# PHASE 2 TRANSPORTATION AND DISPOSAL PLAN FOR 2014

# Appendix C

to

Remedial Action Work Plan for Phase 2 Dredging and Facility Operations in 2014 HUDSON RIVER PCBs SUPERFUND SITE



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# **ACRONYMS AND ABBREVIATIONS**

- ARARs Applicable or relevant and appropriate requirements
  - CD Consent Decree
- CFR Code of Federal Regulations
- CERCLA Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund)
  - CM Construction Manager
  - CMSA Coarse Material Staging Area
    - CPR Delaware & Hudson Railway Company d/b/a Canadian Pacific Railway
      - cy cubic yards
    - DOT U. S. Department of Transportation
  - DQAP Dredging Construction Quality Control/Quality Assurance Plan
    - EDI Electronic Data Interchange
    - EPA United States Environmental Protection Agency
      - EZ Exclusion Zone
- Facility O&M Plan Facility Operations and Maintenance Plan
  - FCSE Filter Cake Staging Enclosure
    - GE General Electric Company
  - HASP Health and Safety Plan
  - 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 (now Anchor QEA, LLC)
    - OC organic carbon
    - OSHA Occupational Safety and Health Administration
    - R&D receiving/departure
      - RA Remedial Action

#### ACRONYMS AND ABBREVIATIONS (CONTINUED)

- RA HASP Remedial Action Health and Safety Plan
  - RAWP Remedial Action Work Plan
  - RCRA Resource Conservation and Recovery Act
  - ROD Record of Decision
  - RYOC Rail Yard Operations Contractor
  - SOW Statement of Work
  - SPCC spill prevention control and countermeasures
  - SSA size separation area
  - SWPPP Storm Water Pollution Prevention Plan
    - TCLP Toxicity Characteristic Leaching Procedure
      - TDP Transportation and Disposal Plan
    - TOM total organic material
    - TSCA Toxic Substances Control Act
- UHW Manifest Uniform Hazardous Waste Manifest, EPA Form 8700-22

# **SECTION 1**

# INTRODUCTION

In 2005, the General Electric Company (GE) and the United States Environmental Protection Agency (EPA) executed a Consent Decree (CD) relating to the performance of the Remedial Action (RA) selected by EPA to address polychlorinated biphenyls (PCBs) in sediments of the Upper Hudson River, located in New York State, through dredging, as described in EPA's February 2002 Record of Decision (ROD) for the Hudson River PCBs Superfund Site (EPA, 2002). The CD was filed in federal district court on October 6, 2005 (EPA/GE, 2005) and was approved and entered by the court as a final judgment on November 2, 2006, when it went into effect.

In accordance with the ROD and the CD, the RA was to be conducted in two phases. Phase 1 was defined as the first year of dredging and was conducted by GE in 2009. Phase 2 consists of the remainder of the dredging project. The CD provided an option to GE, following EPA's decision regarding the Performance Standards and scope of Phase 2, as to whether to elect to perform Phase 2 under the CD. In December 2010, EPA issued its decision regarding the Performance Standards and scope of Phase 2, and GE elected to perform Phase 2 under the CD.

The CD includes, as Appendix B, a Statement of Work (SOW) for Remedial Action and Operations, Maintenance and Monitoring, which sets forth a number of general requirements for the RA and includes several attachments specifying requirements for various aspects of the RA. EPA issued revised versions of the SOW and its attachments for Phase 2 in December 2010. For the work to be performed in each construction year of Phase 2, Section 3.1 of the revised SOW requires GE to submit a Remedial Action Work Plan (RAWP) for Phase 2 Dredging and Facility Operations for such year; and it specifies a number of specific plans to be included in that RAWP, including a Phase 2 Transportation and Disposal Plan.

In the spring of 2011, 2012, and 2013, GE submitted the RAWPs and other required work plans for, respectively, the first year of Phase 2 of the RA (known as Phase 2 Year 1), the second year of Phase 2 of the RA (known as Phase 2 Year 2), and the third year of Phase 2 (Phase 2 Year 3). GE conducted Phase 2 Year 1 dredging and associated activities in 2011, Phase 2 Year 2 dredging and associated activities in 2012, and Phase 2 Year 3 dredging and associated activities in 2013.

This *Phase 2 Transportation and Disposal Plan for 2014* (2014 TDP) was developed in accordance with the revised SOW. It is an appendix to the *Remedial Action Work Plan for* 

*Phase 2 Dredging and Facility Operations in 2014* (2014 RAWP; Parsons, 2014a).<sup>1</sup> The 2014 TDP describes the procedures to be followed in characterizing and handling the sediments and debris to be removed from the Upper Hudson River in 2014 for purposes of transport and disposal, and in transporting those materials, following dewatering, from the processing facility to the selected final disposal facilities.

EPA previously 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"). GE constructed the processing facility on that site prior to the start of Phase 1 dredging. 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 sites selected by GE.

The 2014 TDP addresses matters relating to the transport and disposal of the dewatered sediments. Specifically, it describes (a) the characterization and management of the sediments and debris subject to removal for purposes of transport and disposal; and (b) GE's responsibilities 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 selected disposal facilities for final disposal.

Based on experienced gained in Phase 2 Years 2 and 3 and related discussions with EPA, GE has developed a revised approach for identifying, managing, and disposing of dewatered sediments that contain PCB concentrations less than 50 parts per million (ppm). This 2014 TDP has been prepared to embody that revised approach. The approach is described in Sections 1 and 2. Sections 3 through 8 of this plan are substantively the same as in the 2013 TDP (Parsons, 2013a) approved by EPA (with some changes in terminology).

The on-site activities described herein at the processing facility site include the management of the excavated materials for purposes of transport and disposal, the loading of such materials by the Processing Facility Operations Contractor (PFOC) under Contract 30, and preparation of rail cars for loading and transport by the Rail Yard Operations Contractor (RYOC) under Contract 60. The other on-site activities at the processing facility will be conducted primarily by the PFOC under Contract 30. These activities were described in detail in the *Phase 2 Facility Operations and Maintenance Plan for 2013* (2013 Facility O&M Plan; Parsons, 2013b), which is

<sup>&</sup>lt;sup>1</sup> The 2014 RAWP was developed to apply to the remaining Phase 2 dredge areas in the navigable portions of the river (although it is recognized that dredging in all those remaining areas will not be completed in 2014 and that the dredge areas not reached in 2014 will be dredged in 2015). The 2014 RAWP does not apply to the Landlocked Area in Reach 7 of the river, which is addressed in a separate RAWP for Reach 7 (Parsons, 2014d). However, this 2014 TDP will apply to the characterization, handling, transport, and disposal of all sediments dredged in 2014 from any area.

largely incorporated by reference in the *Phase 2 Facility Operations and Maintenance Plan for 2014* (2014 Facility O&M Plan; Parsons, 2014b), Appendix B to the 2014 RAWP.

#### 1.1 PLAN ORGANIZATION

This 2014 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 – Characterization and Management of Waste/Material to Be Transported: describes the categories of the dredged sediments and debris and the characterization, segregation, management, and testing of such materials for purposes of transport and disposal.

**Section 3 – Waste Destinations:** describes the commercial disposal facilities authorized by EPA to receive the dewatered sediments and debris containing PCBs from the project.

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

**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 revised SOW requirements to the portions of this 2014 TDP where those requirements are addressed.

<b>Description of Requirement</b>	Citation	<b>TDP Section</b>
Characteristics of waste/water/ material to be transported.	SOW Section 3.1.1 (page 3-17), cross-referencing Section 2.3.2.2.4 of the SOW	Section 2
Destinations	Same as above	Section 3
Transportation modes	Same as above	Section 4
Routes	Same as above	Section 4
On-site traffic control and loading procedures	Same as above	Section 5
Recordkeeping	Same as above	Section 6
Health and Safety	Same as above	Section 7
Contingency plans for spills that occur in the Work Area	Same as above	Section 8

 Table 1-1
 Consent Decree SOW / 2014 TDP Cross-Reference Table

Following EPA approval, this 2014 TDP will apply to the characterization, handling, transport, and disposal of sediments dredged during the 2014 season. It will be updated as appropriate for the following year of Phase 2.

## **1.2 REGULATORY FRAMEWORK**

As the 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 Hudson River PCBs Superfund Site (including 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) in accordance with Section 121(e) of CERCLA. 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:

- 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 ppm;
- The federal Resource Conservation and Recovery Act (RCRA) and EPA's applicable regulations thereunder (see 40 CFR Parts 257 & 260-270);
- The U.S. Department of Transportation (DOT) regulations relating to the transportation by railroad of hazardous materials (49 CFR Parts 171-174);

- 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) and the management of hazardous waste (6 NYCRR Parts 370-372); and
- The applicable regulations of host states of authorized commercial disposal facilities selected by GE to manage dewatered Hudson River material from the Phase 2 dredging project in 2014 (further described in Section 3).

Since the dredged materials from the Upper Hudson River contain PCBs and some of them have concentrations at or above 50 ppm, they are subject to the applicable provisions of EPA's regulations under TSCA. 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 hazardous waste 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 § 371.4(e)). Thus, the dredged sediments that are determined or assumed to contain PCBs at concentrations of 50 ppm or greater will be considered to constitute such hazardous waste under the NYSDEC regulations (based on their known or assumed PCB concentration, but not on any other basis). Since PCBs are thus the constituent of concern for waste characterization, transportation, and disposal, 40 CFR Part 761 and 6 NYCRR § 371 present the primary requirements for remediation waste management. In accordance with 40 CFR § 761.61 and 6 NYCRR § 371, PCB remediation waste with PCB concentrations  $\geq$  50 ppm must be manifested to TSCAauthorized facilities for disposal, whereas PCB remediation waste with PCB concentrations < 50 ppm may be transported without manifest to RCRA Subtitle D facilities for disposal.

Extensive data have been compiled from sampling investigations to characterize the Hudson River sediments *in situ* for dredging purposes, i.e., to identify PCB-contaminated sediment for removal. These data, which form the basis for the dredging Certification Units (CUs), are used in dredge design and thus guide sediment removal activities. Upon removal, the dredged material is a multi-phase mixture of water, fine materials, and coarse sands, gravels, and debris—with each phase exhibiting varying PCB content. Because dredged sediment is saturated with water, it must be processed to remove most of the water to enable handling, transport, and disposal. The dewatering process separates the multi-phase material into:

- Water treated before discharge;
- Coarse sands and gravels (as well as oversize debris) drained and staged for disposal; and
- Fine-grained materials conveyed in a slurry for further dewatering, which produces filter cake.

Because PCBs are hydrophobic (meaning that they prefer to adsorb<sup>2</sup> to particles instead of dissolving in water), and preferentially adsorb to organic matter associated with the fines, PCBs concentrate in the filter cake. As a result, the separated water phase exhibits near zero PCB content, and dewatered coarse material, composed of solid inorganic particles, exhibits PCB content only to the extent that fines and organics remain in the material matrix. Given the levels of PCBs found in Upper Hudson River sediments, the *in-situ* coarse material alone should exhibit PCB content below the action level of 50 ppm. If the coarse material could practically be dredged separately, it would not require disposal at a TSCA-authorized facility.

Although it is not practical to sample the *in-situ* material phases individually for disposal, each material phase may be characterized for disposal following phase separation pursuant to 40 CFR § 761.1(b)(4)(iv). Such sampling, together with management practices developed over the 2012-2013 seasons, may be used to increase the amount of < 50 ppm PCB remediation waste identified for RCRA Subtitle D disposal, which will produce environmental benefits and reduce safety hazards associated with waste transport. Accordingly, GE has developed a revised approach to dredging and dewatered material management to increase the relative amount of PCB remediation waste with < 50 ppm PCBs. The approach is specific to the Upper Hudson River PCBs project, and is fully described with supporting data in the following sections. This approach:

- Utilizes *in-situ* sediment data for dredged material management from sediment removal through phase separation/dewatering; and
- Utilizes PCB testing of dewatered material after phase separation for waste disposal characterization.

#### 1.3 MANAGEMENT APPROACH FOR WASTE CHARACTERIZATION, TRANSPORTATION, AND DISPOSAL

The materials dredged during Phase 1 in 2009 (shipped off-site in 2009 and 2010) and the materials dredged during Phase 2 Year 1 in 2011 were all transported to TSCA-authorized facilities permitted to receive PCB waste, irrespective of PCB concentrations. During the 2011 dredging season, GE conducted a pilot study to evaluate the PCB concentrations of dewatered sediments and the practicability of separately managing sediments with PCBs at or above 50 ppm (requiring TSCA-authorized disposal) and sediments with PCBs less than 50 ppm. The pilot study demonstrated the practicability of handling these sediments separately (see Anchor QEA, 2012). Therefore, in 2012, GE proposed and EPA approved an approach involving the separate dredging, handling, transport, and disposal of (a) materials to be disposed of at TSCA-authorized facilities and (b) materials that contain PCBs less than 50 ppm and are appropriate for

 $<sup>^2</sup>$  Adsorption is characterized by the binding of a material, such as a chemical, to the surface of a particle. This is different from absorption, which is the "filling" of the microscopic pores in a solid with a material.

disposal at a RCRA Subtitle D solid waste landfill. EPA's regulations specifically authorize the disposal of bulk PCB remediation waste containing PCBs at concentrations less than 50 ppm at a permitted municipal solid waste landfill or non-municipal non-hazardous industrial waste facility subject to the regulations under Subtitle D of RCRA (see 40 CFR §§ 761.61(a)(5)(i)(B)(2)(*ii*) & (a)(5)(v)(A)). GE embodied this approach in the 2012 TDP and utilized it throughout most of the 2012 dredging season. For the 2013 dredging season, GE continued to separately dredge and segregate sediments into  $\geq$  50 ppm PCB materials and < 50 ppm PCB materials in accordance with the 2013 TDP following the same procedures as used in 2012.

As a result of implementing the approved approach in 2012 and 2013, more than 306,700 tons of dewatered material containing PCBs at concentrations less than 50 ppm were successfully segregated and disposed of at a RCRA Subtitle D facility. Since the RCRA Subtitle D facility used by GE is significantly closer to the project site than the TSCA-authorized facilities, the program also avoided some 541 million ton-miles of sediment transport by rail, substantially reducing air emissions and the risks of rail-transport environmental and safety incidents. Using the EPA *Climate Leaders Greenhouse Gas Inventory Protocol Core Module Guidance* (EPA 2008), it is estimated that CO<sub>2</sub>-equivalent emissions from rail transport were reduced by over 15,000 tons. These benefits may be increased to the extent that additional dewatered material with less than 50 ppm PCBs is properly identified and disposed of at a RCRA Subtitle D facility.

Experience gained in 2012 and 2013 under the approved approach provides the basis to enhance the segregation and alternate disposal of bulk PCB remediation waste (dewatered material) containing less than 50 ppm PCBs for the 2014 season. During 2012-2013, the approach was limited to separate dredging and management of materials from areas with average *in-situ* PCB concentration < 50 ppm. Experience has shown that the dewatering process produces substantial amounts of coarse material waste with PCBs < 50 ppm because PCBs become concentrated in the fines/filter cake waste. Thus, dewatered coarse material resulting from dredging in additional areas may be similarly disposed of provided that the dewatered material exhibits < 50 ppm PCBs. Going forward, GE will identify, manage, and dispose of additional Hudson River dewatered material through a revised approach that targets additional areas based on PCB concentration and other criteria, while continuing to assure that only dewatered material containing PCBs < 50 ppm is sent to a RCRA Subtitle D disposal facility. The approach, discussed further in Section 2, involves:

(a) Continued delineation of *in-situ* dredge areas into  $\geq 50$  ppm and < 50 ppm areas based on measured sediment core PCB data, but supplemented with additional delineation (based on other criteria) of  $\geq 50$  ppm *in-situ* areas that are expected to yield dewatered coarse materials with PCBs < 50 ppm, as distinguished from those expected to yield dewatered materials with PCBs  $\geq 50$  ppm;

- (b) Segregation at the processing facility of the dewatered coarse material into expected  $\geq$  50 ppm PCB material and expected < 50 ppm PCB material, with the latter divided into material from approved areas with *in-situ* PCB average concentrations < 50 ppm and material from other areas (which will be segregated and staged separately);
- (c) Post-dewatering sampling and analysis of the expected < 50 ppm coarse material to determine whether the PCB content is in fact < 50 ppm or  $\ge 50$  ppm; and
- (d) Transport of materials confirmed by post-dewatering sampling to have PCBs < 50 ppm to a RCRA Subtitle D disposal facility.

All dewatered material with PCB content  $\geq$  50 ppm, all dewatered fine material and oversize debris, and any coarse material that is not tested will be transported to a TSCA-authorized facility for disposal. The current EPA-approved procedures for transporting and disposing of dewatered sediments will remain the same.

It should be noted that this revised method for identifying, characterizing, and disposing of additional dewatered material containing PCBs < 50 ppm will not pose an unreasonable risk of injury to health or the environment (the substantive risk standard in 40 CFR § 761.61(c)), and will actually reduce potential health and environmental risks, for the following reasons:

- The sampling and analysis of dewatered coarse material will result in the accurate identification of dewatered material with PCB levels below 50 ppm, as distinguished from material with PCB concentrations  $\geq$  50 ppm.
- Dewatered sediment disposed of at an approved RCRA Subtitle D facility will continue to contain < 50 ppm PCBs, consistent with the substantive requirements of EPA's regulations.
- Dewatered coarse material containing ≥ 50 ppm PCBs, as well as all dewatered fine material, oversize debris, and other untested material, will continue to be transported to TSCA-authorized facilities for disposal.
- The transport of all dewatered material (including material with PCB concentrations < 50 ppm) will continue to be in accordance with EPA-approved procedures specific to the Hudson dredging operations and thus will be protective of health and the environment.
- Transportation-related health and environmental risks as well as air emissions associated with TSCA-authorized disposal will be reduced commensurate with reduced transport distance for additional < 50 ppm PCB dewatered material.
- All sampling and material disposition, as well as associated project operations, will continue to be closely monitored by EPA.

The methodology for characterizing, managing, and testing dewatered material for disposal is described further in Section 2.2.

# **SECTION 2**

# CHARACTERIZATION AND MANAGEMENT OF WASTE/MATERIAL TO BE TRANSPORTED

This section describes the categories of the dredged sediments and debris that will be transported for disposal, and the procedures for characterization, segregation, management, and testing of such materials for purposes of transport and disposal.

#### 2.1 WASTE STREAM CATEGORIES AND CHARACTERISTICS

The dredged material subject to off-site transport after dewatering will generally be composed of the following three categories:

- Debris dredged material that is too large to pass through the grizzly screen at the head end of the size separation equipment, as described in Sections 2.3.1 and 2.3.2 of the 2013 Facility O&M Plan (incorporated into the 2014 Facility O&M Plan). This oversized debris will be transported for disposal at a TSCA-authorized facility. This category also includes incidental non-hazardous wastes from the project that are assumed to be contaminated with PCB-containing sediment, such as used personal protective equipment (PPE), used silt curtains, metal materials, and waste packaging and handling materials. Oversized debris is generally reduced in size at the debris staging area as necessary to facilitate handling and to meet disposal facility requirements.
- Coarse material generally sand and gravel material, as well as small debris-type litter,<sup>3</sup> that is separated from the finer sediments and debris through the size separation process. This material will be transported for disposal at a TSCA-authorized facility if it is found to contain PCB concentrations at or above 50 ppm or if the material is not tested, or at a RCRA Subtitle D facility only after the material is confirmed by post-dewatering testing (described in Section 2.2.3) to contain PCB concentrations less than 50 ppm.
- Fine material fine material (silts and clays) that is separated from the coarse material, at size separation and further dewatered to produce filter cake. This material will be assumed to contain PCBs at concentrations of 50 ppm or greater and will be transported for disposal at a TSCA-authorized facility.

The processing of the sediment is limited to physical/chemical dewatering. A broad range of physical characteristics has been encountered to date and will continue to be encountered in 2014, including organics and silts in backwater areas, medium to fine sands in much of the river,

<sup>&</sup>lt;sup>3</sup> Although coarse material may contain some such small debris, the term "debris," as used in this TDP, generally refers to the oversized material described above.

and gravel, cobbles, and wood debris in some areas of the river. In addition, polymers are used to promote settlement of the fine-grained materials.

Due to the properties of PCBs, coarse material generally exhibits lower PCB concentrations than fine/filter cake material. As discussed in Section 1.2, PCBs are hydrophobic, meaning that they prefer to adsorb to particles instead of dissolving in water. PCBs adsorb mostly to organic carbon in the sediment particles, with the result that sediments with higher organic carbon content tend to have higher PCB concentrations. Because fine sediments, such as silts, clays, and organics, tend to have higher organic carbon content, they also tend to have higher PCB concentrations than coarse sediments.

Data from the Hudson River sediments show the typical pattern of higher organic carbon content on finer sediments (Table 2-1). Sediments of the smallest particle sizes (0-62 micrometers [ $\mu$ m] in diameter) have about double the fraction of organic carbon than the next larger sediment size class (62-250  $\mu$ m). Consequently, the finer sediments in the Hudson River will generally exhibit higher PCB concentrations. This pattern was reflected in the approach to the dredge design sampling that occurred during 2002-2008 in accordance with 2002 Record of Decision for this Site. In this sampling, the fine sediment deposits were targeted for closely spaced sediment core sampling because the higher PCB concentrations were expected to be found in the finer sediments. The sandy and coarser-grained areas had less sediment sampling.

Particle Size Class	OC Fraction (%)	
0-62 μm	5.9	
62-250 μm	2.9	
250-850 μm	0.2	
> 850 μm	0.2	

 Table 2-1 Fraction of Organic Carbon (OC) for the Sediment Bed

 in the Upper Hudson River based on Dredge Design Data

The sediments targeted for removal in the Hudson River dredging remedy are typically a mix of fine and coarse material, with varying amounts of finer material intermingled with coarser sands and, at times, gravel. Wood particles and other organic materials are also commonly found in the dredged sediments. During initial dewatering and size separation of the dredged material, the goal is to separate the water, fines, and other organic material, like wood particles, from the coarser material. This separation process thus also separates the materials with higher and lower PCB concentrations because of the difference in organic carbon content of the fine/woody material and coarse material.

