
PHASE 1 TRANSPORTATION AND DISPOSAL PLAN

Appendix C

to

**Remedial Action Work Plan for
Phase 1 Dredging and Facility Operations**

HUDSON RIVER PCBs SUPERFUND SITE



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ACRONYMS AND ABBREVIATIONS

ARARs	Applicable or relevant and appropriate requirements
BBL	Blasland, Bouck & Lee, Inc. (now ARCADIS)
CD	Consent Decree
CFR	Code of Federal Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund)
CSXT	CSX Transportation, Inc.
CM	Construction Manager
CPR	Delaware & Hudson Railway Company d/b/a Canadian Pacific Railway
cy	cubic yards
DOT	U. S. Department of Transportation
EDI	Electronic Data Interchange
EPA	United States Environmental Protection Agency
EZ	Exclusion Zone
FDR	Final Design Report
Facility O&M Plan	Phase 1 Facility Operations and Maintenance Plan (RAWP 3 Appendix B)
GE	General Electric Company
HASP	Health and Safety Plan
IDR	Intermediate Design Report
IHW	industrial and hazardous waste
NYCRR	New York Codes Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
PCB	polychlorinated biphenyls
PFOC	Processing Facility Operations Contractor
POL	petroleum, oils, and lubricants
PPE	personal protective equipment
ppm	parts per million
QEA	Quantitative Environmental Analysis, LLC
OSHA	Occupational Safety and Health Administration
R&D	receiving/departure
RA	Remedial Action
RA HASP	Remedial Action Health and Safety Plan
RAWP	Remedial Action Work Plan

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ACRONYMS AND ABBREVIATIONS (CONTINUED)

RCRA	Resource Conservation and Recovery Act
RYOC	Rail Yard Operations Contractor
SOW	Statement of Work
SPCC	spill prevention control and countermeasures
SWPPP	Storm Water Pollution Prevention Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCLP	Toxicity Characteristic Leaching Procedure
TDP	Transportation and Disposal Plan
TNMR	Texas-New Mexico Railroad
TSCA	Toxic Substances Control Act
UHW Manifest	Uniform Hazardous Waste Manifest, EPA Form 8700-22
UP	Union Pacific Railroad Company
WCS	Waste Control Specialists LLC

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SECTION 1

INTRODUCTION

On October 6, 2005, a Consent Decree (CD) for the Remedial Action (RA) in the Upper Hudson River, executed by the General Electric Company (GE) and the United States Environmental Protection Agency (EPA), was filed in federal district court (Civil Action No. 1:05-CV-1270; EPA/GE, 2005). After an extensive public review and comment period, the court approved and entered the RA CD as a final judgment on November 2, 2006, when it went into effect.

GE prepared the *Phase 1 Final Design Report* (Phase 1 FDR) (BBL, 2006) and submitted it to EPA on March 21, 2006. On May 31, 2006, EPA approved the portion of the Phase 1 FDR that included the civil site work and rail yard construction (Contracts 1 and 2). On September 14, 2006, EPA approved the portions of the Phase 1 FDR that included construction and operation of the sediment processing facility (Contracts 3A and 3B) and rail yard operations (Contract 6). Subsequently, based on numerous discussions between GE and EPA, the Phase 1 FDR was modified, especially in regard to dredging operations (Contract 4) and habitat construction (Contract 5), through numerous revised plans and specifications and other documents reflecting the parties' agreements. On January 25, 2008, EPA approved all remaining portions of the Phase 1 FDR, so that that plan was approved in its entirety.

This *Phase 1 Transportation and Disposal Plan* (Phase 1 TDP) has been developed in accordance with Section 2.3.2.2.4 of the Statement of Work (SOW) for Remedial Action and Operations, Maintenance and Monitoring, which is Appendix B to the CD. This Phase 1 TDP is an appendix to and part of the *Remedial Action Work Plan for Phase 1 Dredging and Facility Operations* (RAWP #3). It describes the procedures to be followed in transporting the sediments and debris that are removed from the Upper Hudson River during Phase 1 of the Remedial Action, following dewatering, from the selected processing facility to the selected final disposal facility. These activities will be conducted in accordance with the Phase 1 FDR as approved by EPA and with the relevant provisions of applicable regulations.

EPA has selected the Energy Park/Longe/New York State Canal Corporation site in Fort Edward, NY, as the location of the land-based sediment processing facility (referred to as the "processing facility site"). The site is located along the shore of the Champlain Canal land cut between Locks 7 and 8. The site address is 446 Lock 8 Way, Hudson Falls, New York 12839. The dewatered sediments and debris will be transported from the processing facility site, via a combination of rail carriers, to the disposal site selected by GE, which is the Waste Control Specialists LLC (WCS) disposal facility in Andrews County, Texas. This Phase 1 TDP addresses the transport and disposal of the dewatered sediments beginning at the processing facility site and ending at the disposal facility. Specifically, it addresses GE's responsibilities

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related to the transfer of dewatered sediments and debris from the processing facility site under the care and custody of the rail carriers to the WCS facility for final disposal. This TDP is limited to Phase 1 of the Remedial Action.

The on-site activities described herein relating to the operation of the rail yard at the processing facility site, including the loading of materials into rail cars for transport, will be conducted by the Rail Yard Operations Contractor (RYOC) under Contract 6. The other on-site activities at the processing facility will be conducted primarily by the Processing Facility Operations Contractor (PFOC) under Contract 3B, and are described in detail in the *Phase I Facility Operations and Maintenance Plan* (Phase 1 Facility O&M Plan; [Parsons, 2009]), which is another appendix to RAWP #3.

1.1 PLAN ORGANIZATION

This Phase 1 TDP is organized into nine sections, as follows:

Section 1 – Introduction: provides an introduction and the plan’s organization, purpose, and applicable regulatory framework.

Section 2 – Characteristics of Waste/Material to be Transported: describes the characteristics of the dewatered sediments and debris.

Section 3 – Waste Destinations: identifies the selected waste disposal facility and its applicable permit authorizations to receive the dewatered sediments and debris containing polychlorinated biphenyls (PCBs).

Section 4 – Transportation: describes the means of transport of the dewatered sediments and debris from the processing facility site to the authorized disposal facility and the general rail routing.

Section 5 – On-Site Traffic Control and Loading Procedures: describes the on-site transport and loading of dewatered sediments and debris at the processing facility site.

Section 6 – Recordkeeping: presents the approach for recordkeeping and tracking of waste transport and disposal activities.

Section 7 – Health and Safety: provides an overview of the health and safety plans applicable to the transportation and disposal process.

Section 8 – Contingency Plans for Spills that Occur in Work Area: describes contingency plans for spills that may occur in the processing facility area during on-site handling and loading activities related to the transport.

Section 9 – References: lists references for documents cited in this plan.

Table 1-1 provides a cross-reference of the SOW requirements to the portions of this Phase I TDP where those requirements are addressed.

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Table 1-1 Consent Decree SOW / Phase 1 TDP Cross-Reference Table

Citation	Description of Requirement	TDP Section
SOW, Section 2.3.2.2.4, Page 2-16	Characteristics of waste/water/ material to be transported.	Section 2
SOW, Section 2.3.2.2.4, Page 2-16	Destinations	Section 3
SOW, Section 2.3.2.2.4, Page 2-16	Transportation modes	Section 4
SOW, Section 2.3.2.2.4, Page 2-16	Routes	Section 4
SOW, Section 2.3.2.2.4, Page 2-16	On-site traffic control and loading procedures	Section 5
SOW, Section 2.3.2.2.4, Page 2-16	Recordkeeping	Section 6
SOW, Section 2.3.2.2.4, Page 2-16	Health and Safety	Section 7
SOW, Section 2.3.2.2.4, Page 2-16	Contingency plans for spills that occur in the Work Area	Section 8

1.2 REGULATORY FRAMEWORK

As this RA is being performed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the activities described herein that will be conducted at the processing facility site are exempt from federal, state, and local permitting requirements, and will be conducted in accordance with the substantive provisions of the pertinent federal and state laws and regulations that have been identified as applicable or relevant and appropriate requirements (ARARs). Once the materials have left the site, the transport and disposal activities will be subject to applicable federal, state, and local laws and regulations, compliance with which will be the responsibility of the rail carriers (during transport) and the disposal facility operator (for disposal).

The laws and regulations pertinent to transportation and disposal activities include: (a) the federal Toxic Substances Control Act (TSCA) and EPA's implementing regulations (40 Code of Federal Regulations [CFR] Part 761), which generally govern materials with PCB concentrations at or above 50 parts per million (ppm); (b) the federal Resource Conservation and Recovery Act (RCRA) and EPA's implementing regulations (40 CFR Parts 260-270), which regulate material that constitutes "hazardous waste"; (c) the U.S. Department of Transportation (DOT) regulations relating to the transportation by railroad of hazardous materials (49 CFR Parts 171-174); (d) the New York State Department of Environmental Conservation (NYSDEC) regulations governing the transport of regulated waste (6 New York Codes Rules and Regulations [NYCRR] Part 364)

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and the management of hazardous waste (6 NYCRR Parts 370-372); and (e) the Texas solid and hazardous waste regulations (30 TAC Chapter 335).

During Phase 1 of the Remedial Action, since all dredged sediments will be transported to a single disposal facility, which is authorized to dispose of TSCA-regulated waste, it will be assumed that all dredged sediments contain PCB ≥ 50 ppm and are subject to the TSCA regulations. On the other hand, testing of the Upper Hudson River sediments using the Toxicity Characteristic Leaching Procedure (TCLP) indicates that the sediments to be dredged would not exhibit the characteristics of hazardous waste under RCRA (QEA, 2004). Accordingly, it is not anticipated that the RCRA regulations would apply. It should be noted, however, that under NYSDEC's hazardous waste regulations, materials containing PCBs at concentrations of 50 ppm or greater are considered state hazardous waste (6 NYCRR § 171.4(e)). Thus, the dredged sediments will be considered to constitute such hazardous waste under the NYSDEC regulations, based on an assumed PCB concentration ≥ 50 ppm (but not on any other basis). By contrast, the Texas hazardous waste regulations do not define materials containing PCBs ≥ 50 ppm as a hazardous waste (see 30 TAC § 335.504). Thus, at the point of disposal, based on existing sediment characterization data, the dredged sediments will not constitute a hazardous waste under either federal or Texas regulations. Accordingly, it is anticipated that they will be disposed of at the WCS facility as non-hazardous industrial wastes. (Note, however, that the Texas regulations classify waste containing PCBs at concentrations ≥ 50 ppm as "Class 1" non-hazardous industrial waste [30 TAC § 335.508(5)] and require manifesting for such waste [30 TAC § 335.10].)

