



Miami-Dade County

Department of Solid Waste Management

# Closure Plan

## Miami-Dade County Resources Recovery Facility

April 11, 2025

DRAFT

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# 1 Introduction

This Closure Plan (Plan) has been prepared for Miami-Dade County, Department of Solid Waste Management (County) to outline closure activities to be completed at the County's Resources Recovery Facility (RRF) located at 6990 NW 97th Avenue in Doral, Florida (Site) (**Figure 1**).



Figure 1 – Site Location Map

## 1.1 Background

The RRF is located at 6990 NW 97th Avenue in Miami, Florida and consists of various buildings with an approximate total footprint of 378,113 square feet, located on approximately 157 acres (**Figure 2**) according to the Miami Dade County Property Appraiser website. The RRF occupies approximately 40 acres of the 157-acre

site, while the remainder of the property is comprised of the Class I ash landfill, stormwater retention pond and stormwater swales.

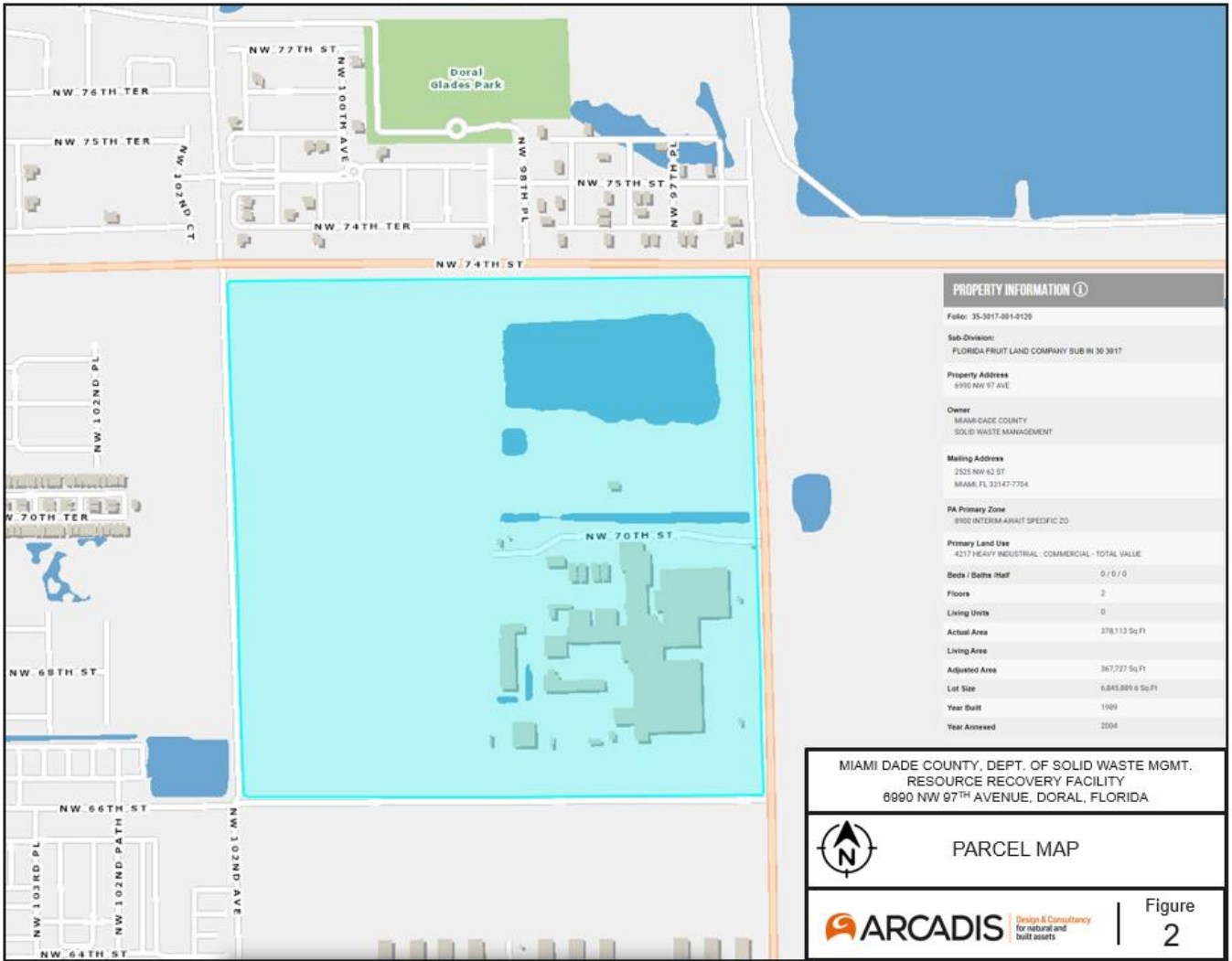


Figure 2 – Parcel Map

The RRF began operation in 1982 and by 1990 had been converted to the present Refuse-Derived Fuel (RDF) design. The RRF is owned by the County and was contract operated by Covanta.

The Facility accepted and processed non-hazardous municipal solid waste (MSW or Garbage) and waste collected as part of trash or bulky waste collection service (Trash) into RDF, combusted the RDF to generate electricity, and recovered saleable recyclables.

On February 12, 2023, a fire began in the G-Gallery conveyor system and spread to multiple connected buildings including the Gallery Building, Fuel Storage, Garbage Receiving, Garbage Pit, Garbage Processing, Office Building, and others. The Garbage Receiving building and portions of the Garbage Processing building were

heavily damaged by the fire and were demolished as part of the firefighting efforts. The facility ceased all operations after the fire except for tire shredding and limited ongoing maintenance and cleanup operations.

Since the fire, the County and Covanta have been conducting Hazardous Building Materials (HBM) Survey(s) (see Attachment A) and doing additional work to maintain the site and prepare for closure and demolition. The County intends to demolish all unnecessary buildings and structures and wishes to permanently close the Ash Monofill. The infrastructure for the Water and Sewer Department (WASD) pump station and a few site buildings such as the guard house at the main entrance, the truck scale (Nos. 1 and 2) east of the Recyclable Trash Improvements (RTI) Building, and office trailer north of the RRF will remain, along with necessary electrical, potable water, and sanitary sewer utilities.

## 1.2 Site Description

The Site consists of several structures varying in size and use. The three major areas of the RRF included Garbage Processing (GP), RTI, and the Powerhouse (PH) and are described as follows:

- Garbage Processing (GP) - The GP area received, screened, and shredded MSW into RDF on two process lines and included the Garbage Receiving floor, Garbage Pit, and Garbage Processing (including conveyors, trommels, hammermill shredders) and Fuel Storage. The GP System processed up to 700,000 tons of garbage annually to be used as refuse derived fuel.
- Recyclable Trash Improvements (RTI) - The RTI area received, shredded, and screened Trash into biomass fuel on three processing lines and included the RTI Receiving floor, RTI Pit, RTI Shredders, RTI Dust Control, numerous conveyors, and other appurtenances. The RTI system processed up to 400,000 tons/year of yard trash and organic bulky waste into biomass fuel.
- Powerhouse (PH) – The PH area is where the RDF was combusted in a controlled process to generate steam and consisted of four municipal waste combustors (MWC), two turbine generators, a cooling tower, and ancillary equipment. Each MWC could process up to 27 tons per hour of RDF and had a maximum continuous rating of 198,000 pounds per hour (lb./hour) of steam. The four units combined produced enough steam to generate approximately 77 megawatts (MW) of electricity. Emissions from each unit were controlled by an Air Pollution Control (APC) system consisting of the following:
  - A selective non-catalytic reduction (SNCR) system for nitrogen oxides (NO<sub>x</sub>)
  - A spray dryer absorber (SDA) with lime slurry injection for control of acid gases such as sulfur dioxide (SO<sub>2</sub>) and hydrogen chloride (HCl) and activated carbon injection (ACI) system for control of mercury (Hg) and other metal hazardous air pollutants (HAP) and dioxin/furans (D/F)
  - A fabric filter (baghouse) for control of particulate matter (PM)

The Powerhouse also included two 250-foot stacks. MWC Units 1 and 2 shared a common stack, each with its own flue. The same stack/flue configuration was used for MWC Units 3 and 4.

Other buildings and facilities at the RRF site include the following:

- Maintenance Building
- WASD Pump Station
- Compressor Building
- Chemical Storage
- Ash Conditioning

- Ash Processing
- Ash Building
- Tire Building
- Cooling Tower
- Pump House
- Water Treatment
- Trailers / Office Trailers
- Office and Storage
- Vehicle Maintenance
- Truck Scales
- Guard House
- Ash Monofill

Section 9 summarizes which buildings and facilities will be demolished or retained. Current features at the Site are depicted on **Figure 3**.

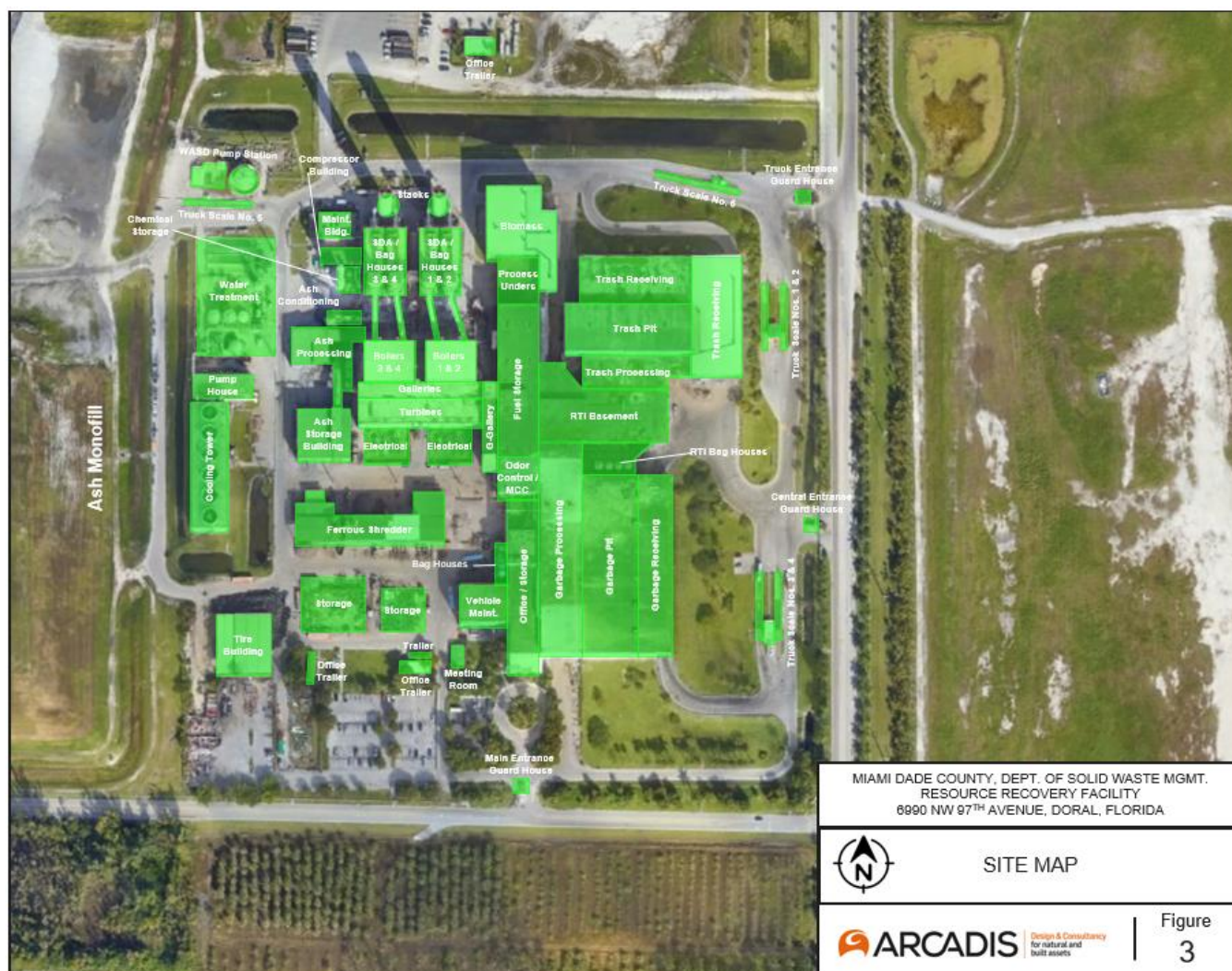


Figure 3 – Site Map

## 1.3 Site Investigation

Investigation activities to characterize and quantify hazardous building materials, residual chemicals, wastes, and ash will be conducted as necessary to supplement existing characterization information. Groundwater investigation activities are not currently proposed as part of this closure plan, as the existing groundwater monitoring well network for the RRF site will provide sufficient data to determine the presence and extent of groundwater contamination, if any exists. Requirements from 62-780 F.A.C. shall be referred to for site investigation.

## 1.3.1 Sampling Plan

### 1.3.1.1 Sampling Objectives

The field sampling activities are designed to characterize conditions in soil, sediments and remaining building structures at the RRF site to determine the presence and extent of potential contamination from non-hazardous ash and process chemicals from prior RRF operations as well as potential universal wastes from paints, caulks, and other materials in the remaining structures. As mentioned previously, groundwater characterization will be determined through the analyses of the existing monitoring well network for the RRF site.

### 1.3.1.2 Sampling Plan Details

The sampling and analysis plan for building materials at the RRF site is provided in Attachment B. The building materials sampling and analysis plan includes the materials of interest, sampling objectives, existing data (Attachment A, Regulated Materials Survey data) and proposed sampling including approximate number of samples, and laboratory analytical parameter and methods.

Soil sampling at the RRF site will be performed as described in this section. The first two samples (designated CS-1 and CS-2) will be collected from the stormwater swale adjacent to the cooling tower (see **Figure 4**), one from the top of bank and another from the bottom of the swale, which is expected to have the most potential contamination at the site. Soil sampling at CS-1 will begin at the ground surface and continue at one-foot increments to a depth of at least 6 feet. Soil sampling at CS-2 will begin at the bottom of the swale and continue at one-foot increments to a depth of approximately 3 feet. The CS-1 and CS-2 samples will be analyzed for all parameters listed in Table 2 – Soil Clean-up Target Levels, Section 24-44 of Chapter 24 Miami-Dade County, Florida Code of Ordinances (see Attachment C). The CS-1 and CS-2 soil sampling results will indicate contaminants of concern and depth of contamination.

In addition to CS-1 and CS-2, collection and testing of soil samples from 26 other locations across the rest of the RRF site (as shown on **Figure 4**) will be performed. Based on the CS-1 and CS-2 sampling results, the rest of the samples will be collected at one-foot increments to a depth one foot below the depth where parameters were detected in the first two samples and will only be tested for those parameters that were detected in the CS-1 and CS-2 samples. Evaluation of the sampling results and depth of contamination at each sampling location will determine the extent of source removal that will be performed to remove the contaminated soil.

Groundwater monitoring results from the semi-annual groundwater sampling events will be reviewed to check for the presence of any groundwater contaminants.

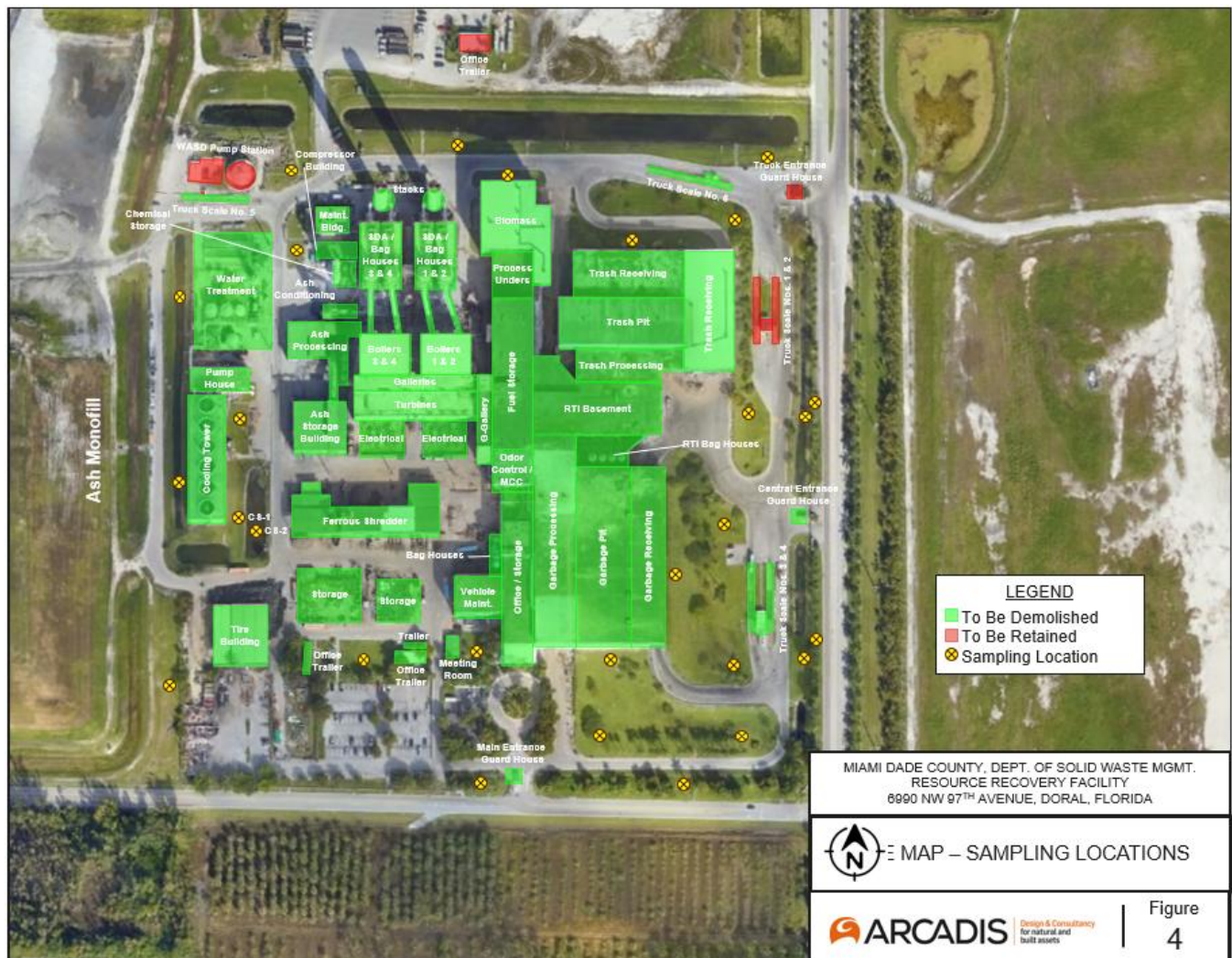


Figure 4 – Soil Sampling Locations

## 2 Permits, Notifications, And Licenses

The proposed closure is based on regulatory notification and permitting requirements as outlined in this Plan and applicable Laws and Regulations including those governing the removal, storage, handling, transportation, and disposal of waste.

The County or their designated contractor(s) will submit all notifications and obtain applicable regulatory permits and approvals prior to beginning work at the Site. During implementation of the work, the County will ensure all contractor(s) and subcontractors comply with all demolition-related clauses in applicable permits and approvals.

The County will ensure that all applicable Laws and Regulations are followed, and all permit, notification, and license requirements are met during the execution of the field work. The County or their designated contractor(s) will work with each regulatory authority to understand the timing for each permit or notification, scheduling field work, and coordinating regulatory inspections (if necessary) accordingly to prevent delays.

## 2.1 Existing Permits

The facility is permitted in accordance with the Florida Power Plant Siting Act (PPSA) Conditions of Certification PA 77-08E. The Conditions of Certification, along with the following permits, remain effective for the closure scope of work with provisions that will be adhered to during the implementation of closure activities:

- Department of Regulatory and Economic Resources (RER)-issued Industrial Waste Pretreatment Annual Operating Permit to the County and Covanta for wastewater discharges from the Facility to Miami-Dade County's sanitary sewer system, as required by the Miami-Dade Pollution Control Ordinance. This permit, which must be renewed every year, authorizes Covanta to operate a demineralization water system, well water treatment system, wastewater treatment system, and an Air Quality Control System (AQCS). Permit number IWP-00337-2024/2025 was renewed in June of 2024 and valid from July 1, 2024 through June 30, 2025.

## 2.2 Anticipated Permits

According to section 102.2 of the Florida Building Code (FBC) structures or facilities of electric utilities, as defined in Section 366.02, Florida Statutes, which are directly involved in the generation, transmission, or distribution of electricity are exempt from the FBC as provided by law.. Other than the modification of the PPSA Conditions of Certification PA 77-08E, demolition permits from RER and the Miami-Dade Building Department may be required. Other additional local or state permits are not anticipated for the closure of the RRF Site.