In 2013, GE conducted a study of the material routed to the coarse material staging areas. During this study, PCB concentrations, grain size distributions, and total organic material (TOM) percentages<sup>4</sup> were measured. As expected, coarse material samples that had a higher percentage of fines (i.e., silt plus clay percentages) and/or higher TOM percentage tended to have higher PCB concentrations. The results of the study indicated that the dewatered coarse material from a given barge load had a lower PCB concentration than the *in-situ* material (Figure 2-1). This result is due to the separation of the higher PCB concentration fine/organic matter from the lower PCB concentration coarse sand and gravel.

The separation of higher PCB concentration fine materials from the lower PCB concentration coarse materials is also illustrated by post-dewatering PCB data from 2012 and 2013, presented in Tables A-1 and A-2 in Attachment A and summarized below in Table 2-2. These data confirmed the < 50 ppm PCB concentration of dewatered sediments shipped for RCRA Subtitle D disposal, and also indicated that the majority of samples from dewatered coarse material staged for TSCA-authorized disposal contained < 50 ppm PCBs. Tables A-1 and A-2 include limited temporal PCB data for filter cake and dewatered coarse material which illustrate significantly higher PCB concentrations in the filter cake.

	Total PCB Content (ppm)				
Year	Coarse Material		Coarse Material Filter cake		er cake
	Sample		Sample		
	Count	Average	Count	Average	
2012	820	34.1	144	105.1	
2013	358	19.7	194	110.3	

 Table 2-2. PCB Content of Dewatered Material

These data and results of the 2013 study indicate that additional dewatered material with PCBs < 50 ppm may be identified and isolated for RCRA Subtitle D disposal by following a revised approach to dredge area delineation and material segregation. Such an approach is facilitated by the nature of the sediment remediation process and the properties of PCBs (as discussed above). Because dredged sediment is saturated with water, it must be processed to remove most of the water to enable handling, transport, and disposal. The dewatering process involves size separation and water treatment in which the coarse sands and gravels are separated and drained, and fine-grained materials are conveyed in a slurry for further dewatering which

<sup>&</sup>lt;sup>4</sup> Although not a direct measurement of the fraction of organic carbon, total organic matter (TOM) is an indicator of the amount of organic carbon in a sample.



PCBs concentrate in the filter cake. Coarse sand and gravel materials, composed of solid inorganic particles, may exhibit some PCB content after dewatering to the extent that fines and organics remain in the material matrix.

In summary, these data and the 2013 study demonstrate that PCBs are associated with fines, become separated from the coarse material during dewatering, and concentrate in the fines/filter cake. The work also indicates that additional dredge-area delineation criteria together with proven management and testing procedures may be used to segregate and manage additional < 50 ppm PCB remediation waste without posing an unreasonable threat to health or the environment.

#### 2.2 WASTE CHARACTERIZATION, MANAGEMENT, AND TESTING

This section describes the approach that GE will follow in 2014 to characterize, manage, and test the dredged sediments as waste material for transport and disposal. For the waste staged at the processing facility prior to disposal, GE (as the waste generator) 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, as required, to EPA and NYSDEC.

As in 2012 and 2013, during the 2014 dredging season, the areas subject to dredging will continue to be delineated *in situ* using sediment core data from the Sediment Sampling and Analysis Program (SSAP) and the Supplemental Engineering Data Collection (SEDC) program for the design dredge pass, and using residual core data for subsequent dredge passes. This primary delineation is described in Section 2.2.1 below. However, to improve the segregation of < 50 ppm PCB dewatered material for RCRA Subtitle D disposal, delineation of the *in-situ* areas will be revised by using, in combination with sediment core PCB data, certain additional criteria developed from the 2013 studies described in Section 2.1. This additional delineation is described in Section 2.2.1 below.

This approach will result in the delineation of *in-situ* dredge areas into the following categories: (1) areas with a core-average PCB concentration < 50 ppm; (2) areas with a core-average PCB concentration  $\geq 50$  ppm but expected to yield dewatered coarse materials with PCBs < 50 ppm; and (3) areas with a core-average PCB concentration  $\geq 50$  ppm and likely to yield dewatered materials with PCBs  $\geq 50$  ppm. These areas will then be separately dredged; and materials from each of these categories of areas will remain segregated throughout the process of barge transfer, barge unloading, size separation, and dewatering.

At the processing facility, the dewatered coarse sediments will be segregated into "expected  $\geq$  50 ppm PCB material" and "expected < 50 ppm PCB material." The expected  $\geq$  50 ppm PCB material will consist of materials from dredge areas delineated with *in-situ* core-average PCB concentrations  $\geq$  50 ppm and likely to yield dewatered materials with PCBs  $\geq$  50 ppm. This material will be separately staged. The expected < 50 ppm PCB material will be composed of

two subcategories based on its source dredge area: coarse materials from dredge areas delineated with *in-situ* core-average PCB concentrations < 50 ppm; and coarse materials from select dredge areas delineated with *in-situ* core-average PCB concentrations  $\geq$  50 ppm expected to yield dewatered material with PCBs < 50 ppm. The materials in each of these sub-categories will be staged separately.

The expected < 50 ppm PCB coarse materials (in both subcategories) will then be tested to verify that they contain PCB concentrations < 50 ppm. The expected  $\geq$  50 ppm PCB coarse material will generally not be tested (except, potentially, for informational purposes). The dewatered coarse materials that are confirmed by the post-dewatering sampling and analysis to have PCB concentrations < 50 ppm will be transported to and disposed of at a RCRA Subtitle D facility. All remaining materials (including any untested material, dewatered fine/filter cake material, and oversize debris) will be transported to and disposed of at a TSCA-authorized facility. The specific management and testing procedures are set out in Sections 2.2.2 and 2.2.3 below.

In addition, to preclude the possibility of disposing of sediment containing free liquid, the dewatered sediment will be monitored by the PFOC prior to transport to confirm that the material passes the Paint Filter Liquids Test, per EPA Method 9095 of "Test Methods for Evaluating Solid Waste" – Publication SW-846. Although solids content varies among dewatered sediment categories, all three categories of waste will be monitored via observation and/or testing by the PFOC to confirm the absence of free liquid before transfer to the appropriate staging area. Additional information on monitoring and testing for free liquid content is included in Section 2.2.2.

Information for waste profiles for dewatered material is presented for informational purposes in Attachment B for dewatered material shown or assumed to contain  $\geq$  50 ppm PCBs (and thus designated for disposal at a TSCA-authorized facility) and in Attachment C for material confirmed to contain < 50 ppm PCBs (and thus designated for disposal at a RCRA Subtitle D facility). Waste profiles will be prepared in the form required by the selected disposal facility, maintained by the Construction Manager (CM), and revised as necessary.

#### 2.2.1 *In-Situ* Delineation

The delineation of dredge areas for producing  $\geq 50$  ppm PCB and < 50 ppm PCB dewatered material will continue to include the approach initially proposed by GE in a February 2012 *Work Plan for In-Situ Sediment Characterization for Disposal* (Anchor QEA, 2012) and approved by EPA in a letter dated May 10, 2012, and subsequently incorporated into the EPA-approved 2012 TDP and 2013 TDP. Under this approach, using the available sediment core data, an average Total PCB concentration is calculated for each core, based on averaging the PCB concentration data from the core down to the depth of contamination (DoC). Cores are then assigned an area of influence (and acreage) using Thiessen polygons (an approach under which each Thiessen polygon contains only one core and any location within the polygon is closer to that core than to

any other core). Each Thiessen polygon is assigned a volume based on the average depth of the dredge (or re-dredge) prism within the polygon, and then assigned the average PCB concentration from its associated core. Maps of the Thiessen polygons within the CUs are then produced, and the polygons or portions of polygons aggregated consistent with planned dredge lanes to create target dredge areas. These areas, conforming to dredge lanes, account for the resolution at which dredging operations can be efficiently managed. As in 2012 and 2013, the areas targeted for producing < 50 ppm PCB material may contain polygons or portions of polygons associated with individual cores that have average PCB concentrations above 50 ppm.

For 2014, this approach will be revised with additional delineation criteria in order to delineate additional *in-situ* dredge areas that are expected to yield dewatered coarse materials with PCBs < 50 ppm, as distinguished from those that are likely to yield dewatered materials with PCBs  $\geq 50$  ppm. The proposed delineation of dredge areas expected to yield dewatered material with PCBs < 50 ppm will be reviewed and approved by EPA prior to dredging of the delineated area. Those criteria, in addition to the design core-average PCB concentrations (in 1<sup>st</sup> pass dredge areas) and the residual core-average PCB concentrations (in 2<sup>nd</sup> pass dredge areas), include, but are not limited to the following:

- Dredge lane configuration;
- Dredging sequence of delineated areas;
- Grain size distribution (relative fine vs. coarse material content);
- Organics content (relative organics content); and
- Performance characteristics of size separation equipment.

As discussed above, this approach will result in the delineation of *in-situ* dredge areas into:

- Areas with a core-average PCB concentration < 50 ppm;
- Areas with a core-average PCB concentration ≥ 50 ppm but expected to yield dewatered coarse materials with PCBs < 50 ppm; and
- Areas with a core-average PCB concentration  $\geq$  50 ppm and likely to yield dewatered materials with PCBs  $\geq$  50 ppm.

The dredged materials from each of these categories of areas will be segregated during the dredging process and during their conveyance by barge to the size separation areas (SSAs) at the processing facility for initial dewatering.

# 2.2.2 Handling and Staging at Processing Facility

The SSA unit processes produce various size fractions of dewatered coarse material, as well as debris. Based on consideration of the *in-situ* delineation of the particular dredge areas from which the sediments came, as well as other relevant factors, the dewatered coarse material size fractions will be designated as either expected  $\geq$  50 ppm PCB material or expected < 50 ppm

PCB material. In addition, as noted above, the expected < 50 ppm PCB material will consist of two sub-categories: coarse material from areas with *in-situ* core-average PCB concentrations < 50 ppm; and coarse material from select dredge areas with *in-situ* core-average PCB concentrations  $\geq 50$  ppm expected to yield < 50 ppm PCBs. Following phase separation, this process will result in the following three sub-categories of dewatered coarse material for separate staging:

- Expected < 50 ppm PCB material from dredge areas delineated with *in-situ* core-average PCB concentrations < 50 ppm;
- Expected < 50 ppm PCB material from dredge areas that have *in-situ* core-average PCB concentrations ≥ 50 ppm; and
- Expected  $\geq$  50 ppm PCB material.

These materials will be separately transferred by truck to the coarse material staging areas (CMSAs) and placed in separate designated coarse material piles within CMSAs. The CMSAs are shown on Figure 2-2. There, the dewatered expected < 50 ppm PCB coarse material (in both sub-categories) will be tested as set out in Section 2.2.3 below. The expected  $\geq$  50 ppm PCB staged material will be designated for TSCA-authorized disposal without the need for testing (although in some cases it may be tested for informational purposes). The oversize debris material, due to generally high organic/woody material content and difficulties associated with representative sampling, will be managed as  $\geq$  50 ppm PCB material for purposes of transport and disposal.

The fine sediment from the SSAs will be pumped to the dewatering facility where dewatering produces filter cake. Because filter cake tends to contain higher concentrations of PCBs, it will be assumed to have PCBs  $\geq$  50 ppm and will be staged, managed and transported to a TSCA-authorized disposal facility.

The trucks hauling material from the SSAs will unload the oversize debris and the dewatered coarse materials onto the asphalt pads in one of the designated staging areas (Figure 2-2). Debris and dewatered coarse materials will be consolidated with a front-end loader into manageable piles. If necessary, oversized material will be reduced in size at the debris staging area to dimensions required by the disposal facility and staged separately from the other coarse materials. Filter cake will be conveyed to the Filter Cake Staging Enclosures (FCSEs), dumped, and graded into the pile by the PFOC.

The CM will provide quality assurance during transfer, staging, and loading to verify that the expected < 50 ppm PCB coarse material and the expected  $\geq 50$  ppm PCB coarse material remain segregated. The PFOC will track and record all segregation and staging of dewatered expected < 50 ppm PCB material at the processing facility.



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The PFOC will monitor all dewatered material prior to conveying it to the CMSAs and FCSEs and/or prior to rail car loading to confirm that the material does not contain any free liquid. Production of dewatered materials without free liquid by the PFOC is a quality control aspect and, as such, is addressed in Attachment 2 to the Phase 2 Dredging Construction Quality Control/Quality Assurance Plan for 2014 (2014 DQAP; Parsons, 2014c). In accordance with the 2014 DOAP, the paint filter liquids test (EPA Method 9095B) will be performed on initial batches of filter cake until consistency is achieved, then periodically thereafter if visual observation indicates free liquid. Testing of coarse material will be performed as needed to confirm visual observation that the material does not contain free liquids. Monitoring for free liquid will also be performed, as necessary, prior to loading material from the CMSA and FCSE stockpiles. Occasionally, the coarse material may need to be stabilized with lime at the processing facility in order to load and transport the material or to pass the paint filter test. The mass of lime used and the coarse material staging area pile into which the stabilized material is placed will be recorded. If waste is observed to contain free liquids due to separation of liquid during shipping, the receiving waste disposal facility will remix or stabilize the material to remove free-liquid content.

#### 2.2.3 Sampling and Analysis of Coarse Material after Dewatering

This section sets out the sampling procedure to be followed to confirm that dewatered material with PCB levels < 50 ppm is accurately identified and distinguished from material with  $\geq$  50 ppm PCBs for purposes of transport and disposal. This procedure applies only to dewatered coarse material. As noted above, since dewatered fine material tends to exhibit higher levels of PCBs, filter cake will be assumed to contain  $\geq$  50 ppm PCBs and will be transported to TSCA-authorized facilities for disposal. Similarly, due to difficulties associated with representative sampling, oversize debris will not be sampled, but will be transported to and disposed of at a TSCA-authorized facility.

#### **Coarse Material Expected to Contain < 50 ppm PCBs**

The following sampling and disposition procedure for post-dewatering sampling of expected < 50 ppm PCB coarse material was described in the *Work Plan for In-Situ Sediment Characterization for Disposal* (Anchor QEA 2012), the 2012 TDP (Parsons, 2012), and the 2013 TDP (Parsons, 2013a), and was previously approved by EPA. It has been further refined with EPA oversight during implementation.

For both subcategories of expected < 50 ppm PCB coarse material, the PFOC will stage the dewatered material in 500 cubic yard (cy) lots. A composite sample will be collected from each 500 cy lot and analyzed for total PCBs. Each composite sample will consist of a minimum of five grab samples collected from the working face (exterior) of the 500 cy lot. Each grab sample will represent an approximate 100 cy portion of the 500 cy lot. The samples will be analyzed for PCBs by Method GEHR 8082 prior to shipping. Any lots exhibiting PCB levels  $\geq$  50 ppm will

be designated for shipment to a TSCA-authorized disposal facility. Those lots exhibiting PCB levels below 40 ppm PCB will be loaded for disposal at a RCRA Subtitle D facility as < 50 ppm PCB remediation waste. Any lots exhibiting PCB levels  $\geq$  40 ppm but < 50 ppm will be further reviewed in the context of the sample results of the other lots in the CMSA such that any observed trends may be used in selecting whether to re-sample (as follows). Such lots may be handled in one of the following ways:

- The lots may be resampled and the results reevaluated, in which case:
  - Lots selected for resampling will be further subdivided into approximate 100 cy sublots and a composite sample prepared from five discrete samples collected from each 100 cy sub-lot.
  - If all five composite samples of the sub-lots exhibit < 50 ppm PCB, the 500 cy lot may be loaded for disposal at a RCRA Subtitle D facility as < 50 ppm PCB remediation waste. Otherwise, the entire 500 cy lot will be designated for disposal at a TSCA-authorized facility.</li>
- Alternatively if not resampled, the lots will be isolated in the CMSA and loaded for transport and disposal at a TSCA-authorized facility.

A 500 cy lot will be the maximum size for primary sampling of coarse material as described above. GE may collect primary composite samples from smaller lots, such as 100 cy. In such cases, primary sample results may be considered determinative for disposal (i.e., not re-sampled if PCB levels are above 40 ppm but below 50 ppm).

Only after sample results in accordance with the above-described procedure establish that PCB concentrations in a particular lot are < 50 ppm will the material be loaded into rail cars and shipped to a RCRA Subtitle D facility for disposal as < 50 ppm PCB remediation waste. When testing results from this sampling indicate that the PCB concentration in the dewatered sediments is 50 ppm or greater, the tested materials will be isolated in coarse material staging and shipped to a TSCA-authorized disposal facility. All sampling results will be made available to EPA. In addition, EPA will be advised of resampling and disposition of any lots with sample results  $\geq$  40 ppm PCBs and will be provided an opportunity to inspect and verify that the material disposition is in accordance with the resampling results.

Thus, through use of this procedure, if dredging in areas expected to yield materials with PCB concentrations < 50 ppm should encounter unanticipated higher concentrations of PCBs such that the dewatered coarse material exhibits  $\geq 50$  ppm PCBs, such material will be effectively identified and designated for transport to a TSCA-authorized facility for disposal.

#### **Other Coarse Material**

The expected  $\geq$  50 ppm PCB material will not be tested (except potentially for informational purposes), but will be assumed to contain PCB concentrations  $\geq$  50 ppm and thus will be transported to TSCA-authorized facilities for disposal.

#### 2.3 AGENCY COORDINATION AND OVERSIGHT

GE will meet with EPA field representatives on a daily basis (unless EPA personnel are unavailable to meet) to review the dredging operation, including whether dredges are working in areas expected to yield dewatered materials with  $\geq$  50 ppm PCBs or < 50 ppm PCBs. EPA's comments on the delineation of < 50 ppm dredge areas will be incorporated into dredge plans before such areas are dredged. It is also anticipated that EPA will inspect all dredging and processing operations on a daily basis, including the post-dewatering segregation and management of expected < 50 ppm PCB material (both sub-categories) and expected  $\geq$  50 ppm PCB dewatered material staged for disposal, and the testing of stockpiled expected < 50 ppm PCB materials prior to shipment. GE will provide EPA with post-dewatering sediment PCB results as they are received from the analytical laboratory.

# **SECTION 3**

# WASTE DESTINATIONS

Consistent with the approach of separately managing  $\geq$  50 ppm PCB materials and < 50 ppm PCB materials for disposal during the 2014 season, GE has selected separate commercial disposal facilities to receive and dispose of the waste materials during 2014. These include two TSCA-authorized disposal facilities and one RCRA Subtitle D facility (the same facilities described in the 2013 TDP). Each of the TSCA-authorized facilities holds a currently effective authorization for PCB waste management pursuant to TSCA regulations and appropriate permits from EPA and/or its host state to receive, handle, and dispose of the GE Hudson River material. The RCRA Subtitle D facility is authorized by the host state in accordance with RCRA Subtitle D standards, and thus holds the necessary permits to receive, handle, and dispose of the GE Hudson River material with PCB concentrations less than 50 ppm.

A summary description of each disposal facility selected by GE to receive dewatered sediment is provided in Attachment D. That attachment provides key information on each facility, including name and location, applicable waste management methods, and a list of relevant permits. The 2014 dredged and dewatered material will be transported to one or more of these facilities for disposal.

GE may from time to time add or change selected disposal facilities. Prior to shipping waste to new facilities not listed in Attachment D, GE will issue an updated Attachment D to EPA. In addition, prior to commencing waste shipments to a disposal facility, GE will:

- Obtain EPA clearance for the new disposal facility(ies) in accordance with CD Paragraph 23.c (unless already received); and
- Notify receiving state regulators of impending shipments in accordance with CD Paragraph 23.a.

# **SECTION 4**

# TRANSPORTATION

All of the dewatered sediments and debris produced during the 2014 season will be transported by railroad from the processing facility site to one or more of the commercial disposal facilities identified and described in Attachment D. As stated in Section 5.3 of the *Phase 2 Performance Standards Compliance Plan for 2014* (GE 2014; Appendix D to the 2014 RAWP), all materials dredged in 2014 will be dewatered and shipped off-site for disposal by the end of that calendar year (rather than being stockpiled for disposal the following dredging season) unless doing so is prevented by delays attributable to disposal facility(ies) and/or rail carriers.

### 4.1 RAIL PROCEDURES

To transport the waste from the processing facility site to the disposal facilities, the project will utilize unit trains, which will be dedicated to the project. The rail cars making up the dedicated unit trains will be leased to GE. It is anticipated that unit trains containing between 56 and 98 rail cars will generally be utilized, depending on the disposal location, with additional rail cars reserved as spares. The railroads will provide locomotive power for the unit trains.

Dewatered sediments designated for TSCA-authorized or RCRA Subtitle D disposal, as well as debris (to be managed as  $\geq$  50 ppm PCB material), 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 PFOC with the container which is a waste enveloping liner system or "packaging" pursuant to the applicable DOT regulatory requirements in 49 CFR 173.240 for "sift-proof packaging." Materials with < 50 ppm PCBs will be managed and packaged for rail shipment separately from materials with  $\geq$  50 ppm PCBs, using the same waste enveloping liner system and strict procedures that EPA has approved for  $\geq$  50 ppm PCB materials. Rail yard loading operations will be subject to EPA oversight. The rail car loading and cleaning 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 disposal facility(ies) via the trackage of the railroads involved in the movement. As noted above, there will be separate unit trains, with different destinations, for transporting  $\geq$  50 ppm PCB material and < 50 ppm PCB material. On average, one unit train of loaded rail cars should depart the rail yard, and one unit train of empty cars should arrive at the rail yard, every two to five days during the shipment period. The actual frequency of train movement will vary based on railroad scheduling, rate of loading, rate of unloading, and other factors. A round-trip cycle of a loaded unit train to the disposal facility for unloading and return to the processing facility site is

estimated to require approximately 1.5 to 2 weeks. However, actual times are expected to vary due to railroad scheduling factors and travel time required to and from the selected disposal facility.

It is also possible that, at the beginning and/or end of the shipment period or under other conditions, project materials may be transported to the disposal site in less than unit train service. In such cases, 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

Railroad companies operating under confidential railroad transportation agreements with GE will be responsible for transporting the dewatered sediment from the processing facility site to the disposal site(s).

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 agreements and applicable laws and regulations. The routing of project unit trains will be selected by the Class 1 railroads.