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SECTION 2

CHARACTERISTICS OF WASTE/MATERIAL TO BE TRANSPORTED

This section describes the characteristics of the dewatered sediments that will be produced at the processing facility site and subsequently transported for disposal.

2.1 WASTE STREAM CATEGORIES AND CHARACTERISTICS

The dredged material will initially be processed by physical separation into three categories. This separation is to support various subsequent steps of further processing and dewatering. Based on prior investigations and studies documented in the Phase 1 Intermediate Design Report (IDR) and Phase 1 FDR, the dredged material will be generally composed of the following three categories:

- Debris – dredged material that is either too large to place into the trommel or separated by the trommel. This category may also include incidental non-hazardous wastes from the Phase 1 project that are assumed to be contaminated with PCB-containing sediment, such as used personal protective equipment (PPE), used silt curtains, wood and metal materials, waste packaging and handling materials, etc. Oversized debris will generally be reduced in size at the debris staging area (to less than or equal to 3 cubic yards (cy) in volume, less than or equal to 8 ft in any dimension, and less than or equal to 6 tons in weight) as necessary to facilitate handling and to meet disposal facility requirements.
- Coarse material – generally sand and gravel material smaller than debris and amenable to gravity dewatering.
- Fine material – fine sand, silts and clays requiring mechanical dewatering to produce filter cake.

Each of these categories of material is expected to contain PCBs and will be managed accordingly. The total quantity of sediment targeted to be removed from the river during Phase 1 of the Remedial Action is estimated at approximately 265,000 cy, which, when also considering removal of residual sediments, would result in an estimate of approximately 406,000 tons of dewatered material requiring transportation and disposal (BBL, 2006). However, these quantities are estimates; the actual quantities of sediment removed and material transported may differ depending on project conditions.

The processing of the sediment will be limited to physical/chemical dewatering. Thus, the characteristics of the dewatered sediment will conform to the characteristics of dredged sediment, except for the reduction in water content and addition of flocculation agents. The

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flocculation agents are polymers used to promote settlement of the fine-grained materials. The PCB content is not expected to change as a result of the processing activities.

Phase 1 dredged sediment has been characterized based on investigations conducted in support of the Phase 1 IDR and FDR. The key characteristics applicable to transportation and disposal are summarized from these reports in Table 2-1 below. Generally, debris and coarse material will exhibit lower PCB concentrations (toward the lower end of the range indicated).

Table 2-1 Sediment Characteristics

Parameter	Low	High	Average
PCB concentration (mg/kg)	Non-detect	13,820	90.0
% Solids (dewatered)	55.0	85.0	72.7
% Fines (<0.074 mm; No. 200)	4.8	80.7	40.0
Bulk Density (ton/cy, approximate)	1.25	1.76	1.57

2.2 WASTE CHARACTERIZATION

As the waste generator, GE or its representatives will identify the waste material's characteristics for transport and disposal, label and mark the material for transport, and report the shipments to EPA and NYSDEC. Determination of waste characteristics may be based on waste analysis, knowledge of the waste generating process, or both.

Based on extensive analytical data from prior sampling of the sediments to be dredged in Phase 1, the chemical characteristics of the sediments are well established, and the sediment dewatering process will produce a high volume of material with relatively homogenous characteristics. These factors, together with the fact that all sediments will be transported to a single landfill authorized to dispose of PCB-containing materials, will simplify the waste characterization process. As previously described, GE will assume that all dredged sediments contain PCBs at or above 50 ppm. Further, based on existing analytical data, those sediments will be considered not to constitute hazardous waste under RCRA and Texas criteria.

In addition, the liquid content of the dewatered sediments will be monitored and controlled prior to transport. EPA's TSCA regulations do not allow the disposal of liquid waste with PCBs ≥ 50 ppm in a chemical waste landfill (with certain exceptions for PCB liquids ≥ 50 ppm and < 500 ppm). In this situation, to preclude the possibility of disposing of sediment containing free liquid in a chemical waste landfill, the dewatered sediment will be monitored by the PFOC for the presence of free liquid as needed to confirm that the material passes the Paint Filter Liquids Test, per EPA Method 9095 of "Test Method for Evaluating Solid Waste" – Publication SW-846. The goal of the mechanical dewatering process for fine-grained sediments is solids content of 55% or greater as necessary to enable the resulting "filter cake" material to meet the paint filter test. Although solids content will vary among dewatered sediment categories, all

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three categories of waste will be monitored via observation and/or testing by the PFOC to assure absence of free liquid before transfer to the staging area. Additional information on monitoring and testing for free liquid content is provided in Section 2.8 of the Phase 1 Facility O&M Plan.

If waste is found to contain free liquids due to separation of liquid during shipping, the waste disposal facility will stabilize the material to remove free-liquid content in accordance with its RCRA/TSCA permit.

Based on the above information, GE will characterize the dewatered sediments for transport. Example waste profiles for dewatered debris/coarse sediment and filter cake are presented for information purposes in Attachment A. Waste profiles will be maintained by the Construction Manager (CM) and revised as necessary.

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SECTION 3

WASTE DESTINATION

Consistent with the selected alternative of handling all project materials as PCB-containing material, GE has selected WCS for disposal of the dewatered sediment from the Phase 1 dredging project.

WCS is a commercial waste management company with a secure landfill located 30 miles west of Andrews, Texas on a 1,338-acre tract. The WCS site is fully permitted by EPA under TSCA for disposal of PCB wastes and by EPA and the Texas Commission on Environmental Quality (TCEQ) for disposal of RCRA hazardous wastes, as well as non-hazardous industrial wastes. All dewatered sediment will be transported to the WCS facility for final disposal. Key environmental permits held by WCS for the Andrews facility are listed in Table 3-1 below:

Table 3-1 WCS Environmental Permits

Regulatory Agency	Permit/Authorization	Scope
U.S.EPA Region 6 U.S.EPA Region 6	TX988088464 CERCLA authorization	PCB waste storage and disposal May accept CERCLA remediation waste
TCEQ	Texas Hazardous Waste Permit No. HW-50358	Hazardous and non-hazardous industrial waste treatment, storage, and disposal
TCEQ	Texas Industrial Solid Waste Registration No. 50358	Industrial solid waste generation and management
TCEQ	Texas Pollutant Discharge Elimination System Permit WQ0004038000	Wastewater discharge permit
TCEQ	New Source Review Air Quality Permit No. 72653 Air Quality Permit by Rule No. 84217	Waste management facilities – construction and operations Ancillary waste management facilities – construction and operations

The TCEQ industrial and hazardous waste (IHW) permit for the WCS facility was renewed on October 5, 2005. EPA renewed WCS's TSCA PCB permit on September 15, 2005. Additionally, WCS is authorized by EPA letter of March 21, 1997 to accept CERCLA wastes in

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accordance with state and federal regulations. By letter of February 26, 2008, EPA advised GE that this WCS facility is an acceptable site under CERCLA for disposal of materials from the Hudson River processing facility.

WCS's current RCRA permit authorizes land disposal of 5,423,000 cy of waste, in accordance with the provisions of its permit. Additionally, WCS can request an expansion in size or capacity with proper notification to the EPA and TCEQ. WCS thus has the capacity to manage the Phase 1 waste quantity estimated in Section 2. The WCS facility is connected to rail track owned and operated by the Texas-New Mexico Railroad (TNMR).

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SECTION 4

TRANSPORTATION

All of the dewatered sediments and debris produced during Phase 1 of the Remedial Action will be transported by railroad from the processing facility site to the WCS facility (a single transportation mode).

4.1 RAIL PROCEDURES

To transport the waste from the processing facility site to the WCS facility, the project will primarily utilize unit trains of up to 81 rail cars each, which will be dedicated to the project. The rail cars making up the dedicated unit trains will be supplied by GE. It is anticipated that during Phase 1, five train sets of between 73 and 81 cars, with 45 additional cars reserved as spares, will be generally utilized. The railroads will provide dedicated locomotive power for the unit trains.

Dewatered sediments and debris will be loaded into rail cars from staging areas along the processing facility site rail yard. Rail yard operations consist of activities required to set up outbound loaded trains and receive inbound empty trains. Before being loaded at the processing facility, each rail car will be fitted by the RYOC with a liner system or “packaging” pursuant to the applicable DOT regulatory requirements in 49 CFR 173.240 for “sift-proof packaging.” The rail car loading procedures, including packaging, and unit train assembly procedures, are described in Section 5.

Once a train is loaded, it will travel from the processing facility site to the WCS facility via the trackage of the railroads involved in the movement. On average, one train of up to 81 loaded rail cars should depart the rail yard, and one train of up to 81 empty cars should arrive at the rail yard every two to five days during Phase 1. The actual frequency of train movement will vary based on railroad scheduling, rate of sediment processing, and other factors. A round-trip cycle of a loaded unit train to the WCS site for unloading and return to the processing facility site is estimated to require approximately two weeks. However, actual times are expected to vary due to railroad scheduling factors.

It is also possible that, at the beginning and/or end of the Phase 1 dredging season or under other conditions, project materials may be transported to the disposal site in less than unit train service. In such cases, up to 20 rail cars with project materials will be added to the originating railroad’s trains carrying rail cars with other commodities, based on the existing agreement with the railroads. This arrangement is called “manifest service” in the railroad industry.

4.2 RAIL CARRIERS AND ROUTES

Four railroad companies operating under a single confidential railroad transportation agreement with GE will be responsible for transporting the dewatered sediment from the

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processing facility site to the disposal site. Listed in the general sequence of transfer from the processing facility site to the disposal site, these railroads are:

- Canadian Pacific Railway (CPR);
- CSX Transportation, Inc. (CSXT);
- Union Pacific Railroad Company (UP); and
- Texas-New Mexico Railroad (TNMR).

Transportation of rail cars loaded with project materials will be under the care and custody of the railroads and will be routed pursuant to the rail transportation agreement and applicable laws and regulations. The routing of project unit trains, and any alternative routings, is established in the rail transportation agreement.

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SECTION 5

ON-SITE TRAFFIC CONTROL AND LOADING PROCEDURES

This section describes the transfer of dewatered sediments and debris from the staging areas to the unit-train rail cars. Rail car positioning, preparation, and transfer of material from staging areas and loading into rail cars will be handled by the RYOC. On-site transfer activities will involve handling of the three categories of material described above: debris, coarse material, and fine material (filter cake). Off-loading of dredged material from barges, facility operations, debris handling and coarse/fine material separation, and transfer of the material to the material staging areas will be accomplished by the PFOC as discussed in the Phase 1 Facility O&M Plan.