## 3 Health and Safety

The County considers Health and Safety and environmental protection the number one priority for all projects. To ensure health and safety of personnel onsite, health and safety documentation will be prepared, and workers will be confirmed to possess relevant training necessary for the anticipated scope of work.

Before starting any work, a Site-specific health and safety orientation will be provided to all project personnel by the Contractor. The orientation will ensure that Site personnel understand the project hazards and the administrative and/or engineered controls implemented to control them.

At the start of each workday, a tailgate safety meeting will be conducted to review the upcoming tasks and associated safety process. The meeting will be attended by all Contractor and subcontract personnel working on the Site. The health and safety meetings are effective in reinforcing the concepts presented in health and safety documentation and helping personnel stay focused on implementing safe work practices.

### 3.1 Health and Safety Documentation

Prior to conducting any work, a Site-specific Health and Safety Plan (HASP) will be prepared by the Contractor for the scope of work to be completed. The Site-specific HASP will comply with the Occupational Safety and Health Administration (OSHA) requirements as specified in Title 29 Code of Federal Regulations (CFR) Part 1910.120 and include site specific safety procedures (as applicable). The HASP will also cover emergency procedures at a minimum for medical emergencies and inclement weather.

Safety documentation will include the following as part of the HASP or as separate documentation:

- Removal and management of Asbestos
- Removal and management of hazardous building materials (fly ash, universal waste, PCB caulk, other regulated materials)
- Disturbance and/or removal of materials that have the potential to contain silica (block, concrete, etc.) and mold (if applicable)
- Injury and Illness Prevention Program (IIPP)
- Air Monitoring Plan for worker protection and public safety
- High risk tasks (energy isolation, elevated work, crane lifts, hot work, confined space entry)

## 3.2 Training

The HASP will include relevant and necessary training requirements for personnel hired by the Contractor. Contractor and any Subcontractors will possess valid training certificates issued by appropriate issuing agencies for specific tasks that Site personnel are engaged in. Copies of certificates and evidence of satisfactory training will be maintained on Site and be available for review by authorities as needed. Training requirements for this project will be based on tasks to be performed and may include, but not be limited to:

- Hazardous Waste Operations and Emergency Response (HAZWOPER) 40 hour
- HAZWOPER current 8-hour refresher
- Asbestos supervisor, worker, and asbestos awareness training
- Lead awareness
- Medical surveillance (as required)
- First aid/cardiopulmonary resuscitation (CPR)
- Equipment operator certifications
- Confined space operations (as required)
- Flagger certification (as required)

## 4 Mobilization and Site Preparation

Various mobilization and site preparation activities will be completed before starting work at the Site. These activities aid in preparing a safe Site and are paramount to the successful completion of any project. These activities will include, but are not limited to:

- Review training certificates of proposed personnel (including subcontractor personnel).
- Complete a final demolition work plan to detail means and methods for major tasks incorporating any regulatory comments.
- If needed, mobilize a Site construction trailer to be used by onsite representatives throughout the duration of the project.
- Mobilize equipment and personnel necessary for the anticipated scope of work.
- Conduct a pre-construction meeting at the Site to be attended by all Site personnel prior to beginning work.

- Delineate work zones, including posting necessary and required signs, warning tape, barricades, etc.
- Set up staging areas for equipment.
- Provide temporary facilities and handwashing stations at the Sites based on the size of the work crew.
- Install the necessary storm water management and erosion and sedimentation controls as required by best management practices and Miami-Dade County.
- Install temporary chain link fencing and appropriate signage at required intervals.
- Install security measures (as applicable).
- Provide first aid kits, fire extinguishers, and eye wash stations at readily accessible locations for each work crew during all work activities.

## **4.1 Sediment and Erosion Controls**

Erosion and sediment controls, storm drain and run-off protection, and sanitary sewer protection initiatives will be installed to prevent migration of debris from the Site and as required by best management practices and local requirements. This will include stormwater inlet / drain protections, a method to ensure that trucks do not track site debris and dirt outside the property boundary, compliance with Miami-Dade County requirements (as applicable). Installed initiatives will be routinely inspected and promptly repaired if damage or defective controls are observed throughout project execution. These controls will be removed after completion of field work and stabilization of restored surfaces.

## **4.2 Spill Prevention**

Spill prevention controls will be installed and maintained to help prevent unwanted releases in all areas associated with completion of work areas associated with this proposed project site. A spill control plan will be prepared prior to mobilization. The spill control plan will include proposed spill kit locations, emergency contact information, and contingency actions to be taken if a spill occurs. Spills that occur on the Site will be reported to applicable regulatory authorities as required by local, state, and federal regulations. A spill log will be maintained throughout the project duration.

## **4.3 Site Security**

The site will be secured in a manner to protect the public from harm and to prevent acts of vandalism, theft, and trespassing. The County will be responsible to safeguard all equipment, materials, and stored wastes until transported offsite. Proposed security measures may include fencing, security personnel, additional lighting, or remote construction site security systems.

## **4.4 Temporary Chain Link Fencing and Barricades**

The Site is enclosed by fencing where not occupied by site structures, and gates within the fence provide access to the interior of the site. Prior to beginning demolition, the County will install temporary chain link fencing at select locations within the site to facilitate various activities and secure the site during performance of the work. Temporary fencing may be used in conjunction with existing perimeter fencing. Existing perimeter and installed

temporary fence will have required Local, State and Federal signage displayed in required intervals. Signs will be posted to deter trespassers from entering the Site and access to the Site will be controlled at all times.

## 5 Pedestrians and Vehicular Traffic Controls

A Traffic Control Plan (TCP) will be prepared that outlines sidewalk closures, road closures, travel routes to and from the Site for delivery of heavy equipment, and travel routes for transportation of wastes and scrap metals. This plan will also propose areas to be used for parking, equipment staging, waste storage, site trailer location(s) and travel paths to/from the work area(s).

All local and state requirements for sidewalk and road closures needed to complete the scope of work will be satisfied. All permits, planning, submittals, equipment, and labor associated with any closures will be completed prior to implementation.

## 6 Utilities

Utility clearance through the Florida One Call (Sunshine 811) system will be requested for the entire property located at 6990 NW 97th Avenue in Doral, Florida. Site plans, survey drawings, as-built drawings, field observations, and Site historical knowledge regarding utility locations will also be reviewed.

In addition, a private utility locating company will locate and field mark utilities and other subsurface features around the perimeter of each structure slated for demolition and all areas expected to be disturbed during execution of this closure plan. The private utility locator will use ground penetrating radar, electromagnetic locating equipment and other industry standard utility locating means to locate subsurface utilities. All utilities identified during the private utility mark out will be recorded by GPS and presented on utility maps. The Florida One Call and private utility locate will also be utilized to identify utilities at or near the property boundaries which will not be decommissioned. Utility markings will be protected and refreshed (as necessary) throughout the project.

Electrical, potable water and sanitary sewer service will be retained for select remaining onsite buildings and the WASD system components. The existing high voltage electrical service for the facility will be disconnected and replaced with 480 volt, three phase power to provide continuing service for the site buildings and systems that remain. The County will directly coordinate with service providers to disconnect utilities that are no longer necessary for continued site operations which will be pared back to the feeder locations as applicable. Disconnects will be field verified by visual observation of physical disconnection points. Disconnected utilities will be tested and verified to ensure stored or residual energy is released or dissipated from the disconnected equipment prior to closure of any structure.

## 7 Environmental Removals

Prior to structural closure activities, the County will ensure potentially hazardous building materials are removed and other environmental conditions are made safe for closure activities to commence.

## 7.1 Biohazardous Substances

The disturbance or dislocation of pigeon / bird feces or contaminated debris may cause particulates containing *Histoplasma Capsulatum* to be released, thereby creating a potential health hazard to workers or others. Biohazardous substances including carcasses, bird feces, and general animal wastes were observed within the structures slated for closure. Biological hazards will be managed appropriately and adequate personal protective equipment will be used by the workers prior to initiating closure activities.

## 7.2 Asbestos Abatement

A pre-demolition HBM survey including a survey for Asbestos Containing Material (ACM) will be completed to identify the type, location, and quantity of ACMs. Information presented in the pre-demolition survey will be used by the County to determine type, condition, and general location of the ACMs that require abatement. ACM abatement activities will be completed in accordance with local, state, and federal laws and regulations.

Asbestos removal will be performed by a Florida licensed / accredited asbestos abatement contractor in accordance with applicable United States Environmental Protection Agency (USEPA), OSHA, and Florida regulations. Notification to FDEP, Division of Air Resource Management will be made at least 10 business days prior to any closure activities, as required.

If suspect ACMs not previously identified are encountered, abatement will stop, and appropriate regulatory authorities will be notified.

## 7.3 Universal Waste and Other Regulated Wastes

Visible universal wastes and other regulated wastes will be identified, removed, handled, sized, containerized, labeled, stored, transported and disposed of prior to commencement of closure activities at the Site. As the closure activities progress, universal wastes and other regulated wastes will be identified, removed, handled, sized, containerized, labeled, stored, transported, and disposed at approved disposal / recycling facilities as outlined in the waste management section of this plan.

## 8 Air Monitoring

Personal exposure air monitoring required by local, state, and federal regulations to ensure the health and safety of all onsite personnel will be performed. This includes, but is not limited to personal asbestos air monitoring, monitoring related to potential silica exposure, and atmospheric monitoring for potential confined space entry (if applicable).

Closure activities will be continuously monitored for visible dusts and real time ambient air monitoring for particulates will be conducted. Real time ambient air monitoring data will be recorded at least hourly.

Asbestos pre-abatement, perimeter, and post-abatement clearance air monitoring, if required, will be performed by an approved air monitoring contractor.

## 9 Closure

The County will perform the complete removal of all RRF site features described in Section 1.2 except those listed below. All demolition activities will be accomplished using controlled means and methods to prevent unwanted collapse during field work. The following structures and features will be identified and protected from damage during implementation of this scope of work:

- WASD Pump Station
- Guard House
- Ash Monofill
- Miami-Dade Office Trailer
- Truck scales (Nos. 1 and 2) near 97<sup>th</sup> Avenue east of RTI Building
- Surface water retention pond
- Selected parking areas
- Sidewalks
- Perimeter fence
- Selected site roads
- Selected utilities

A summary of buildings and facilities to be demolished or retained are depicted below in **Table 1**.

*Table 1 – Summary of Proposed Buildings and Facilities Status*

| Building/Facility                                     | Demolish | Retain |
|-------------------------------------------------------|----------|--------|
| Guard House (Truck Entrance)                          |          | X      |
| Guard House (Central Entrance)                        | X        |        |
| Guard House (Main Entrance)                           | X        |        |
| Stacks                                                | X        |        |
| Maintenance Building                                  | X        |        |
| WASD Pump Station                                     |          | X      |
| Truck Scale (No. 5) Adjacent to the WASD Pump Station | X        |        |
| Office Trailer (North of the Stacks)                  |          | X      |
| Ash Monofill                                          |          | X      |
| Garbage Processing                                    | X        |        |
| RTI Area                                              | X        |        |
| Powerhouse                                            | X        |        |
| Maintenance Building                                  | X        |        |
| Compressor Building                                   | X        |        |

| Building/Facility                                                               | Demolish | Retain |
|---------------------------------------------------------------------------------|----------|--------|
| Chemical Storage                                                                | X        |        |
| Ash Processing                                                                  | X        |        |
| Ash Conditioning                                                                | X        |        |
| Ash Storage Building                                                            | X        |        |
| Tire Building                                                                   | X        |        |
| Cooling Tower                                                                   | X        |        |
| Pump House                                                                      | X        |        |
| Water Treatment                                                                 | X        |        |
| Trailers / Office Trailers                                                      | X        |        |
| Office and Storage                                                              | X        |        |
| Vehicle Maintenance                                                             | X        |        |
| Truck Scales (Nos. 1 and 2) near 97 <sup>th</sup> Avenue (east of RTI Building) |          | X      |
| Truck Scales (Nos. 3 and 4) near 97 <sup>th</sup> Avenue (east of GP Building)  | X        |        |
| Truck Scale (No. 6, north of the RTI Building)                                  | X        |        |
| Biomass Building                                                                | X        |        |
| Water Treatment                                                                 | X        |        |
| Ferrous Shredder                                                                | X        |        |
| Bag Houses                                                                      | X        |        |

Proposed buildings and facilities to be demolished or retained are depicted below in **Figure 5**. All site pavement areas within the green dashed line are proposed to be removed, with only a perimeter road and select parking areas remaining.

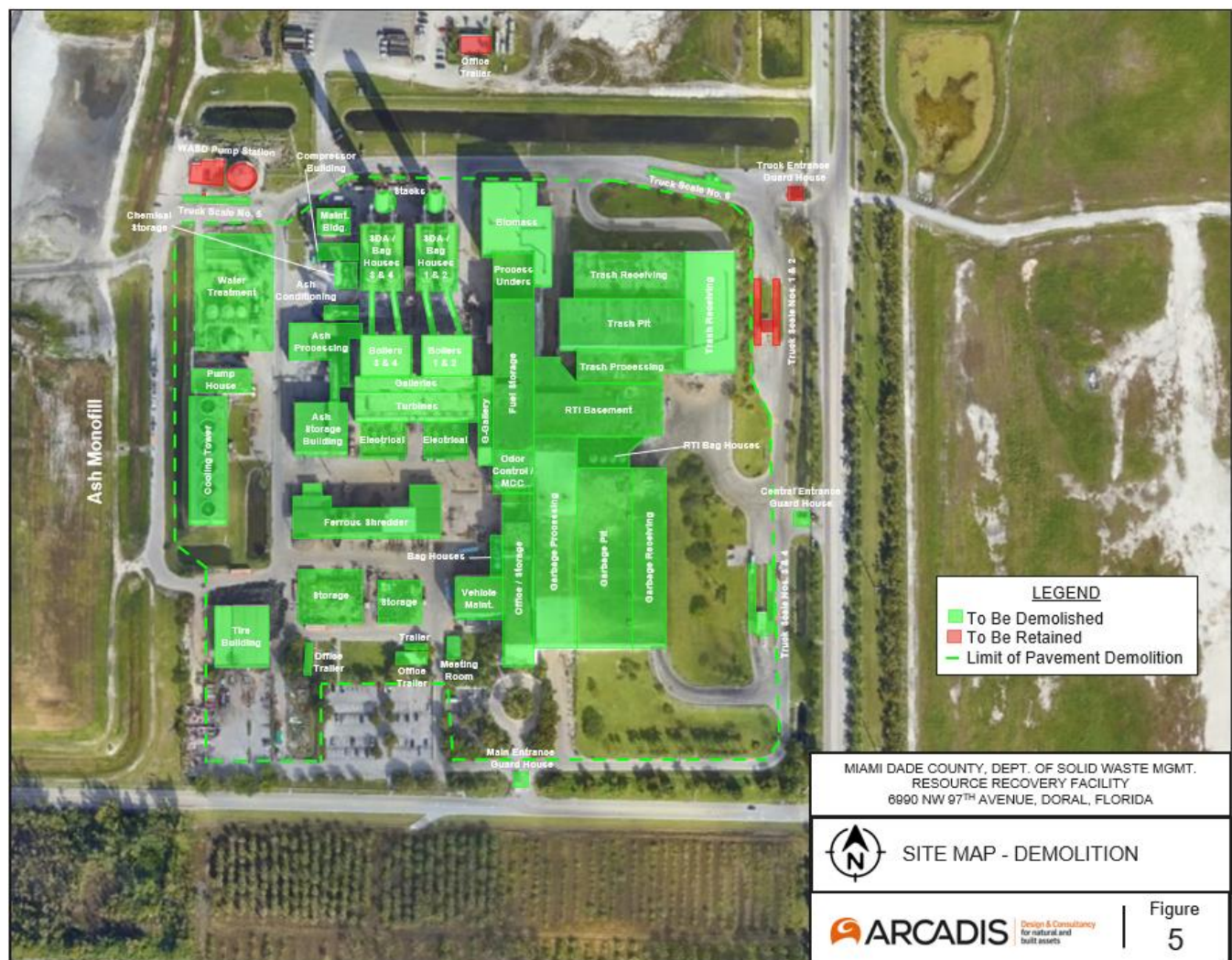


Figure 5 – Site Map of Proposed Buildings and Facilities to be Demolished or Retained

All demolition work will be conducted per OSHA 29 CFR 1926 Subpart T – Demolition. Structures will be removed in a bay-to-bay approach, top down, while maintaining stability throughout the process. Steel columns, rebar, and concrete pads must be removed flush with surrounding floors to prevent tripping hazards. Concrete pillars, posts, or curbs will be removed. All structure foundations and pits and all underground utilities except for selected stormwater inlets and piping will be removed.

The Site will be left in a safe condition at the end of each shift to prevent unwanted collapse of structures and migration of debris offsite (from wind, rain, etc.). This will include good housekeeping practices, securing debris to prevent migration offsite, and securing the work area to prevent unwanted access.

Hard fill (concrete, brick, and block) created from demolition tasks may be recycled for use as backfill onsite, provided that it is uncontaminated and meets the definition of clean debris as per 62-701.200(15) F.A.C. Building materials including hardfill not used as backfill onsite will be down-sized according to selected transport or

disposal facility location requirements. Wastes will be removed, containerized, transported, and disposed / recycled in accordance with the Waste Disposal section of this closure plan.

The specific means and methods for implementing this Plan will be proposed by selected demolition Contractors, however, it should be noted that significant dust generating demolition methods, such as the use of wrecking ball or explosives are not anticipated to be used at the Site.

A pre-demolition readiness checklist will be completed which will verify utility disconnects are complete, no residual materials or elevated Lower Explosive Limits (LELs) of flammable vapors or gas are present in pipes or structures slated for demolition, Lock Out/Tag Out is complete, perimeter controls are in place, regulated materials are removed, and the structure is ready for demolition. The pre-demolition readiness checklist must be reviewed and approved by onsite management and County representatives prior to beginning demolition.

## **9.1 Dewatering**

Water is present at various surface water retention features. Residual water may be pumped to adjacent inlets to be processed through the onsite wastewater system or the WASD sanitary sewer system. The County will coordinate directly with WASD to procure a discharge permit (if applicable), make the appropriate notifications, complete reporting, and correspond with any other relevant local agencies prior to discharge(s).

If sediment, sheen, sludge, or other evidence is observed during dewatering, discharges will be stopped, and notification will be made to appropriate authorities. If additional waste characterization data is required to support proper characterization, profiling, and/or disposition of water or sediment, additional waste characterization samples will be collected and sent for laboratory analyses.

## **9.2 Tank, Pipe, and Equipment Inspection and Cleaning**

Each tank, pipe, and piece of process equipment will be verified free of residual materials and hazardous atmospheric conditions prior to closure. Each tank, vessel, storage container, and piece of equipment will be opened at accessible ports to inspect for the presence of residual materials including liquids, solids, sludges, or ash. Residual liquids or solids will be removed if necessary to meet disposal or recycling requirements in accordance with the waste management section of this plan.

The LEL will be monitored at each opening prior to tank or pipe removal activities to confirm it is safe for removal. A reading of less than 10% LEL, and no free-flowing residual liquids present will be considered acceptable for removal. Specific means and methods for inspection, spill prevention measures during removal, and the collection of residual liquids or solids if encountered will be developed by selected demolition Contractor.

# **10 Waste Management**

Under this Closure Plan, the existing Ash Monofill is proposed to be permanently closed. In order to optimize use of the remaining landfill airspace, the disposal of all demolition waste materials and contaminated soils are proposed to be disposed in the on-site Ash Monofill. Waste generated during the closure activities will be removed, segregated, and containerized into appropriate waste streams to consolidate waste materials with similar waste characteristics. A Waste Management Plan (WMP) that provides a comprehensive summary of anticipated waste streams, methods of handling and storing waste on site, waste tracking, transportation methods

and routes, and any monitoring and auditing processes used will be developed and provided before any waste generation occurs. Requirements from 62-780, F.A.C. will be referred to should any contaminated soils be encountered during closure activities.

Waste materials generated during the closure activities will be either directly loaded into appropriate waste containers and / or placed at a temporary onsite staging area(s) to facilitate consolidation and containerization of similar waste materials and to promote efficient transportation and disposition of the materials.

Each waste stream will be classified for management and disposal based on available information from site visual observations and analytical results from samples of wastes collected prior to disposal. This information will be used to determine appropriate waste management characterization based on applicable waste management regulations. The County will perform required sampling for waste characterization and will prepare all waste disposal profiles.

The following waste streams are anticipated to be generated or have the potential to be generated during the performance of this work:

- Combustor fly ash and bottom ash
- Non-hazardous construction and demolition debris (C&D) – wood, drywall, flooring, etc.
- Non-hazardous hardfill – brick, block, concrete, asphalt, etc.
- Paint Chips containing RCRA metals
- Friable and non-friable ACMs
- Universal wastes and other regulated wastes
- Recyclable metals

To the extent acceptable to the approved disposal facilities, data collected as part of the previous survey events conducted at the Site may be used for waste characterization purposes. For materials in which additional information is needed for waste characterization, the County or the County's Contractor will collect additional waste characterization samples and submit the samples for subsequent laboratory analyses.