# **SECTION 5**

# **ON-SITE TRAFFIC CONTROL AND LOADING PROCEDURES**

This section describes the transfer of dewatered materials from the staging areas to the unittrain rail cars. Preparation of rail cars and transfer of material from staging areas and loading into rail cars will be handled by the PFOC. The RYOC will position rail cars for loading and perform final tests and inspections prior to releasing rail cars to the initial rail carrier, Canadian Pacific Railway (CPR).

On-site transfer activities will involve handling of the following categories of material: (1) oversized debris (to be transported to a TSCA-authorized disposal facility); (2a) coarse material to be transported for disposal to a TSCA-authorized facility (if it is found to contain PCBs  $\geq$  50 ppm or if the material is not tested); (2b) coarse material to be transported for disposal to a RCRA Subtitle D facility as < 50 ppm PCB remediation waste (if the material is confirmed by post-dewatering testing to contain PCBs < 50 ppm); and (3) fine material/filter cake (to be transported to a TSCA-authorized disposal facility). In this section and Section 6, coarse material in category 2b that has been determined to contain PCBs < 50 ppm is referred to as "< 50 ppm PCB material," and all remaining materials are referred to as " $\geq$  50 ppm PCB materials."

# 5.1 RAIL CAR LOADING PROCEDURES

Dewatered dredged material will be loaded from staging areas into rail cars. From the staging areas, the coarse materials and the debris will be loaded into rail cars via front-end loaders. Front-end loaders will also work the stockpiles of filter cake and convey those materials to rail cars positioned along the loading platform. There will be separate rail cars and unit trains for the  $\geq$  50 ppm PCB materials and the < 50 ppm PCB material.

# 5.1.1 Packaging, Rail Car Preparation, and Loading

Dewatered sediments and debris will be packaged in accordance with applicable DOT standards. Packaging, rail car preparation, and loading procedures will be the same for both the  $\geq$  50 ppm PCB materials and the < 50 ppm PCB material.

Packaging will be accomplished by the PFOC using a US DOT certified IP-1 wasteenveloping rail car liner fitted to an open-top gondola rail car with open weep holes.

For  $\geq$  50 ppm PCB materials, packaging will be marked as containing PCBs in accordance with EPA's TSCA regulations (40 CFR Part 761, Subpart C). Specifically, PCB ML labels will be affixed to the liner after closure in two locations so as to be readily visible. Those rail cars will also be marked on both sides with a PCB ML label. Rail cars will also be placarded with the UN3432 placard in accordance with DOT requirements.

Marking, labeling and placarding requirements are not applicable to < 50 ppm PCB material. Thus, for < 50 ppm PCB material, in-transit material identification will be accomplished by use of the rail bill of lading provided to the railroad. Packaging will be not be marked and rail cars will not be marked or placarded. The bill of lading will include the shipping name indicating that the material is contaminated.

The liners will be disposed of along with received waste at the disposal site. Under this approach, returning empty rail cars will arrive at the rail yard uncovered and without liners. The RYOC will position the empty rail cars on the loading track within the "Exclusion Zone" (EZ) (described below in Section 8) and inspect the interior and exterior condition of each rail car. After inspection and removal of incidental materials and/or water accumulated from the road or from previous shipments, if any, the PFOC will carefully install the rail car liner into each rail car that is to be loaded by first placing the folded package into the rail car with a lull loader. The liner will then be unfolded to each end of the car and the hems placed over each side of the car and the flaps over the ends of the cars. After inspecting for a uniform fit and integrity of the liner, the car will be loaded with dredged sediment, debris, and/or filter cake.

Front-end loaders equipped with Loadrite Bucket scales (or equivalent) will be used to remove materials from the FCSEs and CMSAs. The  $\geq$  50 ppm PCB materials and the < 50 ppm PCB material will be handled separately. 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 103 and 108 net tons of material, depending on the tare weight of the rail car. The PFOC will control the loaded weight using loader bucket scales confirmed by the rail yard weigh-in-motion scale (further described below). The PFOC will periodically field calibrate the bucket scales to assure accuracy. Once the rail car is loaded, the PFOC will 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. 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 PFOC will inspect the rail cars prior to the completion of work in the loading zone; this inspection will be verified by the RYOC. 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 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 confirm 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 unit trains. The RYOC will also weigh outbound loaded rail cars to confirm that weights are within allowable ranges for transport, meet the required load balance on the trucks, and will assemble, inspect, and make necessary repairs to outbound loaded rail cars.<sup>5</sup> After a rail car block has been loaded and 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 other blocks of rail cars containing the same type of materials (i.e., < 50 ppm PCB material) 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 of the above-described weighing and inspections, including rail manifests (bills of lading). Information for rail and waste manifests and other necessary documentation 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 the designated disposal facility.

An electronic copy of rail and waste manifests will be transmitted to CPR through an electronic data interchange (EDI) protocol and via email, as established with CPR. After these steps have been completed, the outbound unit train will be picked up by CPR in accordance with the project operating schedule.

#### 5.3 INSPECTION AND RELEASE OF RAIL CARS USED FOR SHIPMENTS

Rail cars in service for transporting material for disposal will be routinely cleaned after unloading at the disposal site(s). Cleaning of the rail car will be conducted by scraping and sweeping the interior of the rail cars, vacuuming the interior of the rail cars if required, and cleaning out foot holes and weep holes. The exterior of the rail car will be inspected and any visible sediment will be swept off and, if necessary, the area rinsed. This cleaning procedure at the disposal facility will be adequate for a rail car to be used for transport of either  $\geq$  50 ppm PCB materials or < 50 ppm PCB material.

Prior to release from the project, rail cars will be inspected and sampled pursuant to the *Empty Rail Car Inspection and Release Procedure* provided in Attachment E. This procedure is

<sup>&</sup>lt;sup>5</sup> In accordance with specifications, the RYOC will confirm the empty weights of the rail cars at the beginning of the dredging season to enable determination of net loaded weight.

specifically applicable to the GE Hudson River Project and was used during Phase 1 and Phase 2 Years 1, 2, and 3.



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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

In accordance with Paragraph 23.c of the CD, GE has requested EPA's determination that each selected disposal facility to be used in 2014 is acceptable under CERCLA for disposal of material from the processing facility. As further required by Paragraph 23 of the CD, prior to any future shipments of waste materials from the processing facility site to a disposal site in 2014, GE will provide written notification to the state where the selected disposal facility is located, as well as to EPA and NYSDEC, of the anticipated shipments of waste material to that facility during the 2014 season. Such 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

# 6.2.1 Waste Constituting ≥ 50 ppm PCB Material

EPA, NYSDEC, and receiving states have regulations and procedures for manifesting and tracking shipments of regulated PCB waste through the transport and disposal process. In accordance with those requirements, the following procedures will be utilized for the tracking of  $\geq$  50 ppm PCB materials from the processing facility to the disposal facility(ies).

EPA's regulations under TSCA require that generators, transporters, and disposers of PCB wastes subject to those regulations possess EPA identification numbers (40 CFR § 761.202). GE has submitted EPA Form 7710-53 to EPA and obtained EPA ID number NYD980763841. As the waste generator, GE will use this EPA ID number for PCB waste reporting and shipping control for  $\geq$  50 ppm PCB materials, 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 wastes constituting  $\geq$  50 ppm PCB materials 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. 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(s) or their representatives will be required to sign the manifest, retain a copy for themselves, and ensure that sufficient copies accompany the waste shipment. More detailed information on the manifesting procedures for this waste is provided in Section 6.3 below.

#### 6.2.2 Waste Constituting < 50 ppm PCB Material

Waste constituting < 50 ppm PCB material will be shipped to a facility permitted by the host state in conformance with state and RCRA Subtitle D standards. The manifesting procedures to be followed for this waste are described in Section 6.4. GE, the receiving and delivering transporters, and the disposal facility operator(s) or their representatives will be required to sign the manifest and thus document proper disposition of the material.

#### 6.3 WASTE MANIFESTING PROCEDURES FOR ≥ 50 PPM PCB MATERIALS

Both EPA's TSCA regulations and NYSDEC's hazardous waste management regulations require tracking of waste with PCBs  $\geq 50$  ppm 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. 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  $\geq 50$  ppm PCB waste materials shipped from the processing facility site, GE will send copies of the generator manifests to EPA and NYSDEC. The waste disposal facility will be responsible for reporting to its respective agency in accordance with applicable state 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 F.

#### 6.3.1 TSCA Manifesting Procedures for Unit Train Shipments

Because virtually all shipments of  $\geq$  50 ppm PCB materials 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 will be weighed individually at the generating site and in the trucks trans-loading the material at the disposal site, a listing of rail cars in each unit train 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 carby-car basis and thus overall receipt of the shipment.

The GE-designated personnel will complete the generator portion of the waste 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  $\geq$  50 ppm PCB materials (i.e., debris, coarse  $\geq$  50 ppm PCB
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 CM will complete the waste manifest for review, approval, and signature by GE or its representative and CPR as the originating rail carrier. The CM will then process the retained manifest copies on behalf of GE as described below.

After copying for records, the CM will send the signed waste 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 rail manifest or shipping paper (bill of lading) containing the waste manifest information (except for EPA ID numbers, generator certification, and signatures) accompanies the PCB waste at all times. The originating railroad will sign the waste manifest to document acceptance for delivery. The selected waste disposal facility will confirm receipt of all waste (after weighing and inspection pursuant to disposal site procedures), sign the waste manifest, and return a signed copy of the manifest to GE to confirm receipt. The selected waste disposal facility will also report to the state regulatory agency in accordance with its permit and state requirements. The CM will match this confirming manifest with the original retained copy to document completion of the shipment.

#### 6.3.2 TSCA 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, 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, for rail cars containing  $\geq$  50 ppm PCB materials, 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 WASTE MANIFESTING PROCEDURES FOR < 50 PPM PCB MATERIAL

PCB remediation wastes containing< 50 ppm PCBs are not subject to federal or New York State hazardous waste manifesting requirements. In addition, the host state of the selected Subtitle D disposal facility has no manifesting requirements for non-hazardous material. However, for controlled disposition of such material, GE will use a non-hazardous waste manifest form consistent with the form contained in Attachment G for transport of < 50 ppm PCB material as < 50 ppm PCB remediation waste.

### 6.5 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.

## 6.6 REQUIRED REPORTING

### 6.6.1 Shipments of $\geq$ 50 ppm PCB Waste Materials

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

and to:

New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, NY 12233-7252

> Manifest Section Contact Information Phone: (518) 402-8730 Fax: (518) 402- 8654 E-Mail: manifest@gw.dec.state.ny.us

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, the waste disposal facility 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 waste disposal facility, GE will contact the railroad and the disposal facility 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, the waste disposal facility will issue a Certificate of Disposal to GE within 30 calendar days of the date on which the disposal of  $\geq$  50 ppm 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 annual reporting requirement for the off-site hazardous waste shipments during the 2014 season, GE will prepare a report covering the total quantity of hazardous waste (as defined under these regulations) transported and disposed of in 2014, and will submit the report to NYSDEC, with copy to EPA, by March 1, 2015. For purposes of this reporting, given the New York regulatory definition of hazardous waste as including materials containing PCB concentrations of 50 ppm or greater (6 NYCRR § 371.4(e)), the hazardous waste subject to these requirements will consist of all  $\geq$  50 ppm PCB materials (as defined above), including debris, filter cake, and untested coarse material.

### 6.6.2 Shipments of < 50 ppm PCB Waste Material

Although there are no applicable federal or state manifesting requirements related to shipments of < 50 ppm PCB remediation waste, GE will follow similar procedures for manifest utilization as identified for  $\ge 50$  ppm PCB materials. Manifest information will be tracked and reviewed to ensure that there are no discrepancies between the transporter and the disposal facility. GE will follow up with the facility to confirm receipt of all waste. Waste shipment information will be included in the annual report to EPA required under the CD.

In addition, although certification of disposal is not required by regulations for < 50 ppm PCB remediation waste, GE will obtain a Certificate of Disposal from the commercial disposal facility within 30 calendar days of the date on which the disposal of the 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 the < 50 ppm PCB remediation waste referenced by the manifest number for the shipment; and
- A statement signed by the authorized disposal facility representative, documenting the fact of disposal of the identified waste, including the date(s) of disposal, and identifying the disposal process used.

# **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.

## 7.1 RA HASP

A *Phase 2 Remedial Action Health and Safety Plan for 2014* (2014 RA HASP; Parsons, 2014e) defines minimum safety and health requirements, guidelines, and practices applicable to the overall 2014 RA project, including the processing facility and rail yard operations. For complete details on the project health and safety program, please refer to that 2014 RA HASP.

The 2014 RA HASP reflects the corporate policy of both GE and the CM. It uses the zero incident management approach and defines the safety goal for this project as *zero incidents and zero injuries*.

The 2014 RA HASP provides a general description of anticipated types of field activities. Specific field activities are described in more detail in the Contractor Health and Safety Plans (HASPs) (see Section 7.2). The objectives of the 2014 RA HASP are to:

- Establish minimum health and safety requirements;
- Identify the physical, chemical, and biological hazards potentially present during field work associated with the 2014 RAWP;
- Prescribe the protective measures necessary to control those hazards;
- Define emergency procedures; and
- Prescribe training and medical qualification criteria for site personnel.

The 2014 RA HASP must be reviewed by all contractor and subcontractor managers, supervisors, foremen, and safety personnel. All project personnel performing field activities will receive a site-specific project orientation summarizing the content of the 2014 RA HASP.

The 2014 RA HASP 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 2014 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

The 2014 RA HASP and project specifications require each contractor to prepare a "worker HASP" (referred to herein as Contractor HASP) 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 2014 RA HASP.

The PFOC's HASP and the RYOC's HASP cover on-site transport of dewatered sediment, and associated activities, specifically including:

- Traffic safety during on-site transport of materials to staging areas and 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;
- 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 rail yard's passing siding within the CPR safety zone, including coordination with the railroad company for this purpose; and
- Track, facility, and equipment inspection, maintenance, and repair.

# **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 2013 Facility O&M Plan (incorporated in the 2014 Facility O&M Plan). In addition to other areas where PCB-containing material will be handled, the EZ includes the FCSEs, the CMSAs, the debris staging area, 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 outside the EZ. Drainage from 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. The Type I storm water collection and conveyance system provides containment of potentially PCB-contaminated storm water and prevents off-site PCB migration. Type I storm water is collected in retention basins, pumped to the water treatment building, and treated in parallel with process water removed during sediment dewatering operations. Type II storm water is collected and conveyed to on-site retention basins prior to discharge.

The storm water system has been and will continue to be maintained by the respective project contractors. The PFOC and RYOC will perform this maintenance during 2014 facility operations in accordance with project operating plans required by technical specifications of Contract 30 and Contract 60, respectively. In accordance with the technical specifications, the RYOC will 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 provides storm water system inspection and maintenance procedures for the work area and also addresses pollution prevention measures that the RYOC will follow to prevent spillage and releases from becoming pollutant sources in storm water. The RYOC's SWPPP is maintained on-site and will be available for EPA review. The storm water management system is also discussed in Section 5.3.2 of the 2013 Facility O&M Plan (incorporated in the 2014 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 2013 Facility O&M Plan (incorporated in the 2014 Facility O&M Plan), GE has prepared and implemented 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 meets the applicable requirements of 6 NYCRR Parts 611 through 614 and 40 CFR Parts 110 and 112. It establishes overall spill prevention and contingency measures for various potential types of POL spills resulting from all site contractor activities. The Site-wide SPCC Plan was certified by a registered professional engineer in the State of New York, and is maintained at the site and is 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 have each prepared and will implement a comprehensive SPCC Plan. These SPCC Plans provide contingency measures for potential spills resulting from these contractors' activities. These contractor SPCC Plans conform to the Site-wide SPCC Plan as well as project technical specifications. They are maintained on-site and are available for EPA review. In addition to POL storage and management activities, these SPCC Plans 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 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
- 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 are described in the SPCC Plan. Monitoring will be required to confirm 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 2013 Facility O&M Plan (incorporated in the 2014 Facility O&M Plan), and decontamination of personnel and equipment is described in Section 5.2 of that plan.

# **SECTION 9**

# REFERENCES

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- Environmental Protection Agency. 2002. Hudson River PCBs Site. Record of Decision. February.
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- Environmental Protection Agency. 2008. *Climate Leaders Greenhouse Gas Inventory Protocol Core Module Guidance*. May
- General Electric Company. 2014. *Phase 2 Performance Standards Compliance Plan for 2014* (Appendix D to 2014 RAWP). April.
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# ATTACHMENT A

# DEWATERED MATERIAL PCB DATA

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	In-situ < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
5/10/2012	BIN2-T-12-P001-A		28		
	BIN2-T-12-P001-B		37		
5/11/2012	BIN2-T-12-P001-C		41		
	BIN2-T-12-P001-D		46		
	BIN2-T-12-P001-E		32		
5/12/2012	BIN2-T-12-P001-F		58		
5/12/2012	BIN2-T-12-P001-G		51		
	BIN2-T-12-P001-H		59		
5/14/2012	BIN2-T-12-P001-I		60		
5/14/2012	BIN2-T-12-P001-J		68		
	BIN2-T-12-P001-K		102		
5/15/2012	BIN2-T-12-P001-L		102		
	BIN2-T-12-P001-M		130		
	BIN2-T-12-P001-N		69		
	BIN2-T-12-P001-O		40		
E/16/2012	BIN2-T-12-P001-P		61		
5/10/2012	BIN2-T-12-P001-Q		78		
	BIN2-T-12-P002-A		75		
	BIN2-T-12-P002-B		59		
	BIN2-T-12-P002-C		185		
	BIN2-T-12-P002-D		58.9		
	BIN2-T-12-P002-E		27.6		
E/17/2012	BIN2-T-12-P002-F		67		
3/1//2012	BIN2-T-12-P002-G		327		
	BIN2-T-12-P002-H		166		
	BIN2-T-12-P002-I		123		
	BIN2-T-12-P002-J		191		
	BIN2-T-12-P002-K		119		
E/19/2012	BIN2-T-12-P002-L		94		
5/16/2012	BIN3-T-12-P003-A		178		
	BIN3-T-12-P003-B		69		
5/19/2012	BIN3-T-12-P003-C		54		
	BIN3-T-12-P003-D		72		
	BIN3-T-12-P003-E		79		
	BIN3-T-12-P003-F		86		
	BIN3-T-12-P003-G		170		
5/21/2012	BIN3-T-12-P003-H		95		
	BIN3-T-12-P003-I		68		
	BIN3-T-12-P003-J		89		

 Table A-1

 PCB Content of Dewatered Materials Staged for Disposal (2012)

			Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosure			
Collection						
Date	Sample Name	In-situ < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	
	BIN3-T-12-P003-K		59			
5/22/2012	BIN3-T-12-P003-L		74			
5/22/2012	BIN3-T-12-P003-M		69			
-	BIN3-T-12-P003-N		67			
	BIN3-T-12-P003-O		37			
E /22 /2012	BIN3-T-12-P003-P		34.5			
5/25/2012	BIN3-T-12-P003-Q		55			
	BIN3-T-12-P003-R		68			
E/24/2012	BIN3-T-12-P004-A		56			
5/24/2012	BIN3-T-12-P004-B		61			
Г /2Г /2012	BIN2-T-12-P004-C		87			
5/25/2012	BIN3-T-12-P004-D		66			
	BIN2-T-12-P004-E		65			
5/26/2012	BIN2-T-12-P004-F		130			
	BIN4-NT-12-P001-A	0.031				
F /20 /2012	BIN1-T-12-P004-G		66			
5/29/2012	BIN1-T-12-P004-H		39.2			
F /20/2012	BIN1-T-12-P004-I		74			
5/30/2012	BIN1-T-12-P004-J		68			
	BIN1-T-12-P004-K		43			
	BIN1-T-12-P004-L		36.6			
5/31/2012	BIN1-T-12-P004-M		44.8			
	BIN1-T-12-P004-N		42.5			
	BIN1-T-12-P004-O		36.9			
	BIN1-T-12-P004-P		35.6			
C/1/2012	BIN1-T-12-P004-Q		42			
6/1/2012	BIN1-T-12-P004-R		29.6			
	BIN1-T-12-P005-A		116			
	BIN1-T-12-P005-B		91			
	BIN1-T-12-P005-C		109			
	BIN1-T-12-P005-D		74			
6/2/2012	BIN1-T-12-P005-E		55			
	BIN1-T-12-P005-F		75			
	BIN1-T-12-P005-G		95			
	BIN1-T-12-P005-H		49			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	In-situ < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN2-T-12-P005-I		93		
-	BIN2-T-12-P005-J		77		
6/4/2012	BIN2-T-12-P005-K		73		
6/4/2012	BIN2-T-12-P005-L		64		
	BIN2-T-12-P005-M		60		
	BIN2-T-12-P005-N		122		
	BIN2-T-12-P005-O		97		
	BIN2-T-12-P005-P		67		
6/5/2012	BIN2-T-12-P005-Q		79		
	BIN2-T-12-P005-R		136		
	BIN2-T-12-P006-A		113		
	BIN2-T-12-P006-B		162		
	BIN2-T-12-P006-C		90		
6/6/2012	BIN2-T-12-P006-D		83		
0/0/2012	BIN2-T-12-P006-E		168		
	BIN3-T-12-P006-F		109		
	BIN3-T-12-P006-G		77		
	BIN3-T-12-P006-H		86		
	BIN3-T-12-P006-I		114		
6/7/2012	BIN3-T-12-P006-J		72		
	BIN3-T-12-P006-K		88		
6/7/2012	BIN3-T-12-P006-L		129		
6/9/2012	BIN2-T-12-P006-M		105		
0/0/2012	SCKE-T-12-P001-D				381
	BIN2-T-12-P006-N		46		
6/9/2012	BIN2-T-12-P006-O		52		
	BIN2-T-12-P006-P		52		
	BIN1-T-12-P006-Q		70		
	BIN2-T-12-P007-B		83		
6/11/2012	BIN3-T-12-P006-R		18.3		
	BIN3-T-12-P007-A		33		
	SCKE-T-12-P001-E				216
	BIN3-T-12-P007-C		86		
	BIN3-T-12-P007-D		126		
6/12/2012	BIN3-T-12-P007-E		156		
	BIN3-T-12-P007-F		13.6		
	BIN3-T-12-P007-G		22.8		