5.1 RAIL CAR LOADING PROCEDURES

Transport of dewatered sediment and debris begins upon removal from staging areas for loading into rail cars.

From the staging areas, the debris and coarse materials will be loaded into 52-foot mill gondola rail cars via front-end loaders or similar means. Front-end loaders will also work the stockpiles of filter cake and convey that material to rail cars positioned along the loading platform.

Prior to the initiation of work on a scheduled shipping day, the RYOC will place a block of approximately 40 or 41 rail cars on the loading track.

5.1.1 Packaging, Rail Car Preparation, and Loading

Dewatered sediments and debris will be packaged in accordance with applicable DOT standards. Packaging will be accomplished by the RYOC through one or more of the alternative methods described below. Alternative C is the intended packaging method; alternative A or B may also be utilized.

- Alternative A: Open-top gondola rail car fitted with rigid-material lid and Type 1 waste-enveloping rail car liner (Type 1 Liner and Hard Lid);
- Alternative B: Open-top gondola rail car fitted with one-time use tarpaulin and Type 1 waste -enveloping rail car liner (Type 1 Liner and Single-use Tarpaulin Cover); or
- Alternative C: Open-top gondola rail car fitted with Type 2 waste-enveloping rail car liner (Type 2 Liner as Liner and Cover).

Woven and/or coated polypropylene fabric (or equivalent) meeting DOT performance standards for such packaging will be used under all alternatives. Both Type 1 and Type 2 waste-enveloping liners completely cover the material, thus isolating it from the rail car and weather exposure. The Type 2 liner is made of heavier material to withstand direct exposure during

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transport, thus eliminating the need for a lid or tarpaulin railcar cover. A more detailed description of the three alternative approaches is provided below. Under any of these types of packaging, the packaging will be marked as containing PCBs in accordance with EPA's TSCA regulations (40 CFR Part 761, Subpart C). If it is not possible to develop a package marking method that can be easily read, then the marking will be applied to the rail car.

Alternative A: Type 1 Liner and Hard Lid

This alternative involves the use of a gondola rail car fitted with a Type 1 liner and rigid-material lid. The liners will be disposed of along with received waste at the disposal site whereas the rigid-material lid will be re-used. Under this approach the rail cars will arrive in the rail yard with lids in place. The RYOC will position the empty rail cars on the loading track within the Exclusion Zone (EZ) (described below in Section 8) and remove the rail car lids. After inspection and removal of residual materials and/or water from previous shipments, folded liners will be placed into the cars by means of a front-end loader. Workers will unfold the liner, and pass it over the top cord of the rail car and secure it to the sides of the rail car.

Wheel loaders, Caterpillar 980 or equivalent, equipped with 7- to 8-cy buckets, will remove materials from the filter cake enclosure, the coarse material staging area, or the debris staging area. The loaders will transport the material along the block of lined rail cars and load the material directly into the rail cars until the weight reaches between 101 and 105 net tons of material. The RYOC will control the loaded weight using loader bucket scale confirmed by the rail yard weigh-in-motion scale (further described below). The RYOC will then release and fold the liner inside of the rail car on top of the load, followed by placement and securing of the hard lid.

Alternative B: Type 1 Liner and Single-use Tarpaulin Cover

This alternative involves the use of a gondola rail car fitted with a Type 1 liner and covered with a secured, single-use tarpaulin. The liners and tarps will be disposed of along with received waste at the disposal site. Under this approach, rail cars will arrive uncovered and without liners into the rail yard. The steps of inspection, liner installation, and loading will be the same as in Alternative A above. The RYOC will then place the tarpaulin cover with supporting bows and secure the tarpaulin to the rail car's perimeter tie-down points.

Alternative C: Type 2 Liner as Liner and Cover

This alternative involves the use of a gondola rail car fitted with a Type 2 waste-enveloping liner. The liners will be disposed of along with received waste at the disposal site. Under this approach, rail cars will arrive uncovered and without liners into the rail yard. The steps of inspection, liner installation, and loading will be the same in as Alternative A above. Once the rail car is loaded, the RYOC will release the liner and fold the liner inside of the rail car on top of the load. End and side flaps will be secured in accordance with the liner-specific procedures.

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Securing the flaps with manufacturer-provided ropes and bungee cords effectively creates a complete envelope surrounding the loaded material.

5.1.2 Loading Inspection

The RYOC will inspect the cars prior to the completion of work in the loading zone. This inspection will include, but not be limited to, visually ensuring that:

- Rail cars have not been knocked off center in the loading process;
- All lids, tarpaulins, or Type 2 liners are properly secured;
- No safety appliances have been damaged; and
- No material being loaded into rail cars is loose on the outside of the rail equipment.

The RYOC will further assure by visual inspection that all equipment is sufficiently clear to allow safe rail car movement.

5.2 RAIL YARD PROCEDURES AND ASSEMBLY OF UNIT TRAINS

The RYOC will switch empty and loaded rail cars on and off the loading track. Rail cars to be switched on and off this track will typically consist of 40- to 41-car blocks to be assembled into 81-car unit trains. The RYOC will also weigh outbound loaded rail cars to confirm that weights are within allowable ranges for transport, and will assemble, inspect, and make necessary repairs to outbound loaded rail cars. In accordance with specifications, the RYOC will confirm the empty weights of the rail cars at the beginning of Phase 1 to enable determination of net loaded weight. After a car block has been loaded and the waste is secured for transport, the RYOC will move the train across the weigh-in-motion scale and position it on a receiving/ departure (R&D) track. It will then be combined with a second block to make up a full unit train.

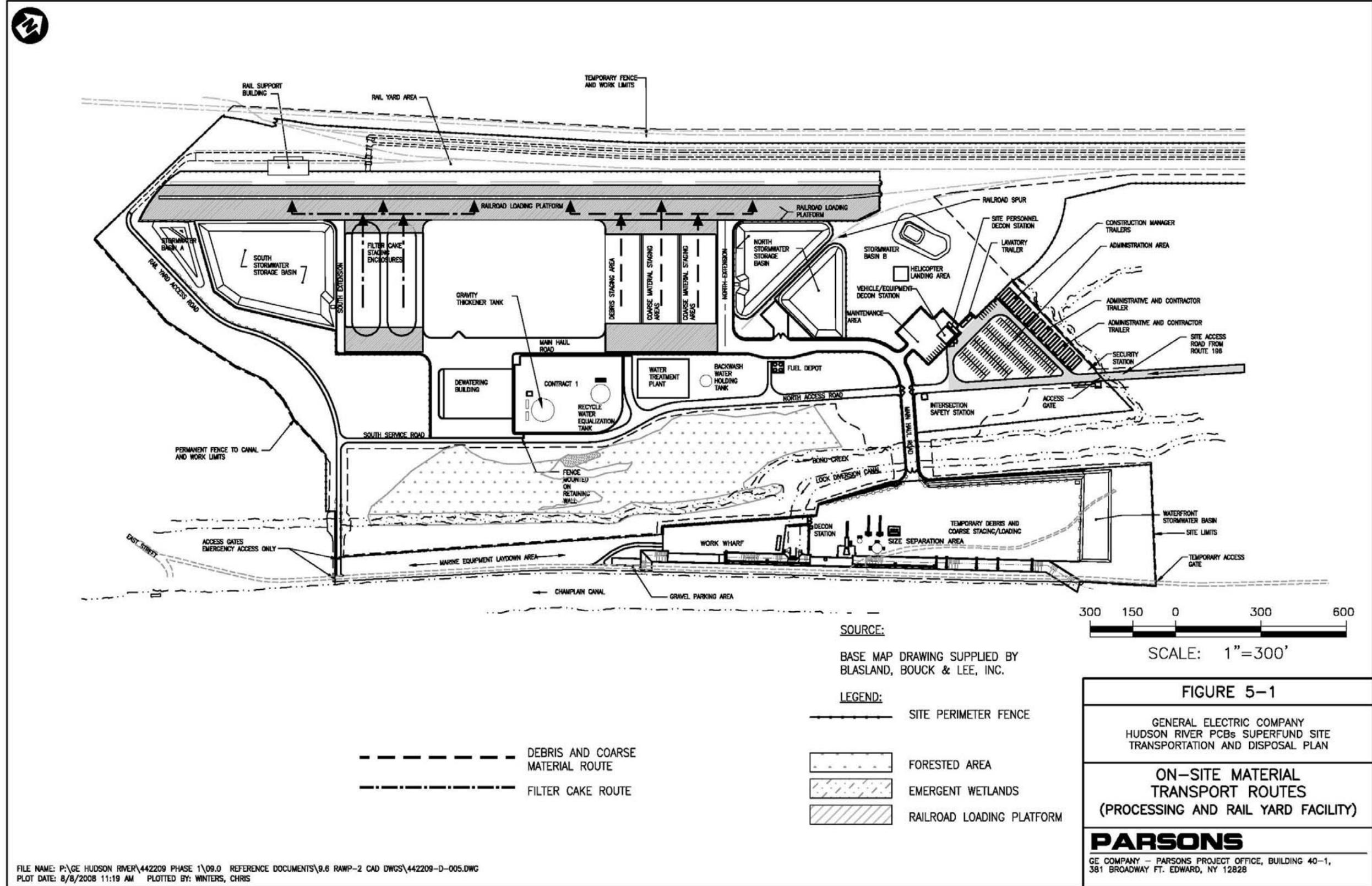
Once the unit train has been assembled and tracks properly secured, an initial terminal air test will be administered in accordance with 49 CFR § 232.217 (train brake tests using yard air). Additionally, inspection of end-of-train devices in accordance with 49 CFR § 232.409 will be completed by CPR as part of the initial terminal test.

The RYOC will prepare necessary documentation, including rail manifests and hazardous waste manifests (further described in Section 6). Once the manifests and any other necessary documentation are completed, they will be provided to the CM for review and approval. Authorized representatives for GE and CPR will sign the manifests, enabling the assembled unit train to be released for transportation to WCS.

The manifests and other documents for the outbound train will be kept in a weatherproof location so that the CPR crew can access the documents when they arrive to pick up the train. An electronic copy will be transmitted to CPR through an electronic data interchange (EDI) protocol that will be established between CPR and the RYOC. After these steps have been

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completed, the outbound unit train will be picked up by CPR in accordance with the project operating schedule.



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SECTION 6

RECORDKEEPING

This section describes pre-shipment notifications, recordkeeping, and tracking of waste transport and disposal activities.