Structural and reinforcing steel will, as much as possible, be transported offsite for recycling. Concrete, brick, and block will be down-sized to 6-inches minus and used to backfill subsurface voids including the garbage pit and trash pit, provided that it is uncontaminated and meets the definition of clean debris as per 62-701.200(15), F.A.C. All remaining wastes will be transported to the Ash Monofill for disposal.

## **10.1 Recyclable Metals and Equipment Salvage**

Recyclable metals and concrete will be sorted and downsized as necessary in accordance with the receiving facility's requirements. Recyclable materials will be loaded and transported to a County approved recycling facility. All cutting of recyclable metals will be done using industry best management practices for means and methods as well as worker protection.

Any process equipment remaining at mobilization may be salvaged in lieu of demolition and/or recycling. Equipment proposed for salvage will be inspected for residual solids, liquids or a hazardous atmosphere. Additional decontamination of equipment proposed for salvage may be required depending on previous use, current equipment condition or results of inspections.

## 11 Ash Monofill Permanent Closure

This section describes the regulatory requirements for permanent closure of the Ash Monofil, including a final cover system.

### 11.1 Regulatory Requirements

The Ash Monofill is regulated under FDEP Solid Waste Regulations (Chapters 62-701 through 62-722, F.A.C.); requirements for landfill final closure are provided in 62-701.600, F.A.C. Prior to closing a landfill, an application for a closure permit will be submitted to the FDEP using Form 62-701.900(1), F.A.C. including an updated closure plan. The closure plan will consist of the following:

1. A closure design plan,
2. A closure operation plan,
3. A plan for long-term care; and
4. A demonstration that proof of financial assurance for long-term care will be provided.

### 11.2 Final Cover

Soil cover requirements are provided in 62-701.600(3)(g), F.A.C. The proposed final cover system for the remaining unclosed portions of the Ash Monofill will be similar to the final cover system shown in the Cell 19 closure plan, prepared by Kimley-Horn.

The final cover system proposed within the closure plan for the top deck and the side slopes will be similar. The final cover system will consist of 6 inches of foundation soil overlain with a 40-mil LLDPE geomembrane liner, a geocomposite drainage net, 18 inches of protective soil, 6 inches of topsoil and vegetative layer.

The final side slope shall not be steeper than three horizontal feet per one foot of vertical rise and will have down slope drainage ways with water flow energy dissipaters. Access for maintenance equipment will be provided.

### 11.3 Groundwater Monitoring Requirements

All existing infrastructure associated with groundwater monitoring will remain in place and fully functional. All monitoring and regulatory compliance will continue in accordance with permit requirements.

### 11.4 Leachate Treatment Requirements

All existing infrastructure associated with the leachate treatment system will remain in place and fully functional. All monitoring and regulatory compliance will continue in accordance with permit requirements.

### 11.5 Reporting Requirements

Upon completion of final closure, a certificate of closure construction completion will be submitted to the FDEP using Form 62-701.900(2), F.A.C. indicating that the closure is complete and was performed in accordance with the plans submitted to the Department except where minor deviation was necessary and deviations, if any, will be

described in detail. A final survey will be performed by a Florida Licensed Professional Surveyor and Mapper and a copy of the survey will be included with the certification of closure construction completion. Long-term care and other required reporting will be done in accordance with permit requirements.

## 12 Site Restoration

Following closure tasks, restoration activities including backfill of subsurface voids, compaction, grading, and surface restoration will be completed.

All general demolition debris will be removed from subsurface voids prior to any backfill activities. Subsurface voids will be backfilled with acceptable downsized hardfill generated from demolition activities. If downsized hardfill materials are not sufficient to complete backfill, additional backfill may be imported from an offsite source. Offsite backfill will be from a certified virgin source.

Backfill materials will be placed in loose lifts not exceeding 2 feet and compacted with onsite equipment. No compaction testing will be completed on completed backfilled areas. Subsurface voids will be filled to surrounding elevation and graded to drain. A topographical survey will be completed to document the completed backfill activities and to confirm acceptable drainage.

Leading edges exceeding 48" will be protected by installing guardrails meeting or exceeding requirements of OSHA 1910.29(b) or by installing fill materials at a slope of 2:1.

Disturbed vegetated areas will be restored by machine grading existing soils, placing an acceptable seed mix appropriate to southeast Florida, and placement of straw at seeded areas to prevent erosion.

## 13 Demobilization

Upon completion of the project activities and County approval, equipment, facilities, and personnel will be demobilized from the Site. Equipment and tools will be dry decontaminated as necessary prior to leaving the Site. The Site must be left free of general trash or debris.

## 14 Project Management / Construction Management

To manage day-to-day operations, a Site Superintendent (SS) will be onsite during all work activities. The primary purpose of the SS will be to coordinate and manage the project activities performed during the execution of this closure plan and implement the required Health and Safety protocols. The SS will provide both daily inspections and supervision, and direct coordination and communications with the project manager and addressing scheduling issues with contractors.

## 15 Reporting

A weekly report documenting the work activities performed each week will be prepared and distributed to project stakeholders. The report will include at a minimum the work completed, work projected for the following week, health and safety items, progress pictures, and waste tracking information.

Following the completion of the project, a copy of all project documentation and records will be compiled into a closure completion report. The closure completion report will include health and safety documentation, notifications, permits, regulatory correspondences, laboratory analytical data reports, waste profiles, waste manifests, waste volumes, items salvaged, air monitoring data, bills of lading, certificates of destruction/recycling, project photographs, and any other pertinent project information.

## 16 Submittals

The County will prepare and submit all required documentation required by federal, state, and local regulatory authorities governing this Plan including permits, notifications, licenses, safety, erosion controls, security, traffic, utilities, environmental removals, air monitoring, demolition, Ash Monofill permanent closure, storage and management of wastes, and restoration.

# Appendix A

## Regulated Materials Survey



## Regulated Materials Survey

*Miami-Dade County Resource Recovery Facility  
Doral, Florida*

Submitted to:

**Covanta Dade Renewable Energy**

6990 NW 97th Avenue  
Doral, FL 33178

Submitted by:

**WSP USA, Inc.**

15851 S. US 27, Suite 50  
Lansing, MI 48906

January 2024

Project No. 31407377.000



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## **APPENDICES**

### **APPENDIX A**

Laboratory Data Reports

## 1.0 INTRODUCTION

### 1.1 Background

WSP USA Inc. (WSP, formerly Golder Associates) was retained by Covanta Dade Renewable Energy (Covanta) to complete a regulated materials survey (RMS) at the Miami-Dade County Resource Recovery Facility in Doral, Florida (MDCRRF or Site). This report summarizes the information obtained in November 2023 and is intended to provide a factual account of the project findings, as well as reference information for future decommissioning and demolition contractors, as needed. Therefore, the presentation of the data has been formatted accordingly.

*Note: This report does not include information regarding suspect or confirmed asbestos-containing materials (ACM). Covanta retained a different firm to complete an ACM survey in 2023, the findings for which are provided as a separate report.*

The MDCRRF is located at 6990 NW 97th Avenue in Doral, Florida and consists of four individual boiler units which feed two turbine/generator systems for a 77 megawatt electric generation capacity. Construction of the facility commenced in 1979-80 and operations began circa 1985. The facility is owned by Miami-Dade County and operated by Covanta.

Associated structures include the garbage and biomass off-loading and processing areas, exhaust-side and ash handling systems, two concrete stacks with steel liners, metal separation systems, material storage silos, cooling tower, and other support structures (Figure 1). Ash generated from waste combustion is deposited in an adjacent ash monofill, also owned by Miami-Dade County.

A fire at the facility in February 2023 damaged the garbage processing systems and the facility has ceased power generating operations. As part of the fire fighting process, two structures were demolished to base slab level: The Garbage Receiving Building and the Garbage Pit Building (Figure 1).

Site structures identified on Figure 1 were included as part of this study with the following exceptions:

- Sanitary Sewer Pump Building and related attenuation tank
- Wastewater settling basins
- Office trailers located in the parking lot north of the facility (not shown on Figure 1)
- Structures and systems related to the ash monofil (not shown on Figure 1).

### 1.2 Scope of Services

The objective of the RMS was to identify and generally categorize regulated materials currently present in and/or adjacent to the Site structures (with the exception of asbestos). This work included conducting a visual survey of the Site structures followed by sampling and analysis, as necessary, to determine preliminary waste classifications and/or verify chemical content of specific materials identified. This information can be used for the following purposes:

- In the event of future decommissioning or demolition activities, as a record of materials that must be removed and/or properly managed in accordance with local, state, and/or federal regulations
- To determine where follow-up sampling and analysis may be necessary to confirm regulated materials and/or future waste disposal classifications

- To evaluate potential suitability for onsite reuse of masonry materials as fill
- If the buildings are to be maintained or re-occupied in the future, as a record of materials where operations and maintenance programs are required (e.g., asbestos)
- For disclosure to future contractors, as necessary.

### 1.3 Applicable Federal, State and Local Regulations and Notices

In the event that the buildings will be decommissioned and/or demolished, if renovations are to be carried out, or disturbances/maintenance of certain materials are necessary, then the typical federal and state regulations governing management and disposal of waste materials may apply, such as:

- Applicable federal and state Occupational Safety and Health regulations,
- Title 40, Code of Federal Regulations, Part 261 - Identification and Listing of Hazardous Waste,
- Title 40, Code of Federal Regulations, Part 262 - Standards Applicable to Generators of Hazardous Waste,
- Title 40, Code of Federal Regulations, Part 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities,
- Title 40, Code of Federal Regulations, Part 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities,
- Title 49, Code of Federal Regulations, Parts 100-199 - Transportation of Hazardous Materials,
- Title 40, Code of Federal Regulations, Part 268 - Land Disposal Restrictions,
- Title 40, Code of Federal Regulations, Part 761 - Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions,
- Applicable State of Florida regulations governing the handling, classifications, transport, reuse, and disposal of wastes, and
- National Emissions Standards for Hazardous Air Pollutants (NESHAP).

### 1.4 Limitations of the Survey

This report was prepared on behalf of Covanta and Miami-Dade County and is based on data and information obtained from station records (where available), site observations, and sampling and analysis of building materials and other potential waste streams. It is assumed that reference materials reviewed as part of this study are factual and accurate as stated. Any use which a third party makes of this report, or any reliance on or decisions made based on it, is the responsibility of such third parties.

During the facility survey, certain areas were inaccessible due to lack of obvious and safe entry points, including confined spaces, pits with standing liquids, etc. Specific areas and features that could not be physically accessed include:

- Interiors of sealed process equipment and vessels (e.g., boilers, turbine / generators, ducts, hoppers, silos, and other vessels)

- Electrical wiring and the interiors of powered electrical equipment
- Certain elevated areas subject to previous structural damage.

This survey was intended to identify and inventory materials and potential waste streams that may require special management and handling as part of future decommissioning and/or demolition work. The findings presented herein are not intended as the basis for future waste characterization and disposal approval purposes, although relevant data may be used to support such purposes.

## 1.5 Sample Analysis Protocols

Sample collection and handling methods were consistent with applicable United States Environmental Protection Agency (USEPA) guidelines and maintained under custody as appropriate for the nature of the samples. Samples were submitted to Eurofins Laboratory in Barberton, Ohio (Eurofins). Laboratory analytical reports are included as Appendix A. The following analytical methods were used for sample analyses, where requested:

- Total PCBs using USEPA test Method 8082
- Total metals, Resource Conservation and Recovery Act (RCRA) scan (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) using USEPA test Methods 6010B and 7471A
- Total volatile organic compounds (VOCs) using USEPA test Method 8260D
- Toxicity Characteristic Leaching Procedure (TCLP) using USEPA method 1311.

## 2.0 REGULATED MATERIALS SURVEY FINDINGS

WSP completed the RMS field work in November 2023, during which an initial visual survey was performed for inventory and quantification purposes. Based on the results of the visual survey, information from facility representatives, available records, and professional experience, WSP executed a sampling and analysis plan designed to determine if certain building materials may require special handling and management during future decommissioning or demolition work. A summary of the findings of the RMS efforts are presented in the following sections.

After the retirement of the facility, certain post-operational decommissioning programs have been (or planned to be) implemented by Covanta, including:

- Removal of bulk ash from hoppers and silos
- Removal of bags from bag filters systems
- Draining of oil from the turbine oil lubrication systems
- Staging of miscellaneous small-volume chemical containers for future removal
- Pumping of water accumulations from pits, basins, and lower floors
- Removal of bulk fluids from vessels, including aboveground fuel storage tanks and water treatment tanks.

For organization purposes, the facility was divided into areas based on buildings and other obvious boundaries (e.g., Boilers 1-4, Turbine Hall, RTI Buildings, etc.). Where possible, floor levels were noted as presented in the findings tables.

### 2.1 General Inventory of Common Regulated Building Materials

Several different regulated building materials were identified at the facility that are commonly utilized to maintain operation and occupancy of processes and buildings, such as:

- Fluorescent bulbs and other high-intensity lighting (potentially mercury or halide containing)
- Fluorescent and high intensity light ballasts (potentially PCB-containing)
- Elemental mercury in thermostats and switches
- Chemical fire extinguishers
- Smoke detectors and self-illuminating exit signs (potential radioactive sources)
- Regulated batteries (lead-acid, nickel-cadmium, etc.) in emergency lights, battery backup stations, control panels, etc.
- Oil-containing equipment (except for electrical equipment) including oil pump reservoirs, unless previously drained
- Chlorofluorocarbons (CFCs; ozone-depleting refrigerants) in air-conditioners, chillers, air dryers, drinking fountains, refrigeration equipment, control panels, vending machines, etc.

Based on WSP's observations, materials were identified at various locations throughout the station and outbuildings. Table 1 provides estimated quantities and general locations of these items. Miscellaneous small-volume portable chemical containers that did not appear to be staged in an organized manner pending future removal by Covanta were also inventoried, as noted on Table 1.

*Materials Not Inventoried:* Based on the previous and planned post-operation decommissioning work by Covanta, the following materials were not included as part of this survey:

- Bulk fluids and chemicals in vessels
- Portable chemical containers and chemical fire extinguishers that appeared to be staged pending future removal
- Aboveground storage tanks.

Electronic wastes (devices with circuit boards, computer monitors, etc.) were present throughout the facility; however, such devices were not quantified because: a) computer-based systems may vary in quantity while the facility remains occupied, and b) process-related components (control panels, motor control centers, logic controllers, system computers, etc.) could not be readily accessed in several locations to verify and quantify the content of electronic wastes.

## 2.2 Asbestos Containing Materials

As noted previously, this report does not include information regarding suspect or confirmed asbestos-containing materials. Covanta retained a different firm to complete an asbestos survey in 2023, the results for which are provided as a separate report.

## 2.3 Oil-Containing Electrical Transformers

Various oil-containing electrical transformers were identified during the survey, including general step-up [GSU] units and local distribution units. A summary is provided in the following paragraphs; please see Table 2 for an inventory of the oil-containing electrical transformers identified.

It is common that oil-containing electrical equipment manufactured prior to 1980 contains (or had contained) PCBs in excess of regulatory thresholds.<sup>1</sup>

As shown on Table 2, a total of 17 oil-filled transformers were in use (energized or not) as of November 2023 specific to the facility; four additional spare transformers were staged in a locked lay-down yard. The transformers vary in size, fluid content, and age of manufacture. Most transformers were affixed with placards or nameplates that indicated post-1980 manufacture dates and/or that no PCBs were present at the time of manufacture. Other units were labeled with stickers indicating "non-PCB" or "PCB content <50 ppm"; however, not all units were placarded or stickered. Further, it is possible that transformers manufactured prior to 1980 have been retrofilled, meaning PCB-containing oil was removed and replaced with a solvent-based fluid. Retrofilled units may contain residual concentrations of PCB or elevated levels of VOCs (from the retrofilling process). Previous sample information on the dielectric fluids was not available.

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<sup>1</sup> In 1980, 40 CFR 761 was promulgated, entitled the Toxic Substance Control Act, or "TSCA", which resulted in a federal ban on PCBs in new equipment and set requirements for management of existing equipment containing PCBs greater than 50 milligrams per kilogram (mg/kg), or parts per million (ppm).

During the RMS, WSP collected oil samples from five of the 17 in-use transformers for analysis of PCBs. Sample locations focused on transformers manufactured in 1980 or earlier to provide an indication as to PCB content for all units of that time period.

The results of the fluid samples are presented on Tables 2 and 3. None of the five samples collected exhibited PCB concentrations greater than 50 ppm (threshold for regulation under TSCA), with the highest concentration being 3.2 ppm. Based on these results, and field observations made during the sampling efforts, it does not appear that the transformers pre-dating 1980 were retrofilled. As such, samples were not analyzed for VOCs.

## 2.4 Surface Paint and Epoxy

Based on the age and construction of the Site structures (circa 1979-90), surface paint and epoxy may contain elevated levels of metals and/or PCBs from the point of manufacture. A formal lead paint survey for occupied buildings was not included as part of this effort; instead, a focused paint sampling program was performed to confirm the presence of lead in paint for demolition planning and method development purposes. In addition, paint samples were also analyzed for PCBs.

A total of 13 paint and epoxy samples of various colors have been collected from building surfaces (walls, floors, columns, stairwells), equipment, and other systems present in November 2023. Sample locations were selected based on relative age and representativeness of materials.

A list and description of the paint samples, as well as results, are provided on Table 4 and summarized below. Sample locations are shown on Figure 2.

- PCBs were detected above laboratory reporting limits in three of the 13 samples collected. However, none of the samples exhibited PCB concentrations approaching 50 ppm, which is the regulatory threshold for designation as PCB Bulk Product Waste per TSCA (40 CFR 761.62). As such, none of the paint coatings represented by the samples collected require special handling under TSCA.
- Each sample analyzed for total lead exhibited positive detections, with concentrations as high as 1,800 milligrams per kilogram (mg/kg). The presence of lead in paint should be disclosed to future contractors involved with demolition activities to facilitate implementation of appropriate worker safety protocols and waste management steps.

## 2.5 Caulk, Glazing and Joint Material

Window caulk, vertical and horizontal expansion joint compound, and other sealant materials have been found to contain PCBs in vintage (pre-1980) materials from the point of manufacture. WSP identified limited locations of caulking compounds within the site structures.

Two samples of window or door framing caulk materials were collected and submitted to Eurofins for PCB analysis. Table 5 provides a description of the samples collected and laboratory results. As noted on Table 5, neither sample exhibited positive detections of PCBs. As such, the caulking materials represented by the samples collected do not require special handling under TSCA.

## 2.6 Concrete Sampling for Potential Reuse

Part 15 of Florida Rule 62-701.730 (*Construction and Demolition Debris Disposal and Recycling*) states “Clean debris may be used as fill or raw material in any area, including waters of the State, subject to receipt of an environmental resource permit from the Department where applicable. Clean debris used as fill material is not solid

waste, and such use does not require a solid waste permit under this rule.” The rule also includes concrete in the definition of “debris”. However, the rule does not appear to define the term “clean” with specificity. The Florida Department of Environmental Protection (FDEP) encourages counties to develop debris recycling programs; it is not known if Miami-Dade County’s debris recycling program defines the term “clean” for recycled concrete or has related guidelines in place.

To support future decisions regarding the reuse of concrete as onsite fill during demolition work, WSP has collected a total of six samples of concrete across the Site. Concrete sample locations were selected to provide a general spatial distribution of data and positioned within buildings (see Figure 3). Samples were collected manually (using a chisel); prior to sampling, accumulations of solids, such as dust and debris, were removed manually to simulate concrete conditions prior to demolition. None of the slabs sampled were coated with paint.

Samples were submitted to Eurofins where they were crushed in a controlled setting to facilitate analysis of total metals and PCBs. Please see Table 6 for a description of the samples collected and laboratory results. A summary of the results is provided below.

- PCBs were not detected in the samples at concentrations above the laboratory reporting limit.
- Total metals were detected in each sample (as expected) at generally low concentrations, with one sample (CS-05, within the Ash Building) exhibiting an elevated concentration of lead at 150 mg/kg.

In summary, this data is for future reference in the event it is needed to confirm environmental suitability of concrete for onsite reuse based on state or county regulations or guidelines.

## 2.7 Residual Accumulations in Subsurface Features

Accessible subsurface features (pits, sumps, trench drains, etc.) were observed by WSP personnel during the RMS to contain residual accumulations. Where present, residual accumulations included wet solids/sludge, dry solids and debris, or a combination of one or more of these materials.