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosures		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P007-I		79		
	BIN1-T-12-P007-J		82		
6/13/2012	BIN1-T-12-P007-K		56		
	BIN1-T-12-P007-L		40		
	BIN3-T-12-P007-H		74		
	BIN1-T-12-P007-M		83		
6/14/2012	BIN1-T-12-P007-N		49		
6/14/2012	BIN1-T-12-P007-O		86		
	BIN3-T-12-P007-P		31.2		
	BIN1-T-12-P008-A		70		
	BIN3-T-12-P007-Q		101		
	BIN3-T-12-P007-R		64		
6/15/2012	BIN3-T-12-P008-A		79		
	BIN4-NT-12-P002-A	12.4			
	BIN4-NT-12-P002-B	11.1			
	BIN4-NT-12-P002-C	21.7			
	BIN3-T-12-P008-B		19.3		
	BIN3-T-12-P008-C		19.1		
	BIN3-T-12-P008-D		82		
6/16/2012	BIN3-T-12-P008-E		97		
	BIN4-NT-12-P002-D	15.7			
	BIN4-NT-12-P002-E	17.1			
	BIN4-NT-12-P002-F	64			
	BIN1-T-12-P008-I		32.4		
	BIN3-T-12-P008-F		21		
6/19/2012	BIN3-T-12-P008-G		16.6		
0/10/2012	BIN3-T-12-P008-H		79		
	BIN4-NT-12-P002-G	77			
	BIN4-NT-12-P002-H	41			
	BIN1-T-12-P008-J		29.9		
	BIN1-T-12-P008-K		71		
6/19/2012	BIN4-NT-12-P002-I	41.6			
	BIN4-NT-12-P002-J	26.4			
	BIN4-NT-12-P002-K	28.7			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P008-L		66		
	BIN1-T-12-P008-M		49		
6/20/2012	BIN4-NT-12-P002-L	25			
0/20/2012	BIN4-NT-12-P002-M	17.5			
-	BIN4-NT-12-P002-N	6.2			
	BIN4-NT-12-P002-O	12.1			
	BIN2-T-12-P008-N-00		60.4		
	BIN4-NT-12-P002-P-00	17.3			
C /21 /2012	BIN4-NT-12-P002-Q-00	19.9			
6/21/2012	BIN4-NT-12-P002-R-00	9			
	BIN6-NT-12-P001-A-00	12.1			
	BIN6-NT-12-P001-B-00	3.4			
	BIN1-T-12-P008-O-00		92		
	BIN2-T-12-P008-P-00		85		
6/22/2012	BIN6-NT-12-P001-C-00	14.1			
0/22/2012	BIN6-NT-12-P001-D-00	8.8			
	BIN6-NT-12-P001-E-00	16.4			
	BIN6-NT-12-P001-F-00	27.1			
	BIN2-T-12-P008-Q-00		23		
	BIN2-T-12-P008-R-00		23.7		
6/23/2012	BIN2-T-12-P009-A-00		39		
	BIN2-T-12-P009-B-00		6.8		
6/20/2012 6/21/2012 6/22/2012 6/23/2012 6/25/2012 6/26/2012 6/27/2012	BIN2-T-12-P009-C-00		16.9		
	BIN2-T-12-P009-D-00		36.6		
6/25/2012	BIN2-T-12-P009-E-00		28.5		
	BIN2-T-12-P009-F-00		20.1		
	BIN2-T-12-P009-G-00		8.8		
6/26/2012	BIN2-T-12-P009-H-00		14.5		
0/20/2012	BIN2-T-12-P009-I-00		41.8		
	BIN2-T-12-P009-J-00		68.8		
	BIN2-T-12-P009-K-00		38.5		
6/27/2012	BIN2-T-12-P009-L-00		42.2		
	BIN2-T-12-P009-M-00		33.2		
	BIN2-T-12-P009-N-00		39		
	BIN3-T-12-P009-A-00		40		
6/28/2012	BIN3-T-12-P009-B-00		70		
	BIN6-NT-12-P001-G-00	50			
	BIN6-NT-12-P001-H-00	46			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN3-T-12-P009-C-00		39		
	BIN3-T-12-P009-D-00		39		
6/20/2012	BIN3-T-12-P009-E-00		72		
6/29/2012	BIN6-NT-12-P001-I-00	28.8			
	BIN6-NT-12-P001-J-00	3.7			
	BIN6-NT-12-P001-K-00	14.7			
	BIN2-T-12-P009-O-00		31.4		
	BIN6-NT-12-P001-L-00	10.7			
6/30/2012	BIN6-NT-12-P001-M-00	9.8			
[	BIN6-NT-12-P001-N-00	11.5			
	BIN6-NT-12-P001-O-00	13.2			
	BIN2-T-12-P009-P-00		27.4		
[	BIN2-T-12-P009-Q-00		27.2		
[	BIN6-NT-12-P001-P-00	4.6			
7/2/2012	BIN6-NT-12-P001-Q-00	10.5			
[	BIN6-NT-12-P001-R-00	12.6			
[	BIN7-NT-12-P001-A-00	8.3			
	BIN7-NT-12-P001-B-00	3			
	BIN1-T-12-P009-A-00		15.2		
[	BIN2-T-12-P009-R-00		31.2		
7/3/2012	BIN7-NT-12-P001-C-00	9			
[	BIN7-NT-12-P001-D-00	14.6			
	BIN7-NT-12-P001-E-00	14.3			
	BIN1-T-12-P009-B-00		0.86		
[	BIN1-T-12-P009-C-00		13.3		
	BIN1-T-12-P009-D-00		38		
[	BIN2-T-12-P010-A-00		11.8		
7/5/2012	BIN2-T-12-P010-B-00		29.5		
[	BIN7-NT-12-P001-F-00	22.8			
[	BIN7-NT-12-P001-G-00	13.6			
[	BIN7-NT-12-P001-H-00	37			
	BIN7-NT-12-P001-I-00	14.7			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P009-E-00		30		
	BIN1-T-12-P009-J-00		38.3		
	BIN2-T-12-P010-C-00		64		
7/0/2012	BIN2-T-12-P010-D-00		33.3		
//0/2012	BIN7-NT-12-P001-J-00	13			
	BIN7-NT-12-P001-K-00	11.8			
	BIN7-NT-12-P001-L-00	26			
Collection         Date         7/6/2012         7/7/2012         7/9/2012         7/10/2012	BIN7-NT-12-P001-M-00	25			
	BIN1-T-12-P009-F-00		42		
	BIN1-T-12-P009-G-00		26.6		
	BIN2-T-12-P010-E-00		22.5		
7/7/2012	BIN2-T-12-P010-F-00		48		
////2012	BIN7-NT-12-P001-N-00	30			
	BIN7-NT-12-P001-O-00	31.8			
	BIN7-NT-12-P001-P-00	24.3			
	BIN7-NT-12-P001-Q-00	24			
	BIN1-T-12-P009-H-00		25.2		
	BIN1-T-12-P009-I-00		54		
	BIN2-T-12-P010-G-00		7.5		
	BIN5-NT-12-P001-A-00	37			
	BIN5-NT-12-P001-B-00	31			
7/9/2012	BIN5-NT-12-P001-C-00	12.7			
7/9/2012	BIN5-NT-12-P001-D-00	10.5			
	BIN5-NT-12-P001-E-00	9.7	Dppm         In-situ $\geq$ 50 ppm         In-situ $<$ 30         38.3         38.3           64         33.3         30           33.3         33.3         30           42         33.3         30           42         30         30           42         30         30           42         33.3         30           42         30         30           42         30         30           42         30         30           42         30         30           25.2         34         30           54         30         30           25.2         34         30           30.0         30         30           30.0         30         30           30.0         30         30           33.8         30         30           33.8         30         30           33.8         30         30           33.8         30         30           33.3         30         30         30           33.3         30         30         30           33.3         3		
	BIN7-NT-12-P001-R-00	22.3			
7/7/2012 7/9/2012 7/10/2012 7/11/2012	NCKE-T-12-0710-F-01				70
	SCKE-T-12-0710-F-01				196
	BIN2-T-12-P010-H-00		16.9		
	BIN2-T-12-P010-I-00		38.8		
7/10/2012	BIN5-NT-12-P001-F-00	7.3			
	BIN5-NT-12-P001-G-00	27.1			
	SCKE-T-12-0711-F-01				284
	BIN1-T-12-P009-K-00		14.4		
7/11/2012	BIN1-T-12-P009-L-00		15.1		
	BIN1-T-12-P009-M-00		22.8		
	BIN1-T-12-P009-N-00		19.1		
7/12/2012	BIN1-T-12-P009-O-00		17.7		
//12/2012	BIN2-T-12-P010-J-00		27		
	BIN2-T-12-P010-K-00		20		

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P009-P-00		43		
	BIN2-T-12-P010-L-00		28.3		
	BIN5-NT-12-P001-H-00	29			
7/13/2012	BIN5-NT-12-P001-I-00	18.8			
	BIN5-NT-12-P001-J-00	8			
	BIN5-NT-12-P001-K-00	6.7			
	BIN5-NT-12-P001-L-00	10.5			
	BIN1-T-12-P009-Q-00		22		
	BIN1-T-12-P009-R-00		18.2		
	BIN2-T-12-P010-M-00		11.7		
	BIN3-T-12-P009-F-00		25.4		
	BIN5-NT-12-P001-M-00	4.3			
7/14/2012	BIN5-NT-12-P001-N-00	5.8			
	BIN5-NT-12-P001-O-00	5.1			
	BIN5-NT-12-P001-P-00	3.1			
	BIN5-NT-12-P001-Q-00	6			
	BIN5-NT-12-P001-R-00	38			
	BIN8-NT-12-P001-A-00	22.2			
	BIN1-T-12-P010-A-00		13.4		
	BIN1-T-12-P010-B-00		17		
7/16/2012	BIN8-NT-12-P001-B-00	8.8			
//10/2012	BIN8-NT-12-P001-C-00	60			
	BIN8-NT-12-P001-D-00	10.1			
	BIN8-NT-12-P001-E-00	12.7			
	BIN2-T-12-P010-N-00		28.7		
7/17/2012	BIN2-T-12-P010-O-00		33.1		
//1//2012	BIN3-T-12-P009-G-00		52.2		
	BIN8-NT-12-P001-F-00	4.5			
	BIN1-T-12-P010-C-00		29		
7/18/2012	BIN1-T-12-P010-D-00		46		
	SCKE-T-12-0718-F-01				104
	BIN2-T-12-P010-P-00		16.9		
7/10/2012	BIN2-T-12-P010-Q-00		30.9		
//15/2012	BIN3-T-12-P009-H-00		3.7		
	BIN3-T-12-P009-I-00		7.6		
	BIN2-T-12-P010-R-00		23.3		
7/20/2012	BIN2-T-12-P011-A-00		28.9		
1,20,2012	BIN3-T-12-P009-J-00		19.1		
	BIN3-T-12-P009-K-00		19.5		

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosures		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN2-T-12-P011-B-00		27		
	BIN3-T-12-P009-L-00		83		
7/21/2012	BIN8-NT-12-P001-G-00	18.7			
7/21/2012	BIN8-NT-12-P001-H-00	13			
	NCKE-T-12-0723-F-00				66
	SCKE-T-12-0723-F-00				53
-	BIN2-T-12-P011-C-00		28		
7/22/2012	BIN3-T-12-P009-M-00		22.6		
//23/2012	BIN8-NT-12-P001-I-00	16.3			
	BIN8-NT-12-P001-J-00	11.3			
	BIN2-T-12-P011-D-00		44		
7/24/2012	BIN8-NT-12-P001-K-00	14.5			
//24/2012	BIN8-NT-12-P001-L-00	51			
	BIN8-NT-12-P001-M-00	18.6			
	BIN2-T-12-P011-E-00		29.9		
	BIN2-T-12-P011-F-00		39.7		
	BIN3-T-12-P009-N-00		8.3		
7/25/2012	BIN3-T-12-P009-O-00		31.7		
//23/2012	BIN8-NT-12-P001-N-00	21.3			
	BIN8-NT-12-P001-O-00	43			
	BIN8-NT-12-P001-P-00	27			
	BIN8-NT-12-P001-Q-00	24.3			
	BIN2-T-12-P011-G-00		45		
	BIN3-T-12-P009-P-00		9.9		
	BIN3-T-12-P009-Q-00		18.3		
7/26/2012	BIN6-NT-12-P002-A-00	34			
//20/2012	BIN6-NT-12-P002-B-00	14.4			
	BIN8-NT-12-P001-R-00	49			
	NCKE-T-12-0727-F-00				99
	SCKE-T-12-0727-F-00				105
	BIN2-T-12-P011-H-00		31.4		
	BIN2-T-12-P011-I-00		25.6		
	BIN3-T-12-P009-R-00		7		
7/27/2012	BIN3-T-12-P010-A-00		13.3		
	BIN6-NT-12-P002-C-00	37			
	BIN6-NT-12-P002-D-00	18.5			
	BIN6-NT-12-P002-E-00	6.7			
[	NCKE-T-12-0728-F-00				60
	SCKE-T-12-0728-F-00				54

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN2-T-12-P011-J-00		152		
	BIN2-T-12-P011-K-00		104		
	BIN3-T-12-P010-B-00		5.9		
7/28/2012	BIN3-T-12-P010-C-00		9		
//28/2012	BIN6-NT-12-P002-F-00	25			
	BIN6-NT-12-P002-G-00	37			
	BIN6-NT-12-P002-H-00	25			
	BIN6-NT-12-P002-I-00	37			
	BIN1-T-12-P010-E-00		55		
7/30/2012	BIN1-T-12-P010-F-00		54		
	BIN6-NT-12-P002-J-00	51			
	BIN2-T-12-P011-L-00		62		
	BIN3-T-12-P010-D-00		22.8		
	BIN6-NT-12-P002-K-00	21.7			
7/31/2012	BIN6-NT-12-P002-L-00	12.1			
	BIN6-NT-12-P002-M-00	4.3			
	NCKE-T-12-0801-F-00				99
	SCKE-T-12-0801-F-00				148
	BIN1-T-12-P010-G-00		80		
	BIN2-T-12-P011-M-00		29.5		
	BIN3-T-12-P010-E-00		8.1		
8/1/2012	BIN6-NT-12-P002-N-00	34			
	BIN6-NT-12-P002-O-00	15.2			
	NCKE-T-12-0802-F-01				77
	SCKE-T-12-0802-F-01				137
	BIN1-T-12-P010-H-00		7.2		
8/2/2012	BIN2-T-12-P011-N-00		23.2		
8/2/2012	BIN3-T-12-P010-F-00		50.5		
	BIN6-NT-12-P002-P-00	12.8			
	BIN1-T-12-P010-I-00		38.1		
8/3/2012	BIN2-T-12-P011-O-00		36.7		
	BIN3-T-12-P010-G-00		40.3		
	BIN1-T-12-P010-J-00		23.1		
[	BIN2-T-12-P011-P-00		17.9		
8/1/2012	BIN3-T-12-P010-H-00		59		
0/4/2012	BIN6-NT-12-P002-Q-00	18.7			
	BIN6-NT-12-P002-R-00	9.7			
	NCKE-T-12-0806-F-00				166

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosure		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P010-K-00		62		
9/6/2012	BIN2-T-12-P011-Q-00		52.9		
8/0/2012	BIN5-NT-12-P002-A-00	9.7			
-	BIN5-NT-12-P002-B-00	23			
	BIN2-T-12-P011-R-00		40		
	BIN3-T-12-P010-I-00		48.2		
8/7/2012	BIN3-T-12-P010-J-00		4.98		
8/7/2012	BIN5-NT-12-P002-C-00	34			
	NCKE-T-12-0808-F-00				172
	SCKE-T-12-0808-F-00				141
	BIN1-T-12-P010-L-00		22.6		
0/0/2012	BIN2-T-12-P012-A-00		23.5		
8/8/2012	NCKE-T-12-0809-F-00				214
	SCKE-T-12-0809-F-00				242
	BIN3-T-12-P010-K-00		45		
8/0/2012	BIN3-T-12-P010-L-00		43		
8/9/2012	BIN3-T-12-P010-M-00		28.2		
	BIN5-NT-12-P002-D-00	18.5			
	BIN1-T-12-P010-M-00		60		
	BIN3-T-12-P010-N-00		33.2		
	BIN5-NT-12-P002-E-00	17.1			
8/10/2012	BIN5-NT-12-P002-F-00	11			
	BIN5-NT-12-P002-G-00	20.8			
	NCKE-T-12-0811-F-00				102
	SCKE-T-12-0811-F-00				90
	BIN3-T-12-P010-O-00		13.2		
	BIN5-NT-12-P002-H-00	13.1			
9/11/2012	BIN5-NT-12-P002-I-00	11.6			
8/11/2012	BIN5-NT-12-P002-J-00	19.3			
	NCKE-T-12-0813-F-01				96
	SCKE-T-12-0813-F-01				59
	BIN3-T-12-P010-P-00		77		
	BIN5-NT-12-P002-K-00	12			
8/13/2012	BIN5-NT-12-P002-L-00	11.8			
0/13/2012	BIN5-NT-12-P002-M-00	4.2			
	NCKE-T-12-0814-F-01				57
	SCKE-T-12-0814-F-01				39.3

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P010-N-00		32		
	BIN3-T-12-P010-Q-00		28		
8/14/2012	BIN3-T-12-P010-R-00		35		
8/14/2012	BIN5-NT-12-P002-N-00	15.3			
	BIN5-NT-12-P002-O-00	17.7			
	BIN5-NT-12-P002-P-00	11.1			
	BIN3-T-12-P010-S-00		66		
[	BIN4-NT-12-P003-A-00	22.2			
8/15/2012	BIN4-NT-12-P003-B-00	30.2			
8/13/2012	BIN4-NT-12-P003-C-00	22.3			
	NCKE-T-12-0816-F-01				110
	SCKE-T-12-0816-F-01				151
	BIN1-T-12-P010-O-00		23.2		
	BIN3-T-12-P010-T-00		69		
	BIN4-NT-12-P003-D-00	19			
8/16/2012	BIN4-NT-12-P003-E-00	37			
	BIN4-NT-12-P003-F-00	20.8			
	BIN4-NT-12-P003-G-00	14			
	BIN4-NT-12-P003-H-00	23.2			
	BIN1-T-12-P010-P-00		34.3		
	BIN2-T-12-P011-S-00		31.4		
	BIN4-NT-12-P003-I-00	20.5			
8/17/2012	BIN4-NT-12-P003-J-00	37			
	BIN4-NT-12-P003-K-00	28			
	BIN4-NT-12-P003-L-00	31			
	BIN4-NT-12-P003-M-00	74			
	BIN1-T-12-P010-Q-00		31.1		
	BIN4-NT-12-P003-N-00	65			
	BIN4-NT-12-P003-O-00	54			
8/18/2012	BIN4-NT-12-P003-P-00	61			
0/10/2012	BIN4-NT-12-P003-Q-00	84			
	BIN4-NT-12-P003-R-00	60			
	BIN4-NT-12-P003-S-00	38			
	BIN4-NT-12-P003-T-00	42			
	BIN1-T-12-P010-R-00		22.9		
[	BIN7-NT-12-P002-A-00	73			
8/20/2012	BIN7-NT-12-P002-B-00	104			
[	NCKE-T-12-0821-F-00				95
	SCKE-T-12-0821-F-00				128