6.1 PRE-SHIPMENT NOTIFICATIONS

As noted in Section 3, in accordance with Paragraph 23.c of the CD, GE has obtained EPA's determination, in a letter dated February 26, 2008, that the WCS facility is an acceptable site under CERCLA for disposal of material from the processing facility. As further required by Paragraph 23 of the CD, prior to any shipments of waste materials from the processing facility site to the disposal site, GE will provide written notification to the TCEQ, as well as to EPA and NYSDEC, of the anticipated shipments of waste material to the WCS facility during the year in which Phase 1 of the Remedial Action is conducted. That notification will include the information specified in Paragraph 23.a of the CD – i.e., the name and location of the disposal facility, the type and quantity of waste material to be shipped, the expected schedule for shipment (to the extent available), and the method of transportation.

6.2 OVERVIEW OF RECORDKEEPING PROCESS

EPA, NYSDEC, and TCEQ have regulations and procedures for manifesting and tracking shipments of PCB waste, such as the dewatered sediments from the Upper Hudson River, through the transport and disposal process. These procedures will be utilized.

EPA's regulations under TSCA require that generators, transporters, and disposers of PCB wastes possess EPA identification numbers (40 CFR § 761.202). Prior to commencing waste shipments, GE will submit EPA Form 7710-53 to EPA and obtain the necessary EPA ID number. As the waste generator, GE will use this EPA ID Number for PCB waste reporting and shipping control, as further discussed below.

Pursuant to EPA's TSCA regulations (40 CFR § 761.207) and NYSDEC's regulations for generators of hazardous waste (including wastes containing PCBs \geq 50 ppm) (6 NYCRR § 372.2(b)), GE as generator of PCB waste (at concentrations assumed at this site) will use the EPA "Uniform Hazardous Waste Manifest" (UHW Manifest) form (EPA Form 8700-22 and, if necessary, continuation sheet Form 8700-22A) to track shipments from the point of generation (the processing facility site, as described above) to the authorized waste disposal site. Texas regulations prescribe use of the same manifest form for waste designated Class 1 non-hazardous waste under Texas regulations, which includes waste with PCBs \geq 50 ppm (see 30 TAC § 335.10, § 335.508(5)). The associated TSCA regulations relating to the manifesting procedures (40 CFR §§ 761.207-.215) will also be followed. GE, the receiving and delivering transporters, and the disposal facility operator (WCS) or their representatives will be required to

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sign the manifest, retain a copy for themselves, and assure that sufficient copies accompany the waste shipment. More detailed information on the manifesting procedures is provided in Section 6.3 below.

6.3 WASTE MANIFESTING PROCEDURES

Both EPA (under its TSCA regulations) and NYSDEC (under its hazardous waste management regulations) require tracking of PCB waste disposition from "cradle to grave" – from when it leaves the point of generation until it arrives at the disposal site. The UHW Manifest form is used by waste generators to designate the disposal facility. The manifest accompanies the waste and must be signed by the generator (GE) or its representative, the transporter(s) (railroads), and the receiving facility (WCS). To track each shipment, the NYSDEC regulations require the generator to mail a copy of the manifest form to NYSDEC within ten days of shipment (6 NYCRR § 372.2(b)(3)(iii)). For the wastes shipped from the Ft. Edward processing facility site, GE will send copies of the generator manifests to EPA and NYSDEC. WCS will be responsible for reporting to TCEQ in accordance with applicable Texas requirements.

A sample of the UHW Manifest form, EPA Form 8700-22 and 8700-22A (continuation sheet), and detailed instructions regarding these forms are provided in Attachment B.

6.3.1 Manifesting Procedures for Unit Train Shipments

Because virtually all shipments are expected to be via unit trains composed solely of project rail cars, a single manifest will be utilized to manage each shipment. A UHW Manifest form will be prepared and completed for each loaded train. Since each rail car is to be weighed individually at both the generating site and the disposal site, a listing of rail cars will be prepared, noted on the manifest, and attached to the manifest. This listing will include rail car serial numbers and loaded net weight for each car. The listing will enable the disposal site to confirm loaded weights on a car-by-car basis and thus overall receipt of the shipment.

The GE-designated personnel will complete the generator portion of the manifest in accordance with manifest instructions and NYSDEC procedures for issuance to the railroad. NYSDEC waste code "B007" for "Other PCB Wastes...including dredge material" will be used for all categories of dewatered sediment (i.e., debris, coarse material, and filter cake). Following rail car weighing, the RYOC will document the proper weight of waste in kilograms (net weight of waste, not the gross weight including rail car). The RYOC will complete the manifest for review by the CM and for review, approval, and signature by GE or its representative and the CPR as the originating rail carrier. The CM will then process the retained manifest copies on behalf of GE as described below.

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After copying for records, the CM will send the signed manifest to the disposal site, with copies to EPA and NYSDEC within ten days of the date of shipment. The signed manifest copy will include the listing of rail cars, their serial numbers, and net weight of contained sediment.

The railroad companies are responsible for ensuring that the manifest or shipping paper containing the manifest information (except for EPA ID numbers, generator certification, and signatures) accompanies the PCB waste at all times. The delivering railroad (TNMR) will sign the manifest to document acceptance for delivery. WCS will also confirm receipt of all waste (after weighing and inspection pursuant to disposal site procedures), sign the manifest, and return a signed copy of the manifest to GE to confirm receipt. WCS will also report to the TCEQ in accordance with its permit and Texas requirements. The CM will match this confirming manifest with the original retained copy to document completion of the shipment.

6.3.2 Manifesting Procedures for Train Shipments in Less Than Unit Train Service

As noted in Section 4.1, it is possible that, under some conditions, project materials may be transported to the disposal site in less than unit train service. In such cases, up to 20 rail cars of project materials will be added to trains containing rail cars of other commodities. (This arrangement is called “manifest service” in the railroad industry, although that name is not related to the UHW Manifests discussed herein.) In this situation, GE will issue a UHW Manifest form for each individual rail car. Other aspects of the UHW Manifest procedures will be the same as described in Section 6.3.1.

6.4. RECORDS MANAGEMENT AND RETENTION

A hard copy file of all the waste manifests and rail manifests as well as a scanned copy will be retained. GE and its contractors and agents will retain waste generation, transportation, and disposal records in accordance with the records retention requirement stated in Paragraph 121.a of the CD to preserve and retain all non-identical copies of such records and documents until 10 years after receipt of EPA’s Certification of Completion of the Work. In addition, at the conclusion of the document retention period, GE will notify the EPA at least 90 days prior to the destruction of any such records or documents, as provided in Paragraph 122 of the CD, and will, upon request, deliver such documents to EPA.

6.5 REQUIRED REPORTING

GE will mail or hand deliver all UHW Manifest copies and related correspondence to:

Director, Hudson River Field Office
U.S. Environmental Protection Agency
412 Lower Main Street
Hudson Falls, NY 12839

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and to:

New York State Department of Environmental Conservation
DSHM, Hazardous Waste Manifest Section
625 Broadway, Floor 9
Albany, NY 12233-7252

Manifest Section Contact Information

Phone: (518) 402-8738

Fax: (518) 402-8654

E-Mail: manifest@gw.dec.state.ny.us

Any significant differences between the manifest information and what the transporter or disposal facility finds with the waste shipment will be documented in the discrepancy indication space on the manifest form. Discrepancies will be managed by the CM in accordance with the procedures set forth in 40 CFR § 761.210. For potential rejected loads, WCS will notify GE before any loads are rejected. If a shipment must be returned to GE, the appropriate portion of the same manifest will be completed accordingly.

Exception reporting will be managed in accordance with 40 CFR § 761.215. All shipment receipts must be confirmed via signed manifest copy within 35 days of shipment. If, within 35 days of the date of shipment, GE has not received a signed copy of the manifest from the WCS, GE will contact the railroad and WCS and determine the status of the shipment and related documentation. If, within 45 days of the date of shipment, GE has not received the completed manifest copy, GE will notify EPA and outline the efforts being taken to confirm the shipment completion.

In accordance with 40 CFR § 761.218, WCS will issue a Certificate of Disposal to GE within 30 calendar days of the date on which the disposal of PCB waste identified on the manifest was completed. This certificate will include:

- The identity of the disposal facility, by name, address, and EPA identification number;
- The identity of PCB waste referenced by the manifest number for the shipment;
- A statement certifying the fact of disposal of the identified PCB waste, including the date(s) of disposal, and identifying the disposal process used; and
- A certification as defined in 40 CFR § 761.3

NYSDEC regulations include a requirement for the generator of any hazardous waste shipped off-site to submit an annual report on such shipments by March 1 of the following year (6 NYCRR § 372.2(c)(2)). To address this reporting requirement for the off-site waste shipments during Phase 1 of the Remedial Action, GE will include a report on those shipments (covering the total volume of dewatered sediments transported and disposed of during Phase 1) in the Phase 1 Construction Report required under Paragraph 56.b of the CD.

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SECTION 7

HEALTH AND SAFETY

This section provides an overview of the health and safety plans in effect at the processing facility site, including the rail yard. Health and safety oversight at the processing facility site is the responsibility of the CM. Once a unit train departs from the processing facility site, health and safety oversight during transport to the disposal site is the responsibility of the railroad companies. Upon receipt of dewatered sediment and debris shipments at the disposal facility, health and safety oversight becomes the responsibility of the disposal site owner/operator (WCS).

7.1 RA HASP

A *Remedial Action Health and Safety Plan* (RA HASP) (Parsons, 2008) defines minimum safety and health requirements, guidelines, and practices applicable to the overall Phase 1 RA project, including the processing facility and rail yard operations. An update to that RA HASP has been prepared in accordance with Section 2.3.2.3 of the SOW and is being submitted to EPA concurrently with RAWP #3. For complete details on the project health and safety program, please refer to that updated RA HASP.

The RA HASP (Parsons, 2008) reflects the corporate policy of both GE and the CM. The RA HASP uses the zero incident management approach and defines the safety goal for this project as *zero incidents and zero injuries*.

The RA HASP (Parsons, 2008) provides a general description of anticipated types of field activities. Specific field activities are described in more detail in the Contractor HASPs (see Section 7.2). The objectives of the RA HASP are to:

- Establish minimum health and safety requirements;
- Identify the physical, chemical, and biological hazards potentially present during field work associated with RAWP #3;
- Prescribe the protective measures necessary to control those hazards;
- Define emergency procedures; and
- Prescribe training and medical qualification criteria for site personnel.

The RA HASP (Parsons, 2008) must be reviewed by all contractor and subcontract managers, supervisors, foremen, and safety personnel. All project personnel performing field activities will receive a site-specific project orientation summarizing the content of the RA HASP. All personnel will be required to sign the appropriate documentation acknowledging an understanding of the RA HASP requirements.