WSP collected two samples of wet solids from trench drains located in the Turbine Hall to identify if the accumulated materials may require special handling during future decommissioning efforts. Samples were analyzed for total metals and PCBs. A description of the samples and corresponding analytical results are provided on Table 7 and summarized below.

- None of the samples exhibited positive detections of PCBs.
- Total metals were detected in each sample, with lead at elevated concentrations in both samples (590 mg/kg and 690 mg/kg) and chromium at 200 mg/kg in one sample (PR-01). These concentrations indicate the potential for characteristically hazardous classification under RCRA. To verify non-hazardous classification, the residual materials represented by these samples will require re-sampling with analysis of TCLP lead and chromium.

## 2.8 Treated Wood

The onsite cooling tower is constructed using treated wood for internal framing. Treated wood commonly contains elevated levels of metals (e.g., arsenic, chromium, etc.) from the wood treating process prior to use. A composite sample of the cooling tower wood framing was collected by WSP during the RMS. The sample was submitted to Eurofins for analysis of TCLP metals to determine if the treated wood may be classified as RCRA hazardous waste upon decommissioning.

Laboratory results are provided in Table 8. As noted in Table 8, none of the TCLP metals results approach RCRA thresholds for hazardous characteristics.

## 2.9 Fire Brick and Refractory - Boilers

During the RMS, WSP did not observe fire brick or refractory on or within the four boilers from accessible vantage points. Further inspection of the boilers may be necessary to verify the absence of brick and refractory. If brick and/or refractory are present, these materials may require special handling based on the potential for elevated metals and/or as a naturally-occurring radioactive material (NORM).

## 2.10 Residual and Bulk Ash

Residual ash may be present within the exhaust-side systems and structures, including ducts, piping, boilers, hoppers, and other vessels. Based on input from Covanta, analytical data of the ash is in place, and the bulk ash is disposed within the onsite monofil. Therefore, samples of bulk ash were not collected as part of this survey.

## SIGNATURES

WSP USA Inc.



Andy Lewis  
*Senior Practice Leader*

AJL/rms

## Figures







|            |                 |             |           |            |                 |             |           |                                                |                                                  |                                                                         |
|------------|-----------------|-------------|-----------|------------|-----------------|-------------|-----------|------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------|
| <b>NO.</b> | <b>REVISION</b> | <b>DATE</b> | <b>BY</b> | <b>NO.</b> | <b>REVISION</b> | <b>DATE</b> | <b>BY</b> | Designed by:                                   | <br><b>COVANTA ENERGY</b><br>for a cleaner world | PERDUE INSIGHT<br>ENERGY FROM WASTE NORTH AMERICA<br>HOME CARE FACILITY |
| 0          | REVISED         | 8/25/09     | CT        |            |                 |             |           | Drawn by:<br>A. FOWLER                         |                                                  |                                                                         |
|            |                 |             |           |            |                 |             |           | Checked by:<br>C. TERWISBERG                   |                                                  |                                                                         |
|            |                 |             |           |            |                 |             |           | PLOT PLAN                                      |                                                  |                                                                         |
|            |                 |             |           |            |                 |             |           | Approved by:                                   |                                                  |                                                                         |
|            |                 |             |           |            |                 |             |           | DATE: 8-26-09 Scale: NTS DRWG.# 20-506 REV.# 1 |                                                  |                                                                         |

## Tables

**Table 1**  
**General Inventory**  
**MDCRRF, Doral, FL**

| Material                                          | RTI Buildings | Garbage Processing /<br>MCC / Upper Storage | BioMass / Process Unders /<br>Fuel Storage | Admin | Turbines Building | Boilers /<br>Conveyor Gallery | SDAs / Bag Filters / Stacks /<br>Lime Silos / support bldgs | Power House Maint Bldg | Ash Building /<br>Bottom Ash Transfer | Well Water Treatment | Cooling Tower /<br>Cooling Tower Pump House | Ferrous Shredder Area | Vehicle Maintenance /<br>Old Tire Shredder | South Office Trailers | Scale Houses /<br>Guard Shacks | Totals      |
|---------------------------------------------------|---------------|---------------------------------------------|--------------------------------------------|-------|-------------------|-------------------------------|-------------------------------------------------------------|------------------------|---------------------------------------|----------------------|---------------------------------------------|-----------------------|--------------------------------------------|-----------------------|--------------------------------|-------------|
| <b>Lighting</b>                                   |               |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                |             |
| Fluorescent bulbs                                 | 72            | 270                                         | 24                                         | 305   | 190               | 136                           | 182                                                         | 235                    |                                       | 12                   | 10                                          | 66                    | 34                                         | 75                    | 50                             | <b>1661</b> |
| Fluorescent ballasts                              | 36            | 138                                         | 22                                         | 171   | 99                | 68                            | 91                                                          | 126                    |                                       | 12                   | 16                                          | 41                    | 17                                         | 42                    | 28                             | <b>907</b>  |
| High intensity bulbs                              | 190           | 58                                          | 63                                         | 8     | 37                | 146                           | 316                                                         | 2                      | 32                                    | 14                   | 28                                          | 4                     | 36                                         | 1                     | 11                             | <b>946</b>  |
| High intensity ballasts                           | 190           | 48                                          | 63                                         | 8     | 37                | 146                           | 316                                                         | 2                      | 32                                    | 14                   | 28                                          | 4                     | 36                                         | 1                     | 11                             | <b>936</b>  |
| <b>Common Materials</b>                           |               |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                |             |
| Batteries (emergency lights, bulk)                | 26            | 40                                          | 6                                          | 43    | 381               | 20                            | 51                                                          | 8                      | 12                                    | 4                    | 4                                           |                       | 8                                          | 10                    | 8                              | <b>621</b>  |
| Mercury thermostats/switches/thermometers         |               |                                             |                                            |       | 4                 |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>4</b>    |
| Smoke detectors                                   | 5             | 7                                           |                                            | 5     | 14                |                               | 2                                                           | 4                      |                                       |                      | 1                                           |                       | 2                                          |                       | 2                              | <b>42</b>   |
| Exit signs (self-illuminating)                    |               |                                             |                                            |       | 5                 |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>5</b>    |
| Fire Extinguishers                                | 25            | 30                                          | 6                                          | 10    | 23                | 34                            | 70                                                          | 8                      | 5                                     | 2                    | 3                                           | 10                    | 10                                         | 5                     | 6                              | <b>247</b>  |
| <b>CFC Containing Items</b>                       |               |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                |             |
| Small CFC unit (wall mount A/C, drink fnts, etc.) | 1             | 14                                          |                                            | 2     | 2                 |                               | 1                                                           | 6                      | 1                                     |                      |                                             | 5                     | 2                                          | 3                     | 4                              | <b>41</b>   |
| Medium HVAC unit or air dryer                     | 4             | 14                                          | 1                                          | 12    | 6                 | 4                             | 8                                                           | 8                      |                                       | 1                    | 1                                           | 5                     | 6                                          | 5                     | 4                              | <b>79</b>   |
| Large HVAC (large office area) or chiller unit    |               |                                             |                                            |       |                   |                               | 2                                                           |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>2</b>    |
| <b>Oil Containing Equipment</b>                   |               |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                |             |
| <1 gallon                                         |               |                                             |                                            |       | 12                | 40                            | 10                                                          |                        |                                       | 2                    | 12                                          | 1                     |                                            |                       |                                | <b>77</b>   |
| 1-5 gallons                                       | 4             | 7                                           | 1                                          |       | 2                 | 28                            | 8                                                           |                        |                                       |                      | 5                                           |                       |                                            |                       | 2                              | <b>57</b>   |
| 5-25 gallons                                      | 4             | 4                                           | 2                                          |       | 2                 |                               | 10                                                          |                        |                                       | 1                    | 6                                           |                       | 1                                          |                       |                                | <b>30</b>   |
| 25-100 gallons                                    | 12            | 4                                           |                                            |       | 1                 |                               | 4                                                           | 1                      |                                       |                      |                                             | 2                     | 1                                          |                       |                                | <b>25</b>   |
| >100 gallons                                      | 6             |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>6</b>    |
| Conveyor gear boxes (<1 gal) total for facility   |               |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>275</b>  |
| <b>Misc/ Chemical Containers (not staged)</b>     |               |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                |             |
| Aerosol cans                                      | 35            | 8                                           | 3                                          | 12    | 1                 |                               | 10                                                          |                        |                                       |                      |                                             | 11                    | 1                                          |                       |                                | <b>81</b>   |
| Paint (<1 gal)                                    |               | 1                                           |                                            |       | 1                 |                               |                                                             |                        |                                       |                      |                                             | 3                     |                                            |                       |                                | <b>5</b>    |
| Paint (1 gal)                                     | 2             | 34                                          |                                            |       | 2                 |                               | 2                                                           |                        |                                       |                      |                                             | 6                     |                                            |                       |                                | <b>46</b>   |
| Oil (<1 gal)                                      |               |                                             | 1                                          |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>1</b>    |
| Oil (1-5 gal)                                     |               | 2                                           | 2                                          |       | 8                 |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>12</b>   |
| Anti-freeze (1 gal)                               |               |                                             |                                            |       |                   |                               |                                                             |                        |                                       |                      |                                             |                       | 1                                          |                       |                                | <b>1</b>    |
| Gas cylinders                                     |               |                                             |                                            | 1     |                   |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>1</b>    |
| Lab chemicals (reagents, indicators) (<1 gal)     |               |                                             |                                            |       | 23                |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>23</b>   |
| Steam line treatment solution (drum)              |               |                                             |                                            |       | 1                 |                               |                                                             |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>1</b>    |
| Descaler (acid) (1 gal)                           |               |                                             |                                            |       |                   |                               | 2                                                           |                        |                                       |                      |                                             |                       |                                            |                       |                                | <b>2</b>    |
| Printer toner cartridge                           |               |                                             |                                            | 30    |                   |                               | 1                                                           | 20                     |                                       |                      |                                             |                       |                                            | 3                     |                                | <b>54</b>   |

**Table 2**  
**Oil-Containing Electrical Equipment**  
**MDCRRF, Doral, FL**

| Location                  | Facility Name                                | Manufacturer        | Serial No     | Manf Date         | Volume (gallons) | Transformer Oil                       |                         | Winding Material (Cu or Al) | Tank Weight (lb.) | Core Weight (lb.) | Oil Weight (lb.) | Total Weight (lb.) |
|---------------------------|----------------------------------------------|---------------------|---------------|-------------------|------------------|---------------------------------------|-------------------------|-----------------------------|-------------------|-------------------|------------------|--------------------|
|                           |                                              |                     |               |                   |                  | PCB Label or Designation on Nameplate | Sampled PCB Conc. (ppm) |                             |                   |                   |                  |                    |
| GSUs Outside Turbine Hall | No. 2 480V                                   | Sunbelt             | PLF0328       | 2006              | 434              | <2 ppm                                | --                      | Cu                          | 3,899             | 6,271             | 3,200            | 13,370             |
|                           | Boiler 2 Transformer                         | Alsthom             | H66830-04     | 1979              | 1,020            | <50 ppm                               | 0.54                    | Not on plate                | 14,700            | 16,000            | 7,300            | 38,000             |
|                           | No. 2 Process (67-53-514)                    | Niagara Transformer | 54925         | 2002              | 1,684            | Non-PCB                               | --                      | Unknown                     | Unknown           | Unknown           | Unknown          | Unknown            |
|                           | No. 2 Main (68-53-012)                       | Waukesha            | GT00101       | 1997              | 9,310            | <1 ppm                                | --                      | Cu                          | 56,285            | 78,990            | 69,825           | 205,100            |
|                           | No. 1 480V                                   | Alsthom             | G63470.02     | 1979 Rebuilt 2009 | 145              | <50 ppm                               | --                      | Not on plate                | 4,580             | 6,090             | 1,070            | 11,740             |
|                           | No. 1 Boiler                                 | Electric Supply Co. | 120907-13     | 2012              | 1,000            | <50 ppm                               | --                      | Cu                          | 13,930            | 18,600            | 7,450            | 39,980             |
|                           | No. 1 Process                                | Electric Supply Co. | 120712-13     | 2012              | 1,000            | <50 ppm                               | --                      | Cu                          | 13,930            | 18,600            | 7,450            | 39,980             |
|                           | No. 1 Main                                   | General Electric    | H66820-0      | 1979              | 5,000            | Non-PCB                               | ND                      | Cu                          | 39,500            | 70,000            | 37,500           | 147,000            |
| Cooling Tower             | No. 1 Cooling Tower                          | Belyea              | R-274753A     | 2009              | 338              | <50 ppm                               | --                      | Not on plate                | Not on plate      | Not on plate      | 2,406            | Not on plate       |
|                           | No. 2 Cooling Tower                          | Alsthom             | G64380-01     | 1980              | 275              | <50 ppm                               | --                      | Not on plate                | 1,240             | 3,370             | 1,160            | 5,770              |
|                           | Unknown                                      | Alsthom             | G62510.03     | 1979              | 275              | <50 ppm                               | 0.50                    | Not on plate                | 1,240             | 3,370             | 1,160            | 5,770              |
| Admin                     | Admin                                        | Alsthom             | B63490.01     | 1979              | 181              | <50 ppm                               | 3.2                     | Not on plate                | 2,050             | 4,480             | 1,450            | 7,980              |
| Outside MCC               | GP North                                     | Pacific Crest       | PUG-0317      | 2015              | 349              | <2 ppm                                | --                      | Cu                          | 3,293             | 5,950             | 2,577            | 11,820             |
|                           | GP South (T022)                              | Alsthom             | G63480.01     | 1979              | 181              | <50 ppm                               | ND                      | Not on plate                | 2,700             | 5,290             | 1,810            | 9,800              |
| RTI Processing            | RTI South                                    | Westinghouse        | PCL 6624-0101 | 1988              | 220              | Non-PCB                               | --                      | Al                          | 2,590             | 3,811             | 1,760            | 8,161              |
|                           | RTI North (T030X)                            | Alsthom             | G63510-01     | 1979              | 181              | <50 ppm                               | --                      | Not on plate                | 1,240             | 3,370             | 1,160            | 5,770              |
| RTI Biomass               | Biomass                                      | Cooper              | 966002356     | 1996              | 426              | <1 ppm                                | --                      | Not on plate                | 2,761             | 3,336             | 3,152            | 9,249              |
| Laydown Yard              | Spare transformers (4 total); no information |                     |               |                   |                  |                                       |                         |                             |                   |                   |                  |                    |

**NOTES:**

ND - Result below laboratory detection limit.

"--" - Not analyzed

< - Detected concentration below corresponding laboratory reporting limit.

**Table 3**  
**Analytical Results Summary - Transformer Oil Samples**  
**MDCRRF, Doral, FL**

| Sample ID    | Transformer                                | Date Sampled | Total PCBs (mg/kg) |
|--------------|--------------------------------------------|--------------|--------------------|
| MDCRRF-TO-01 | GP MCC transformer: S/N G63480.01          | 11/29/23     | ND                 |
| MDCRRF-TO-02 | West Switchyard transformer: S/N H66830.04 | 11/29/23     | 0.54               |
| MDCRRF-TO-03 | Cooling Tower transformer: S/N G62510.03   | 11/29/23     | 0.50               |
| MDCRRF-TO-04 | East Switchyard transformer: S/N H66820-0  | 11/29/23     | ND                 |
| MDCRRF-TO-05 | Admin transformer: S/N B63490.01           | 11/30/23     | 3.2                |

**NOTES:**

S/N - Serial Number

ND - Result below laboratory detection limit.

< - Detected concentration below corresponding laboratory reporting limit.

**Table 4**  
**Analytical Results Summary - Paint and Epoxy Samples**  
**MDCRRF, Doral, FL**

| Sample ID    | Sample Description                                                                            | Elev.     | Date     | Total PCBs (mg/kg) | Total Lead (mg/kg) |
|--------------|-----------------------------------------------------------------------------------------------|-----------|----------|--------------------|--------------------|
| MDCRRF-PS-01 | White on concrete urea tank containment, east side                                            | Ground    | 11/29/23 | ND                 | 43                 |
| MDCRRF-PS-02 | Floor epoxy in urea tank containment                                                          | Ground    | 11/29/23 | ND                 | 53                 |
| MDCRRF-PS-03 | White on circulating concrete water pipe, outside cooling tower pump house                    | Ground    | 11/29/23 | ND                 | 640                |
| MDCRRF-PS-04 | Gray on concrete retaining wall adjacent to cooling tower pump house                          | Ground    | 11/29/23 | ND                 | 79                 |
| MDCRRF-PS-05 | Black on concrete wall of old tire shredder building, west side                               | Ground    | 11/29/23 | ND                 | 86                 |
| MDCRRF-PS-06 | Olive green on north concrete wall of water treatment room on west side of Turbine Hall       | Ground    | 11/29/23 | ND                 | 19                 |
| MDCRRF-PS-07 | Tan floor epoxy on concrete slab of operating floor of Turbine Hall, northeast corner         | Ground    | 11/29/23 | ND                 | 220                |
| MDCRRF-PS-08 | Blue / white on concrete wall, mid-level of RTI processing, next to shredder #1, north facing | Mid-level | 11/29/23 | 0.97               | 190                |
| MDCRRF-PS-09 | Blue loose paint on ground adjacent to GP bag houses and GP Processing west wall              | Mid-level | 11/29/23 | ND                 | 100                |
| MDCRRF-PS-10 | Yellow on concrete bumper south side of RTI Tipping Floor                                     | Ground    | 11/29/23 | ND                 | 1,800              |
| MDCRRF-PS-11 | Yellow / white / light blue on concrete wall in GP Processing, ground floor, east facing      | Ground    | 11/29/23 | 0.49               | 79                 |
| MDCRRF-PS-12 | White on steel stairwell leading to second floor, Admin Building exterior, west side          | Ground    | 11/29/23 | ND                 | --                 |
| MDCRRF-PS-13 | Yellow on steel columns and concrete control room exterior, ferrous shredder area             | Ground    | 11/29/23 | 1.1                | 69                 |

Notes:

ND - Result below laboratory detection limit.

"--" - Not analyzed

**Table 5**  
**Analytical Results Summary - Caulking Samples**  
**MDCRRF, Doral, FL**

| Sample ID    | Sample Description                                                                    | Elev.  | Bldg       | Date     | Total PCBs (mg/kg) |
|--------------|---------------------------------------------------------------------------------------|--------|------------|----------|--------------------|
| MDCRRF-WC-01 | Gray flexible window caulk, windows between Admin and GP, east facing at ground level | Ground | Admin / GP | 11/29/23 | ND                 |
| MDCRRF-WC-02 | Exterior door caulk, west side of GP north of Admin, typical of doors in area         | Ground | GP         | 11/29/23 | ND                 |

Notes:

ND - Result below laboratory detection limit.

< - Detected concentration below laboratory reporting limit.

**Table 6**  
**Analytical Results Summary - General Concrete Samples**  
**MDCRRF, Doral, FL**

| Sample ID    | Sample Description                                        | Elev.         | Bldg                | Date     | Total PCBs (mg/kg) | Total Metals (mg/kg) |        |         |          |      |          |        |         |
|--------------|-----------------------------------------------------------|---------------|---------------------|----------|--------------------|----------------------|--------|---------|----------|------|----------|--------|---------|
|              |                                                           |               |                     |          |                    | Arsenic              | Barium | Cadmium | Chromium | Lead | Selenium | Silver | Mercury |
| MDCRRF-CS-01 | Concrete slab sample, middle of building                  | Ground        | RTI Processing      | 11/29/23 | ND                 | 25                   | 53     | <0.38   | 10       | 41   | ND       | ND     | <0.11   |
| MDCRRF-CS-02 | Concrete slab sample, middle of building                  | Ground        | Fuel Storage        | 11/29/23 | ND                 | <1.4                 | <19    | <0.47   | 12       | 7.1  | ND       | <0.93  | ND      |
| MDCRRF-CS-03 | Concrete slab sample, southeast corner at ramp            | Ground        | GP                  | 11/29/23 | ND                 | 35                   | 31     | 0.77    | 12       | 57   | ND       | <0.88  | <0.11   |
| MDCRRF-CS-04 | Concrete slab sample, middle of building                  | Ground        | Vehicle Maintenance | 11/29/23 | ND                 | 2.6                  | 32     | <0.32   | 9.8      | 11   | ND       | ND     | ND      |
| MDCRRF-CS-05 | Concrete wall sample, interior, west wall                 | Ground        | Ash Building        | 11/29/23 | ND                 | 2.9                  | 37     | 9.1     | 23       | 150  | ND       | <0.77  | <0.11   |
| MDCRRF-CS-06 | Concrete slab sample, northeast corner of operating floor | Turbine Floor | Turbine Hall        | 11/29/23 | ND                 | 2.7                  | 33     | 0.95    | 13       | 16   | ND       | ND     | 0.13    |

Notes:

ND - Result below laboratory detection limit.