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosures		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P011-A-00		11.8		
	BIN2-T-12-P012-B-00		19.3		
8/21/2012	BIN7-NT-12-P002-C-00	14.8			
0/21/2012	BIN7-NT-12-P002-D-00	18.2			
	BIN7-NT-12-P002-E-00	32.4			
Collection Date         8/21/2012         8/22/2012         8/23/2012         8/24/2012         8/25/2012         8/25/2012         8/22/2012         8/21/2012         8/23/2012         8/23/2012         8/22/2012         8/22/2012         8/23/2012         8/23/2012	BIN7-NT-12-P002-F-00	19.2			
	BIN1-T-12-P011-B-00		43		
8/22/2012	BIN2-T-12-P012-C-00		39		
	BIN3-T-12-P011-A-00		48		
	BIN1-T-12-P011-C-00		33		
	BIN2-T-12-P012-D-00		60		
8/23/2012	BIN3-T-12-P011-B-00		32.6		
	NCKE-T-12-0824-F-00				40
	SCKE-T-12-0824-F-01				78
	BIN1-T-12-P011-D-00		18.5		
9/24/2012	BIN2-T-12-P012-E-00		20.7		
8/24/2012	NCKE-T-12-0825-F-00				197
	SCKE-T-12-0825-F-00				101
8/2E/2012	BIN1-T-12-P011-E-00		78		
8/21/2012 8/22/2012 8/23/2012 8/24/2012 8/25/2012 8/25/2012 8/28/2012	BIN2-T-12-P012-F-00		61		
8/23/2012 8/24/2012 8/25/2012 8/27/2012	BIN3-T-12-P011-C-00		52		
	BIN3-T-12-P011-D-00		45		
8/22/2012 8/23/2012 8/24/2012 8/25/2012 8/27/2012	BIN3-T-12-P011-E-00		56		
8/2//2012	BIN7-NT-12-P002-G-00	20.4			
	BIN7-NT-12-P002-H-00	18.5			
	BIN7-NT-12-P002-I-00	47			
	BIN1-T-12-P011-F-00		20.3		
	BIN1-T-12-P011-G-00		29		
	BIN2-T-12-P012-G-00		20.4		
0/20/2012	BIN2-T-12-P012-H-00		23.7		
0/20/2012	BIN7-NT-12-P002-J-00	25			
	BIN7-NT-12-P002-K-00	21.1			
	BIN7-NT-12-P002-L-00	17.1			
	BIN7-NT-12-P002-M-00	6.4			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosures		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P011-H-00		26.7		
	BIN2-T-12-P012-I-00		24.5		
	BIN2-T-12-P012-J-00		38		
8/29/2012	BIN3-T-12-P011-F-00		12.3		
	BIN7-NT-12-P002-N-00	42.2			
	BIN7-NT-12-P002-O-00	76			
Collection         Date         8/29/2012         8/30/2012         9/4/2012         9/4/2012         9/5/2012	NCKE-T-12-0830-F-00				185
	BIN1-T-12-P011-I-00		28.2		
	BIN1-T-12-P011-J-00		50		
8/29/2012 8/30/2012 8/31/2012 9/4/2012	BIN2-T-12-P012-K-00		46		
	BIN3-T-12-P011-G-00		45		
	BIN7-NT-12-P002-P-00	45			
	NCKE-T-12-0831-F-00				102
	BIN1-T-12-P011-K-00		23.2		
	BIN2-T-12-P012-L-00		44		
8/31/2012	BIN3-T-12-P011-H-00		17.9		
	BIN7-NT-12-P002-Q-00	32.2			
8/31/2012	NCKE-T-12-0904-F-00				142
	BIN1-T-12-P011-L-00		45		
	BIN1-T-12-P011-M-00		33		
Collection       Image: Collection Date         Date       Image: Collection Date         8/29/2012       Image: Collection Date         8/30/2012       Image: Collection Date         8/31/2012       Image: Collection Date         9/4/2012       Image: Collection Date         9/5/2012       Image: Collection Date         9/5/2012       Image: Collection Date	BIN3-T-12-P011-I-00		58		
9/4/2012	BIN3-T-12-P011-J-00		50	entration (ppm) Filter Cake Sta In-situ < 50 ppm	
	BIN7-NT-12-P002-R-00	12.4			
Collection         Date         8/29/2012         8/30/2012         8/31/2012         9/4/2012         9/5/2012	BIN7-NT-12-P002-S-00	10.1			
	BIN7-NT-12-P002-T-00	11.7			
	BIN2-T-12-P012-M-00		53		
	BIN2-T-12-P012-N-00		48		
	BIN3-T-12-P011-K-00		61		
	BIN3-T-12-P011-L-00		52		
0/5/2012	BIN7-NT-12-P002-U-00	14.3			
9/5/2012	BIN7-NT-12-P002-V-00	21.3			
	BIN7-NT-12-P002-W-00	31			
	BIN7-NT-12-P002-X-00	32			
	BIN7-NT-12-P002-Y-00	27			
	BIN7-NT-12-P002-Z-00	18.6			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					5 6 1 1 1 1
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN2-T-12-P012-O-00		51		
	BIN2-T-12-P012-P-00		66		
	BIN3-T-12-P011-M-00		33.1		
	BIN8-NT-12-P002-A-00	39			
9/6/2012	BIN8-NT-12-P002-B-00	49			
	BIN8-NT-12-P002-C-00	31			
	BIN8-NT-12-P002-D-00	29			
	BIN8-NT-12-P002-E-00	27			
	BIN8-NT-12-P002-F-00	28			
	BIN2-T-12-P012-Q-00		99		
	BIN2-T-12-P012-R-00		85		
9/7/2012	BIN8-NT-12-P002-G-00	42			
	BIN8-NT-12-P002-H-00	31.2			
	NCKE-T-12-0908-F-00				102
	BIN1-T-12-P011-N-00		90		
9/8/2012	BIN1-T-12-P011-O-00		95		
	BIN2-T-12-P013-A-00		111		
	BIN2-T-12-P013-B-00		39		
9/10/2012	BIN2-T-12-P013-C-00		51		
	NCKE-T-12-0911-F-01				168
	BIN2-T-12-P013-D-00		84		
9/11/2012	BIN2-T-12-P013-E-00		65		
Collection         Date           Date	NCKE-T-12-0912-F-00				303
	BIN2-T-12-P013-F-00		35	Areas         Filter Cake St           ≥ 50 ppm         In-situ < 50 ppm	
9/12/2012	BIN2-T-12-P013-G-00		85		
5/12/2012	BIN8-NT-12-P002-I-00	50			
	BIN8-NT-12-P002-J-00	23.4			
	BIN1-T-12-P011-P-00		22.4		
	BIN1-T-12-P011-Q-00		33		
	BIN2-T-12-P013-H-00		28.7		
9/13/2012	BIN2-T-12-P013-I-00		50.5		
9/13/2012	BIN8-NT-12-P002-K-00	39			
	BIN8-NT-12-P002-L-00	16.9			
	BIN8-NT-12-P002-M-00	37.3			
	BIN8-NT-12-P002-N-00	21.8			
	BIN1-T-12-P011-R-00		69		
9/14/2012	BIN3-T-12-P011-N-00		79		
5/ 17/ 2012	BIN3-T-12-P011-O-00		52		
	NCKE-T-12-0915-F-00				161

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosures		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P012-A-00		64		
	BIN2-T-12-P013-J-00		133		
9/15/2012	BIN3-T-12-P011-P-00		88		
	NCKE-T-12-0917-F-00				289
	SCKE-T-12-0917-F-00				340
	BIN3-T-12-P011-Q-00		50.5		
	BIN3-T-12-P011-R-00		48		
9/17/2012	BIN8-NT-12-P002-O-00	112			
	NCKE-T-12-0918-F-00				213
	SCKE-T-12-0918-F-00				313
	BIN1-T-12-P012-B-00		89		
	BIN3-T-12-P012-A-00		31		
0/19/2012	BIN8-NT-12-P002-P-00	76			
9/10/2012	BIN8-NT-12-P002-Q-00	23.4			
	BIN8-NT-12-P002-R-00	33			
	BIN8-NT-12-P002-S-00	90			
	BIN1-T-12-P012-C-00		57		
	BIN2-T-12-P013-K-00		43		
	BIN3-T-12-P012-B-00		42.2		
	BIN8-NT-12-P002-T-00	54			
9/19/2012	BIN8-NT-12-P002-U-00	43			
	BIN8-NT-12-P002-V-00	20.3			
	BIN8-NT-12-P002-W-00	39			
	NCKE-T-12-0920-F-00				224
	SCKE-T-12-0920-F-00				169
	BIN2-T-12-P013-L-00		33.1		
	BIN2-T-12-P013-M-00		39		
	BIN2-T-12-P013-N-00		47		
9/20/2012	BIN3-T-12-P012-C-00		29.8		
	BIN3-T-12-P012-D-00		27.7		
	NCKE-T-12-0921-F-00				94
	SCKE-T-12-0921-F-00				158
	BIN2-T-12-P013-O-00		22.5		
0/21/2012	BIN2-T-12-P013-P-00		20.7		
9/21/2012	NCKE-T-12-0922-F-00				141
	SCKE-T-12-0922-F-00				266

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Material Staging Areas Filter Cake Staging Enclosures			ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
9/22/2012	BIN1-T-12-P012-D-00		23.7		
	BIN1-T-12-P012-E-00		20.9		
	BIN2-T-12-P013-Q-00		44		
	BIN2-T-12-P013-R-00		42		
5/22/2012	BIN6-NT-12-P003-A-00	6.5			
	BIN6-NT-12-P003-B-00	13.7			
	NCKE-T-12-0924-F-00				154
	SCKE-T-12-0924-F-00				59
	BIN1-T-12-P012-F-00		30.7		
9/24/2012	BIN1-T-12-P012-G-00		47		
	BIN2-T-12-P014-A-00		39.9		
	BIN2-T-12-P014-B-00		6.9		
	NCKE-T-12-0925-F-00				137
	SCKE-T-12-0925-F-00				304
	BIN1-T-12-P012-H-00		88		
	BIN2-T-12-P014-C-00		62		
0/25/2012	BIN2-T-12-P014-D-00		41.6		
9/23/2012	BIN6-NT-12-P003-C-00	31.8			
	NCKE-T-12-0926-F-00				120
	SCKE-T-12-0926-F-00				269
9/24/2012 9/25/2012 9/26/2012 9/27/2012	BIN3-T-12-P012-E-00		11.8		
9/26/2012	BIN3-T-12-P012-F-00		22		
	BIN6-NT-12-P003-D-00	33	Total PCB Concentration (ppm)           e Material Staging Areas         Filter Cake Stag           50 ppm         In-situ $\geq$ 50 ppm         In-situ $<$ 50 ppm           23.7         20.9         1           20.9         44         1           42         1         1           50 ppm         44         1           42         1         1           50         1         1           7         1         1           30.7         1         1           30.7         1         1           30.7         1         1           39.9         1         1           6.9         1         1           88         1         1           62         1         1           11.8         1         1           22         1         1           49         1         1           66         1         1           66         1         1           7         1         1		
	BIN3-T-12-P012-G-00		49		
	BIN3-T-12-P012-H-00		67		
	BIN3-T-12-P012-I-00		583		
	BIN3-T-12-P012-J-00		66		
	BIN6-NT-12-P003-E-00	7.3			
	BIN6-NT-12-P003-F-00	30			
9/27/2012	BIN6-NT-12-P003-G-00	23.6			
	BIN6-NT-12-P003-H-00	8.6			
	BIN6-NT-12-P003-I-00	7			
	BIN6-NT-12-P003-J-00	16.2			
	BIN6-NT-12-P003-K-00	11			
	BIN6-NT-12-P003-L-00	17			
	BIN6-NT-12-P003-M-00	4.7			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
-	BIN1-T-12-P012-I-00		30.5		
	BIN2-T-12-P014-E-00		40.2		
9/28/2012	BIN6-NT-12-P003-N-00	23			
	NCKE-T-12-0929-F-00				11
	SCKE-T-12-0929-F-00				133
	BIN3-T-12-P012-K-00		51		
	BIN3-T-12-P012-L-00		46		
	BIN6-NT-12-P003-O-00	24			
0/20/2012	BIN6-NT-12-P003-P-00	27.8			
5/25/2012	BIN6-NT-12-P003-Q-00	21.7			
	BIN6-NT-12-P003-R-00	51			
[	NCKE-T-12-1001-F-00				52.8
	SCKE-T-12-1001-F-00				56
	BIN3-T-12-P012-M-00		43.3		
	BIN6-NT-12-P003-S-00	42			
10/1/2012	BIN6-NT-12-P003-T-00	23.4			
10/1/2012	BIN6-NT-12-P003-U-00	23.3			
[	NCKE-T-12-1002-F-00				158
	SCKE-T-12-1002-F-00				118
	BIN3-T-12-P012-N-00		10.5		
	BIN4-T-12-P004-A-00		27.3		
10/2/2012	BIN6-NT-12-P003-V-00	9.8			
9/28/2012 9/29/2012 10/1/2012 10/3/2012	BIN6-NT-12-P003-W-00	7.8			
[	NCKE-T-12-1003-F-00				78
	SCKE-T-12-1003-F-00				145
	BIN2-T-12-P014-F-00		21.1		
10/2/2012	BIN2-T-12-P014-G-00		45		
10/3/2012	NCKE-T-12-1004-F-00				95
	SCKE-T-12-1004-F-00				60
	BIN1-T-12-P012-J-00		38.2		
[ [	BIN1-T-12-P012-K-00		51		
	BIN2-T-12-P014-H-00		31		
[ [	BIN2-T-12-P014-I-00		19.8		
10/4/2012	BIN4-T-12-P004-B-00		27.9		
10/4/2012	BIN4-T-12-P004-C-00		15.8		
	BIN4-T-12-P004-D-00		44		
l l	BIN4-T-12-P004-E-00		10.8		
	NCKE-T-12-1005-F-00				92
	SCKE-T-12-1005-F-00				319

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosure		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P012-L-00		23.2		
	BIN1-T-12-P012-M-00		23.8		
	BIN4-T-12-P004-F-00		30.4		
	BIN5-NT-12-P003-A-00	5.5			
10/5/2012	BIN6-NT-12-P003-X-00	8.4			
	BIN6-NT-12-P003-Y-00	11.6			
	BIN6-NT-12-P003-Z-00	7.3			
	NCKE-T-12-1006-F-00				192
Collection         Date         10/5/2012         10/6/2012         10/8/2012         10/9/2012         10/9/2012         10/9/2012	SCKE-T-12-1006-F-00				148
	BIN1-T-12-P012-N-00		21.2		
	BIN1-T-12-P012-O-00		8.7		
	BIN4-T-12-P004-G-00		16.4		
10/6/2012	BIN4-T-12-P004-H-00		16.4		
	BIN5-NT-12-P003-B-00	29.9			
	NCKE-T-12-1008-F-00				97
	SCKE-T-12-1008-F-00				69
	BIN1-T-12-P012-P-00		24		
	BIN1-T-12-P012-Q-00		23.5		
	BIN4-T-12-P004-I-00		8.4		
	BIN4-T-12-P004-J-00		143		
10/8/2012	BIN5-NT-12-P003-C-00	4.2			
	BIN5-NT-12-P003-D-00	3.05			
Collection         Date         10/5/2012         10/6/2012         10/8/2012         10/9/2012         10/9/2012	BIN5-NT-12-P003-E-00	4.5			
	NCKE-T-12-1009-F-00				52
	SCKE-T-12-1009-F-00				102
	BIN1-T-12-P012-R-00		21		
	BIN1-T-12-P013-A-00		19.8		
10/0/2012	BIN4-T-12-P004-K-00		5.7		
10/9/2012	BIN5-NT-12-P003-F-00	2.64			
	BIN5-NT-12-P003-G-00	4.3			
	NCKE-T-12-1010-F-00				71
	BIN1-T-12-P013-B-00		36.1		
	BIN3-T-12-P012-O-00		27.6		
10/10/2012	BIN3-T-12-P012-P-00		22		
10/10/2012	BIN5-NT-12-P003-H-00	3.9			
10/5/2012 10/6/2012 10/8/2012 10/9/2012 10/10/2012	BIN5-NT-12-P003-I-00	2.44			
	BIN5-NT-12-P003-J-00	4.8			

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosure		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P013-C-00		16.5		
	BIN1-T-12-P013-D-00		21.9		
10/11/2012	BIN4-T-12-P004-L-00		14.6		
	BIN5-NT-12-P003-K-00	6.5			
	BIN5-NT-12-P003-L-00	6.4			
	BIN1-T-12-P013-E-00		19.5		
	BIN3-T-12-P012-Q-00		17.3		
10/12/2012	BIN3-T-12-P012-R-00		4.45		
10/12/2012	BIN5-NT-12-P003-M-00	8			
	BIN5-NT-12-P003-N-00	9.8			
	BIN5-NT-12-P003-O-00	3.7			
	NCKE-T-12-1013-F-00				36.8
	BIN2-T-12-P014-J-00		24		
	BIN3-T-12-P013-A-00		21.2		
10/12/2012	BIN4-T-12-P004-M-00		16.8		
10/13/2012	BIN5-NT-12-P003-P-00	1.5			
	BIN7-NT-12-P003-A-00	2.38			
	NCKE-T-12-1015-F-00				86
	BIN2-T-12-P014-K-00		31.8		
	BIN3-T-12-P013-B-00		17.3		
	BIN7-NT-12-P003-B-00	1.69			
10/15/2012	BIN7-NT-12-P003-C-00	8.4			
	BIN7-NT-12-P003-D-00	5.9			
	BIN7-NT-12-P003-E-00	4.7			
	BIN7-NT-12-P003-F-00	5.8			
	BIN7-NT-12-P003-G-00	1.43			
10/16/2012	BIN7-NT-12-P003-H-00	1.81			
	BIN7-NT-12-P003-I-00	1.38			
	BIN1-T-12-P013-F-00		8.3		
	BIN7-NT-12-P003-J-00	5.5			
	BIN7-NT-12-P003-K-00	2.6			
10/17/2012	BIN7-NT-12-P003-L-00	3.3			
	BIN7-NT-12-P003-M-00	1.84			
	BIN7-NT-12-P003-N-00	1.46			
	NCKE-T-12-1018-F-00				111

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

			Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures	
Collection						
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	
	BIN1-T-12-P013-G-00		24.8			
	BIN2-T-12-P014-L-00		18.3			
	BIN3-T-12-P013-C-00		24.6			
	BIN7-NT-12-P003-O-00	1.99				
10/18/2012	BIN7-NT-12-P003-P-00	3.8				
	BIN7-NT-12-P003-Q-00	3.6				
	BIN7-NT-12-P003-R-00	6.2				
	BIN7-NT-12-P003-S-00	4.9				
	NCKE-T-12-1019-F-00				53.9	
	BIN7-NT-12-P003-T-00	2.97				
	BIN7-NT-12-P003-U-00	4.1				
10/19/2012	BIN7-NT-12-P003-V-00	1.95				
	BIN7-NT-12-P003-W-00	1.49				
	BIN7-NT-12-P003-X-00	1.79				
	BIN4-T-12-P004-N-00		10.2			
	BIN7-NT-12-P003-Y-00	2.24				
	BIN7-NT-12-P003-Z-00	3.9				
10/20/2012	BIN8-NT-12-P003-A-00	8.9				
10/20/2012	BIN8-NT-12-P003-B-00	12.8				
	BIN8-NT-12-P003-C-00	3.38				
	BIN8-NT-12-P003-D-00	1.78				
	BIN8-NT-12-P003-E-00	1.93				
	BIN2-T-12-P014-M-00		7.8			
	BIN2-T-12-P014-N-00		7.5			
	BIN8-NT-12-P003-F-00	2.04				
10/21/2012	BIN8-NT-12-P003-G-00	1.77				
10/21/2012	BIN8-NT-12-P003-H-00	2.16				
	BIN8-NT-12-P003-I-00	1.63				
	SCKE-NT-12-1021-F-SCD			31.9		
	SCKE-NT-12-1021-F-SEF			21.9		

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)				
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosures			
Collection						
Date	Sample Name	In-situ < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	
	BIN2-T-12-P014-O-00		30.3			
	BIN2-T-12-P014-P-00		16.4			
	BIN3-T-12-P013-D-00		21.8			
	BIN8-NT-12-P003-J-00	2.33				
10/22/2012	BIN8-NT-12-P003-K-00	1.4				
10/22/2012	BIN8-NT-12-P003-L-00	1.65				
	BIN8-NT-12-P003-M-00	1.99				
	SCKE-NT-12-1022-F-NCD			24.8		
	SCKE-NT-12-1022-F-NEF			19.6		
	SCKE-NT-12-1022-F-SGH			40		
	BIN2-T-12-P014-Q-00		18.1			
	BIN2-T-12-P014-R-00		19.9			
	BIN3-T-12-P013-E-00		7.4			
	BIN8-NT-12-P003-N-00	1.78				
	BIN8-NT-12-P003-O-00	1.94				
10/23/2012	BIN8-NT-12-P003-P-00	1.43				
	BIN8-NT-12-P003-Q-00	1.69				
	BIN8-NT-12-P003-R-00	1.47				
	BIN8-NT-12-P003-S-00	0.98				
	NCKE-T-12-1024-F-00				50.9	
	SCKE-NT-12-1023-F-SIJ			32		
	BIN6-NT-12-P004-A-00	16				
	BIN6-NT-12-P004-B-00	3.4				
	BIN6-NT-12-P004-C-00	3.17				
	BIN6-NT-12-P004-D-00	2.64				
	BIN6-NT-12-P004-E-00	2.07				
10/24/2012	BIN8-NT-12-P003-T-00	1.64				
	BIN8-NT-12-P003-U-00	2.57				
	BIN8-NT-12-P003-V-00	1.64				
	BIN8-NT-12-P003-W-00	2.72				
	NCKE-T-12-1025-F-00				56	
	SCKE-NT-12-1024-F-NGH			20.4		
	SCKE-NT-12-1024-F-SKL			21.5		

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P013-H-00		16.9		
	BIN1-T-12-P013-I-00		18.1		
	BIN6-NT-12-P004-F-00	1.49			
	BIN6-NT-12-P004-G-00	1.84			
10/25/2012	BIN6-NT-12-P004-H-00	3.24			
	BIN6-NT-12-P004-I-00	2.58			
	BIN6-NT-12-P004-J-00	1.68			
[	NCKE-T-12-1026-F-00				60
	SCKE-NT-12-1025-F-NIJ			30.9	
	BIN1-T-12-P013-J-00		7.6		
	BIN1-T-12-P013-K-00		4.02		
	BIN6-NT-12-P004-K-00	3.9			
10/26/2012	BIN6-NT-12-P004-L-00	11.9			
	BIN6-NT-12-P004-M-00	8.1			
	BIN6-NT-12-P004-N-00	3.4			
	SCKE-NT-12-1026-F-NKL			36.3	
	BIN1-T-12-P013-L-00		9.4		
	BIN3-T-12-P013-F-00		48.3		
	BIN4-T-12-P004-O-00		30.5		
10/27/2012	BIN6-NT-12-P004-O-00	5.4			
10/2//2012	BIN6-NT-12-P004-P-00	10.1			
	BIN6-NT-12-P004-Q-00	16			
	BIN6-NT-12-P004-R-00	1.95			
	SCKE-NT-12-1027-F-NMN			36	
	BIN3-T-12-P013-G-00		20.3		
	BIN6-NT-12-P004-S-00	2.49			
10/29/2012	BIN6-NT-12-P004-T-00	1.83			
10/23/2012	BIN6-NT-12-P004-U-00	4.4			
	BIN6-NT-12-P004-V-00	3.7			
	SCKE-NT-12-1029-F-SMN			12.6	
	BIN3-T-12-P013-H-00		23.3		
	BIN4-T-12-P004-P-00		52.3		
	BIN6-NT-12-P004-W-00	3.53			
10/30/2012	BIN6-NT-12-P004-X-00	10.7			
10/ 30/ 2012	BIN6-NT-12-P004-Y-00	8.6			
[	BIN6-NT-12-P004-Z-00	2.49			
[	NCKE-T-12-1031-F-00				182
	SCKE-NT-12-1030-F-NOP			54	