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The RA HASP (Parsons, 2008) was written to comply with the requirements of the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard (29 CFR § 1910.120). All activities covered by the RA HASP will be conducted in compliance with applicable federal, state, and local health and safety regulations, including 29 CFR § 1910.120 and, for rail yard operations, applicable Federal Railroad Administration safety regulations (49 CFR Part 214, Subpart C).

7.2 CONTRACTOR HASP

Under the RA HASP (Parsons, 2008) and project specifications, each contractor is required to prepare a “worker HASP” (referred to herein as Contractor HASP). Each Contractor HASP is required to discuss tasks and provide detailed procedures and activity hazard analyses specific to its scope of work. Each Contractor HASP is required to conform to the RA HASP.

The RYOC’s HASP is appended to the RA HASP (Parsons, 2008) update submitted separately. That HASP covers on-site transport of dewatered sediment, specifically including:

- Traffic safety during on-site transport of materials to the loading track – addressing how loaders, ground personnel, rail yard personnel, and other contractor personnel will interact safely in the loading and staging areas;
- Preparation of rail cars for loading, including the removal and replacement of rail car lids (if utilized), lining of cars, and securing of packaging in preparation for transport;
- Handling and loading of coarse material, debris, and filter cake into rail cars;
- Applicable personnel training for rail yard operations pursuant to 49 CFR §§ 214-240;
- Inspection of cars, as well as procedures for identifying “bad-order” rail cars, to assure that only safe cars are deployed for unit train make-up;
- Movement of cars within the rail yard and on and off of the CP-controlled track, including coordination with the railroad company for this purpose; and
- Track, facility, and equipment inspection maintenance and repair.

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SECTION 8

CONTINGENCY PLANS FOR SPILLS THAT OCCUR IN THE WORK AREA

This section describes the approach for response to spills that may potentially occur in the work area from the point in the process that dewatered sediment is transported from staging areas to rail cars.

A key design feature of the processing facility is the EZ, which is a segregated and controlled area of the site in which all PCB material management will occur. A chain-link fence separates the EZ from other areas. The EZ is further described in Section 5.1 of the Phase 1 Facility O&M Plan. In addition to other areas where PCB-containing material will be handled, the EZ includes the Filter Cake Staging Enclosures, Debris and Coarse Material Staging Areas, and the Rail Loading Platform. Loaded rail cars will be closed and secured within the EZ. Drainage from the EZ is considered Type I storm water and will be controlled such that storm water runoff is collected and treated before discharge. After loaded rail cars are closed, secured, and inspected, they may be moved outside the EZ into the rail yard pending final train assembly. The rail yard is outside the EZ. Drainage from the rail yard is considered Type II storm water, which will be collected and conveyed to on-site detention basins prior to discharge to Bond Creek.

Potential for spills in the work area will be managed by engineered controls (containment and treatment for Type I and Type II storm water) and management plans with specific contingent measures for prevention and response. These plans are Storm Water Pollution Prevention Plans (SWPPP) and Spill Prevention, Control and Countermeasure (SPCC) Plans. Since all processing and handling of dredged materials before transport will occur in the EZ of the work area, which is designed and constructed with engineered controls, spillage of dredged sediment within this area will not be considered a spill or release to the environment prompting planned response or reporting. Response to spillage of dredged materials that may occur outside the EZ will be managed in accordance with the contractors' SPCC Plans, which are further discussed below.

8.1 STORM WATER POLLUTION PREVENTION

As described above, the on-site work area is engineered for Type I or Type II storm water control. These areas include the rail-yard loading platform and loading track. The Type I storm water collection and conveyance system will provide containment of potentially PCB-contaminated storm water and prevent off-site PCB migration. Type I storm water will be collected in retention basins, pumped to the water treatment building, and treated in parallel with

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process water removed during sediment dewatering operations. Type II storm water will be collected and conveyed to on-site retention basins prior to discharge.

The storm water system will be maintained by the PFOC and RYOC in accordance with project operating plans required by technical specifications of Contract 3B and Contract 6, respectively. In accordance with the technical specifications, the RYOC will prepare, submit for CM approval, and implement a site-specific SWPPP meeting the substantive provisions of the New York State Pollution Discharge Elimination System General Permit for Storm Water Discharges. This SWPPP will provide storm water system inspection and maintenance procedures for the work area and will also address pollution prevention measures that the RYOC will follow to prevent spillage and releases from becoming pollutant sources in storm water. The RYOC's SWPPP will be maintained on-site available for EPA review. The storm water management system is also discussed in Section 5.3.2 of the Phase 1 Facility O&M Plan.

8.2 SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLANS

8.2.1 Site-wide SPCC Plan

As discussed in Section 5.3.1 of the Phase 1 Facility O&M Plan, GE will prepare and implement a Site-wide SPCC Plan governing storage and management of petroleum, oils, and lubricants (POL) and response to POL spills at the processing facility. This SPCC Plan will meet the applicable requirements of 6 NYCRR Parts 611 through 614 and 40 CFR Parts 110 and 112. It will establish overall spill prevention and contingency measures for various potential types of POL spills resulting from all site contractor activities. The Site-wide SPCC Plan will be certified by a registered professional engineer in the State of New York, and will be maintained at the site and be available for inspection by EPA upon request.

8.2.2 Contractor SPCC Plans

In addition to the Site-wide SPCC Plan, in accordance with the project technical specifications, the PFOC and the RYOC must each prepare, submit for CM approval, and implement a comprehensive SPCC Plan. These SPCC Plans will provide contingency measures for potential spills resulting from these contractors' activities. These contractor SPCC Plans will conform to the Site-wide SPCC Plan as well as project technical specifications. They will be maintained on-site and will be available for EPA review. In addition to POL storage and management activities, these SPCC Plans will address prevention and response to spills, including spills or releases of processed sediments outside the EZ (including, for the RYOC's plan, the rail yard outside that zone). Topics covered will include:

- Spill prevention means, methods, and procedures;
- Spill response means, methods, and procedures;
- Materials and equipment maintained on-site for spill response;
- Notification, reporting, and follow-up; and

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- Personnel assignments, responsibilities, and training.

Each of these contractors will perform inspections and tests and keep records pursuant to its SPCC Plan. Any stored hazardous materials subject to spill control reporting such as fuel or chemicals will be described in the SPCC Plan. Monitoring will be required to ensure that control measures are functioning properly to prevent a spill from reaching navigable waters, and that countermeasures to contain, clean up, and mitigate the effects of a spill are effective. Monitoring for releases of identified materials will be combined with routine inspections. After response to any spill of covered materials, the necessary decontamination and reporting will be undertaken in accordance with the SPCC Plan.

Additional information on control measures for and responses to spills at the processing facility (including the PFOC's and RYOC's SPCC Plans) is provided in Section 5.3.1 of the Phase 1 Facility O&M Plan, and decontamination of personnel and equipment is described in Section 5.2 of that plan.

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SECTION 9

REFERENCES

- Blasland, Bouck & Lee, Inc. 2005. *Phase I Intermediate Design Report – Hudson River PCBs Superfund Site*. August, 2005.
- Blasland, Bouck & Lee, Inc. 2006. *Phase I Final Design Report – Hudson River PCBs Superfund Site (including Contract drawings and specifications)*. March, 2006.
- Environmental Protection Agency and General Electric Company. 2005. *Consent Decree in United States v. General Electric Company, Civil Action No. 1:05-cv-1270*, lodged in United States District Court for the Northern District of New York, October 6, 2005; final judgment entered November 2, 2006.
- Parsons. 2009. *Phase I Facility Operations and Maintenance Plan – Hudson River PCBs Superfund Site*. (Appendix B of RAWP #3) Revision 1, May 2009.
- Parsons. 2008. *Remedial Action Health and Safety Plan – Hudson River PCBs Superfund Site. (RA HASP)*. Revision 1. August, 2008.
- Quantitative Environmental Analysis, LLC. 2004. *Data Summary Report for Candidate Phase I Areas*. September, 2004.

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ATTACHMENT A

EXAMPLE WASTE PROFILES SHEETS (FOR DEWATERED SEDIMENT AND DEBRIS)

Facility Address **SAMPLE - FedEx/UPS**
 for Manifest: Address:
 9998 W. Hwy. 176 9998 W. Hwy. 176
 Andrews, TX 79714 Eunice, NM 88231



Business Mailing **Site Contacts:**
 Address: Ph #: (888) 789-2783/
 PO Box 1129 (505) 394-4300
 Andrews, TX 79714 Fax #: (505) 394-3427

Waste Profile Sheet

Sales Representative _____

Profile Number _____

WCS EPA ID # TXD988088464

WCS State ID/RCRA # HW-50358

Attachments: Chain of Custody MSDS Attachment for Radioactive Material (includes NORM/Exempt) Other
 RCRA Analytical Radiological Analytical **Representative Sample:** Yes No

List any unacceptable treatment methods: _____ **PO Required for Invoicing:** Yes No

SECTION 1		<input type="checkbox"/> Check if billing information is the same address.	
Generator Name: General Electric Company		Billing Company:	
Physical Address: Fort Edward Sediment Processing Facility		Mail Address:	
City, State, Zip: Fort Edward, NY		City, State, Zip:	
Technical Contact: Robert Gibson		Billing Contact:	
e-mail: bob.gibson@ge.com		e-mail:	
Phone #: (518) 862-2736	Fax #: (518) 862-2731	Phone #:	Fax #:
Manifest Return Address:			

SECTION 2 Generator Regulatory Status

EPA ID#: TBD **State ID#:** TBD

Industrial Municipal PST Waste Universal Waste SQG CESQG
 Oil & Gas Exempt Oil & Gas Non-Exempt

SECTION 3 General Description and Regulatory Information

Waste Name: Processed Hudson River Sediment
Process Generating Waste: Sediment Dredging and Dewatering

Is this a US EPA hazardous waste? Yes No If yes, list all codes including all LDR subcategories-e.g. D003-cyanides (attach additional pages if necessary). _____

State Waste Code #: N/A

	N/A	Yes	No		N/A	Yes	No
				RCRA Exempt Waste (List Reference _____)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
TSCA regulated for PCB's Concentration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Regulated Subpart CC Waste (VOC>500ppm)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Asbestos Regulated Material (If Yes, is material friable? <input type="checkbox"/> Yes <input type="checkbox"/> No)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does waste contain sorbents (If yes, are sorbents biodegradable? <input type="checkbox"/> Yes <input type="checkbox"/> No)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Regulated Ozone Depleting Substance		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Waste soil subject to LDR alternate treatment standards	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Benzene NESHP Regulated <input type="checkbox"/> With Controls <input type="checkbox"/> With Out Controls		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Waste debris subject to LDR alternate treatment standards	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Does non-debris waste requiring treatment contain <85ppm Volatile Organic Compounds? (If yes, analysis may be required.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does debris contain <85ppm Volatile Organic Compounds?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does material contain any regulated UHC's If yes, list: _____		<input type="checkbox"/>	<input checked="" type="checkbox"/>				