< - Detected concentration below corresponding laboratory reporting limit.

**Table 7**  
**Analytical Results Summary - Residuals in Subsurface Features Samples**  
**MDCRRF, Doral, FL**

| Sample ID    | Sample Description                                                    | Elev.  | Bldg         | Date     | PCBs (mg/kg) | Total Metals (mg/kg) |        |         |          |      |          |        |         |
|--------------|-----------------------------------------------------------------------|--------|--------------|----------|--------------|----------------------|--------|---------|----------|------|----------|--------|---------|
|              |                                                                       |        |              |          |              | Arsenic              | Barium | Cadmium | Chromium | Lead | Selenium | Silver | Mercury |
| MDCRRF-PR-01 | Brown / black granular sediments in trench drain under west condenser | Ground | Turbine Hall | 11/29/23 | ND           | 22                   | 200    | 14      | 200      | 590  | ND       | 1.6    | 0.39    |
| MDCRRF-PR-02 | Black, saturated fine sediments in trench drain under east condenser  | Ground | Turbine Hall | 11/29/23 | ND           | 10                   | 94     | 14      | 22       | 690  | ND       | 1.2    | 0.22    |

Notes:

ND - Result below laboratory detection limit.

< - Detected concentration below corresponding laboratory reporting limit.

**Table 8**  
**Analytical Results Summary - Treated Wood Samples**  
**MDCRRF, Doral, FL**

| Sample ID                               | Sample Description                       | Elev.  | Date     | TCLP Metals (mg/L) |        |         |          |       |          |        |         |
|-----------------------------------------|------------------------------------------|--------|----------|--------------------|--------|---------|----------|-------|----------|--------|---------|
|                                         |                                          |        |          | Arsenic            | Barium | Cadmium | Chromium | Lead  | Selenium | Silver | Mercury |
| RCRA Hazardous Characteristic Threshold |                                          |        |          | 5.0                | 100    | 1.0     | 5.0      | 5.0   | 1.0      | 5.0    | 0.20    |
| MDCRRF-TW-01                            | Wood frame interior of the cooling tower | Ground | 11/29/23 | 1.2                | <0.50  | <0.050  | 0.42     | 0.068 | ND       | ND     | ND      |

Notes:

ND - Result below laboratory detection limit.

< - Detected concentration below corresponding laboratory reporting limit.

## APPENDIX A

# Laboratory Data Results

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Andy Lewis  
WSP USA Inc  
46850 Magellan Drive  
Suite 190  
Novi, Michigan 48377

Generated 12/14/2023 7:34:54 PM

## JOB DESCRIPTION

Covanta Energy - MDCRRF

## JOB NUMBER

240-196258-1

# Eurofins Cleveland

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

## Authorization



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Authorized for release by  
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## Definitions/Glossary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

### Qualifiers

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| U         | Indicates the analyte was analyzed for but not detected.                                                       |

#### Metals

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U         | Indicates the analyte was analyzed for but not detected.                                                       |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

# Case Narrative

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Job ID: 240-196258-1**

**Laboratory: Eurofins Cleveland**

## Narrative

### Job Narrative 240-196258-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

## Receipt

The samples were received on 12/1/2023 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 16.9°C

## PCBs

Method 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: MDCRRF-PS-01 (240-196258-1), MDCRRF-WC-01 (240-196258-19), (240-196186-B-1-A), (240-196186-B-1-B MS) and (240-196186-B-1-C MSD).

Method 8082A: The following sample was diluted due to color: MDCRRF-PS-01 (240-196258-1). Elevated reporting limits (RL) are provided.

Method 8082A: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering, other environmental processes and/or contributions from the presence of multiple Aroclors, resulting in overlapping PCB patterns, the PCBs in the sample do not directly match any of the laboratory's Aroclor standards used for instrument calibration: MDCRRF-PS-11 (240-196258-11). The sample has been quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

Method 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: MDCRRF-PS-07 (240-196258-7), MDCRRF-WC-02 (240-196258-20) and MDCRRF-PR-02 (240-196258-28).

Method 8082A: The following samples was diluted due to the nature of the sample matrix: MDCRRF-PS-07 (240-196258-7) and MDCRRF-WC-02 (240-196258-20). Elevated reporting limits (RLs) are provided.

Method 8082A: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering, other environmental processes and/or contributions from the presence of multiple Aroclors, resulting in overlapping PCB patterns, the PCBs in the sample do not directly match any of the laboratory's Aroclor standards used for instrument calibration: MDCRRF-PS-08 (240-196258-8). The sample has been quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

Method 8082A: The %RPD between the primary and confirmation column exceeded 40% for Aroclor-1242 for the following sample: MDCRRF-PS-11 (240-196258-11). The lower value has been reported and qualified in accordance with the laboratory's SOP.

Method 8082A: The following sample was diluted due to color: MDCRRF-TAR-01 (240-196258-29). Elevated reporting limits (RL) are provided.

Method 8082A: The following sample was diluted due to the nature of the sample matrix: MDCRRF-CS-06 (240-196258-26). Elevated reporting limits (RLs) are provided.

## Case Narrative

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

---

### Job ID: 240-196258-1 (Continued)

---

#### Laboratory: Eurofins Cleveland (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

Method 6010D: Insufficient sample was provided to perform the leaching procedure with the required 100g for the following sample: MDCRRF-TW-01 (240-196258-14). The volume of leaching fluid was adjusted proportionally to maintain a 20:1 ratio of leaching fluid to weight of sample. Reporting limits (RLs) are not affected.

Method 7470A: Insufficient sample was provided to perform the leaching procedure with the required 100g for the following sample: MDCRRF-TW-01 (240-196258-14). The volume of leaching fluid was adjusted proportionally to maintain a 20:1 ratio of leaching fluid to weight of sample. Reporting limits (RLs) are not affected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Method Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

| Method        | Method Description                                     | Protocol | Laboratory |
|---------------|--------------------------------------------------------|----------|------------|
| 8082A         | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | EET CLE    |
| 6010D         | Metals (ICP)                                           | SW846    | EET CLE    |
| 7470A         | Mercury (CVAA)                                         | SW846    | EET CLE    |
| 7471B         | Mercury (CVAA)                                         | SW846    | EET CLE    |
| Moisture      | Percent Moisture                                       | EPA      | EET CLE    |
| 1311          | TCLP Extraction                                        | SW846    | EET CLE    |
| 3010A         | Preparation, Total Metals                              | SW846    | EET CLE    |
| 3050B         | Preparation, Metals                                    | SW846    | EET CLE    |
| 3546          | Microwave Extraction                                   | SW846    | EET CLE    |
| 3580A         | Waste Dilution                                         | SW846    | EET CLE    |
| 7470A         | Preparation, Mercury                                   | SW846    | EET CLE    |
| 7471B         | Preparation, Mercury                                   | SW846    | EET CLE    |
| Part Size Red | Particle Size Reduction Preparation                    | None     | EET CLE    |
| Part Size Red | Particle Size Reduction Preparation                    | None     | EET CLE    |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

## Sample Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 240-196258-1  | MDCRRF-PS-01     | Solid  | 11/29/23 08:35 | 12/01/23 10:20 |
| 240-196258-2  | MDCRRF-PS-02     | Solid  | 11/29/23 08:40 | 12/01/23 10:20 |
| 240-196258-3  | MDCRRF-PS-03     | Solid  | 11/29/23 08:45 | 12/01/23 10:20 |
| 240-196258-4  | MDCRRF-PS-04     | Solid  | 11/29/23 08:50 | 12/01/23 10:20 |
| 240-196258-5  | MDCRRF-PS-05     | Solid  | 11/29/23 00:00 | 12/01/23 10:20 |
| 240-196258-6  | MDCRRF-PS-06     | Solid  | 11/29/23 09:50 | 12/01/23 10:20 |
| 240-196258-7  | MDCRRF-PS-07     | Solid  | 11/29/23 10:20 | 12/01/23 10:20 |
| 240-196258-8  | MDCRRF-PS-08     | Solid  | 11/29/23 13:15 | 12/01/23 10:20 |
| 240-196258-9  | MDCRRF-PS-09     | Solid  | 11/29/23 13:20 | 12/01/23 10:20 |
| 240-196258-10 | MDCRRF-PS-10     | Solid  | 11/29/23 13:40 | 12/01/23 10:20 |
| 240-196258-11 | MDCRRF-PS-11     | Solid  | 11/29/23 13:50 | 12/01/23 10:20 |
| 240-196258-12 | MDCRRF-PS-12     | Solid  | 11/29/23 14:00 | 12/01/23 10:20 |
| 240-196258-13 | MDCRRF-PS-13     | Solid  | 11/29/23 09:20 | 12/01/23 10:20 |
| 240-196258-14 | MDCRRF-TW-01     | Solid  | 11/29/23 09:10 | 12/01/23 10:20 |
| 240-196258-15 | MDCRRF-TO-01     | Waste  | 11/29/23 10:45 | 12/01/23 10:20 |
| 240-196258-16 | MDCRRF-TO-02     | Waste  | 11/29/23 11:00 | 12/01/23 10:20 |
| 240-196258-17 | MDCRRF-TO-03     | Waste  | 11/29/23 13:00 | 12/01/23 10:20 |
| 240-196258-18 | MDCRRF-TO-04     | Waste  | 11/29/23 13:20 | 12/01/23 10:20 |
| 240-196258-19 | MDCRRF-WC-01     | Solid  | 11/29/23 11:00 | 12/01/23 10:20 |
| 240-196258-20 | MDCRRF-WC-02     | Solid  | 11/29/23 11:15 | 12/01/23 10:20 |
| 240-196258-21 | MDCRRF-CS-01     | Solid  | 11/29/23 13:45 | 12/01/23 10:20 |
| 240-196258-22 | MDCRRF-CS-02     | Solid  | 11/29/23 14:00 | 12/01/23 10:20 |
| 240-196258-23 | MDCRRF-CS-03     | Solid  | 11/29/23 14:15 | 12/01/23 10:20 |
| 240-196258-24 | MDCRRF-CS-04     | Solid  | 11/29/23 14:30 | 12/01/23 10:20 |
| 240-196258-25 | MDCRRF-CS-05     | Solid  | 11/29/23 14:40 | 12/01/23 10:20 |
| 240-196258-26 | MDCRRF-CS-06     | Solid  | 11/29/23 14:50 | 12/01/23 10:20 |
| 240-196258-27 | MDCRRF-PR-01     | Solid  | 11/29/23 10:00 | 12/01/23 10:20 |
| 240-196258-28 | MDCRRF-PR-02     | Solid  | 11/29/23 10:10 | 12/01/23 10:20 |
| 240-196258-29 | MDCRRF-TAR-01    | Waste  | 11/30/23 07:45 | 12/01/23 10:20 |
| 240-196258-30 | MDCRRF-TO-05     | Waste  | 11/30/23 09:29 | 12/01/23 10:20 |

## Detection Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

### Client Sample ID: MDCRRF-PS-01

### Lab Sample ID: 240-196258-1

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Lead    | 43     |           | 9.1 | 2.6 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-02

### Lab Sample ID: 240-196258-2

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Lead    | 53     |           | 9.9 | 2.8 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-03

### Lab Sample ID: 240-196258-3

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Lead    | 640    |           | 8.8 | 2.5 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-04

### Lab Sample ID: 240-196258-4

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Lead    | 79     |           | 9.8 | 2.8 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-05

### Lab Sample ID: 240-196258-5

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Lead    | 86     |           | 9.3 | 2.6 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-06

### Lab Sample ID: 240-196258-6

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Lead    | 19     |           | 9.0 | 2.5 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-07

### Lab Sample ID: 240-196258-7

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Lead    | 220    |           | 7.4 | 2.1 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-08

### Lab Sample ID: 240-196258-8

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Aroclor-1248 | 970    |           | 460 | 160 | ug/Kg | 1       |   | 8082A  | Total/NA  |
| Lead         | 190    |           | 8.9 | 2.5 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-09

### Lab Sample ID: 240-196258-9

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Lead    | 100    |           | 10 | 2.8 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-10

### Lab Sample ID: 240-196258-10

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Lead    | 1800   |           | 10 | 2.8 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-PS-11

### Lab Sample ID: 240-196258-11

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Aroclor-1242 | 310    | J p       | 460 | 180 | ug/Kg | 1       |   | 8082A  | Total/NA  |
| Aroclor-1254 | 490    |           | 460 | 190 | ug/Kg | 1       |   | 8082A  | Total/NA  |
| Lead         | 79     |           | 9.6 | 2.7 | mg/Kg | 10      |   | 6010D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

## Detection Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

### Client Sample ID: MDCRRF-PS-12

Lab Sample ID: 240-196258-12

No Detections.

### Client Sample ID: MDCRRF-PS-13

Lab Sample ID: 240-196258-13

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Aroclor-1242 | 1100   |           | 440 | 170 | ug/Kg | 1       |   | 8082A  | Total/NA  |
| Aroclor-1254 | 310    | J         | 440 | 190 | ug/Kg | 1       |   | 8082A  | Total/NA  |
| Lead         | 69     |           | 9.7 | 2.7 | mg/Kg | 10      |   | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-TW-01

Lab Sample ID: 240-196258-14

| Analyte  | Result | Qualifier | RL    | MDL     | Unit | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|---------|------|---------|---|--------|-----------|
| Arsenic  | 1.2    |           | 0.050 | 0.0041  | mg/L | 1       |   | 6010D  | TCLP      |
| Barium   | 0.16   | J         | 0.50  | 0.0030  | mg/L | 1       |   | 6010D  | TCLP      |
| Cadmium  | 0.030  | J         | 0.050 | 0.00045 | mg/L | 1       |   | 6010D  | TCLP      |
| Chromium | 0.42   | B         | 0.050 | 0.00076 | mg/L | 1       |   | 6010D  | TCLP      |
| Lead     | 0.068  |           | 0.050 | 0.0028  | mg/L | 1       |   | 6010D  | TCLP      |

### Client Sample ID: MDCRRF-TO-01

Lab Sample ID: 240-196258-15

No Detections.

### Client Sample ID: MDCRRF-TO-02

Lab Sample ID: 240-196258-16

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Aroclor-1260 | 540    |           | 490 | 220 | ug/Kg | 1       |   | 8082A  | Total/NA  |

### Client Sample ID: MDCRRF-TO-03

Lab Sample ID: 240-196258-17

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Aroclor-1260 | 500    |           | 490 | 220 | ug/Kg | 1       |   | 8082A  | Total/NA  |

### Client Sample ID: MDCRRF-TO-04

Lab Sample ID: 240-196258-18

No Detections.

### Client Sample ID: MDCRRF-WC-01

Lab Sample ID: 240-196258-19

No Detections.

### Client Sample ID: MDCRRF-WC-02

Lab Sample ID: 240-196258-20

No Detections.

### Client Sample ID: MDCRRF-CS-01

Lab Sample ID: 240-196258-21

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Barium   | 53     |           | 21   | 0.38  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Cadmium  | 0.38   | J         | 0.52 | 0.050 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Chromium | 10     |           | 1.0  | 0.36  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Arsenic  | 25     |           | 1.6  | 0.33  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Lead     | 41     |           | 1.0  | 0.29  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Mercury  | 0.035  | J         | 0.11 | 0.020 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

### Client Sample ID: MDCRRF-CS-02

Lab Sample ID: 240-196258-22

| Analyte | Result | Qualifier | RL | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|------|-------|---------|---|--------|-----------|
| Barium  | 13     | J         | 19 | 0.34 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

### Client Sample ID: MDCRRF-CS-02 (Continued)

### Lab Sample ID: 240-196258-22

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Cadmium  | 0.15   | J         | 0.47 | 0.045 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Chromium | 12     |           | 0.93 | 0.32  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Silver   | 0.12   | J         | 0.93 | 0.075 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Arsenic  | 1.3    | J         | 1.4  | 0.29  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Lead     | 7.1    |           | 0.93 | 0.26  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-CS-03

### Lab Sample ID: 240-196258-23

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Barium   | 31     |           | 18   | 0.32  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Cadmium  | 0.77   |           | 0.44 | 0.042 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Chromium | 12     |           | 0.88 | 0.30  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Silver   | 0.13   | J         | 0.88 | 0.071 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Arsenic  | 35     |           | 1.3  | 0.28  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Lead     | 57     |           | 0.88 | 0.25  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Mercury  | 0.030  | J         | 0.11 | 0.020 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

### Client Sample ID: MDCRRF-CS-04

### Lab Sample ID: 240-196258-24

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Barium   | 32     |           | 15   | 0.28  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Cadmium  | 0.32   | J         | 0.38 | 0.037 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Chromium | 9.8    |           | 0.77 | 0.26  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Arsenic  | 2.6    |           | 1.2  | 0.24  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Lead     | 11     |           | 0.77 | 0.22  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |

### Client Sample ID: MDCRRF-CS-05

### Lab Sample ID: 240-196258-25

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Barium   | 37     |           | 15   | 0.28  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Cadmium  | 9.1    |           | 0.39 | 0.037 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Chromium | 23     |           | 0.77 | 0.27  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Silver   | 0.30   | J         | 0.77 | 0.063 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Arsenic  | 2.9    |           | 1.2  | 0.24  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Lead     | 150    |           | 0.77 | 0.22  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Mercury  | 0.023  | J         | 0.11 | 0.021 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

### Client Sample ID: MDCRRF-CS-06

### Lab Sample ID: 240-196258-26

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Barium   | 33     |           | 17   | 0.32  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Cadmium  | 0.95   |           | 0.44 | 0.042 | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Chromium | 13     |           | 0.87 | 0.30  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Arsenic  | 2.7    |           | 1.3  | 0.28  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Lead     | 16     |           | 0.87 | 0.25  | mg/Kg | 1       | ✱ | 6010D  | Total/NA  |
| Mercury  | 0.13   |           | 0.11 | 0.019 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

### Client Sample ID: MDCRRF-PR-01

### Lab Sample ID: 240-196258-27

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Barium   | 200    |           | 18   | 0.33  | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Cadmium  | 14     |           | 0.91 | 0.087 | mg/Kg | 2       |   | 6010D  | Total/NA  |
| Chromium | 200    |           | 0.91 | 0.31  | mg/Kg | 1       |   | 6010D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

## Detection Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

### Client Sample ID: MDCRRF-PR-01 (Continued)

Lab Sample ID: 240-196258-27

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Silver  | 1.6    |           | 0.91  | 0.074 | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Arsenic | 22     |           | 1.4   | 0.29  | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Lead    | 590    |           | 1.8   | 0.51  | mg/Kg | 2       |   | 6010D  | Total/NA  |
| Mercury | 0.39   |           | 0.088 | 0.016 | mg/Kg | 1       |   | 7471B  | Total/NA  |

### Client Sample ID: MDCRRF-PR-02

Lab Sample ID: 240-196258-28

| Analyte  | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Barium   | 94     |           | 14    | 0.26  | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Cadmium  | 14     |           | 0.36  | 0.035 | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Chromium | 22     |           | 0.72  | 0.25  | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Silver   | 1.2    |           | 0.72  | 0.059 | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Arsenic  | 10     |           | 1.1   | 0.23  | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Lead     | 690    |           | 0.72  | 0.20  | mg/Kg | 1       |   | 6010D  | Total/NA  |
| Mercury  | 0.22   |           | 0.095 | 0.017 | mg/Kg | 1       |   | 7471B  | Total/NA  |

### Client Sample ID: MDCRRF-TAR-01

Lab Sample ID: 240-196258-29

No Detections.