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosures		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN3-T-12-P013-I-00		12.6		
ſ	BIN4-T-12-P004-Q-00		6.18		
10/31/2012	BIN5-NT-12-P004-A-00	4.97			
	BIN5-NT-12-P004-B-00	9.1			
10/31/2012	BIN5-NT-12-P004-C-00	11.9			
[	BIN5-NT-12-P004-D-00	1.97			
ſ	NCKE-T-12-1101-F-00				187
[	SCKE-NT-12-1031-F-NQR			I PCB Concentration (ppm)         g Areas       Filter Cake State         ≥ 50 ppm       In-situ < 50 ppm         12.6       -         5.18       -         249       -         6.1       -         25.3       -         23       -         23       -         23.7       -         17.4       -         48.9       -         20.4       -         58       -         37.6       -         16.6       -         17.5       -         14       -	
	BIN2-T-12-P015-A-00		6.1		
11/1/2012	BIN3-T-12-P013-J-00		25.3		
	BIN5-NT-12-P004-E-00	1.03			
	BIN5-NT-12-P004-F-00	0.57			
11/1/2012	BIN5-NT-12-P004-G-00	1.76			
	BIN5-NT-12-P004-H-00	2.52			
	BIN5-NT-12-P004-I-00	22			
[	NCKE-T-12-1102-F-00				160
	BIN2-T-12-P015-B-00		23		
	BIN2-T-12-P015-C-00		28.7		
11/2/2012	BIN5-NT-12-P004-J-00	7.8			
11/2/2012	BIN5-NT-12-P004-K-00	2.7			
10/31/2012 11/1/2012 11/2/2012 11/3/2012	BIN5-NT-12-P004-L-00	4.6			
[	BIN5-NT-12-P004-M-00	4		Entration (ppm)         Filter Cake Sta         In-situ < 50 ppm	
	BIN1-T-12-P013-M-00		17.4	Filter Cake Sta         pm       In-situ < 50 ppm         in-situ < 50 ppm         in-situ < 249         in-situ          in-situ	
Collection Date         I           10/31/2012         I           11/1/2012         I           11/2/2012         I           11/3/2012         I           I         I	BIN1-T-12-P013-N-00		48.9		
	BIN2-T-12-P015-D-00		20.4		
11/3/2012	BIN5-NT-12-P004-N-00	4.4	Total PCB Concentration (ppm)           Staging Areas         Filter Cake St           In-situ ≥ 50 ppm         In-situ < 50 ppm           12.6		
Collection         Date         10/31/2012         11/1/2012         11/2/2012         11/3/2012         11/5/2012	BIN5-NT-12-P004-O-00	5.12			
	BIN5-NT-12-P004-P-00	0.77			
11/1/2012 11/2/2012 11/3/2012 11/5/2012	SCKE-NT-12-1103-F-SSOP			58	
	BIN1-T-12-P013-O-00		37.6		
[	BIN1-T-12-P013-P-00		16.6		
	BIN4-T-12-P004-R-00		17.5		
11/5/2012	BIN7-NT-12-P004-A-00	2.81			
11/3/2012	BIN7-NT-12-P004-B-00	1.3			
11/1/2012 11/2/2012 11/3/2012 11/5/2012	BIN7-NT-12-P004-C-00	2.85			
[	BIN7-NT-12-P004-D-00	1.31			
	SCKE-NT-12-1105-F-STU			14	

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

		Total PCB Concentration (ppm)			
		Coarse Material Staging Areas		Filter Cake Staging Enclosures	
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
11/6/2012	BIN3-T-12-P013-K-00		14		
	BIN3-T-12-P013-L-00		10.7		
	BIN7-NT-12-P004-E-00	3.3			
	BIN7-NT-12-P004-F-00	2.2			
	BIN7-NT-12-P004-G-00	1.21			
	BIN7-NT-12-P004-H-00	2.42			
	BIN7-NT-12-P004-I-00	4.3			
	NCKE-T-12-1107-F-00				103
	SCKE-NT-12-1106-F-SVW			12.8	
11/7/2012	BIN3-T-12-P013-M-00		20.9		
	BIN3-T-12-P013-N-00		11		
	BIN7-NT-12-P004-J-00	3.44			
	BIN7-NT-12-P004-K-00	3.3			
	NCKE-T-12-1108-F-00				93
	SCKE-NT-12-1107-F-SXY			36	
11/8/2012	BIN1-T-12-P013-R-00		25.4		
	BIN2-T-12-P015-E-00		22.1		
	BIN3-T-12-P013-O-00		7.3		
	BIN7-NT-12-P004-L-00	2.17			
	BIN7-NT-12-P004-M-00	9.7			
	BIN7-NT-12-P004-N-00	3.94			
	NCKE-T-12-1109-F-00				71.8
	SCKE-NT-12-1108-F-SZAA			70	
11/9/2012	BIN7-NT-12-P004-O-00	1.74			
	BIN7-NT-12-P004-P-00	1.62			
	NCKE-T-12-1110-F-00				58.8
11/10/2012	BIN2-T-12-P015-F-00		13		
	BIN2-T-12-P015-G-00		6.7		
	BIN3-T-12-P013-P-00		4.16		
	BIN7-NT-12-P004-Q-00	1.33			
	BIN7-NT-12-P004-R-00	0.72			
	BIN7-NT-12-P004-S-00	1.96			
	BIN7-NT-12-P004-T-00	1.29			
	NCKE-T-12-1112-F-00				110
	SCKE-NT-12-1110-F-SABAC			41.2	
	SCKE-NT-12-1110-F-SADAE			27.8	

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)
		Total PCB Concentration (ppm)			
		Coarse Materia	Coarse Material Staging Areas Filter Cake Staging Enclosure		
Collection					
Date	Sample Name	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm
	BIN1-T-12-P014-A-00		15.6		
	BIN1-T-12-P014-B-00		9		
	BIN2-T-12-P015-H-00		16.1		
	BIN2-T-12-P015-I-00		12.9		
	BIN7-NT-12-P004-U-00	2.09			
[ [	BIN7-NT-12-P004-V-00	2.16			
	BIN7-NT-12-P004-W-00	2.51			
11/12/2012	NCKE-T-12-1113-F-00				93
11, 12, 2012	SCKE-NT-12-1112-F-NABAC			35	
[ [	SCKE-NT-12-1112-F-NADAE			25.3	
[ [	SCKE-NT-12-1112-F-NXY			29.9	
	SCKE-NT-12-1112-F-NZAA			28.5	
	SCKE-NT-12-1112-F-SABAC1			68	
[ [	SCKE-NT-12-1112-F-SABAC2			40.2	
	SCKE-NT-12-1112-F-SABAC3			35.7	
	BIN4-T-12-P004-S-00		26.5		
	BIN7-NT-12-P004-X-00	1.09			
11/13/2012	BIN7-NT-12-P004-Y-00	1.8			
	BIN7-NT-12-P004-Z-00	2.7			
	NCKE-T-12-1114-F-00				59
	BIN1-T-12-P014-C-00		15.7		
	SCKE-NT-12-1114-F-NAFAG			7.8	
11/14/2012	SCKE-NT-12-1114-F-SAFAG			19	
11/14/2012	SCKE-NT-12-1114-F-SIH			39	
11/12/2012 11/13/2012 11/13/2012 11/15/2012 11/15/2012 11/16/2012	SCKE-NT-12-1114-F-SKJ			39.4	
	NCKE-T-12-1115-F-00				119
	BIN6-NT-12-P005-A-00	3.7			
	BIN6-NT-12-P005-B-00	5.2			
11/15/2012	BIN6-NT-12-P005-C-00	6.9			
11/13/2012	SCKE-NT-12-1115-F-SL			40.5	
	BIN3-T-12-P013-Q-00		8.1		
	BIN1-T-12-P014-D-00		8.1		
11/16/2012	SCKE-NT-12-1116-F-SGF			68	
11/10/2012	BIN4-T-12-P004-T-00		3.75		
	BIN3-T-12-P014-A-00		7.8		
11/17/2012	BIN3-T-12-P013-R-00		9.2		
	NCKE-T-12-1119-F-00				85
11/19/2012	BIN3-T-12-P014-B-00		5.1		
11/13/2012	NCKE-T-12-1121-F-00				58

Table A-1PCB Content of Dewatered Materials Staged for Disposal (2012)

			Total PCB Conc	entration (ppm)			
		Coarse Materia	al Staging Areas	Filter Cake Sta	ging Enclosures		
Collection							
Date	Sample Name	In-situ < 50 ppm	<i>In-situ</i> ≥ 50 ppm	<i>In-situ</i> < 50 ppm	<i>In-situ</i> ≥ 50 ppm		
11/21/2012	BIN3-T-12-P014-C-00		29				
11/21/2012	NCKE-T-12-1126-F-00				66		
11/23/2012	NCKE-T-12-1126-F-01				43		
11/24/2012	NCKE-T-12-1126-F-02				86		
12/3/2012	NCKE-T-12-1205-F-C01				59		
12/1/2012	NCKE-T-12-1201-F-00				114		
12/4/2012	NCKE-T-12-1205-F-C02				43		
11/26/2012	NCKE-T-12-1128-F-00				67		
11/27/2012	NCKE-T-12-1128-F-01				97		
11/28/2012	NCKE-T-12-1129-F-02				86		
12/8/2012	NCKE-T-12-1212-F-C01				63		
12/11/2012	NCKE-T-12-1212-F-C02				107		
12/12/2012	NCKE-T-12-1214-F-C01				87.2		
12/13/2012	NCKE-T-12-1214-F-C02				118		

 Table A-1

 PCB Content of Dewatered Materials Staged for Disposal (2012)

Notes

1. Field duplicate samples are excluded.

2. Confirmation samples are excluded, where applicable.

ppm - parts per million

		Total PCB Concentration (ppm)			
		Coarse Materia	Staging Areas	Filter Cake Stag	ging Enclosures
Collection			00.000		
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
	BIN5-NT-13-P001-A-00	4.7			
5/7/2013	BIN5-NT-13-P001-B-00	8.2			
	BIN5-NT-13-P001-C-00	4.7			
	BIN5-NT-13-P001-D-00	3.2			
	BIN5-NT-13-P001-E-00	3.19			
	BIN5-NT-13-P001-F-00	2.55			
	BIN5-NT-13-P001-G-00	4.88			
5/8/2013	BIN5-NT-13-P001-H-00	2.79			
-,-,	BIN5-NT-13-P001-I-00	1.95			
	BIN5-NT-13-P001-J-00	2.46			
	SCKE-NT-13-0509-E-GH-00			105	
	SCKE-NT-13-0509-F-U-00			35	
5/9/2013	SCKE-NT-13-0509-F-KI-00			26.5	
	SCKE-NT-13-0509-F-MN-00			32	
Collection Date           5/7/2013           5/8/2013           5/9/2013           5/9/2013           5/11/2013           5/13/2013           5/14/2013           5/16/2013           5/18/2013           5/18/2013           5/21/2013           5/22/2013           5/22/2013           5/22/2013	SCKE-NT-13-0509-F-OP-00			26	
	BIN3-T-13-P001-A-00		71	20	
	BIN5-NT-13-P001-K-00	47	/1		
	BIN5-NT-13-P001-L-00	8.8			
5/11/2013	BIN5-NT-13-P001-E-00	7.8			
	BIN5-NT-13-P001-N-00	0.7			
	BIN5-NT-13-P001-N-00	9.7			
	BINS-NT-13-P001-0-00	12.7			
5/13/2013	BINS-NT-13-P001-P-00	19.7			
	BINS-NT-13-P001-Q-00	10.4			
E/14/2012	BINS-NT-13-P001-R-00	10			
5/14/2015	BING-NT-13-P001-A-00	29			
E /1E /2012	BING-NT-13-P001-B-00	4.9			
5/15/2015	BIN7-NT-13-P001-A-00	2.0			
5/16/2013	BING-NT-13-P001-C-00	2.5			
	BING-N1-13-P001-D-00	6.3			
	BIN3-1-13-P001-B-00		4.4		
	BIN3-1-13-P001-C-00		34.3		
5/18/2013	BIN3-1-13-P001-D-00	2.0	10.1		
	BIN7-N1-13-P001-B-00	3.9			
	BIN6-NT-13-P001-E-00	5.1			
	BING-NT-13-P001-F-00	5.6			
	BIN7-NT-13-P001-C-00	6.3			
E /24 /2042	BIN7-N1-13-P001-D-00	15.6			
5/21/2013	BIN6-NT-13-P001-G-00	5.5			
	BIN6-NT-13-P001-H-00	9.6			
	BIN6-NT-13-P001-I-00	8			
5/22/2013	BIN3-T-13-P001-E-00		9.7		
	BIN3-T-13-P001-F-00		15.8		
	BIN3-T-13-P001-H-00		3.7		
_ / /	BIN3-T-13-P001-G-00		95		
5/23/2013	BIN6-NT-13-P001-L-00	3.4			
	BIN6-NT-13-P001-J-00	3.01			
	BIN6-NT-13-P001-K-00	1.89			
	BIN3-T-13-P001-I-00		7		
5/24/2013	BIN7-NT-13-P001-E-00	5.4			
-,,	BIN7-NT-13-P001-F-00	11.4			
	BIN6-NT-13-P001-M-00	17.2			

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Materia	Staging Areas	Filter Cake Stag	ing Enclosures
Collection					0
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
	BIN6-NT-13-P001-N-00	11.2	0, 0	0, 0	0, 0
5/28/2013	BIN6-NT-13-P001-O-00	5.5			
	BIN6-NT-13-P001-P-00	6.5			
	BIN6-NT-13-P001-Q-00	14.1			
	BIN6-NT-13-P001-R-00	3.3			
	BIN4-T-13-P001-A-00		82		
	BIN5-NT-13-P002-A-00	4.9			
5/29/2013	BIN5-NT-13-P002-B-00	10.3			
	BIN5-NT-13-P002-C-00	9.7			
	BIN7-NT-13-P001-G-00	7			
	BIN5-NT-13-P002-D-00	7			
F /21 /2012	BIN5-NT-13-P002-E-00	19.9			
5/31/2013	BIN7-NT-13-P001-H-00	4.8			
	BIN7-NT-13-P001-I-00	6.3			
	BIN5-NT-13-P002-F-00	14.2			
6/3/2013 6/4/2013	BIN5-NT-13-P002-G-00	7.2			
	BIN5-NT-13-P002-H-00	4.9			
C/4/2012	BIN4-T-13-P001-B-00		273		
6/4/2013	BIN5-NT-13-P002-I-00	9.1			
	BIN5-NT-13-P002-J-00	7.6			
C /= /2042	BIN5-NT-13-P002-K-00	8			
6/5/2013	BIN5-NT-13-P002-L-00	9.4			
	BIN5-NT-13-P002-M-00	12.5			
	BIN5-NT-13-P002-N-00	10.6			
6/7/2013	BIN7-NT-13-P001-J-00	7.8			
6/13/2013	BIN5-NT-13-P002-O-00	37			
	BIN7-NT-13-P001-K-00	5.2			
6/18/2013	BIN7-NT-13-P001-L-00	8			
	BIN6-NT-13-P002-A-00	0.88			
6/25/2013	BIN6-NT-13-P002-B-00	0.8			
	BIN6-NT-13-P002-C-00	2.09			
	BIN6-NT-13-P002-D-00	4.8			
6/27/2013	BIN6-NT-13-P002-E-00	13.5			
	BIN6-NT-13-P002-F-00	5.3	Staging Areas         In-Situ       > 50 mg/kg		
	BIN6-NT-13-P002-G-00	8.8			
	BIN6-NT-13-P002-H-00	13.8			
6/28/2013	BIN1-T-13-P001-A-00		75		
	NCKE-T-13-0628-F-0001				119
	SCKE-T-13-0628-F-0001			Filter Cake Staging         /kg       In-Situ       50 mg/kg       In-3         Image: Image of the stage of the stag	69
	BIN2-T-13-P001-A-00		47	Inter cone oraging in         kg       In-Situ < 50 mg/kg	
6/29/2013	NCKE-T-13-0629-F-0002				187
	SCKE-T-13-0629-F-0002				640
	BIN2-T-13-P001-B-00		40		
	BIN6-NT-13-P002-I-00	32			
- / . /	BIN6-NT-13-P002-J-00	27			
//1/2013	BIN3-T-13-P002-A-00		62		
	NCKE-T-13-0701-F-0003				149
Collection         Date         5/28/2013         5/29/2013         5/31/2013         6/3/2013         6/4/2013         6/7/2013         6/18/2013         6/18/2013         6/25/2013         6/25/2013         6/27/2013         6/28/2013         6/28/2013         7/1/2013         7/2/2013	SCKE-T-13-0701-F-0003				354
	BIN2-T-13-P001-C-00		8.7		
	BIN6-NT-13-P002-K-00	25.3			
7/2/2013	BIN6-NT-13-P002-L-00	47			
	NCKE-T-13-0702-F-0004				328
	SCKE-T-13-0702-F-0004				345
		•			•

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Materia	Staging Areas	Filter Cake Stag	ing Enclosures
Collection					
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ $\geq$ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
	BIN6-NT-13-P002-M-00	33	0, 0	0, 0	0, 0
7/3/2013	BIN6-NT-13-P002-N-00	47			
	BIN3-T-13-P002-B-00		40.6		
	NCKE-T-13-0703-F-0005				80
	SCKE-T-13-0703-F-0005				249
7/4/2013	BIN6-NT-13-P002-O-00	14.7			
	BIN5-NT-13-P003-A-00	7.6			
	BIN5-NT-13-P003-B-00	25			
	BIN5-NT-13-P003-C-00	20.3			
7/5/2012	BIN6-NT-13-P002-P-00	18.2			
//5/2013	BIN6-NT-13-P002-Q-00	27			
	BIN3-T-13-P002-C-00		32.3		
	NCKE-T-13-0705-F-0006				33.6
7/6/2013 7/8/2013 7/9/2013 7/10/2013 7/11/2013	SCKE-T-13-0705-F-0006				228
	BIN5-NT-13-P003-E-00	9.8			
7/6/2012	BIN1-T-13-P001-B-00		50		
//6/2013	NCKE-T-13-0706-F-0007				48
	SCKE-T-13-0706-F-0007				20.2
	BIN5-NT-13-P003-G-00	18.3			
- 10 100 10	BIN1-T-13-P001-C-00		53		
//8/2013	NCKE-T-13-0708-F-0008				112
	SCKE-T-13-0708-F-0008				125
	BIN5-NT-13-P003-I-00	6.8			
- 10 100 10	BIN1-T-13-P001-D-00		46		
7/9/2013	NCKE-T-13-0709-F-0009				187
	SCKE-T-13-0709-F-0009				236
7/10/2013	BIN5-NT-13-P003-J-00	6.4			
	BIN5-NT-13-P003-K-00	23.3			
- / /	BIN2-T-13-P001-D-00		48		
//11/2013	NCKE-T-13-0711-F-0010				301
	SCKE-T-13-0711-F-0010				190
	BIN2-T-13-P001-E-00		35.3		
7/12/2013	NCKE-T-13-0712-F-0011				183
	SCKE-T-13-0712-F-0011				258
	BIN2-T-13-P001-F-00		84		
7/12/2012	BIN1-T-13-P001-E-00		61		
//13/2013	NCKE-T-13-0713-F-0012				179
	SCKE-T-13-0713-F-0012				184
	BIN1-T-13-P001-F-00		52		
7/15/2013	NCKE-T-13-0715-F-0013				154
	SCKE-T-13-0715-F-0013				221
	BIN3-T-13-P002-D-00		50		
7/10/2012	BIN1-T-13-P001-G-00		37.5		
//16/2013	NCKE-T-13-0716-F-0014				59
	SCKE-T-13-0716-F-0014				260
	BIN3-T-13-P002-E-00		17.2		
7/17/2013	NCKE-T-13-0717-F-0015				92
	SCKE-T-13-0717-F-0015				32.8
	BIN2-T-13-P001-G-00		26.6		
7/18/2013	NCKE-T-13-0718-F-0016				59
	SCKE-T-13-0718-F-0016				580
	BIN2-T-13-P001-H-00		28.6		
7/19/2013	NCKE-T-13-0719-F-0017				44
	SCKE-T-13-0719-F-0017				166

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Material Staging Areas Filter Cake Staging Encl			ging Enclosures
Collection					
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
	BIN2-T-13-P001-I-00	0, 0	74	0, 0	0, 0
7/20/2013	NCKE-T-13-0720-F-0018				50
	SCKE-T-13-0720-F-0018				120
	BIN5-NT-13-P003-L-00	9.2			
7/22/2012	BIN1-T-13-P001-H-00		9		
7/22/2013	NCKE-T-13-0722-F-0019				47
	SCKE-T-13-0722-F-0019			as         Filter Cake Stag           D mg/kg         In-Situ         50 mg/kg           Image: Stage	35.5
	BIN5-NT-13-P003-M-00	1.06			
	BIN5-NT-13-P003-N-00	2.28			
7/23/2013	BIN1-T-13-P001-I-00		10.2		
	NCKE-T-13-0723-F-0020				108
	SCKE-T-13-0723-F-0020				24.2
	BIN3-T-13-P002-F-00		7.1		
7/24/2013	NCKE-T-13-0724-F-0021				66
	SCKE-T-13-0724-F-0021				81
	BIN5-NT-13-P003-O-00	7			
	BIN5-NT-13-P003-P-00	7.8			
7/25/2012	BIN5-NT-13-P003-Q-00	15.6			
//25/2013	BIN3-T-13-P002-G-00		3.9		
	NCKE-T-13-0725-F-0022				75
	SCKE-T-13-0725-F-0022				89
	BIN6-NT-13-P003-A-00	25.9			
7/20/2012	BIN2-T-13-P001-J-00		43		
//26/2013	NCKE-T-13-0726-F-0023				75
	SCKE-T-13-0726-F-0023				70
	BIN6-NT-13-P003-B-00	26.7			
	BIN6-NT-13-P003-C-00	23.3			
7/27/2013	BIN2-T-13-P001-K-00		16.4		
	NCKE-T-13-0727-F-0024				37
	SCKE-T-13-0727-F-0024			Filter Cake Stag	99
	BIN6-NT-13-P003-E-00	20.3			
	BIN6-NT-13-P003-F-00	12.6			
	BIN6-NT-13-P003-G-00	6.9			
7/29/2013	BIN2-T-13-P001-L-00		2.22		
	BIN3-T-13-P002-H-00		30.1		
	NCKE-T-13-0729-F-0025				61
	SCKE-T-13-0729-F-0025				93
	BIN3-T-13-P002-I-00		8.5		
7/30/2013	NCKE-T-13-0730-F-0026				44
	SCKE-T-13-0730-F-0026				24.1
	BIN6-NT-13-P003-H-00	4.4			
	BIN3-T-13-P002-J-00		22.9		
7/31/2013	BIN1-T-13-P001-J-00		14.3		
	NCKE-T-13-0731-F-0027				105
	SCKE-T-13-0731-F-0027				62
	BIN6-NT-13-P003-I-00	9.7			
	BIN6-NT-13-P003-J-00	6.3			
8/1/2012	BIN6-NT-13-P003-K-00	3.6			
0, 1/2013	BIN2-T-13-P001-M-00		23.6		
	BIN1-T-13-P001-K-00		6.1		
	NCKE-T-13-0801-F-0028				103