SECTION 4 Waste Composition **Percentage by Weight** **Percentage by Volume**

Physical Composition	Actual/Avg.	Range		Physical Composition	Actual/Avg.	Range	
Processed Coarse Sediment	50%	0%	100%	Aquatic Vegetation and Biota	<5%	0%	100%
Processed Fine Sediment	50%	0%	100%		%	%	%
Misc. Small Debris	<5%	0%	100%		%	%	%

Range Totals Must Be ≥ 100%

Waste Profile Number:

Metals <input type="checkbox"/> TCLP <input checked="" type="checkbox"/> Totals <input type="checkbox"/> Generator's Knowledge <input checked="" type="checkbox"/> ppm <input type="checkbox"/> ppb
Antimony: ND - 4.4 Cadmium: N/D - 35 Selenium: ND-1.7 Mercury: ND - 4.8
Arsenic: 0.9 - 5.4 Chromium: 4.3 - 515 Silver: ND - 0.6
Barium: 21 - 212 Lead: 3.4 - 561 Thallium: ND
Beryllium: 0.3 - 1.1 Nickel: 3.3 - 31 Zinc: 28 - 494
<input type="checkbox"/> Mercury <260 ppm totals <input type="checkbox"/> Mercury >260 ppm totals <input type="checkbox"/> Mercury N/A

Other Chemical Constituents:	<input checked="" type="checkbox"/> ppm <input type="checkbox"/> ppb <input type="checkbox"/> % by Wt. <input type="checkbox"/> % by Vol.
Bromine: N/A%	Benzene : ND <input type="checkbox"/> TCLP <input checked="" type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Chlorine: N/A%	PCBs : 5-500 <input type="checkbox"/> TCLP <input checked="" type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Iodine: N/A%	: <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Cyanides: N/A Total _____ Amenable _____ Reactive	: <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Sulfides: N/A Total _____ Reactive	: <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Use attachment for additional chemical constituents.	

SECTION 5 Waste Characteristics	Flashpoint °F	pH	Turbidity	Viscosity	Fuel Value
Liquid 0% # of Layers N/A	Actual	<input type="checkbox"/> 0-2	<input type="checkbox"/> Transparent	<input type="checkbox"/> Light (water)	<input type="checkbox"/> < 5,000 BTU
Solid 100% Color _____	<input checked="" type="checkbox"/> >200	<input type="checkbox"/> >2.1-4	<input type="checkbox"/> Translucent	<input type="checkbox"/> Medium (syrup)	<input type="checkbox"/> 5,000-10,000 BTU
Sludge 0% Odor _____	<input type="checkbox"/> >140-200	<input type="checkbox"/> >4-10	<input type="checkbox"/> Opaque	<input type="checkbox"/> Heavy (tar)	<input type="checkbox"/> >10,000 BTU
Debris 0% Specific Gravity _____	<input type="checkbox"/> >100-139	<input type="checkbox"/> >10-12.4	<input type="checkbox"/> Other		
<input checked="" type="checkbox"/> % by Weight	100 pcf Density	<input type="checkbox"/> <100			
<input type="checkbox"/> % by Volume		<input type="checkbox"/> >12.5-14			

Other Characteristics of Waste		<input checked="" type="checkbox"/> None Apply	
Yes No	Yes No	Yes No	Yes No
<input type="checkbox"/> <input checked="" type="checkbox"/> Oxidizer	<input type="checkbox"/> <input checked="" type="checkbox"/> Dioxin Listed (Storage Only)	<input type="checkbox"/> <input checked="" type="checkbox"/> Liquid Organic Peroxide (not acceptable)	
<input type="checkbox"/> <input checked="" type="checkbox"/> Explosive (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Infectious or Etiological (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Fuming/Smoking Waste	
<input type="checkbox"/> <input checked="" type="checkbox"/> Pyrophoric (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Putrescible (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Pressurized Gasses (other than aerosols, not acceptable)	
<input type="checkbox"/> <input checked="" type="checkbox"/> Water Reactive	<input type="checkbox"/> <input checked="" type="checkbox"/> Autopolymerizable	<input type="checkbox"/> <input checked="" type="checkbox"/> Solid Organic Peroxide	

SECTION 6 Shipping Information DOT Shipping Name: _____			
Hazard Class/Div. _____	ID# (UN/NA) _____	Packing Group (PG) _____	RQ _____
<input type="checkbox"/> Soft Top Rolloff	<input type="checkbox"/> Vac Tanker	(Type: Fiber, Poly, Steel)	Quantity 105 tons
<input type="checkbox"/> Hard Top Rolloff	<input type="checkbox"/> Cu Yd Box or Super Sack	<input type="checkbox"/> 55 gal.	Frequency Varies
<input checked="" type="checkbox"/> Gondola	<input type="checkbox"/> Shrink Wrapped Pallet	<input type="checkbox"/> 30 gal.	
<input type="checkbox"/> Intermodal	<input type="checkbox"/> Consumer Packaging	<input type="checkbox"/> 15 gal.	Overpacked Drums: Type _____ Size _____
<input type="checkbox"/> Tanker	<input type="checkbox"/> B-25 <input type="checkbox"/> B-12	<input type="checkbox"/> 5 gal.	
<input type="checkbox"/> Other, please specify:		<input type="checkbox"/> 1 gal.	

SECTION 7 Certification		
<p>The information contained herein is based on <input checked="" type="checkbox"/> generator's knowledge and/or <input checked="" type="checkbox"/> analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exists and that all know suspected hazards have been disclosed. I certify that the sample(s) provided to WCS is representative of all materials described by this document, that the materials tested are representative of all materials described by this document, and that the methods of analysis used are the appropriate analytical methods as specified in the current editions of EPA (SW-846) or equivalent methods.</p>		
Signature	Printed/Typed Name	Date

Facility Address **SAMPLE - FedEx/UPS**
for Manifest: **Address:**
 9998 W. Hwy. 176 9998 W. Hwy. 176
 Andrews, TX 79714 Eunice, NM 88231



Business Mailing **Site Contacts:**
Address: Ph #: (888) 789-2783/
 PO Box 1129 (505) 394-4300
 Andrews, TX 79714 Fax #: (505) 394-3427

Waste Profile Sheet

Sales Representative

Profile Number

WCS EPA ID # TXD988088464

WCS State ID/RCRA # HW-50358

Attachments: Chain of Custody MSDS Attachment for Radioactive Material (includes NORM/Exempt) Other
 RCRA Analytical Radiological Analytical **Representative Sample:** Yes No

List any unacceptable treatment methods: _____ **PO Required for Invoicing:** Yes No

SECTION 1
Generator Name: General Electric Company Check if billing information is the same address.
Billing Company: _____
Physical Address: Fort Edward Sediment Processing Facility **Mail Address:** _____
City, State, Zip: Fort Edward, NY **City, State, Zip:** _____
Technical Contact: Robert Gibson **Billing Contact:** _____
e-mail: bob.gibson@ge.com **e-mail:** _____
Phone #: (518) 862-2736 **Fax #:** (518) 862-2731 **Phone #:** _____ **Fax #:** _____
Manifest Return Address: _____

SECTION 2 Generator Regulatory Status
EPA ID#: TBD **State ID#:** TBD
 Industrial Municipal PST Waste Universal Waste SQG CESQG
 Oil & Gas Exempt Oil & Gas Non-Exempt

SECTION 3 General Description and Regulatory Information
Waste Name: Oversize Debris
Process Generating Waste: Debris Removal Associated with Sediment Dredging
 Is this a US EPA hazardous waste? Yes No If yes, list all codes including all LDR subcategories-e.g. D003-cyanides (attach additional pages if necessary). _____
State Waste Code #: N/A

	N/A	Yes	No		N/A	Yes	No
				RCRA Exempt Waste (List Reference _____)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
TSCA regulated for PCB's Concentration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Regulated Subpart CC Waste (VOC>500ppm)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Asbestos Regulated Material (If Yes, is material friable? <input type="checkbox"/> Yes <input type="checkbox"/> No)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does waste contain sorbents (If yes, are sorbents biodegradable? <input type="checkbox"/> Yes <input type="checkbox"/> No)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Regulated Ozone Depleting Substance		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Waste soil subject to LDR alternate treatment standards	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Benzene NESHP Regulated <input type="checkbox"/> With Controls <input type="checkbox"/> With Out Controls		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Waste debris subject to LDR alternate treatment standards	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Does non-debris waste requiring treatment contain <85ppm Volatile Organic Compounds? (if yes, analysis may be required.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does debris contain <85ppm Volatile Organic Compounds?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does material contain any regulated UHC's If yes, list: _____		<input type="checkbox"/>	<input checked="" type="checkbox"/>				

SECTION 4 Waste Composition **Percentage by Weight** **Percentage by Volume**

Physical Composition	Actual/Avg.	Range	Physical Composition	Actual/Avg.	Range
Wood Debris	Var.%	0% 100%	Other Miscellaneous Debris	Var.%	0% 100%
Rock Debris	Var.%	0% 100%		%	% %
Metal Debris	Var.%	0% 100%		%	% %

Range Totals Must Be ≥ 100%

Waste Profile Number:

Metals <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input type="checkbox"/> <input checked="" type="checkbox"/> Generator's Knowledge <input checked="" type="checkbox"/> ppm <input type="checkbox"/> ppb			
Antimony: <u>Varies</u>	Cadmium: <u>Varies</u>	Selenium: <u>Varies</u>	Mercury: <u>Varies</u>
Arsenic: <u>Varies</u>	Chromium: <u>Varies</u>	Silver: <u>Varies</u>	
Barium: <u>Varies</u>	Lead: <u>Varies</u>	Thallium: <u>Varies</u>	<input type="checkbox"/> Mercury <260 ppm totals
Beryllium: <u>Varies</u>	Nickel: <u>Varies</u>	Zinc: <u>Varies</u>	<input type="checkbox"/> Mercury >260 ppm totals
			<input type="checkbox"/> Mercury N/A

Other Chemical Constituents:	<input checked="" type="checkbox"/> ppm <input type="checkbox"/> ppb <input type="checkbox"/> % by Wt. <input type="checkbox"/> % by Vol.
Bromine: <u>N/A%</u>	Benzene : <u>N/A</u> <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input checked="" type="checkbox"/> Gen. Knowledge
Chlorine: <u>N/A%</u>	PCBs : <u>0 - 500</u> <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input checked="" type="checkbox"/> Gen. Knowledge
Iodine: <u>N/A%</u>	: : <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Cyanides: <u>N/A</u> Total _____ Amenable _____ Reactive _____	: : <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Sulfides: <u>N/A</u> Total _____ Reactive _____	: : <input type="checkbox"/> TCLP <input type="checkbox"/> Totals <input type="checkbox"/> Gen. Knowledge
Use attachment for additional chemical constituents.	