### Client Sample ID: MDCRRF-TO-05

Lab Sample ID: 240-196258-30

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Aroclor-1260 | 3200   |           | 490 | 210 | ug/Kg | 1       |   | 8082A  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-01

Lab Sample ID: 240-196258-1

Date Collected: 11/29/23 08:35

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 2500   | U         | 4900 | 2500 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:41 | 10      |
| Aroclor-1221 | 2900   | U         | 4900 | 2900 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:41 | 10      |
| Aroclor-1232 | 2100   | U         | 4900 | 2100 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:41 | 10      |
| Aroclor-1242 | 1900   | U         | 4900 | 1900 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:41 | 10      |
| Aroclor-1248 | 1700   | U         | 4900 | 1700 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:41 | 10      |
| Aroclor-1254 | 2100   | U         | 4900 | 2100 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:41 | 10      |
| Aroclor-1260 | 2100   | U         | 4900 | 2100 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:41 | 10      |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 107       |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 21:41 | 10      |
| DCB Decachlorobiphenyl | 93        |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 21:41 | 10      |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 43     |           | 9.1 | 2.6 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:19 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-02

Lab Sample ID: 240-196258-2

Date Collected: 11/29/23 08:40

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 26     | U         | 52 | 26  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:56 | 1       |
| Aroclor-1221 | 31     | U         | 52 | 31  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:56 | 1       |
| Aroclor-1232 | 22     | U         | 52 | 22  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:56 | 1       |
| Aroclor-1242 | 20     | U         | 52 | 20  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:56 | 1       |
| Aroclor-1248 | 18     | U         | 52 | 18  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:56 | 1       |
| Aroclor-1254 | 22     | U         | 52 | 22  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:56 | 1       |
| Aroclor-1260 | 22     | U         | 52 | 22  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 21:56 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 90        |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 21:56 | 1       |
| DCB Decachlorobiphenyl | 105       |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 21:56 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 53     |           | 9.9 | 2.8 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:24 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-03

Lab Sample ID: 240-196258-3

Date Collected: 11/29/23 08:45

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 210    | U         | 410 | 210 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:10 | 1       |
| Aroclor-1221 | 250    | U         | 410 | 250 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:10 | 1       |
| Aroclor-1232 | 170    | U         | 410 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:10 | 1       |
| Aroclor-1242 | 160    | U         | 410 | 160 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:10 | 1       |
| Aroclor-1248 | 140    | U         | 410 | 140 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:10 | 1       |
| Aroclor-1254 | 170    | U         | 410 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:10 | 1       |
| Aroclor-1260 | 170    | U         | 410 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:10 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 100       |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 22:10 | 1       |
| DCB Decachlorobiphenyl | 125       |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 22:10 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 640    |           | 8.8 | 2.5 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:28 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-04

Lab Sample ID: 240-196258-4

Date Collected: 11/29/23 08:50

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 230    | U         | 450 | 230 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:25 | 1       |
| Aroclor-1221 | 270    | U         | 450 | 270 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:25 | 1       |
| Aroclor-1232 | 190    | U         | 450 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:25 | 1       |
| Aroclor-1242 | 170    | U         | 450 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:25 | 1       |
| Aroclor-1248 | 150    | U         | 450 | 150 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:25 | 1       |
| Aroclor-1254 | 190    | U         | 450 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:25 | 1       |
| Aroclor-1260 | 190    | U         | 450 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:25 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 98        |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 22:25 | 1       |
| DCB Decachlorobiphenyl | 116       |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 22:25 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 79     |           | 9.8 | 2.8 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:41 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-05

Lab Sample ID: 240-196258-5

Date Collected: 11/29/23 00:00

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 220    | U         | 450 | 220 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:39 | 1       |
| Aroclor-1221 | 270    | U         | 450 | 270 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:39 | 1       |
| Aroclor-1232 | 190    | U         | 450 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:39 | 1       |
| Aroclor-1242 | 170    | U         | 450 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:39 | 1       |
| Aroclor-1248 | 150    | U         | 450 | 150 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:39 | 1       |
| Aroclor-1254 | 190    | U         | 450 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:39 | 1       |
| Aroclor-1260 | 190    | U         | 450 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:39 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 92        |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 22:39 | 1       |
| DCB Decachlorobiphenyl | 106       |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 22:39 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 86     |           | 9.3 | 2.6 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:45 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-06

Lab Sample ID: 240-196258-6

Date Collected: 11/29/23 09:50

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 200    | U         | 390 | 200 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:53 | 1       |
| Aroclor-1221 | 240    | U         | 390 | 240 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:53 | 1       |
| Aroclor-1232 | 170    | U         | 390 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:53 | 1       |
| Aroclor-1242 | 150    | U         | 390 | 150 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:53 | 1       |
| Aroclor-1248 | 130    | U         | 390 | 130 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:53 | 1       |
| Aroclor-1254 | 170    | U         | 390 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:53 | 1       |
| Aroclor-1260 | 170    | U         | 390 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 22:53 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 86        |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 22:53 | 1       |
| DCB Decachlorobiphenyl | 109       |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 22:53 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 19     |           | 9.0 | 2.5 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:50 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-07

Lab Sample ID: 240-196258-7

Date Collected: 11/29/23 10:20

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 1700   | U         | 3500 | 1700 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:37 | 10      |
| Aroclor-1221 | 2100   | U         | 3500 | 2100 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:37 | 10      |
| Aroclor-1232 | 1500   | U         | 3500 | 1500 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:37 | 10      |
| Aroclor-1242 | 1300   | U         | 3500 | 1300 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:37 | 10      |
| Aroclor-1248 | 1200   | U         | 3500 | 1200 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:37 | 10      |
| Aroclor-1254 | 1500   | U         | 3500 | 1500 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:37 | 10      |
| Aroclor-1260 | 1500   | U         | 3500 | 1500 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:37 | 10      |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 102       |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 13:37 | 10      |
| DCB Decachlorobiphenyl | 172       |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 13:37 | 10      |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 220    |           | 7.4 | 2.1 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:54 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-08

Lab Sample ID: 240-196258-8

Date Collected: 11/29/23 13:15

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte             | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016        | 230        | U         | 460 | 230 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:51 | 1       |
| Aroclor-1221        | 280        | U         | 460 | 280 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:51 | 1       |
| Aroclor-1232        | 190        | U         | 460 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:51 | 1       |
| Aroclor-1242        | 180        | U         | 460 | 180 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:51 | 1       |
| <b>Aroclor-1248</b> | <b>970</b> |           | 460 | 160 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:51 | 1       |
| Aroclor-1254        | 190        | U         | 460 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:51 | 1       |
| Aroclor-1260        | 190        | U         | 460 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 13:51 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 85        |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 13:51 | 1       |
| DCB Decachlorobiphenyl | 96        |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 13:51 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte     | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>190</b> |           | 8.9 | 2.5 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 19:59 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-09

Lab Sample ID: 240-196258-9

Date Collected: 11/29/23 13:20

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 250    | U         | 500 | 250 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:37 | 1       |
| Aroclor-1221 | 300    | U         | 500 | 300 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:37 | 1       |
| Aroclor-1232 | 210    | U         | 500 | 210 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:37 | 1       |
| Aroclor-1242 | 190    | U         | 500 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:37 | 1       |
| Aroclor-1248 | 170    | U         | 500 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:37 | 1       |
| Aroclor-1254 | 210    | U         | 500 | 210 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:37 | 1       |
| Aroclor-1260 | 210    | U         | 500 | 210 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:37 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 92        |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 23:37 | 1       |
| DCB Decachlorobiphenyl | 108       |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 23:37 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Lead    | 100    |           | 10 | 2.8 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 20:03 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-10

Lab Sample ID: 240-196258-10

Date Collected: 11/29/23 13:40

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 230    | U         | 470 | 230 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:51 | 1       |
| Aroclor-1221 | 280    | U         | 470 | 280 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:51 | 1       |
| Aroclor-1232 | 200    | U         | 470 | 200 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:51 | 1       |
| Aroclor-1242 | 180    | U         | 470 | 180 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:51 | 1       |
| Aroclor-1248 | 160    | U         | 470 | 160 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:51 | 1       |
| Aroclor-1254 | 200    | U         | 470 | 200 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:51 | 1       |
| Aroclor-1260 | 200    | U         | 470 | 200 | ug/Kg |   | 12/04/23 08:35 | 12/04/23 23:51 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 94        |           | 10 - 149 | 12/04/23 08:35 | 12/04/23 23:51 | 1       |
| DCB Decachlorobiphenyl | 102       |           | 10 - 174 | 12/04/23 08:35 | 12/04/23 23:51 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Lead    | 1800   |           | 10 | 2.8 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 20:07 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-11

Lab Sample ID: 240-196258-11

Date Collected: 11/29/23 13:50

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte             | Result     | Qualifier  | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|------------|------------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016        | 230        | U          | 460 | 230 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| Aroclor-1221        | 280        | U          | 460 | 280 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| Aroclor-1232        | 190        | U          | 460 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| <b>Aroclor-1242</b> | <b>310</b> | <b>J p</b> | 460 | 180 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| Aroclor-1248        | 160        | U          | 460 | 160 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| <b>Aroclor-1254</b> | <b>490</b> |            | 460 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| Aroclor-1260        | 190        | U          | 460 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:06 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 94        |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| Tetrachloro-m-xylene   | 92        |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| DCB Decachlorobiphenyl | 111       |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 00:06 | 1       |
| DCB Decachlorobiphenyl | 106       |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 00:06 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>79</b> |           | 9.6 | 2.7 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 20:12 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-12

Lab Sample ID: 240-196258-12

Date Collected: 11/29/23 14:00

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 220    | U         | 430 | 220 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:20 | 1       |
| Aroclor-1221 | 260    | U         | 430 | 260 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:20 | 1       |
| Aroclor-1232 | 180    | U         | 430 | 180 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:20 | 1       |
| Aroclor-1242 | 170    | U         | 430 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:20 | 1       |
| Aroclor-1248 | 150    | U         | 430 | 150 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:20 | 1       |
| Aroclor-1254 | 180    | U         | 430 | 180 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:20 | 1       |
| Aroclor-1260 | 180    | U         | 430 | 180 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:20 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 80        |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 00:20 | 1       |
| DCB Decachlorobiphenyl | 91        |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 00:20 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PS-13

Lab Sample ID: 240-196258-13

Date Collected: 11/29/23 09:20

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte             | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016        | 220         | U         | 440 | 220 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:35 | 1       |
| Aroclor-1221        | 270         | U         | 440 | 270 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:35 | 1       |
| Aroclor-1232        | 190         | U         | 440 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:35 | 1       |
| <b>Aroclor-1242</b> | <b>1100</b> |           | 440 | 170 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:35 | 1       |
| Aroclor-1248        | 150         | U         | 440 | 150 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:35 | 1       |
| <b>Aroclor-1254</b> | <b>310</b>  | <b>J</b>  | 440 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:35 | 1       |
| Aroclor-1260        | 190         | U         | 440 | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 00:35 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 100       |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 00:35 | 1       |
| DCB Decachlorobiphenyl | 112       |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 00:35 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>69</b> |           | 9.7 | 2.7 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 20:37 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-TW-01

Lab Sample ID: 240-196258-14

Date Collected: 11/29/23 09:10

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 6010D - Metals (ICP) - TCLP

| Analyte  | Result  | Qualifier | RL    | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------|---------|-----------|-------|---------|------|---|----------------|----------------|---------|
| Arsenic  | 1.2     |           | 0.050 | 0.0041  | mg/L |   | 12/06/23 14:00 | 12/07/23 14:27 | 1       |
| Barium   | 0.16    | J         | 0.50  | 0.0030  | mg/L |   | 12/06/23 14:00 | 12/07/23 14:27 | 1       |
| Cadmium  | 0.030   | J         | 0.050 | 0.00045 | mg/L |   | 12/06/23 14:00 | 12/07/23 14:27 | 1       |
| Chromium | 0.42    | B         | 0.050 | 0.00076 | mg/L |   | 12/06/23 14:00 | 12/07/23 14:27 | 1       |
| Lead     | 0.068   |           | 0.050 | 0.0028  | mg/L |   | 12/06/23 14:00 | 12/07/23 14:27 | 1       |
| Selenium | 0.0060  | U         | 0.050 | 0.0060  | mg/L |   | 12/06/23 14:00 | 12/07/23 14:27 | 1       |
| Silver   | 0.00062 | U         | 0.050 | 0.00062 | mg/L |   | 12/06/23 14:00 | 12/07/23 14:27 | 1       |

## Method: SW846 7470A - Mercury (CVAA) - TCLP

| Analyte | Result  | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|---------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Mercury | 0.00013 | U         | 0.0020 | 0.00013 | mg/L |   | 12/06/23 14:00 | 12/07/23 15:33 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-TO-01

Lab Sample ID: 240-196258-15

Date Collected: 11/29/23 10:45

Matrix: Waste

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 220    | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 16:56 | 1       |
| Aroclor-1221 | 240    | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 16:56 | 1       |
| Aroclor-1232 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 16:56 | 1       |
| Aroclor-1242 | 190    | U         | 490 | 190 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 16:56 | 1       |
| Aroclor-1248 | 240    | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 16:56 | 1       |
| Aroclor-1254 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 16:56 | 1       |
| Aroclor-1260 | 220    | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 16:56 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 78        |           | 10 - 149 | 12/08/23 08:46 | 12/08/23 16:56 | 1       |
| DCB Decachlorobiphenyl | 61        |           | 10 - 174 | 12/08/23 08:46 | 12/08/23 16:56 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-TO-02

Lab Sample ID: 240-196258-16

Date Collected: 11/29/23 11:00

Matrix: Waste

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 220    | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 17:13 | 1       |
| Aroclor-1221 | 240    | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 17:13 | 1       |
| Aroclor-1232 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 17:13 | 1       |
| Aroclor-1242 | 190    | U         | 490 | 190 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 17:13 | 1       |
| Aroclor-1248 | 240    | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 17:13 | 1       |
| Aroclor-1254 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 17:13 | 1       |
| Aroclor-1260 | 540    |           | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 17:13 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 78        |           | 10 - 149 | 12/08/23 08:46 | 12/08/23 17:13 | 1       |
| DCB Decachlorobiphenyl | 59        |           | 10 - 174 | 12/08/23 08:46 | 12/08/23 17:13 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-TO-03

Lab Sample ID: 240-196258-17

Date Collected: 11/29/23 13:00

Matrix: Waste

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte             | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016        | 220        | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 12:54 | 1       |
| Aroclor-1221        | 240        | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 12:54 | 1       |
| Aroclor-1232        | 230        | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 12:54 | 1       |
| Aroclor-1242        | 190        | U         | 490 | 190 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 12:54 | 1       |
| Aroclor-1248        | 240        | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 12:54 | 1       |
| Aroclor-1254        | 230        | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 12:54 | 1       |
| <b>Aroclor-1260</b> | <b>500</b> |           | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 12:54 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 77        |           | 10 - 149 | 12/08/23 08:46 | 12/11/23 12:54 | 1       |
| DCB Decachlorobiphenyl | 64        |           | 10 - 174 | 12/08/23 08:46 | 12/11/23 12:54 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-TO-04

Lab Sample ID: 240-196258-18

Date Collected: 11/29/23 13:20

Matrix: Waste

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 220    | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:11 | 1       |
| Aroclor-1221 | 240    | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:11 | 1       |
| Aroclor-1232 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:11 | 1       |
| Aroclor-1242 | 190    | U         | 490 | 190 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:11 | 1       |
| Aroclor-1248 | 240    | U         | 490 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:11 | 1       |
| Aroclor-1254 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:11 | 1       |
| Aroclor-1260 | 220    | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:11 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 75        |           | 10 - 149 | 12/08/23 08:46 | 12/11/23 13:11 | 1       |
| DCB Decachlorobiphenyl | 67        |           | 10 - 174 | 12/08/23 08:46 | 12/11/23 13:11 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-WC-01

Lab Sample ID: 240-196258-19

Date Collected: 11/29/23 11:00

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016           | 190       | U         | 370      | 190 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| Aroclor-1221           | 220       | U         | 370      | 220 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| Aroclor-1232           | 160       | U         | 370      | 160 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| Aroclor-1242           | 140       | U         | 370      | 140 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| Aroclor-1248           | 130       | U         | 370      | 130 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| Aroclor-1254           | 160       | U         | 370      | 160 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| Aroclor-1260           | 160       | U         | 370      | 160 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| Surrogate              | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 85        |           | 10 - 149 |     |       |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |
| DCB Decachlorobiphenyl | 117       |           | 10 - 174 |     |       |   | 12/04/23 08:35 | 12/05/23 01:33 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-WC-02

Lab Sample ID: 240-196258-20

Date Collected: 11/29/23 11:15

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Aroclor-1016           | 1800      | U         | 3500     | 1800 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| Aroclor-1221           | 2100      | U         | 3500     | 2100 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| Aroclor-1232           | 1500      | U         | 3500     | 1500 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| Aroclor-1242           | 1300      | U         | 3500     | 1300 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| Aroclor-1248           | 1200      | U         | 3500     | 1200 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| Aroclor-1254           | 1500      | U         | 3500     | 1500 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| Aroclor-1260           | 1500      | U         | 3500     | 1500 | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| Surrogate              | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 88        |           | 10 - 149 |      |       |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |
| DCB Decachlorobiphenyl | 116       |           | 10 - 174 |      |       |   | 12/04/23 08:35 | 12/05/23 14:05 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-CS-01

Lab Sample ID: 240-196258-21

Date Collected: 11/29/23 13:45

Matrix: Solid

Date Received: 12/01/23 10:20

Percent Solids: 93.8

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 26     | U         | 52 | 26  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:08 | 1       |
| Aroclor-1221 | 31     | U         | 52 | 31  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:08 | 1       |
| Aroclor-1232 | 22     | U         | 52 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:08 | 1       |
| Aroclor-1242 | 20     | U         | 52 | 20  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:08 | 1       |
| Aroclor-1248 | 18     | U         | 52 | 18  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:08 | 1       |
| Aroclor-1254 | 22     | U         | 52 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:08 | 1       |
| Aroclor-1260 | 22     | U         | 52 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:08 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 99        |           | 10 - 149 | 12/06/23 09:13 | 12/06/23 15:08 | 1       |
| DCB Decachlorobiphenyl | 103       |           | 10 - 174 | 12/06/23 09:13 | 12/06/23 15:08 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 53     |           | 21   | 0.38  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 16:51 | 1       |
| Cadmium  | 0.38   | J         | 0.52 | 0.050 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 16:51 | 1       |
| Chromium | 10     |           | 1.0  | 0.36  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 16:51 | 1       |
| Silver   | 0.085  | U         | 1.0  | 0.085 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 16:51 | 1       |
| Arsenic  | 25     |           | 1.6  | 0.33  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 16:51 | 1       |
| Lead     | 41     |           | 1.0  | 0.29  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 16:51 | 1       |
| Selenium | 0.49   | U         | 2.1  | 0.49  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 16:51 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.035  | J         | 0.11 | 0.020 | mg/Kg | ✱ | 12/05/23 14:00 | 12/07/23 08:57 | 1       |

## General Chemistry

| Analyte                         | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids (EPA Moisture)   | 93.8   |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |
| Percent Moisture (EPA Moisture) | 6.2    |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-CS-02

Lab Sample ID: 240-196258-22

Date Collected: 11/29/23 14:00

Matrix: Solid

Date Received: 12/01/23 10:20

Percent Solids: 94.3

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 27     | U         | 53 | 27  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:24 | 1       |
| Aroclor-1221 | 32     | U         | 53 | 32  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:24 | 1       |
| Aroclor-1232 | 22     | U         | 53 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:24 | 1       |
| Aroclor-1242 | 20     | U         | 53 | 20  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:24 | 1       |
| Aroclor-1248 | 18     | U         | 53 | 18  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:24 | 1       |
| Aroclor-1254 | 22     | U         | 53 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:24 | 1       |
| Aroclor-1260 | 22     | U         | 53 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:24 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 73        |           | 10 - 149 | 12/06/23 09:13 | 12/06/23 15:24 | 1       |
| DCB Decachlorobiphenyl | 76        |           | 10 - 174 | 12/06/23 09:13 | 12/06/23 15:24 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 13     | J         | 19   | 0.34  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:21 | 1       |
| Cadmium  | 0.15   | J         | 0.47 | 0.045 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:21 | 1       |
| Chromium | 12     |           | 0.93 | 0.32  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:21 | 1       |
| Silver   | 0.12   | J         | 0.93 | 0.075 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:21 | 1       |
| Arsenic  | 1.3    | J         | 1.4  | 0.29  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:21 | 1       |
| Lead     | 7.1    |           | 0.93 | 0.26  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:21 | 1       |
| Selenium | 0.44   | U         | 1.9  | 0.44  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:21 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.020  | U         | 0.11 | 0.020 | mg/Kg | ✱ | 12/05/23 14:00 | 12/07/23 09:04 | 1       |

## General Chemistry

| Analyte                         | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids (EPA Moisture)   | 94.3   |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |
| Percent Moisture (EPA Moisture) | 5.7    |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-CS-03

Lab Sample ID: 240-196258-23

Date Collected: 11/29/23 14:15

Matrix: Solid

Date Received: 12/01/23 10:20

Percent Solids: 95.3

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 26     | U         | 52 | 26  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:39 | 1       |
| Aroclor-1221 | 31     | U         | 52 | 31  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:39 | 1       |
| Aroclor-1232 | 22     | U         | 52 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:39 | 1       |
| Aroclor-1242 | 20     | U         | 52 | 20  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:39 | 1       |
| Aroclor-1248 | 18     | U         | 52 | 18  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:39 | 1       |
| Aroclor-1254 | 22     | U         | 52 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:39 | 1       |
| Aroclor-1260 | 22     | U         | 52 | 22  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:39 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 90        |           | 10 - 149 | 12/06/23 09:13 | 12/06/23 15:39 | 1       |
| DCB Decachlorobiphenyl | 86        |           | 10 - 174 | 12/06/23 09:13 | 12/06/23 15:39 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 31     |           | 18   | 0.32  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:25 | 1       |
| Cadmium  | 0.77   |           | 0.44 | 0.042 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:25 | 1       |
| Chromium | 12     |           | 0.88 | 0.30  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:25 | 1       |
| Silver   | 0.13   | J         | 0.88 | 0.071 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:25 | 1       |
| Arsenic  | 35     |           | 1.3  | 0.28  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:25 | 1       |
| Lead     | 57     |           | 0.88 | 0.25  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:25 | 1       |
| Selenium | 0.41   | U         | 1.8  | 0.41  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:25 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.030  | J         | 0.11 | 0.020 | mg/Kg | ✱ | 12/05/23 14:00 | 12/07/23 09:06 | 1       |