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Materia	Staging Areas	Filter Cake Stag	ging Enclosures
Collection					
Date	Sample Name	In-Situ < 50 mg/kg	$In-Situ \ge 50 \text{ mg/kg}$	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
	BIN6-NT-13-P003-L-00	7.8	0, 0	0, 0	<u> </u>
	BIN6-NT-13-P003-M-00	11.5			
8/2/2013	BIN6-NT-13-P003-N-00	9			
	NCKE-T-13-0802-F-0029				26.1
	SCKE-T-13-0802-F-0028				64
	BIN2-T-13-P001-N-00		11.3		
8/3/2013	NCKE-T-13-0803-F-0030				50
	SCKE-T-13-0803-F-0029				52.6
	BIN3-T-13-P002-K-00		5.8		
8/5/2013	NCKE-T-13-0805-F-0031				113
-, -,	SCKE-T-13-0805-E-0030				110
	BIN3-T-13-P002-I-00		13.7		
8/6/2013	NCKF-T-13-0806-F-0032		2017		63
0, 0, 2020	SCKE-T-13-0806-E-0031				326
	BIN3-T-13-P002-M-00		17.6		320
	BIN5-NT-13-P004-B-00	6.4	17.0		
	BIN5-NT-13-P004-C-00	7.8			
8/7/2013	BIN1-T-13-P001-L-00	7.0	10.4		
	NCKE-T-13-0807-E-0033		10.4		1/12
	SCKE_T_12_0807_E_0022				121
	BIN1-T-12-D001-M-00		36.6		121
8/8/2013	NCKET-13-0808-E-0034		50.0		150
8/8/2013	SCVE T 12 0909 E 0022				100
	BIN2-T-12-D001-O-00		26.6		100
8/0/2012	DINZ-1-13-F001-0-00		20.0		100
8/9/2013	SCKE-T-12-0809-F-0033				199
	PIN2 T 12 DO01 D 00		E 7		102
	BIN2-1-13-F001-F-00		25.7		
8/10/2013	NCKE T 12 0810 E 0026		23.8		102
	SCVE T 12 0910 E 002E				192
	DIN2 T 12 DO01 O 00		101		155
	BIN2-1-13-P001-Q-00		101		
8/12/2013	BIN3-1-13-P002-0-00		19.1		110.6
	SCVE T 12 0812 F 0026				201.1
	SCRE-1-13-0812-F-0030		80		201.1
	BIN2-1-13-P001-R-00		80		
8/13/2013	BIN3-1-13-P002-P-00		22.4		102
	NCKE-1-13-0813-F-0038				182
	SCKE-1-13-0813-F-0037	20.2			123
	BINS-NT-13-P004-D-00	20.3			
	BIN5-NT-13-P004-E-00	5.9			
0/11/2012	BIN5-NT-13-P004-F-00	18.7			
8/14/2013	BIN5-N1-13-P004-G-00	0.88	25.0		
	BIN1-1-13-P001-N-00		25.8		100
	NCKE-1-13-0814-F-0039				168
	SUKE-1-13-0814-F-0038		24.6		39
	BINZ-1-13-P001-S-00	4.07	21.6		
8/15/2013	BIN5-NT-13-P004-H-00	1.07			
	NCKE-T-13-0815-F-0040				256
	SCKE-1-13-0815-F-0039				23.4
	BIN2-T-13-P001-T-00	0.5-	24.1		
8/16/2013	BIN5-NT-13-P004-I-00	0.37			
	NCKE-T-13-0816-F-0041				181
8/3/2013         8/5/2013         8/6/2013         8/6/2013         8/7/2013         8/8/2013         8/9/2013         8/10/2013         8/11/2013         8/13/2013         8/14/2013         8/15/2013         8/15/2013	SCKE-T-13-0816-F-0040				197

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Material Staging Areas Filter Cake Staging Enclose			zing Enclosures
Collection					
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ > 50 mg/kg	In-Situ < 50 mg/kg	In-Situ > 50 mg/kg
Dute	BIN2-T-13-P001-U-00		55		
8/17/2013	BIN3-T-13-P002-O-00		74		
	NCKF-T-13-0817-F-0042		7.1		148
	SCKE-T-13-0817-E-0041				219
	BIN3-T-13-P002-R-00		20.6		215
	BIN5-NT-13-P004-I-00	1 89	20.0		
8/19/2013	NCKF-T-13-0819-F-0043	1.05			97
	SCKE-T-13-0819-E-0042				123
	BIN3-T-13-P002-S-00		112		125
	BIN5-NT-13-P004-K-00	3.9			
8/20/2013	NCKE-T-13-0820-E-0044	5.5			168
	SCKE-T-13-0820-E-0043				75
	BIN2-T-13-P001-V-00		30.3		75
	BIN5-NT-13-P004-L-00	/ 3	55.5		
8/21/2013	BIN1-T-12-B001-0-00	4.5	11 /		
0/21/2013	NCKE-T-13-0821-E-0045		11.4		171
	SCKE-T-13-0821-F-0045				171
	BIN2-T-12-D001-W-00		90		100
	BIN5-NT-12-P004-M-00	2.2	30		
8/22/2012	BINJ T 12 DOOL D 00	5.5	22.4		
0/22/2013	NCKE T 12 0822 E 0046		22.4		01
	NCRE-1-13-0822-F-0040				31
	SCRE-1-13-0822-F-0043		20 5		554
0/21/2012	NCKE T 12 0824 E 0047		20.5		257
8/24/2013	SCKET 12 0824 E 0046				206
	BIN2-T-12-D001-V-00		30		290
	BIN2 T 12 D002 T 00		27		
	BIN6-NT-12-P004-E-00	25	57		
	BINE NT 12 DO04 N 00	2.5			
8/26/2012	BINS-NT-13-P004-N-00	2.31			
8/20/2013	BINS-NT-13-P004-0-00	2.30			
	BINS-NT-13-P004-P-00	5.07			
	NCKE T 12 0826 E 0048	0			264
	NCRE-1-13-0826-F-0048				159
	PIN2 T 12 D002 U 00		FO		136
8/27/2012	NCKE T 12 0827 E 0040		55		102.6
8/2//2013	SCKET 12 0827 E 0049				102.0
	PINE NT 12 0004 C 00	26			00.3
	BING NT 12 DO04 H 00	24			
	BING NT 13 D004 L 00	25			
	BING-NT-12-P004 1 00	20			
8/28/2013	BING NT 12 DO04 K 00	33			
	DINUT 12 DO01 7 00	41	10.2		
	NCKET-12-001-2-00		10.3		01
	CONE T 12 0020-E-0040				20.2
0/20/2012	DINO T 12 DOOD A 00		27.2		28.2
0/23/2013	DINZ-1-13-FUUZ-A-UU	12.6	52.5		
0/30/2013	BIND_T_12_D002 D 00	13.0	22.4		
9/2/2012	NCKE_T_13_0002_E_0051		22.4		102
9/3/2013	SCKE-T-12-0002 E 0051				70
L	3CKE-1-13-0303-E-0030				79

 Table A-2

 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Materia	Staging Areas	Filter Cake Staging Enclosures	
Collection					
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
	BIN3-T-13-P002-V-00		99	0, 0	
	BIN2-T-13-P002-C-00		59		
	BIN6-NT-13-P004-M-00	7.7			
	BIN6-NT-13-P004-N-00	25			
9/4/2013	BIN6-NT-13-P004-O-00	14.3			
	BIN6-NT-13-P004-P-00	40			
	NCKE-T-13-0904-F-0052				116.6
	SCKE-T-13-0904-F-0051				226.2
	BIN3-T-13-P002-W-00		84		-
9/5/2013	NCKE-T-13-0905-F-0053				122
	SCKE-T-13-0905-F-0052				167
	BIN3-T-13-P002-X-00		60		
	BIN2-T-13-P002-D-00		37		
9/6/2013	NCKE-T-13-0906-F-0054				201
	SCKE-T-13-0906-E-0053				68
	BIN2-T-13-P002-F-00		75		
9/7/2013	NCKE-T-13-0907-E-0055		,3		142
57772025	SCKE-T-13-0907-E-0054				151
9/7/2013 9/9/2013 9/10/2013 9/11/2013	BIN3-T-13-P002-Y-00		56		101
9/9/2013	NCKF-T-13-0909-F-0056		50		93
5,5,2015	SCKE-T-13-0909-E-0055				150
	BIN3-T-13-P002-7-00		<u>4</u> 1		150
9/10/2013	NCKF-T-13-0910-F-0057				0.022
5, 10, 2010	SCKE-T-13-0910-E-0056				149
	BIN5-NT-13-P005-A-00	16.1			115
9/11/2013	BIN5-NT-13-P005-B-00	14.1			
5/11/2015	BIN5-NT-13-P005-C-00	20.2			
	BIN5-NT-13-P005-E-00	5 24			
	BIN5-NT-13-P005-G-00	2.69			
9/12/2013	BIN5-NT-13-P005-D-00	9.03			
	BIN5-NT-13-P005-E-00	6 39			
	BIN5-NT-13-P005-H-00	1 99			
	BIN5-NT-13-P005-I-00	2.4			
9/13/2013	BIN5-NT-13-P005-I-00	3 56			
5/15/2015	BIN5-NT-13-P005-K-00	5.50			
Collection Date           9/4/2013           9/5/2013           9/6/2013           9/7/2013           9/9/2013           9/10/2013           9/11/2013           9/12/2013           9/13/2013           9/16/2013           9/17/2013           9/18/2013	BIN5-NT-13-P005-L-00	17.2			
0/14/2012	BIN5-NT-13-P005-N-00	17.2			
3/14/2013	BIN3-T-13-D003-A-00	4.2	20.94		
	BIN6-NT-13-P005-A-00	2 //5	20.54		
9/16/2013	NCKE-T-13-0916-E-0058	2.45			66.7
	SCKE-T-13-0916-E-0057				69.8
	BIN3-T-13-P003-B-00		13.1/		09.8
	BIN6-NT-13-P005-B-00	2 21	15.14		
	BIN6-NT-13-P005-C-00	1.16			
	BIN6-NT-13-P005-E-00	5.03			
9/17/2013	BIN6-NT-13-P005-E-00	3.03			
	BIN2_T_13_D002_E_00	5.35	56 /		
	NCKE_T_13_0017_E_0050		50.4		877
	SCKE-T-13-0917-E-0059				565
	DINE NT 12 DOOF C 00	2.06			5.5
	BING-NT-12 DOOE 1 00	2.00	+		
	DING NT 12 DOOF 1 00	4.42			
9/18/2013		4.02	0 /		
	DINZ-1-13-PUUZ-G-UU		8.4		12.30
	INCVE-1-12-0319-L-0000				13.28
	2CVE-1-13-0318-L-0022	1	1	1	ð.21

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Materia	Staging Areas	Filter Cake Stag	ging Enclosures
Collection				,	
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
	BIN6-NT-13-P005-J-00	4.13			
	BIN6-NT-13-P005-L-00	3.29			
	BIN6-NT-13-P005-M-00	4.22			
	BIN6-NT-13-P005-N-00	3.20			
9/19/2013	BIN2-T-13-P002-H-00		75		
	BIN1-T-13-P001-Q-00		73		
	NCKE-T-13-0919-F-0061				124
	SCKE-T-13-0919-F-0060			Filter Cake Stag	25.2
	BIN6-NT-13-P005-O-00	4.8			
	BIN7-NT-13-P002-A-00	4.9			
9/20/2013	BIN7-NT-13-P002-B-00	15.7			
9/20/2013	BIN1-T-13-P001-R-00		88		
	NCKE-T-13-0920-F-0062				28.82
Collection         Date         9/19/2013         9/20/2013         9/21/2013         9/23/2013         9/22/2013         9/25/2013         9/26/2013         9/27/2013         9/27/2013	SCKE-T-13-0920-F-0061				45.6
	BIN1-T-13-P001-S-00		33.2		
9/21/2013	NCKE-T-13-0921-F-0063				65
	SCKE-T-13-0921-F-0062				42.8
	BIN7-NT-13-P002-C-00	3.5			
	BIN7-NT-13-P002-D-00	2.8			
	BIN7-NT-13-P002-E-00	2.3			
	BIN7-NT-13-P002-F-00	5.5			
9/23/2013	BIN7-NT-13-P002-G-00	4.9			
	BIN2-T-13-P002-I-00		126.7		
	BIN1-T-13-P001-T-00		80.3		
	NCKE-T-13-0923-F-0064				12.32
	SCKE-T-13-0923-F-0063				28
	BIN7-NT-13-P002-H-00	4.01			
9/24/2013	BIN7-NT-13-P002-I-00	4.94			
	BIN7-NT-13-P002-J-00	3.74			
	BIN7-NT-13-P002-K-00	5.5			
	BIN7-NT-13-P002-L-00	7.5			
	BIN7-NT-13-P002-M-00	7.3			
	BIN7-NT-13-P002-N-00	6.1			
9/25/2013	BIN7-NT-13-P002-O-00	8			
	BIN2-T-13-P002-J-00		39.99		
	BIN1-T-13-P001-U-00		3.46		
	NCKE-T-13-0925-F-0065				10.11
	SCKE-T-13-0925-F-0064				6.13
	BIN5-NT-13-P006-A-00	3.00			
	BIN5-NT-13-P006-B-00	11.1			
	BIN5-NT-13-P006-C-00	4.4			
9/26/2013	BIN5-NT-13-P006-D-00	5.4			
	BIN2-T-13-P002-K-00		84.3		
	NCKE-T-13-0926-F-0066				8.7
	SCKE-T-13-0926-F-0065				17.9
	BIN3-T-13-P003-C-00		41.62		
	BIN5-NT-13-P006-E-00	4.6			
9/27/2013	BIN5-NT-13-P006-F-00	2.6			
-, -, -010	BIN2-T-13-P002-L-00		71.7		
	NCKE-T-13-0927-F-0067				13.79
	SCKE-T-13-0927-F-0066				6.07
	BIN5-NT-13-P006-G-00	3.2			
9/28/2013	BIN5-NT-13-P006-H-00	6			
	BIN5-NT-13-P006-I-00	5			

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Material Staging Areas Filter Cake Sta		Filter Cake Stag	ing Enclosures
Collection					
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ $\geq$ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg
- /	BIN5-NT-13-P006-J-00	8.52			
9/30/2013	BIN5-NT-13-P006-K-00	8.62			
	BIN5-NT-13-P006-L-00	3.29			
	BIN5-NT-13-P006-M-00	2.56			
10/1/2013	BIN5-NT-13-P006-N-00	3.88			
	BIN5-NT-13-P006-0-00	1.85			
	BIN3-T-13-P003-D-00	1.00	7.6		
	BIN1-T-13-P001-V-00		3.6		
10/2/2013	NCKE-T-13-1002-E-0068		0.0		30.2
	SCKE-T-13-1002-E-0067				19.7
	BIN3-T-13-P003-F-00		15.6		15.7
	BING-NT-13-P006-B-00	1 52	15.0		
10/3/2013	NCKE-T-13-1003-E-0069	1.52			17 35
	SCKE-T-13-1003-E-0068				1/.55
10/1/2013       Bi         Bi       Bi         10/2/2013       Bi         10/3/2013       Bi         10/3/2013       Bi         10/4/2013       Bi         10/5/2013       Bi         10/7/2013       Bi         10/7/2013       Bi         10/8/2013       Bi         10/9/2013       Bi         10/9/2013       Bi         10/10/2013       Bi         10/10/2013       Bi         10/11/2013       Bi         10/11/2013       Bi         10/11/2013       Bi         10/11/2013       Bi	PIN2 T 12 P002 E 00		12		14.0
	BIN3-1-13-P003-F-00		20 /		
10/4/2013	BIN1-1-13-P001-W-00		20.4		202
	NCKE-1-13-1004-F-0070				20.5
	SCRE-1-13-1004-F-0069		22.4	Filter Cake Stagi         kg       In-Situ < 50 mg/kg	15.73
	BIN3-1-13-P003-G-00		32.4		
10/5/2013	BIN2-1-13-P002-M-00		36.52		65.7
	NCKE-1-13-1005-F-0071				65.7
	SCKE-1-13-1005-F-0070		47.00		140
	BIN3-1-13-P003-H-00		17.36		
10/7/2013	BIN2-1-13-P002-N-00		6.6		
	NCKE-T-13-1007-F-0072				108
	SCKE-T-13-1007-F-0071				100.8
	BIN2-T-13-P002-O-00		53.2		
10/8/2013	NCKE-T-13-1008-F-0073				122
	SCKE-T-13-1008-F-0072				40.8
	BIN2-T-13-P002-P-00		84		
10/9/2013	BIN1-T-13-P001-X-00		4.3		
,,	NCKE-T-13-1009-F-0074				124
	SCKE-T-13-1009-F-0073			Filter Cake Staging           In-Situ < 50 mg/kg         In-           In-Situ < 50 mg/kg	79.6
	BIN6-NT-13-P006-C-00	2.43			
10/10/2013	BIN1-T-13-P001-Y-00		9.3		
,,	NCKE-T-13-1010-F-0075				118.7
	SCKE-T-13-1010-F-0074				28.01
	BIN6-NT-13-P006-D-00	19.1			
10/11/2013	NCKE-T-13-1011-F-0076				54
	SCKE-T-13-1011-F-0075				121
	BIN6-NT-13-P006-E-00	4.7			
10/12/2013	BIN1-T-13-P001-Z-00		17.8		
,, 2013	NCKE-T-13-1012-F-0077				18.2
	SCKE-T-13-1012-F-0076				113
	BIN3-T-13-P003-I-00		52.91		
10/14/2013	BIN6-NT-13-P006-F-00	38			
10/ 14/ 2013	BIN6-NT-13-P006-G-00	6.5			
	SCKE-T-13-1014-F-0077				160.4
	BIN3-T-13-P003-J-00		27.18		
10/16/2013	BIN2-T-13-P002-Q-00		20.3		
	SCKE-T-13-1016-F-0078				151
	BIN3-T-13-P003-K-00		55		
10/17/2012	BIN6-NT-13-P006-I-00	7.2			
10/17/2013	NCKE-T-13-1017-F-0078				107
	SCKE-T-13-1017-F-0079				102

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)			
		Coarse Material Staging Areas Filter Cake Staging E			ing Enclosures
Collection					
Date	Sample Name	In-Situ < 50 mg/kg	$In-Situ \ge 50 \text{ mg/kg}$	In-Situ < 50 mg/kg	In-Situ > 50 mg/kg
2410	BIN3-T-13-P003-L-00		29.6		
Collection           Date           10/18/2013           10/19/2013           10/21/2013           10/22/2013           10/23/2013           10/24/2013           10/25/2013           10/25/2013	BIN2-T-13-P002-R-00		6.1		
	NCKE-T-13-1018-F-0079				135
	SCKE-T-13-1018-E-0080				171
	BIN3-T-13-P003-M-00		20.84		
	BIN6-NT-13-P006-I-00	4.5	20.01		
10/19/2013	BIN2-T-13-P002-S-00	1.5	27.66		
10/19/2015	NCKF-T-13-1019-F-0080		27.00		226
	SCKE-T-13-1019-E-0081				73.7
	BIN6-NT-13-P006-K-00	6 54			75.7
	BIN2-T-13-P002-T-00	0.54	25.37		
10/21/2013	BIN1-T-13-P002-1-00		1/1 5		
10/21/2013	NCKE T 12 1021 E 0081		14.5		116 E
	SCKE-T-12-1021-F-0081				110.5
	PINE NT 12 DOG 1 00	4 5 1			42.5
	BING-NT-13-P006-L-00	4.51	16.2		
10/22/2013 10/23/2013 10/24/2013	BIN2-1-13-P002-0-00		10.5		
	BIN1-1-13-P002-B-00		19.7		42.97
	NCKE-1-13-1022-F-0082				42.07
	SCRE-1-13-1022-F-0085		42		79.4
	BIN3-1-13-P003-N-00	20.47	43		
	BING-NT-13-P006-IVI-00	20.47			
10/23/2013	BIND-N1-13-P000-N-00	7.0	20.70		
	BIN1-1-13-P002-C-00		20.76		0.8
	NCKE-1-13-1023-F-0083				98
	SCRE-1-13-1023-F-0084		24.2		136.3
10/24/2012	BIN3-1-13-P003-0-00		34.3		100
10/24/2013	NCKE-1-13-1024-F-0084				109
10/24/2013	SCKE-1-13-1024-F-0085				127
	BIN3-1-13-P003-P-00	10.0	14.1		
	BIN5-NT-13-P007-A-00	18.2			
10/25/2013	BIN5-NT-13-P007-B-00	6.8			
	BIN5-N1-13-P007-C-00	8.6			
	NCKE-T-13-1025-F-0085				76
	SCKE-T-13-1025-F-0086		_		197
	BIN3-T-13-P003-Q-00		12.4		
10/26/2013	BIN5-NT-13-P007-D-00	5.1			-
10/18/2013 10/19/2013 10/21/2013 10/22/2013 10/23/2013 10/25/2013 10/26/2013 10/28/2013 10/29/2013 10/30/2013 10/31/2013	NCKE-T-13-1026-F-0086				119
	SCKE-T-13-1026-F-0087			Filter Cake Stag	120
	BIN3-T-13-P003-R-00		15.4		
10/28/2013	NCKE-T-13-1028-F-0087				143
	SCKE-T-13-1028-F-0088				46
	BIN2-T-13-P002-V-00		11.3		
10/29/2013	BIN5-NT-13-P007-E-00	5.78			
10, 20, 2010	NCKE-T-13-1029-F-0088				28.2
	SCKE-T-13-1029-F-0089				21.1
	BIN2-T-13-P002-W-00		12.9		
10/30/2013	NCKE-T-13-1030-F-0089				13.3
	SCKE-T-13-1030-F-0090				17.2
	BIN2-T-13-P002-X-00		7.1		
10/31/2013	NCKE-T-13-1031-F-0090				36.79
	SCKE-T-13-1031-F-0091				31.48
	BIN2-T-13-P002-Y-00		6.9		
11/4/2013	BIN5-NT-13-P007-F-00	1.60			
11/7/2013	BIN5-NT-13-P007-G-00	2.08			
	SCKE-T-13-1104-F-0092				57