SECTION 5 Waste Characteristics		Flashpoint °F	pH	Turbidity	Viscosity	Fuel Value
Liquid <u>0%</u>	# of Layers <u>N/A</u>	<u>Actual</u>	<input type="checkbox"/> 0-2	<input type="checkbox"/> Transparent	<input type="checkbox"/> Light (water)	<input type="checkbox"/> < 5,000 BTU
Solid <u>100%</u>	Color _____	<input type="checkbox"/> >200	<input type="checkbox"/> >2.1-4	<input type="checkbox"/> Translucent	<input type="checkbox"/> Medium (syrup)	<input type="checkbox"/> 5,000-10,000 BTU
Sludge <u>0%</u>	Odor _____	<input type="checkbox"/> >140-200	<input type="checkbox"/> >4-10	<input type="checkbox"/> Opaque	<input type="checkbox"/> Heavy (tar)	<input type="checkbox"/> >10,000 BTU
Debris <u>0%</u>	Specific Gravity _____	<input type="checkbox"/> >100-139	<input type="checkbox"/> >10-12.4	<input type="checkbox"/> Other _____		
<input checked="" type="checkbox"/> % by Weight	<u>Varies</u> Density	<input type="checkbox"/> <100	<input type="checkbox"/> >12.5-14			
<input type="checkbox"/> % by Volume						

Other Characteristics of Waste		<input checked="" type="checkbox"/> None Apply		
Yes No	Yes No	Yes No	Yes No	Yes No
<input type="checkbox"/> <input checked="" type="checkbox"/> Oxidizer	<input type="checkbox"/> <input checked="" type="checkbox"/> Dioxin Listed (Storage Only)	<input type="checkbox"/> <input checked="" type="checkbox"/> Liquid Organic Peroxide (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Explosive (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Fuming/Smoking Waste
<input type="checkbox"/> <input checked="" type="checkbox"/> Pyrophoric (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Infectious or Etiological (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Pressurized Gasses (other than aerosols, not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Water Reactive	<input type="checkbox"/> <input checked="" type="checkbox"/> Solid Organic Peroxide
<input type="checkbox"/> <input checked="" type="checkbox"/> Putrescible (not acceptable)	<input type="checkbox"/> <input checked="" type="checkbox"/> Autopolymerizable			

SECTION 6 Shipping Information DOT Shipping Name: _____			
Hazard Class/Div. _____	ID# (UN/NA) _____	Packing Group (PG) _____	RQ _____
<input type="checkbox"/> Soft Top Rolloff	<input type="checkbox"/> Vac Tanker	(Type: Fiber, Poly, Steel)	Quantity 105 tons
<input type="checkbox"/> Hard Top Rolloff	<input type="checkbox"/> Cu Yd Box or Super Sack	<input type="checkbox"/> 55 gal.	Frequency Varies
<input checked="" type="checkbox"/> Gondola	<input type="checkbox"/> Shrink Wrapped Pallet	<input type="checkbox"/> 30 gal.	Overpacked Drums: Type _____ Size _____
<input type="checkbox"/> Intermodal	<input type="checkbox"/> Consumer Packaging	<input type="checkbox"/> 15 gal.	
<input type="checkbox"/> Tanker	<input type="checkbox"/> B-25 <input type="checkbox"/> B-12	<input type="checkbox"/> 5 gal.	
<input type="checkbox"/> Other, please specify: _____			

SECTION 7 Certification		
<p>The information contained herein is based on <input checked="" type="checkbox"/> generator's knowledge and/or <input checked="" type="checkbox"/> analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exists and that all know suspected hazards have been disclosed. I certify that the sample(s) provided to WCS is representative of all materials described by this document, that the materials tested are representative of all materials described by this document, and that the methods of analysis used are the appropriate analytical methods as specified in the current editions of EPA (SW-846) or equivalent methods.</p>		
Signature	Printed/Typed Name	Date

Transportation and Disposal Plan

ATTACHMENT B

WASTE MANIFEST FORM AND INSTRUCTIONS

GENERATOR	UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number		2. Page 1 of	3. Emergency Response Phone		4. Manifest Tracking Number				
	5. Generator's Name and Mailing Address					Generator's Site Address (if different than mailing address)					
	Generator's Phone										
	6. Transporter 1 Company Name				U.S. EPAID Number						
7. Transporter 2 Company Name				U.S. EPAID Number							
8. Designated Facility Name and Site Address				U.S. EPAID Number							
Facility's Phone											
TRANSPORTER INT'L	9a HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
DESIGNATED FACILITY	1										
2											
3											
4											
14. Special Handling Instructions and Additional Information											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Offoror's Printed/Typed Name					Signature			Month		Day	Year
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____											
17. Transporter Acknowledgment of Receipt of Materials											
Transporter 1 Printed/Typed Name					Signature			Month		Day	Year
Transporter 2 Printed/Typed Name					Signature			Month		Day	Year
18. Discrepancy											
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection											
Manifest Reference Number: _____											
18b. Alternate Facility (or Generator)					U.S. EPAID Number						
Facility's Phone											
18c. Signature of Alternate Facility (or Generator)					Signature			Month		Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1	2	3	4								
20. Designated Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name					Signature			Month		Day	Year

Instructions for Completing the Hazardous Waste Manifest

What are the instructions for completing the manifest form (EPA Form 8700-22)?

Read all instructions before completing the form.

1. The form has been designed for use on a 12-pitch (elite) typewriter which is also compatible with standard computer printers; a firm point pen may also be used—press down hard.
2. Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to complete the manifest form (EPA Form 8700-22) and, if necessary, the continuation sheet (EPA Form 8700-22A) for both inter- and intrastate transportation of hazardous waste.

I. Instructions for Generators

Item 1. Generator's U.S. EPA Identification Number

Enter the generator's U.S. EPA twelve-digit identification number, or the state generator identification number if the generator site does not have an EPA identification number.

Item 2. Page 1 of ____

Enter the total number of pages used to complete the manifest (*i.e.*, the first page (EPA Form 8700-22) plus the number of continuation sheets (EPA Form 8700-22A), if any).

Item 3. Emergency Response Phone Number

Enter a phone number for which emergency response information can be obtained in the event of an incident during transportation. The emergency response phone number must:

1. Be the number of the generator or the number of an agency or organization who is capable of and accepts responsibility for providing detailed information about the shipment;
 2. Reach a phone that is monitored 24 hours a day at all times the waste is in transportation (including transportation related storage); and
 3. Reach someone who is either knowledgeable of the hazardous waste being shipped and has comprehensive emergency response and spill cleanup/incident mitigation information for the material being shipped or has immediate access to a person who has that knowledge and information about the shipment.
-

Note: Emergency Response phone number information should only be entered in Item 3 when there is one phone number that applies to all the waste materials described in Item 9b. If a situation (e.g., consolidated shipments) arises where more than one Emergency Response phone number applies to the various wastes listed on the manifest, the phone numbers associated with each specific material should be entered after its description in Item 9b.

Item 4. Manifest Tracking Number

This unique tracking number must be pre-printed on the manifest by the forms printer.

Item 5. Generator's Mailing Address, Phone Number and Site Address

Enter the name of the generator, the mailing address to which the completed manifest signed by the designated facility should be mailed, and the generator's telephone number. Note, the telephone number (including area code) should be the normal business number for the generator, or the number where the generator or his authorized agent may be reached to provide instructions in the event the designated and/or alternate (if any) facility rejects some or all of the shipment. Also enter the physical site address from which the shipment originates only if this address is different than the mailing address.

Item 6. Transporter 1 Company Name, and U.S. EPA ID Number

Enter the company name and U.S. EPA ID number of the first transporter who will transport the waste. Vehicle or driver information may not be entered here.

Item 7. Transporter 2 Company Name and U.S. EPA ID Number

If applicable, enter the company name and U.S. EPA ID number of the second transporter who will transport the waste. Vehicle or driver information may not be entered here.

If more than two transporters are needed, use a continuation sheet(s) (EPA Form 8700-22A).

Item 8. Designated Facility Name, Site Address, and U.S. EPA ID Number

Enter the company name and site address of the facility designated to receive the waste listed on the manifest. Also enter the facility's phone number and the U.S. EPA twelve-digit identification number of the facility.

Item 9. U.S. DOT Description (Including Proper Shipping Name, Hazard Class or Division, Identification Number, and Packing Group)

Item 9a. If the wastes identified in Item 9b consist of both hazardous and nonhazardous materials, then identify the hazardous materials by entering an "X" in this Item next to the corresponding hazardous material identified in Item 9b.

Item 9b. Enter the U.S. DOT Proper Shipping Name, Hazard Class or Division,

Identification Number (UN/NA) and Packing Group for each waste as identified in 49 CFR 172. Include technical name(s) and reportable quantity references, if applicable.

Note: If additional space is needed for waste descriptions, enter these additional descriptions in Item 27 on the continuation sheet (EPA Form 8700-22A). Also, if more than one Emergency Response phone number applies to the various wastes described in either Item 9b or Item 27, enter applicable Emergency Response phone numbers immediately following the shipping descriptions for those Items.

Item 10. Containers (Number and Type)

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

Table I - Types of Containers

BA = Burlap, cloth, paper, or plastic bags.	DT = Dump truck.
CF = Fiber or plastic boxes, cartons, cases.	DW = Wooden drums, barrels, kegs.
CM = Metal boxes, cartons, cases (including roll-offs).	HG = Hopper or gondola cars.
CW = Wooden boxes, cartons, cases.	TC = Tank cars.
CY = Cylinders.	TP = Portable tanks
DF = Fiberboard or plastic drums, barrels, kegs.	TT = Cargo tanks (tank trucks).
DM = Metal drums, barrels, kegs.	

Item 11. Total Quantity

Enter, in designated boxes, the total quantity of waste. Round partial units to the nearest whole unit, and do not enter decimals or fractions. To the extent practical, report quantities using appropriate units of measure that will allow you to report quantities with precision. Waste quantities entered should be based on actual measurements or reasonably accurate estimates of actual quantities shipped. Container capacities are not acceptable as estimates.

Item 12. Units of Measure (Weight/Volume)

Enter, in designated boxes, the appropriate abbreviation from Table II (below) for the unit of measure.