## General Chemistry

| Analyte                         | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids (EPA Moisture)   | 95.3   |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |
| Percent Moisture (EPA Moisture) | 4.7    |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-CS-04

Lab Sample ID: 240-196258-24

Date Collected: 11/29/23 14:30

Matrix: Solid

Date Received: 12/01/23 10:20

Percent Solids: 96.2

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 26     | U         | 51 | 26  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:55 | 1       |
| Aroclor-1221 | 31     | U         | 51 | 31  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:55 | 1       |
| Aroclor-1232 | 21     | U         | 51 | 21  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:55 | 1       |
| Aroclor-1242 | 19     | U         | 51 | 19  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:55 | 1       |
| Aroclor-1248 | 17     | U         | 51 | 17  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:55 | 1       |
| Aroclor-1254 | 21     | U         | 51 | 21  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:55 | 1       |
| Aroclor-1260 | 21     | U         | 51 | 21  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 15:55 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 91        |           | 10 - 149 | 12/06/23 09:13 | 12/06/23 15:55 | 1       |
| DCB Decachlorobiphenyl | 84        |           | 10 - 174 | 12/06/23 09:13 | 12/06/23 15:55 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 32     |           | 15   | 0.28  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:30 | 1       |
| Cadmium  | 0.32   | J         | 0.38 | 0.037 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:30 | 1       |
| Chromium | 9.8    |           | 0.77 | 0.26  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:30 | 1       |
| Silver   | 0.062  | U         | 0.77 | 0.062 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:30 | 1       |
| Arsenic  | 2.6    |           | 1.2  | 0.24  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:30 | 1       |
| Lead     | 11     |           | 0.77 | 0.22  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:30 | 1       |
| Selenium | 0.36   | U         | 1.5  | 0.36  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:30 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.021  | U         | 0.12 | 0.021 | mg/Kg | ✱ | 12/05/23 14:00 | 12/07/23 09:08 | 1       |

## General Chemistry

| Analyte                         | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids (EPA Moisture)   | 96.2   |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |
| Percent Moisture (EPA Moisture) | 3.8    |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-CS-05

Lab Sample ID: 240-196258-25

Date Collected: 11/29/23 14:40

Matrix: Solid

Date Received: 12/01/23 10:20

Percent Solids: 94.9

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 25     | U         | 51 | 25  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 16:10 | 1       |
| Aroclor-1221 | 30     | U         | 51 | 30  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 16:10 | 1       |
| Aroclor-1232 | 21     | U         | 51 | 21  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 16:10 | 1       |
| Aroclor-1242 | 19     | U         | 51 | 19  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 16:10 | 1       |
| Aroclor-1248 | 17     | U         | 51 | 17  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 16:10 | 1       |
| Aroclor-1254 | 21     | U         | 51 | 21  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 16:10 | 1       |
| Aroclor-1260 | 21     | U         | 51 | 21  | ug/Kg | ✱ | 12/06/23 09:13 | 12/06/23 16:10 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 84        |           | 10 - 149 | 12/06/23 09:13 | 12/06/23 16:10 | 1       |
| DCB Decachlorobiphenyl | 76        |           | 10 - 174 | 12/06/23 09:13 | 12/06/23 16:10 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 37     |           | 15   | 0.28  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:34 | 1       |
| Cadmium  | 9.1    |           | 0.39 | 0.037 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:34 | 1       |
| Chromium | 23     |           | 0.77 | 0.27  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:34 | 1       |
| Silver   | 0.30   | J         | 0.77 | 0.063 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:34 | 1       |
| Arsenic  | 2.9    |           | 1.2  | 0.24  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:34 | 1       |
| Lead     | 150    |           | 0.77 | 0.22  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:34 | 1       |
| Selenium | 0.36   | U         | 1.5  | 0.36  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:34 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.023  | J         | 0.11 | 0.021 | mg/Kg | ✱ | 12/05/23 14:00 | 12/07/23 09:10 | 1       |

## General Chemistry

| Analyte                         | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids (EPA Moisture)   | 94.9   |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |
| Percent Moisture (EPA Moisture) | 5.1    |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-CS-06

Lab Sample ID: 240-196258-26

Date Collected: 11/29/23 14:50

Matrix: Solid

Date Received: 12/01/23 10:20

Percent Solids: 98.0

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 130    | U         | 250 | 130 | ug/Kg | ✱ | 12/06/23 09:13 | 12/07/23 12:33 | 5       |
| Aroclor-1221 | 150    | U         | 250 | 150 | ug/Kg | ✱ | 12/06/23 09:13 | 12/07/23 12:33 | 5       |
| Aroclor-1232 | 110    | U         | 250 | 110 | ug/Kg | ✱ | 12/06/23 09:13 | 12/07/23 12:33 | 5       |
| Aroclor-1242 | 97     | U         | 250 | 97  | ug/Kg | ✱ | 12/06/23 09:13 | 12/07/23 12:33 | 5       |
| Aroclor-1248 | 86     | U         | 250 | 86  | ug/Kg | ✱ | 12/06/23 09:13 | 12/07/23 12:33 | 5       |
| Aroclor-1254 | 110    | U         | 250 | 110 | ug/Kg | ✱ | 12/06/23 09:13 | 12/07/23 12:33 | 5       |
| Aroclor-1260 | 110    | U         | 250 | 110 | ug/Kg | ✱ | 12/06/23 09:13 | 12/07/23 12:33 | 5       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 109       |           | 10 - 149 | 12/06/23 09:13 | 12/07/23 12:33 | 5       |
| DCB Decachlorobiphenyl | 160       |           | 10 - 174 | 12/06/23 09:13 | 12/07/23 12:33 | 5       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 33     |           | 17   | 0.32  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:38 | 1       |
| Cadmium  | 0.95   |           | 0.44 | 0.042 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:38 | 1       |
| Chromium | 13     |           | 0.87 | 0.30  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:38 | 1       |
| Silver   | 0.071  | U         | 0.87 | 0.071 | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:38 | 1       |
| Arsenic  | 2.7    |           | 1.3  | 0.28  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:38 | 1       |
| Lead     | 16     |           | 0.87 | 0.25  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:38 | 1       |
| Selenium | 0.41   | U         | 1.7  | 0.41  | mg/Kg | ✱ | 12/05/23 14:00 | 12/06/23 17:38 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.13   |           | 0.11 | 0.019 | mg/Kg | ✱ | 12/05/23 14:00 | 12/07/23 09:12 | 1       |

## General Chemistry

| Analyte                         | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids (EPA Moisture)   | 98.0   |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |
| Percent Moisture (EPA Moisture) | 2.0    |           | 0.1 | 0.1 | %    |   |          | 12/05/23 09:27 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PR-01

Lab Sample ID: 240-196258-27

Date Collected: 11/29/23 10:00

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 25     | U         | 51 | 25  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 02:02 | 1       |
| Aroclor-1221 | 30     | U         | 51 | 30  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 02:02 | 1       |
| Aroclor-1232 | 21     | U         | 51 | 21  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 02:02 | 1       |
| Aroclor-1242 | 19     | U         | 51 | 19  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 02:02 | 1       |
| Aroclor-1248 | 17     | U         | 51 | 17  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 02:02 | 1       |
| Aroclor-1254 | 21     | U         | 51 | 21  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 02:02 | 1       |
| Aroclor-1260 | 21     | U         | 51 | 21  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 02:02 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 58        |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 02:02 | 1       |
| DCB Decachlorobiphenyl | 59        |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 02:02 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 200    |           | 18   | 0.33  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:28 | 1       |
| Cadmium  | 14     |           | 0.91 | 0.087 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:45 | 2       |
| Chromium | 200    |           | 0.91 | 0.31  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:28 | 1       |
| Silver   | 1.6    |           | 0.91 | 0.074 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:28 | 1       |
| Arsenic  | 22     |           | 1.4  | 0.29  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:28 | 1       |
| Lead     | 590    |           | 1.8  | 0.51  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:45 | 2       |
| Selenium | 0.43   | U         | 1.8  | 0.43  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:28 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.39   |           | 0.088 | 0.016 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 09:45 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-PR-02

Lab Sample ID: 240-196258-28

Date Collected: 11/29/23 10:10

Matrix: Solid

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 24     | U         | 48 | 24  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:20 | 1       |
| Aroclor-1221 | 29     | U         | 48 | 29  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:20 | 1       |
| Aroclor-1232 | 20     | U         | 48 | 20  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:20 | 1       |
| Aroclor-1242 | 18     | U         | 48 | 18  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:20 | 1       |
| Aroclor-1248 | 16     | U         | 48 | 16  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:20 | 1       |
| Aroclor-1254 | 20     | U         | 48 | 20  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:20 | 1       |
| Aroclor-1260 | 20     | U         | 48 | 20  | ug/Kg |   | 12/04/23 08:35 | 12/05/23 14:20 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 107       |           | 10 - 149 | 12/04/23 08:35 | 12/05/23 14:20 | 1       |
| DCB Decachlorobiphenyl | 80        |           | 10 - 174 | 12/04/23 08:35 | 12/05/23 14:20 | 1       |

## Method: SW846 6010D - Metals (ICP)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 94     |           | 14   | 0.26  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:33 | 1       |
| Cadmium  | 14     |           | 0.36 | 0.035 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:33 | 1       |
| Chromium | 22     |           | 0.72 | 0.25  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:33 | 1       |
| Silver   | 1.2    |           | 0.72 | 0.059 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:33 | 1       |
| Arsenic  | 10     |           | 1.1  | 0.23  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:33 | 1       |
| Lead     | 690    |           | 0.72 | 0.20  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:33 | 1       |
| Selenium | 0.34   | U         | 1.4  | 0.34  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 11:33 | 1       |

## Method: SW846 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.22   |           | 0.095 | 0.017 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 09:47 | 1       |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-TAR-01

Lab Sample ID: 240-196258-29

Date Collected: 11/30/23 07:45

Matrix: Waste

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 2200   | U         | 5000 | 2200 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:28 | 10      |
| Aroclor-1221 | 2400   | U         | 5000 | 2400 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:28 | 10      |
| Aroclor-1232 | 2300   | U         | 5000 | 2300 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:28 | 10      |
| Aroclor-1242 | 1900   | U         | 5000 | 1900 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:28 | 10      |
| Aroclor-1248 | 2400   | U         | 5000 | 2400 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:28 | 10      |
| Aroclor-1254 | 2300   | U         | 5000 | 2300 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:28 | 10      |
| Aroclor-1260 | 2200   | U         | 5000 | 2200 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:28 | 10      |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 73        |           | 10 - 149 | 12/08/23 08:46 | 12/11/23 13:28 | 10      |
| DCB Decachlorobiphenyl | 35        | p         | 10 - 174 | 12/08/23 08:46 | 12/11/23 13:28 | 10      |

# Client Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

Client Sample ID: MDCRRF-TO-05

Lab Sample ID: 240-196258-30

Date Collected: 11/30/23 09:29

Matrix: Waste

Date Received: 12/01/23 10:20

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 210    | U         | 490 | 210 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:46 | 1       |
| Aroclor-1221 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:46 | 1       |
| Aroclor-1232 | 220    | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:46 | 1       |
| Aroclor-1242 | 180    | U         | 490 | 180 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:46 | 1       |
| Aroclor-1248 | 230    | U         | 490 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:46 | 1       |
| Aroclor-1254 | 220    | U         | 490 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:46 | 1       |
| Aroclor-1260 | 3200   |           | 490 | 210 | ug/Kg |   | 12/08/23 08:46 | 12/11/23 13:46 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 89        |           | 10 - 149 | 12/08/23 08:46 | 12/11/23 13:46 | 1       |
| DCB Decachlorobiphenyl | 75        |           | 10 - 174 | 12/08/23 08:46 | 12/11/23 13:46 | 1       |

# Surrogate Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                 | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                   |                   |
|-------------------------------|--------------------|------------------------------------------------|------------------|-------------------|-------------------|
|                               |                    | TCX1<br>(10-149)                               | TCX2<br>(10-149) | DCBP1<br>(10-174) | DCBP2<br>(10-174) |
| 240-196258-1                  | MDCRRF-PS-01       | 107                                            |                  | 93                |                   |
| 240-196258-2                  | MDCRRF-PS-02       | 90                                             |                  | 105               |                   |
| 240-196258-3                  | MDCRRF-PS-03       | 100                                            |                  | 125               |                   |
| 240-196258-4                  | MDCRRF-PS-04       | 98                                             |                  | 116               |                   |
| 240-196258-5                  | MDCRRF-PS-05       | 92                                             |                  | 106               |                   |
| 240-196258-6                  | MDCRRF-PS-06       | 86                                             |                  | 109               |                   |
| 240-196258-7                  | MDCRRF-PS-07       |                                                | 102              |                   | 172               |
| 240-196258-8                  | MDCRRF-PS-08       |                                                | 85               |                   | 96                |
| 240-196258-9                  | MDCRRF-PS-09       | 92                                             |                  | 108               |                   |
| 240-196258-10                 | MDCRRF-PS-10       | 94                                             |                  | 102               |                   |
| 240-196258-11                 | MDCRRF-PS-11       | 92                                             | 94               | 106               | 111               |
| 240-196258-12                 | MDCRRF-PS-12       | 80                                             |                  | 91                |                   |
| 240-196258-13                 | MDCRRF-PS-13       | 100                                            |                  | 112               |                   |
| 240-196258-19                 | MDCRRF-WC-01       | 85                                             |                  | 117               |                   |
| 240-196258-20                 | MDCRRF-WC-02       |                                                | 88               |                   | 116               |
| 240-196258-21                 | MDCRRF-CS-01       |                                                | 99               |                   | 103               |
| 240-196258-22                 | MDCRRF-CS-02       |                                                | 73               |                   | 76                |
| 240-196258-23                 | MDCRRF-CS-03       |                                                | 90               |                   | 86                |
| 240-196258-24                 | MDCRRF-CS-04       |                                                | 91               |                   | 84                |
| 240-196258-25                 | MDCRRF-CS-05       |                                                | 84               |                   | 76                |
| 240-196258-26                 | MDCRRF-CS-06       |                                                | 109              |                   | 160               |
| 240-196258-27                 | MDCRRF-PR-01       | 58                                             |                  | 59                |                   |
| 240-196258-28                 | MDCRRF-PR-02       |                                                | 107              |                   | 80                |
| LCS 240-596381/2-A            | Lab Control Sample | 67                                             |                  | 111               |                   |
| LCS 240-596687/2-A            | Lab Control Sample |                                                | 75               |                   | 92                |
| MB 240-596381/1-A             | Method Blank       | 100                                            |                  | 116               |                   |
| MB 240-596687/1-A             | Method Blank       |                                                | 97               |                   | 86                |
| <b>Surrogate Legend</b>       |                    |                                                |                  |                   |                   |
| TCX = Tetrachloro-m-xylene    |                    |                                                |                  |                   |                   |
| DCBP = DCB Decachlorobiphenyl |                    |                                                |                  |                   |                   |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Waste

Prep Type: Total/NA

| Lab Sample ID                 | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                   |
|-------------------------------|--------------------|------------------------------------------------|-------------------|
|                               |                    | TCX1<br>(10-149)                               | DCBP1<br>(10-174) |
| 240-196258-15                 | MDCRRF-TO-01       | 78                                             | 61                |
| 240-196258-16                 | MDCRRF-TO-02       | 78                                             | 59                |
| 240-196258-17                 | MDCRRF-TO-03       | 77                                             | 64                |
| 240-196258-18                 | MDCRRF-TO-04       | 75                                             | 67                |
| 240-196258-29                 | MDCRRF-TAR-01      | 73                                             | 35 p              |
| 240-196258-30                 | MDCRRF-TO-05       | 89                                             | 75                |
| LCS 240-596980/2-A            | Lab Control Sample | 104                                            | 116               |
| MB 240-596980/1-A             | Method Blank       | 105                                            | 119               |
| <b>Surrogate Legend</b>       |                    |                                                |                   |
| TCX = Tetrachloro-m-xylene    |                    |                                                |                   |
| DCBP = DCB Decachlorobiphenyl |                    |                                                |                   |

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# QC Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-596381/1-A

Matrix: Solid

Analysis Batch: 596497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596381

| Analyte      | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 25        | U            | 50 | 25  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 20:29 | 1       |
| Aroclor-1221 | 30        | U            | 50 | 30  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 20:29 | 1       |
| Aroclor-1232 | 21        | U            | 50 | 21  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 20:29 | 1       |
| Aroclor-1242 | 19        | U            | 50 | 19  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 20:29 | 1       |
| Aroclor-1248 | 17        | U            | 50 | 17  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 20:29 | 1       |
| Aroclor-1254 | 21        | U            | 50 | 21  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 20:29 | 1       |
| Aroclor-1260 | 21        | U            | 50 | 21  | ug/Kg |   | 12/04/23 08:35 | 12/04/23 20:29 | 1       |

| Surrogate              | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|--------------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 100          |              | 10 - 149 | 12/04/23 08:35 | 12/04/23 20:29 | 1       |
| DCB Decachlorobiphenyl | 116          |              | 10 - 174 | 12/04/23 08:35 | 12/04/23 20:29 | 1       |

Lab Sample ID: LCS 240-596381/2-A

Matrix: Solid

Analysis Batch: 596497

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596381

| Analyte      | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|-------|---|------|-------------|
| Aroclor-1016 | 1000        | 731        |               | ug/Kg |   | 73   | 28 - 140    |
| Aroclor-1260 | 1000        | 852        |               | ug/Kg |   | 85   | 39 - 153    |

| Surrogate              | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------|---------------|---------------|----------|
| Tetrachloro-m-xylene   | 67            |               | 10 - 149 |
| DCB Decachlorobiphenyl | 111           |               | 10 - 174 |

Lab Sample ID: MB 240-596687/1-A

Matrix: Solid

Analysis Batch: 596664

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596687

| Analyte      | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Aroclor-1016 | 25        | U            | 50 | 25  | ug/Kg |   | 12/06/23 09:13 | 12/06/23 13:09 | 1       |
| Aroclor-1221 | 30        | U            | 50 | 30  | ug/Kg |   | 12/06/23 09:13 | 12/06/23 13:09 | 1       |
| Aroclor-1232 | 21        | U            | 50 | 21  | ug/Kg |   | 12/06/23 09:13 | 12/06/23 13:09 | 1       |
| Aroclor-1242 | 19        | U            | 50 | 19  | ug/Kg |   | 12/06/23 09:13 | 12/06/23 13:09 | 1       |
| Aroclor-1248 | 17        | U            | 50 | 17  | ug/Kg |   | 12/06/23 09:13 | 12/06/23 13:09 | 1       |
| Aroclor-1254 | 21        | U            | 50 | 21  | ug/Kg |   | 12/06/23 09:13 | 12/06/23 13:09 | 1       |
| Aroclor-1260 | 21        | U            | 50 | 21  | ug/Kg |   | 12/06/23 09:13 | 12/06/23 13:09 | 1       |

| Surrogate              | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|--------------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 97           |              | 10 - 149 | 12/06/23 09:13 | 12/06/23 13:09 | 1       |
| DCB Decachlorobiphenyl | 86           |              | 10 - 174 | 12/06/23 09:13 | 12/06/23 13:09 | 1       |

Lab Sample ID: LCS 240-596687/2-A

Matrix: Solid

Analysis Batch: 596664

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596687

| Analyte      | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|-------|---|------|-------------|
| Aroclor-1016 | 1000        | 679        |               | ug/Kg |   | 68   | 28 - 140    |
| Aroclor-1260 | 1000        | 733        |               | ug/Kg |   | 73   | 39 - 153    |

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# QC Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

|                        | LCS LCS   |           |          |
|------------------------|-----------|-----------|----------|
| Surrogate              | %Recovery | Qualifier | Limits   |
| Tetrachloro-m-xylene   | 75        |           | 10 - 149 |
| DCB Decachlorobiphenyl | 92        |           | 10 - 174 |

