Level II/III WAP file (if applicable):

1. Revised WIP _____
2. Manifest Discrepancy Letter _____
3. Correspondence with Generator/Customer _____