Table II - Units of Measure

G = Gallons (liquids only)	N = Cubic Meters
K = Kilograms	P = Pounds
L = Liters (liquids only)	T = Tons (2000 Pounds)
M = Metric Tons (1000 Kilograms)	Y = Cubic Yards

Note: Tons, Metric Tons, Cubic Meters, and Cubic Yards should only be reported in connection with very large bulk shipments, such as rail cars, tank trucks, or barges.

Item 13. Waste Codes

Enter up to six federal and state waste codes to describe each waste stream identified in Item 9b. State waste codes that are not redundant with federal codes must be entered here, in addition to the federal waste codes which are most representative of the properties of the waste.

Item 14. Special Handling Instructions and Additional Information

1. Generators may enter any special handling or shipment-specific information necessary for the proper management or tracking of the materials under the generator's or other handler's business processes, such as waste profile numbers, container codes, bar codes, or response guide numbers. Generators also may use this space to enter additional descriptive information about their shipped materials, such as chemical names, constituent percentages, physical state, or specific gravity of wastes identified with volume units in Item 12.
 2. This space may be used to record limited types of federally required information for which there is no specific space provided on the manifest, including any alternate facility designations; the manifest tracking number of the original manifest for rejected wastes and residues that are re-shipped under a second manifest; and the specification of PCB waste descriptions and PCB out-of-service dates required under 40 CFR 761.207. Generators, however, cannot be required to enter information in this space to meet state regulatory requirements.
-

Item 15. Generator's/Offeror's Certifications

1. The generator must read, sign, and date the waste minimization certification statement. In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements. The Generator's Certification also contains the required attestation that the shipment has been properly prepared and is in proper condition for transportation (the shipper's certification). The content of the shipper's certification statement is as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent." When a party other than the generator prepares the shipment for transportation, this party may also sign the shipper's certification statement as the offeror of the shipment.
2. Generator or Offeror personnel may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator/offeror certification, to indicate that the individual signs as the employee or agent of the named principal.

Note: All of the above information except the handwritten signature required in Item 15 may be pre-printed.

II. Instructions for International Shipment Block

Item 16. International Shipments

For export shipments, the primary exporter must check the export box, and enter the point of exit (city and state) from the United States. For import shipments, the importer must check the import box and enter the point of entry (city and state) into the United States. For exports, the transporter must sign and date the manifest to indicate the day the shipment left the United States. Transporters of hazardous waste shipments must deliver a copy of the manifest to the U.S. Customs when exporting the waste across U.S. borders.

III. Instructions for Transporters

Item 17. Transporters' Acknowledgments of Receipt

Enter the name of the person accepting the waste on behalf of the first transporter. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt. Only one signature per transportation company is required. Signatures are not required to track the movement of wastes in and out of transfer facilities, unless there is a change of custody between transporters.

If applicable, enter the name of the person accepting the waste on behalf of the second transporter. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

Note: Transporters carrying imports, who are acting as importers, may have responsibilities to enter information in the International Shipments Block. Transporters carrying exports may also have responsibilities to enter information in the International Shipments Block. See above instructions for Item 16.

IV. Instructions for Owners and Operators of Treatment, Storage, and Disposal Facilities

Item 18. Discrepancy

Item 18a. Discrepancy Indication Space

1. The authorized representative of the designated (or alternate) facility's owner or operator must note in this space any discrepancies between the waste described on the manifest and the waste actually received at the facility. Manifest discrepancies are: significant differences (as defined by §§ 264.72(b) and 265.72(b)) between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives, rejected wastes, which may be a full or partial shipment of hazardous waste that the TSDF cannot accept, or container residues, which are residues that exceed the quantity limits for "empty" containers set forth in 40 CFR 261.7(b).
 2. For rejected loads and residues (40 CFR 264.72(d), (e), and (f), or 40 CFR 265.72(d), (e), or (f)), check the appropriate box if the shipment is a rejected load (*i.e.*, rejected by the designated and/or alternate facility and is sent to an alternate facility or returned to the generator) or a regulated residue that cannot be removed from a container. Enter the reason for the rejection or the inability to remove the residue and a description of the waste. Also, reference the manifest tracking number for any additional manifests being used to track the rejected waste or residue shipment on the original manifest. Indicate the original manifest tracking number in Item 14, the Special Handling Block and Additional Information Block of the additional manifests.
-

3. Owners or operators of facilities located in unauthorized states (*i.e.*, states in which the U.S. EPA administers the hazardous waste management program) who cannot resolve significant differences in quantity or type within 15 days of receiving the waste must submit to their Regional Administrator a letter with a copy of the manifest at issue describing the discrepancy and attempts to reconcile it (40 CFR 264.72(c) and 265.72(c)).
4. Owners or operators of facilities located in authorized states (*i.e.*, those states that have received authorization from the U.S. EPA to administer the hazardous waste management program) should contact their state agency for information on where to report discrepancies involving “significant differences” to state officials.

Item 18b. Alternate Facility (or Generator) for Receipt of Full Load Rejections

Enter the name, address, phone number, and EPA Identification Number of the Alternate Facility which the rejecting TSDF has designated, after consulting with the generator, to receive a fully rejected waste shipment. In the event that a fully rejected shipment is being returned to the generator, the rejecting TSDF may enter the generator’s site information in this space. This field is not to be used to forward partially rejected loads or residue waste shipments.

Item 18c. Alternate Facility (or Generator) Signature

The authorized representative of the alternate facility (or the generator in the event of a returned shipment) must sign and date this field of the form to acknowledge receipt of the fully rejected wastes or residues identified by the initial TSDF.

Item 19. Hazardous Waste Report Management Method Codes

Enter the most appropriate Hazardous Waste Report Management Method code for each waste listed in Item 9. The Hazardous Waste Report Management Method code is to be entered by the first treatment, storage, or disposal facility (TSDF) that receives the waste and is the code that best describes the way in which the waste is to be managed when received by the TSDF.

Item 20. Designated Facility Owner or Operator Certification of Receipt (Except As Noted in Item 18a)

Enter the name of the person receiving the waste on behalf of the owner or operator of the facility. That person must acknowledge receipt or rejection of the waste described on the manifest by signing and entering the date of receipt or rejection where indicated. Since the Facility Certification acknowledges receipt of the waste except as noted in the Discrepancy Space in Item 18a, the certification should be signed for both waste receipt and waste rejection, with the rejection being noted and described in the space provided in Item 18a. Fully rejected wastes may be forwarded or returned using Item 18b after consultation with the generator. Enter the name of the person accepting the waste on behalf of the owner or operator of the alternate facility or the original generator. That person must acknowledge receipt or rejection of the waste

described

on the manifest by signing and entering the date they received or rejected the waste in Item 18c. Partially rejected wastes and residues must be re-shipped under a new manifest, to be initiated and signed by the rejecting TSDF as offeror of the shipment.

What are the instructions for completing the continuation sheet (EPA Form 8700-22A)?

Read all instructions before completing the form.

The form has been designed for use on a 12-pitch (elite) typewriter; a firm point pen may also be used—press down hard.

The form must be used as a continuation sheet to U.S. EPA Form 8700-22 if:

- More than two transporters are to be used to transport the waste; or
- More space is required for the U.S. DOT descriptions and related information in Item 9 of U.S. EPA Form 8700-22.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, or disposal facilities to use the uniform hazardous waste manifest (EPA Form 8700-22) and, if necessary, the continuation sheet (EPA Form 8700-22A) for both interstate and intrastate transportation.

I. Generators

Item 21. Generator's ID Number

Enter the generator's U.S. EPA twelve-digit identification number or, the state generator identification number if the generator site does not have an EPA identification number.

Item 22. Page ____

Enter the page number of the continuation sheet.

Item 23. Manifest Tracking Number

Enter the Manifest Tracking Number from Item 4 of the manifest form to which the continuation sheet is attached.

Item 24. Generator's Name—

Enter the generator's name as it appears in Item 5 on the first page of the manifest.

Item 25. Transporter—Company Name

If additional transporters are used to transport the waste described on the manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word “Transporter” the order of the transporter. For example, Transporter 3 Company Name. Also enter the U.S. EPA twelve-digit identification number of the transporter described in Item 25.

Item 26. Transporter—Company Name

If additional transporters are used to transport the waste described on the manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word “Transporter” the order of the transporter. For example, Transporter 4 Company Name. Each continuation sheet can record the names of two additional transporters. Also enter the U.S. EPA twelve-digit identification number of the transporter named in Item 26.

Item 27. U.S. D.O.T. Description Including Proper Shipping Name, Hazardous Class, and ID Number (UN/NA)

For each row enter a sequential number under Item 27b that corresponds to the order of waste codes from one continuation sheet to the next, to reflect the total number of wastes being shipped. Refer to instructions for Item 9 of the manifest for the information to be entered.

Item 28. Containers (No. And Type)

Refer to the instructions for Item 10 of the manifest for information to be entered.

Item 29. Total Quantity

Refer to the instructions for Item 11 of the manifest form.

Item 30. Units of Measure (Weight/Volume)

Refer to the instructions for Item 12 of the manifest form.

Item 31. Waste Codes

Refer to the instructions for Item 13 of the manifest form.

Item 32. Special Handling Instructions and Additional Information

Refer to the instructions for Item 14 of the manifest form.

II. Transporters

Item 33. Transporter—Acknowledgment of Receipt of Materials

Enter the same number of the Transporter as identified in Item 25. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in Item 25. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

Item 34. Transporter—Acknowledgment of Receipt of Materials

Enter the same number of the Transporter as identified in Item 26. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in Item 26. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

III. Owner and Operators of Treatment, Storage, or Disposal Facilities

Item 35. Discrepancy Indication Space

Refer to Item 18. This space may be used to more fully describe information on discrepancies identified in Item 18a of the manifest form.

Item 36. Hazardous Waste Report Management Method Codes

For each field in Item 36, enter the sequential number that corresponds to the waste materials described under Item 27, and enter the appropriate process code that describes how the materials will be processed when received. If additional continuation sheets are attached, continue numbering the waste materials and process code fields sequentially, and enter on each sheet the process codes corresponding to the waste materials identified on that sheet.

What is the public reporting burden associated with the manifest?

Public reporting burden for this collection of information is estimated to average: 30 minutes for generators, 10 minutes for transporters, and 25 minutes for owners or operators of treatment, storage, and disposal facilities. This includes time for reviewing instructions, gathering data, completing, reviewing and transmitting the form. Any correspondence regarding the Paperwork Reduction Act burden statement for the manifest must be sent to the Director of the Collection Strategies Division in EPA's Office of Information Collection at the following address: U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460. Do not send the completed form to this address.