 Table A-2

 PCB Content of Dewatered Materials Staged for Disposal (2013)

		Total PCB Concentration (ppm)						
		Coarse Materia	Coarse Material Staging Areas Filter Cake Sta					
Collection								
Date	Sample Name	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg	In-Situ < 50 mg/kg	In-Situ ≥ 50 mg/kg			
	BIN5-NT-13-P007-H-00	1.72						
11/5/2012	BIN5-NT-13-P007-I-00	1.30						
11/3/2013	BIN1-T-13-P002-D-00		6.95					
	SCKE-T-13-1105-F-0093				24.44			
	BIN3-T-13-P003-S-00		4.6					
11/6/2013	BIN1-T-13-P002-E-00		4.3					
	SCKE-T-13-1106-F-0094				31.3			
	BIN3-T-13-P003-T-00		5.1					
11/7/2012	BIN5-NT-13-P007-J-00	0.85						
11/7/2015	BIN1-T-13-P002-F-00		5.2					
	SCKE-T-13-1107-F-0095				26.2			
	BIN3-T-13-P003-U-00		2.04					
	BIN5-NT-13-P007-K-00	1.97						
11/8/2013	BIN5-NT-13-P007-L-00	1.19						
	BIN5-NT-13-P007-M-00	1.21						
	SCKE-T-13-1108-F-0096				12.8			
11/12/2013	SCKE-T-13-1112-F-0097				17.8			
11/14/2012	BIN3-T-13-P003-V-00		21.9					
11/14/2013	SCKE-T-13-1114-F-0098				55			
11/22/2012	BIN3-T-13-P003-W-00		32					
11/22/2013	SCKE-T-13-1122-F-0099				62.8			

Table A-2 PCB Content of Dewatered Materials Staged for Disposal (2013)

Notes

1. Field duplicate samples are excluded

2. Confirmation samples are excluded, where applicable

3. Non-detects are set to 1/2 method detection limit

# ATTACHMENT B

# WASTE PROFILE INFORMATION (FOR DEWATERED SEDIMENT AND DEBRIS CONSTITUTING ≥ 50 ppm PCB MATERIAL)

# WASTE PROFILE INFORMATION FOR DEWATERED SEDIMENTS AND DEBRIS CONSTITUTING ≥ 50 PPM PCB MATERIAL

#### GENERATOR INFORMATION

Generator <u>GE Hudson River Project</u>	
Mailing Address <u>381 Broadway Building 40-2</u>	_City/State _Fort Edward, NY_Zip_12828_
Shipping Address 446 Lock 8 Way	_ City/StateHudson Falls, NY_ Zip_12839_

Primary Contact: Jay Snow TEL: 518.746.5678

Email: jay.snow@ge.com\_\_\_\_\_

**US EPA IDENTIFICATION NUMBER** NYD980763841 STATE IDENTIFICATION NUMBER D0036

#### WASTE CHARACTERIZATION

PCB Solids	Non-Liquid dredged materials containing PCB
🛛 Dirt-Soil 🖾 Debris (PPE, Rags, Etc.) 🖾 Mixed Soil/Debris	
Transformer 50-500 ppm Above 500 ppm	Transformer less than or equal to 50 ppm
Full Drained Drained and Flushed	Full Drained
PCB Liquids 🗌 Below 50 ppm 🔲 Above 50 ppm	PCB clean up material from area greater than 50 ppm
Capacitors – Large (over 3 lbs of Liquid or 100 cu. in.)	Capacitors – Small (less than 3 lbs of Liquid or 100 cu. in.) include ballast
All Large Capacitors Are Incinerated.	□ Incineration ⊠ Landfill
PCB hydraulic machine	Articles (regulators, switches, conductors) drained of all free liquid
☐ Full ☐ Drained of all free flowing liquids	
Articles – Liquids Below 50 ppm	Articles – Liquids 50-500 ppm Above 500 ppm
Drain Landfill	Full Drained Drained and Flushed

Generator Regulatory Status				State	State ID#: D0036			EPA ID#: NYD980763841		
Industrial	Municipal	PST Waste	Universal Waste	□ SQG	CESQG	🗌 Oil & O	Gas Exempt	Oil & Gas Non-Exempt		

	PHYSICAL PROPERTIES & GENERAL INFORMATION
1.	Process generating this waste: <u>CERCLA Remedial Action</u>
2.	Does this material contain radioactive, pyrophoric, shock sensitive or explosive materials? 🗌 Yes 🛛 No
3.	Are any of the materials RCRA regulated? 🗌 Yes 🛛 No Note: If yes, please submit a RCRA WPQ.
4.	Flash Point: 1. $\square < 100^{\circ}$ F2. $\square$ 101-140°F3. $\square$ 141-200°F4. $\boxtimes > 200^{\circ}$ FComments: Non-flammable
5.	Does this waste pass the EPA-specified Paint Filter Test? 🛛 Yes 🗌 No Comments:
6.	Has material been solidified/stabilized: 🗌 Yes 🛛 No If yes, list additives:
	SHIPPING AND HANDLING INFORMATION
PCI SPH IN 4	B MATERIALS MUST BE PACKAGED AND SHIPPED IN ACCORDANCE WITH D.O.T. REGULATIONS AS ECIFIED IN 49 CFR 100-177, AND ALSO PACKAGED IN ACCORDANCE WITH EPA REGULATIONS AS SPECIFIED 40 CFR PART 761.
1.	D.O.T. Hazardous Material? 🛛 Yes 🗌 No2. D.O.T. RQ Required: 🖾 Yes 🗌 No 🗋 N/A
3.	Proper D.O.T. Shipping Name: RO, Polychlorinated Biphenyls, solid, mixture
4.	D.O.T. Hazard Class: <u>9</u>
5.	D.O.T. ID Number: <u>UN3432</u> . D.O.T. Packing Group: <u>III</u>
7.	Additional D.O.T. Description(s):
8.	Type of Container: Drum Bulk Truck
	Other (specify): Standard Rail Gondola with waste-enveloping liner (packaging)
9.	Projected Volume: $\leq \underline{\text{TBD}}$ Tons; Gallons; Cubic Yards; Drum(s); Other ()
	Per: 🗌 One Time 🔲 Week 🔲 Month 🔲 Quarter 🖾 Year
10.	Comments/Special Handling: Projected quantity is approximate.

# ATTACHMENT C

# WASTE PROFILE INFORMATION (FOR DEWATERED SEDIMENT CONSTITUTING < 50 PPM PCB MATERIAL)

#### WASTE PROFILE INFORMATION FOR DEWATERED SEDIMENTS CONSTITUTING < 50 PPM PCB MATERIAL

#### GENERATOR INFORMATION

Generator <u>GE Hudson River Project</u>	
Mailing Address 381 Broadway Building 40-2	City/State <u>Fort Edward, NY</u> Zip <u>12828</u>
Shipping Address 446 Lock 8 Way	City/State <u>Hudson Falls, NY</u> Zip 12839

Primary Contact: Jay Snow TEL: 518.746.5678

Email: jay.snow@ge.com

**US EPA IDENTIFICATION NUMBER** NYD980763841

STATE IDENTIFICATION NUMBER D0036

#### WASTE CHARACTERIZATION

PCB Solids	Non-Liquid dredged materials containing PCB
Transformer 50-500 ppm Above 500 ppm	Transformer less than or equal to 50 ppm
PCB Liquids Below 50 ppm Above 50 ppm	PCB clean up material from an area greater than 50 ppm
Capacitors – Large (over 3 lbs of Liquid or 100 cu. in.) All Large Capacitors Are Incinerated.	□ Capacitors – Small (less than 3 lbs of Liquid or 100 cu. in.) include ballast □ Incineration ⊠ Landfill
PCB hydraulic machine	Articles (regulators, switches, conductors) drained of all free liquid
Articles – Liquids Below 50 ppm	Articles – Liquids 50-500 ppm Above 500 ppm

Generator Regulatory Status					State	State ID#: D0036			EPA ID#: NYD980763841		
🛛 Industria		Municipal	PST Waste	Universal Waste	□ SQG	CESQG	🗌 Oil & C	Sas Exempt	🗌 Oil & Gas Non-Exempt		
1	1 Process generating this waste: CEPCLA Remedial Action										
2.	Does th	is material con	tain radioactive,	pyrophoric, shock s	ensitive o	r explosive ma	aterials?	]Yes 🛛 N	ло		
3.	Are any	of the material	s RCRA regulate	ed? 🗌 Yes 🛛 No	Note: I	f yes, please si	ubmit a RC	RA WPQ.			
4.	Flash P	oint: 1. 🗌 <10	0°F 2. □ 101-	140°F 3. 🗌 141-20	0°F 4. [2	≤>200°F	Commer	its: <u>Non-flam</u>	mable		
5.	Does th	is waste pass th	ne EPA-specified	l Paint Filter Test?	🛛 Yes	🗌 No	Commen	its:			
6.	Has ma	terial been solid	lified/stabilized:	🗌 Yes 🛛 No	If y	es, list additive	es:				
	SHI	PPING AND H	ANDLING INF	ORMATION							
MA IN 4	TERIAL 49 CFR 1	LS MUST BE	PACKAGED AN	ND SHIPPED IN A	CCORDA	ANCE WITH	D.O.T. RE	GULATION	S AS SPECIFIED		
1.	D.O.T.	Hazardous Ma	terial? 🗌 Yes	🖾 No							
2.	D.O.T.	RQ Required:	Yes	No 🖾 N/A							
3.	Proper	D.O.T. Shippin	g Name: Soil, Cho	emical Waste, Contami	nated, nec,	Dry					
4.	D.O.T.	Hazard Class:	<u>N/A</u>								
5.	D.O.T.	ID Number: <u>N/</u>	<u>A</u> D.C	T. Packing Group:	<u>N/A</u>						
7. 50 p	7. Additional D.O.T. Description(s): Dewatered sediment from CERCLA remediation containing PCB at concentration less that 50 ppm. STCC: 4029101										
8.	Type of	Container:	Drum 🗌 Bul	k Truck							
	Other (s	specify): <u>Standa</u>	rd Rail Gondola	with waste-enveloping	ng liner (p	ackaging)					
9.	Projecte Per:	ed Volume: ≤ <u>T</u> ] One Time [	BD Tons;] Week	Gallons; Month 🛛 Quarter	Cubic	Yards;	Drum(s)	;(	Other ()		

10. Comments/Special Handling: Projected quantity is approximate.

# ATTACHMENT D

# **DISPOSAL FACILITY SUMMARIES**

### DISPOSAL FACILITY SUMMARY

GE Hudson River Phase 2 Year 4

### Disposal of Dewatered Sediment Constituting $\geq$ 50 ppm PCB Material

Facility Name	Clean Harbors Lone Mountain Landfill
Physical Address	5 Miles East & 1 Mile North of Highway Junction 281 & 412 Waynoka, Oklahoma 73860
Mailing Address	Clean Harbors Lone Mountain Facility 40355 S. County Road 236 Waynoka, OK 73860
Telephone	(580) 697-3500
Fax	(580) 697-3596
<u>Permits</u> , Authorized Activities, and Agencies	<ul> <li>RCRA/HSWA Operating <u>Permit No. 3547005</u></li> <li>Air Quality <u>Permit No. 96-517-O</u></li> <li>Oklahoma Department of Environmental Quality (ODEQ) -</li> <li>EPA ID# OKD065438376</li> <li>RCRA Post Closure <u>Permit No.OKD065438376-PC</u></li> <li>Stormwater General <u>Permit No. OKR100421</u></li> <li>APHIS Soil <u>Permit No. S-51324</u></li> <li>U.S. EPA Region 6</li> </ul>
Storage/Treatment/Disposal Capabilities	Rail transfer facility (Avard, OK); PCB management and disposal, on-site wastewater treatment unit for processing landfill leachate and wastewater, secure landfill (Waynoka, OK).
Relevant State Shipping & Reporting Requirements	PCB wastes are regulated in Oklahoma only by the federal government. Thus, EPA's TSCA PCB shipping and reporting rules are the primary requirements.
Other Information	Lone Mountain Facility Size: 3,500 acres (560 acres developed) The nearest residence is 1/4 mile north of the site.

### DISPOSAL FACILITY SUMMARY

GE Hudson River Phase 2 Year 4

### Disposal of Dewatered Sediment Constituting $\geq$ 50 ppm PCB Material

Facility Name	EQ-The Environmental Quality Company Wayne Disposal Inc., Site #2 Landfill (WDI)
Physical Address	49350 North I-94 Service Drive Belleville, Michigan 48111 (approximately 30 miles west/southwest of Detroit)
Mailing Address	36255 Michigan Ave. Wayne, Michigan 48184
Telephone	(800) 592-5489
Fax	(800) 595-5329
<u>Permits</u> , Authorized Activities, and Agencies	MID048090633(RCRA Permit – Hazardous Waste Management Facility Operating License; Waste Disposal Treatment Plant)MI-ROP-M4782-2010(Michigan Renewable Operating Air Permit)EPA ID# MID048090633U.S. EPA Region 5ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certified.
Storage/Treatment/ Disposal Capabilities	RCRA (hazardous) and TSCA (PCB) wastes as well as solidification and metals fixation for RCRA waste material. RCRA/TSCA Landfill Landfill leachate is treated on-site at a dedicated waste water treatment plant.
Relevant State Shipping & Reporting Requirements	PCB wastes are regulated in Michigan only by the federal government. Thus, EPA's TSCA PCB shipping and reporting rules are the primary requirements.
Other Information	Facility size: 120 acres. A 1,000-ft buffer zone is maintained between the landfill cells and the residential areas.

### DISPOSAL FACILITY SUMMARY

### GE Hudson River Phase 2 Year 4

### Disposal of Dewatered Sediment Constituting < 50 ppm PCB Material

Facility Name	Tunnel Hill Reclamation Landfill				
Physical Address	2500 Township Rd. 205, Rt. 2 New Lexington, Ohio 43764				
	(60 miles southeast of Columbus)				
Mailing Address	P.O. Box 625 New Lexington, Ohio 43764				
Telephone	(740) 342-1180				
Fax	(740) 342-1331				
<u>Permits</u> , Authorized Activities, and Agencies	Solid Waste Facility License – Municipal Solid Waste Landfill Ohio Environmental Protection Agency (OEPA) Licensing Authority – Perry Co MSWL				
	Subtitle D Landfill				
	OEPA <u>CID# 272650; PTI# 06-8443</u>				
	Permitted to receive waste from CERCLA sites based on an approval received from the EPA on August 6, 2009.				
Storage/Treatment/ Disposal Capabilities	The facility accepts a wide range of waste products; from municipal solid waste and construction & demolition debris, to approved special wastes.				
Relevant State Shipping & Reporting Requirements	Wastes classified as "specialty wastes" require a waste profile and supporting analytical data that must be submitted in advance. All other wastes do not require any formal reporting requirements.				
Other Information	Facility size: 544 acres. Property controlled: 2,731 acres. The landfill was constructed with two protective liners and a leachate collection system, a surface water management system, a ground water monitoring system, explosive gas monitoring system, and a final cap closure system.				

# ATTACHMENT E

# EMPTY RAIL CAR INSPECTION AND RELEASE PROCEDURE

# GE Hudson River Sediment Remediation Empty Rail Car Inspection and Release Procedure October 13, 2010

#### Scope

This procedure applies to inspection, sampling, and release of empty rail cars at the conclusion of waste shipment during Phase 1 of the Hudson River Dredging project. The inspection, sampling, and release procedures described in this document will be performed on rail cars either at the Fort Edward Rail Yard or the landfill(s). Prior to final release of the rail cars from the landfills, the rail cars will be unloaded, cleaned, and certified as visibly clean.

The decontamination procedure used at the landfill is designed to ensure that all visible traces of PCB-contaminated sediment remaining in a gondola rail car after unloading via mechanical excavation have be cleaned by manually shoveling, sweeping, and vacuuming with an industrial strength vacuum. The procedure also provides for careful inspection by an individual that did not take part in the cleaning process to ensure no visible sediment residue remains in the rail cars, and for the completion of decontamination to be certified.

Final cleaning of the railcar will be conducted by scraping and sweeping the interior of the railcars, vacuuming the interior of the railcars and cleaning out foot holes and weep holes. The exterior of the railcar will be inspected and any visible sediment will be swept off and, if necessary, the area washed to remove any staining.

Based upon our experience with the routine railcar cleaning and decontamination procedures in place and rail car wipe testing results to date, no additional decontamination should be necessary. Following completion of the 2009 shipping season, 90 railcars (20 percent of the project fleet) were wipe tested. All wipe test results were non-detect for PCBs. The landfill that received shipments in 2009 also conducted rail car wipe testing with comparable results for PCBs. Prior to releasing railcars from the Hudson River Project in 2010, the same inspection and cleaning procedure will be implemented. Because the inspection and cleaning procedures have been verified to be effective, no additional wipe testing will be required. The inspection will be conducted prior to release of the railcars from the Project, either at the landfill or at the Fort Edward Rail Yard depending on where the rail cars are to be released from the Project.

This inspection and release procedure is specific to the requirement of the GE Hudson River Project and the Project's gondola rail car fleet provided by the rail car lessor.

The inspection will review the following aspects for each rail car:

- Removal of all placards and labels
- Physical or mechanical damage (interior or exterior)
- Condition of weep holes
- Presence of visible dredge sediment residue (interior or exterior)
- Any railcars found to contain visible sediment will be re-cleaned.

October 13, 2010 Page 2 of 3

This inspection will be performed as a pre-release inspection for cars ready to be released from the Project following unloading of shipments at the landfills. The individual conducting the inspection will complete the inspection report, copy attached, for each railcar inspected and sign the report indicating each railcar meets the release requirements. CM personnel will audit the rail car inspection and sampling activities, as required.

#### Inspection Procedure

- Inspections will be performed by the railcar lessor personnel.
- Detailed visual inspection will be performed on the interior of each rail car, including inspection of the foot holes.
- The exterior of each car will be inspected for dredge materials. Particular attention will be paid to the knuckle and draw bar, cross over boards and supports, sill and end plates.
- All weep holes will be inspected from the outside to ensure that they are not plugged or otherwise blocked.
- Obvious dredge material in the interior of the cars, other than the normal staining and rust will be noted for removal.
- Removal of all placards and labels will be verified.

# GE Hudson River Sediment Remediation Empty Gondola Rail Car Inspection and Release Form

DATE \_\_\_\_\_

Car Number \_\_\_\_

Inspection of the following:

All placards and labels removed Physical or Mechanical damage (interior or exterior) Any visible sediment (interior or exterior) Weep holes open and free of debris Foot holes clean and free of material

The car meets the Release requirements unless otherwise noted.

Placards/Labels Removed

Weep Holes clear and free of materials

Interior Visually Clean

Foot Holes inspected and clean

**Exterior Visually Clean** 

Mechanical Inspection

Comments:

Signature: \_\_\_\_\_

# ATTACHMENT F

# TSCA WASTE MANIFEST FORM AND INSTRUCTIONS

Ple	ase	print or type. (Form desig	ned for use on elite (12-pitch) typewriter.)						Form	Approved. O	MB No. 2	050-0039
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Ш	15.	GENERATOR'S/OFFERO	R'S CERTIFICATION: I hereby declare that the contents of the	his consignment	are fully a	nd accurately des	cribed above	by the proper sh	ipping name,	and are classif	fied, packa	ged,
Ш		Exporter, I certify that the c	raed, and are in all respects in proper condition for transport a contents of this consignment conform to the terms of the attact	ccording to appli hed EPA Acknow	cable inte vledgment	of Consent.	onal governm	ental regulations.	ir export shi	pment and Lam	n the Prima	ry
Ш	Ge	I certify that the waste mini	imization statement identified in 40 CFR 262 27(a) (if I am a la ned Name	arge quantity gen	nerator) or	(b) (if I am a sma	l quantity ger	erator) is true.		Month	lav	Year
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	24. 0	Generator's Name		I								
25. Transporter Company Name U.S. EPAID Number												
	Number											
	27a.	a 27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Parking Group (if any)		28. Contain	ers	29. Total 30. L		Jnit 31. Waste Codes				
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#### 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.

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.	

#### Table I - Types of Containers

#### 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.

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

Table	II -	Units	of Measure	;
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**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

- The generator must read, sign, and date the waste minimization certification statement. 1. 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.

## ATTACHMENT G

## NON-HAZARDOUS WASTE MANIFEST FORM

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response I	Phone	4. Waste T	racking Numl	ber		
5. Generator's Name and Ma	alling Address		Generator's Site Address	(if different th	han mailing addr	ess)			
Generator's Phone:									
6. Transporter 1 Company N	ame				U.S. EPA ID	Number			
7. Transporter 2 Company Name				U.S. EPA ID Number					
8. Designated Facility Name and Site Address				U.S. EPA ID Number					
Facility's Phone:									
9. Waste Shipping Name and Description			10. Containers No. Type		11. Total 12. Unit Quantity Wt./Vol.				
1.									
2.								1 1 18 1 1 2	
3.									
4.									
13. Special Handling Instruc	tions and Additional Information								
13. Special Handling Instruc	tions and Additional Information	re that the contents of this consignment	are fully and accurately desc	ribed above	by the proper si	hipping name,	and are classifie	ed, packag	jed,
<ol> <li>Special Handling Instruct</li> <li>Special Handling Instruct</li> <li>GENERATOR'S/OFFER marked and labeled/place</li> <li>Generator's/Offeror's Printer</li> </ol>	tions and Additional Information IOR'S CERTIFICATION: I hereby decla arded, and are in all respects in proper J/Typed Name	re that the contents of this consignment condition for transport according to appli Si	are fully and accurately desc cable international and natio gnature	cribed above mal governm	by the proper si nental regulation	hipping name,	and are classifie Month	ed, packag Day	ged, Y
Special Handling Instruct     A. GENERATOR'S/OFFER     marked and labeled/place     Generator's/Offeror's Printed     Is. International Shipments     Toruments	tions and Additional Information OR'S CERTIFICATION: I hereby decla arded, and are in all respects in proper J/Typed Name Import to U.S.	re that the contents of this consignment condition for transport according to appli Si L Export from	are fully and accurately desc cable international and natio gnature U.S. Port of ent	ribed above nal governm ry/exit:	by the proper si nental regulation	hipping name,	and are classifie Month	ed, packag Day	ged, Y
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