Lab Sample ID: MB 240-596980/1-A

Matrix: Waste

Analysis Batch: 596991

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596980

|              | MB MB  |           |     |     |       |   |                |                |         |  |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|--|
| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Aroclor-1016 | 220    | U         | 500 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |
| Aroclor-1221 | 240    | U         | 500 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |
| Aroclor-1232 | 230    | U         | 500 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |
| Aroclor-1242 | 190    | U         | 500 | 190 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |
| Aroclor-1248 | 240    | U         | 500 | 240 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |
| Aroclor-1254 | 230    | U         | 500 | 230 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |
| Aroclor-1260 | 220    | U         | 500 | 220 | ug/Kg |   | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |

|                        | MB MB     |           |          |  |  |  |                |                |         |  |
|------------------------|-----------|-----------|----------|--|--|--|----------------|----------------|---------|--|
| Surrogate              | %Recovery | Qualifier | Limits   |  |  |  | Prepared       | Analyzed       | Dil Fac |  |
| Tetrachloro-m-xylene   | 105       |           | 10 - 149 |  |  |  | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |
| DCB Decachlorobiphenyl | 119       |           | 10 - 174 |  |  |  | 12/08/23 08:46 | 12/08/23 12:16 | 1       |  |

Lab Sample ID: LCS 240-596980/2-A

Matrix: Waste

Analysis Batch: 596991

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596980

|              |  |  | Spike |        | LCS LCS   |       |   |      | %Rec     |  |
|--------------|--|--|-------|--------|-----------|-------|---|------|----------|--|
| Analyte      |  |  | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |
| Aroclor-1016 |  |  | 10000 | 9690   |           | ug/Kg |   | 97   | 28 - 140 |  |
| Aroclor-1260 |  |  | 10000 | 9900   |           | ug/Kg |   | 99   | 39 - 153 |  |

|                        | LCS LCS   |           |          |
|------------------------|-----------|-----------|----------|
| Surrogate              | %Recovery | Qualifier | Limits   |
| Tetrachloro-m-xylene   | 104       |           | 10 - 149 |
| DCB Decachlorobiphenyl | 116       |           | 10 - 174 |

## Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-596424/1-A

Matrix: Solid

Analysis Batch: 596797

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596424

|         | MB MB  |           |     |      |       |   |                |                |         |  |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|--|
| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Lead    | 0.28   | U         | 1.0 | 0.28 | mg/Kg |   | 12/04/23 13:00 | 12/06/23 18:22 | 1       |  |

Lab Sample ID: LCS 240-596424/2-A

Matrix: Solid

Analysis Batch: 596797

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596424

|         |  |  | Spike |        | LCS LCS   |       |   |      | %Rec     |  |
|---------|--|--|-------|--------|-----------|-------|---|------|----------|--|
| Analyte |  |  | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |
| Lead    |  |  | 100   | 97.7   |           | mg/Kg |   | 98   | 80 - 120 |  |

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# QC Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 240-596437/1-A

Matrix: Solid

Analysis Batch: 596659

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596437

| Analyte  | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 0.36      | U            | 20   | 0.36  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 10:27 | 1       |
| Cadmium  | 0.048     | U            | 0.50 | 0.048 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 10:27 | 1       |
| Chromium | 0.34      | U            | 1.0  | 0.34  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 10:27 | 1       |
| Arsenic  | 0.32      | U            | 1.5  | 0.32  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 10:27 | 1       |
| Lead     | 0.28      | U            | 1.0  | 0.28  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 10:27 | 1       |
| Selenium | 0.47      | U            | 2.0  | 0.47  | mg/Kg |   | 12/04/23 13:00 | 12/05/23 10:27 | 1       |
| Silver   | 0.081     | U            | 1.0  | 0.081 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 10:27 | 1       |

Lab Sample ID: LCS 240-596437/2-A

Matrix: Solid

Analysis Batch: 596659

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596437

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Barium   | 200         | 179        |               | mg/Kg |   | 90   | 80 - 120    |
| Cadmium  | 100         | 91.9       |               | mg/Kg |   | 92   | 80 - 120    |
| Chromium | 100         | 88.0       |               | mg/Kg |   | 88   | 80 - 120    |
| Arsenic  | 200         | 184        |               | mg/Kg |   | 92   | 80 - 120    |
| Lead     | 100         | 86.7       |               | mg/Kg |   | 87   | 80 - 120    |
| Selenium | 200         | 183        |               | mg/Kg |   | 92   | 80 - 120    |
| Silver   | 10.0        | 9.00       |               | mg/Kg |   | 90   | 80 - 120    |

Lab Sample ID: MB 240-596582/1-A

Matrix: Solid

Analysis Batch: 596888

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596582

| Analyte  | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Barium   | 0.36      | U            | 20   | 0.36  | mg/Kg |   | 12/05/23 14:00 | 12/07/23 17:42 | 1       |
| Cadmium  | 0.048     | U            | 0.50 | 0.048 | mg/Kg |   | 12/05/23 14:00 | 12/07/23 17:42 | 1       |
| Chromium | 0.34      | U            | 1.0  | 0.34  | mg/Kg |   | 12/05/23 14:00 | 12/07/23 17:42 | 1       |
| Arsenic  | 0.32      | U            | 1.5  | 0.32  | mg/Kg |   | 12/05/23 14:00 | 12/07/23 17:42 | 1       |
| Lead     | 0.28      | U            | 1.0  | 0.28  | mg/Kg |   | 12/05/23 14:00 | 12/07/23 17:42 | 1       |
| Selenium | 0.47      | U            | 2.0  | 0.47  | mg/Kg |   | 12/05/23 14:00 | 12/07/23 17:42 | 1       |
| Silver   | 0.081     | U            | 1.0  | 0.081 | mg/Kg |   | 12/05/23 14:00 | 12/07/23 17:42 | 1       |

Lab Sample ID: LCS 240-596582/2-A

Matrix: Solid

Analysis Batch: 596797

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596582

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Barium   | 200         | 194        |               | mg/Kg |   | 97   | 80 - 120    |
| Cadmium  | 100         | 99.1       |               | mg/Kg |   | 99   | 80 - 120    |
| Chromium | 100         | 93.9       |               | mg/Kg |   | 94   | 80 - 120    |
| Arsenic  | 200         | 200        |               | mg/Kg |   | 100  | 80 - 120    |
| Lead     | 100         | 94.2       |               | mg/Kg |   | 94   | 80 - 120    |
| Selenium | 200         | 199        |               | mg/Kg |   | 100  | 80 - 120    |
| Silver   | 10.0        | 9.42       |               | mg/Kg |   | 94   | 80 - 120    |

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# QC Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 240-196258-21 MS

Matrix: Solid

Analysis Batch: 596797

Client Sample ID: MDCRRF-CS-01

Prep Type: Total/NA

Prep Batch: 596582

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Barium   | 53            |                  | 178         | 207       |              | mg/Kg | ✱ | 87   | 75 - 125    |
| Cadmium  | 0.38          | J                | 88.8        | 82.2      |              | mg/Kg | ✱ | 92   | 75 - 125    |
| Chromium | 10            |                  | 88.8        | 81.0      |              | mg/Kg | ✱ | 80   | 75 - 125    |
| Arsenic  | 25            |                  | 178         | 193       |              | mg/Kg | ✱ | 95   | 75 - 125    |
| Lead     | 41            |                  | 88.8        | 109       |              | mg/Kg | ✱ | 77   | 75 - 125    |
| Selenium | 0.49          | U                | 178         | 164       |              | mg/Kg | ✱ | 92   | 75 - 125    |
| Silver   | 0.085         | U                | 8.88        | 8.30      |              | mg/Kg | ✱ | 93   | 75 - 125    |

Lab Sample ID: 240-196258-21 MSD

Matrix: Solid

Analysis Batch: 596797

Client Sample ID: MDCRRF-CS-01

Prep Type: Total/NA

Prep Batch: 596582

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Barium   | 53            |                  | 178         | 205        |               | mg/Kg | ✱ | 86   | 75 - 125    | 1   | 20        |
| Cadmium  | 0.38          | J                | 88.8        | 81.8       |               | mg/Kg | ✱ | 92   | 75 - 125    | 0   | 20        |
| Chromium | 10            |                  | 88.8        | 79.9       |               | mg/Kg | ✱ | 78   | 75 - 125    | 1   | 20        |
| Arsenic  | 25            |                  | 178         | 190        |               | mg/Kg | ✱ | 93   | 75 - 125    | 2   | 20        |
| Lead     | 41            |                  | 88.8        | 108        |               | mg/Kg | ✱ | 76   | 75 - 125    | 2   | 20        |
| Selenium | 0.49          | U                | 178         | 163        |               | mg/Kg | ✱ | 92   | 75 - 125    | 1   | 20        |
| Silver   | 0.085         | U                | 8.88        | 8.19       |               | mg/Kg | ✱ | 92   | 75 - 125    | 1   | 20        |

Lab Sample ID: MB 240-596678/2-A

Matrix: Solid

Analysis Batch: 596888

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596678

| Analyte  | MB Result | MB Qualifier | RL    | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------|-----------|--------------|-------|---------|------|---|----------------|----------------|---------|
| Barium   | 0.0030    | U            | 0.50  | 0.0030  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:19 | 1       |
| Cadmium  | 0.00045   | U            | 0.050 | 0.00045 | mg/L |   | 12/06/23 14:00 | 12/07/23 12:19 | 1       |
| Chromium | 0.00076   | U            | 0.050 | 0.00076 | mg/L |   | 12/06/23 14:00 | 12/07/23 12:19 | 1       |
| Arsenic  | 0.0041    | U            | 0.050 | 0.0041  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:19 | 1       |
| Lead     | 0.0028    | U            | 0.050 | 0.0028  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:19 | 1       |
| Selenium | 0.0060    | U            | 0.050 | 0.0060  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:19 | 1       |
| Silver   | 0.00062   | U            | 0.050 | 0.00062 | mg/L |   | 12/06/23 14:00 | 12/07/23 12:19 | 1       |

Lab Sample ID: LCS 240-596678/3-A

Matrix: Solid

Analysis Batch: 596888

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596678

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Barium   | 2.00        | 1.97       |               | mg/L |   | 99   | 50 - 150    |
| Cadmium  | 1.00        | 1.04       |               | mg/L |   | 104  | 50 - 150    |
| Chromium | 1.00        | 0.972      |               | mg/L |   | 97   | 50 - 150    |
| Arsenic  | 2.00        | 2.19       |               | mg/L |   | 109  | 50 - 150    |
| Lead     | 1.00        | 0.906      |               | mg/L |   | 91   | 50 - 150    |
| Selenium | 2.00        | 2.22       |               | mg/L |   | 111  | 50 - 150    |
| Silver   | 0.100       | 0.105      |               | mg/L |   | 105  | 50 - 150    |

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# QC Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LB 240-596626/1-B

Matrix: Solid

Analysis Batch: 596888

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 596678

| Analyte  | LB<br>Result | LB<br>Qualifier | RL    | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------------|-----------------|-------|---------|------|---|----------------|----------------|---------|
| Barium   | 0.0030       | U               | 0.50  | 0.0030  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:14 | 1       |
| Cadmium  | 0.00045      | U               | 0.050 | 0.00045 | mg/L |   | 12/06/23 14:00 | 12/07/23 12:14 | 1       |
| Chromium | 0.000833     | J               | 0.050 | 0.00076 | mg/L |   | 12/06/23 14:00 | 12/07/23 12:14 | 1       |
| Arsenic  | 0.0041       | U               | 0.050 | 0.0041  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:14 | 1       |
| Lead     | 0.0028       | U               | 0.050 | 0.0028  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:14 | 1       |
| Selenium | 0.0060       | U               | 0.050 | 0.0060  | mg/L |   | 12/06/23 14:00 | 12/07/23 12:14 | 1       |
| Silver   | 0.00062      | U               | 0.050 | 0.00062 | mg/L |   | 12/06/23 14:00 | 12/07/23 12:14 | 1       |

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-596682/2-A

Matrix: Solid

Analysis Batch: 596919

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596682

| Analyte | MB<br>Result | MB<br>Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|--------|---------|------|---|----------------|----------------|---------|
| Mercury | 0.000252     | J               | 0.0020 | 0.00013 | mg/L |   | 12/06/23 14:00 | 12/07/23 15:03 | 1       |

Lab Sample ID: LCS 240-596682/3-A

Matrix: Solid

Analysis Batch: 596919

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596682

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|----------------|
| Mercury | 0.00500        | 0.00484       |                  | mg/L |   | 97   | 80 - 120       |

Lab Sample ID: LB 240-596626/1-C

Matrix: Solid

Analysis Batch: 596919

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 596682

| Analyte | LB<br>Result | LB<br>Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|--------|---------|------|---|----------------|----------------|---------|
| Mercury | 0.000518     | J               | 0.0020 | 0.00013 | mg/L |   | 12/06/23 14:00 | 12/07/23 15:01 | 1       |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 240-596440/1-A

Matrix: Solid

Analysis Batch: 596591

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596440

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.018        | U               | 0.10 | 0.018 | mg/Kg |   | 12/04/23 13:00 | 12/05/23 09:34 | 1       |

Lab Sample ID: LCS 240-596440/2-A

Matrix: Solid

Analysis Batch: 596591

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596440

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|----------------|
| Mercury | 0.833          | 0.870         |                  | mg/Kg |   | 104  | 80 - 120       |

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# QC Sample Results

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: MB 240-596586/1-A

Matrix: Solid

Analysis Batch: 596868

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596586

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.018        | U               | 0.10 | 0.018 | mg/Kg |   | 12/05/23 14:00 | 12/07/23 08:53 | 1       |

Lab Sample ID: LCS 240-596586/2-A

Matrix: Solid

Analysis Batch: 596868

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596586

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|----------------|
| Mercury | 0.833          | 0.855         |                  | mg/Kg |   | 103  | 80 - 120       |

Lab Sample ID: 240-196258-21 MS

Matrix: Solid

Analysis Batch: 596868

Client Sample ID: MDCRRF-CS-01

Prep Type: Total/NA

Prep Batch: 596586

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|----------------|
| Mercury | 0.035            | J                   | 0.175          | 0.240        |                 | mg/Kg | ⚠ | 118  | 80 - 120       |

Lab Sample ID: 240-196258-21 MSD

Matrix: Solid

Analysis Batch: 596868

Client Sample ID: MDCRRF-CS-01

Prep Type: Total/NA

Prep Batch: 596586

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits | RPD | RPD<br>Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|----------------|-----|--------------|
| Mercury | 0.035            | J                   | 0.175          | 0.241         |                  | mg/Kg | ⚠ | 118  | 80 - 120       | 0   | 20           |

# QC Association Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## GC Semi VOA

### Processed Batch: 596360

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method        | Prep Batch |
|---------------|------------------|-----------|--------|---------------|------------|
| 240-196258-21 | MDCRRF-CS-01     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-22 | MDCRRF-CS-02     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-23 | MDCRRF-CS-03     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-24 | MDCRRF-CS-04     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-25 | MDCRRF-CS-05     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-26 | MDCRRF-CS-06     | Total/NA  | Solid  | Part Size Red |            |

### Prep Batch: 596381

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-1       | MDCRRF-PS-01       | Total/NA  | Solid  | 3546   |            |
| 240-196258-2       | MDCRRF-PS-02       | Total/NA  | Solid  | 3546   |            |
| 240-196258-3       | MDCRRF-PS-03       | Total/NA  | Solid  | 3546   |            |
| 240-196258-4       | MDCRRF-PS-04       | Total/NA  | Solid  | 3546   |            |
| 240-196258-5       | MDCRRF-PS-05       | Total/NA  | Solid  | 3546   |            |
| 240-196258-6       | MDCRRF-PS-06       | Total/NA  | Solid  | 3546   |            |
| 240-196258-7       | MDCRRF-PS-07       | Total/NA  | Solid  | 3546   |            |
| 240-196258-8       | MDCRRF-PS-08       | Total/NA  | Solid  | 3546   |            |
| 240-196258-9       | MDCRRF-PS-09       | Total/NA  | Solid  | 3546   |            |
| 240-196258-10      | MDCRRF-PS-10       | Total/NA  | Solid  | 3546   |            |
| 240-196258-11      | MDCRRF-PS-11       | Total/NA  | Solid  | 3546   |            |
| 240-196258-12      | MDCRRF-PS-12       | Total/NA  | Solid  | 3546   |            |
| 240-196258-13      | MDCRRF-PS-13       | Total/NA  | Solid  | 3546   |            |
| 240-196258-19      | MDCRRF-WC-01       | Total/NA  | Solid  | 3546   |            |
| 240-196258-20      | MDCRRF-WC-02       | Total/NA  | Solid  | 3546   |            |
| 240-196258-27      | MDCRRF-PR-01       | Total/NA  | Solid  | 3546   |            |
| 240-196258-28      | MDCRRF-PR-02       | Total/NA  | Solid  | 3546   |            |
| MB 240-596381/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 240-596381/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 596497

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-1       | MDCRRF-PS-01       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-2       | MDCRRF-PS-02       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-3       | MDCRRF-PS-03       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-4       | MDCRRF-PS-04       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-5       | MDCRRF-PS-05       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-6       | MDCRRF-PS-06       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-9       | MDCRRF-PS-09       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-10      | MDCRRF-PS-10       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-11      | MDCRRF-PS-11       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-12      | MDCRRF-PS-12       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-13      | MDCRRF-PS-13       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-19      | MDCRRF-WC-01       | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-27      | MDCRRF-PR-01       | Total/NA  | Solid  | 8082A  | 596381     |
| MB 240-596381/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 596381     |
| LCS 240-596381/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 596381     |

### Analysis Batch: 596549

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 240-196258-7  | MDCRRF-PS-07     | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-8  | MDCRRF-PS-08     | Total/NA  | Solid  | 8082A  | 596381     |

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# QC Association Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## GC Semi VOA (Continued)

### Analysis Batch: 596549 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 240-196258-20 | MDCRRF-WC-02     | Total/NA  | Solid  | 8082A  | 596381     |
| 240-196258-28 | MDCRRF-PR-02     | Total/NA  | Solid  | 8082A  | 596381     |

### Analysis Batch: 596664

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-21      | MDCRRF-CS-01       | Total/NA  | Solid  | 8082A  | 596687     |
| 240-196258-22      | MDCRRF-CS-02       | Total/NA  | Solid  | 8082A  | 596687     |
| 240-196258-23      | MDCRRF-CS-03       | Total/NA  | Solid  | 8082A  | 596687     |
| 240-196258-24      | MDCRRF-CS-04       | Total/NA  | Solid  | 8082A  | 596687     |
| 240-196258-25      | MDCRRF-CS-05       | Total/NA  | Solid  | 8082A  | 596687     |
| MB 240-596687/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 596687     |
| LCS 240-596687/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 596687     |

### Prep Batch: 596687

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-21      | MDCRRF-CS-01       | Total/NA  | Solid  | 3546   | 596360     |
| 240-196258-22      | MDCRRF-CS-02       | Total/NA  | Solid  | 3546   | 596360     |
| 240-196258-23      | MDCRRF-CS-03       | Total/NA  | Solid  | 3546   | 596360     |
| 240-196258-24      | MDCRRF-CS-04       | Total/NA  | Solid  | 3546   | 596360     |
| 240-196258-25      | MDCRRF-CS-05       | Total/NA  | Solid  | 3546   | 596360     |
| 240-196258-26      | MDCRRF-CS-06       | Total/NA  | Solid  | 3546   | 596360     |
| MB 240-596687/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 240-596687/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 596853

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 240-196258-26 | MDCRRF-CS-06     | Total/NA  | Solid  | 8082A  | 596687     |

### Prep Batch: 596980

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-15      | MDCRRF-TO-01       | Total/NA  | Waste  | 3580A  |            |
| 240-196258-16      | MDCRRF-TO-02       | Total/NA  | Waste  | 3580A  |            |
| 240-196258-17      | MDCRRF-TO-03       | Total/NA  | Waste  | 3580A  |            |
| 240-196258-18      | MDCRRF-TO-04       | Total/NA  | Waste  | 3580A  |            |
| 240-196258-29      | MDCRRF-TAR-01      | Total/NA  | Waste  | 3580A  |            |
| 240-196258-30      | MDCRRF-TO-05       | Total/NA  | Waste  | 3580A  |            |
| MB 240-596980/1-A  | Method Blank       | Total/NA  | Waste  | 3580A  |            |
| LCS 240-596980/2-A | Lab Control Sample | Total/NA  | Waste  | 3580A  |            |

### Analysis Batch: 596991

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-15      | MDCRRF-TO-01       | Total/NA  | Waste  | 8082A  | 596980     |
| 240-196258-16      | MDCRRF-TO-02       | Total/NA  | Waste  | 8082A  | 596980     |
| MB 240-596980/1-A  | Method Blank       | Total/NA  | Waste  | 8082A  | 596980     |
| LCS 240-596980/2-A | Lab Control Sample | Total/NA  | Waste  | 8082A  | 596980     |

### Analysis Batch: 597151

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 240-196258-17 | MDCRRF-TO-03     | Total/NA  | Waste  | 8082A  | 596980     |
| 240-196258-18 | MDCRRF-TO-04     | Total/NA  | Waste  | 8082A  | 596980     |
| 240-196258-29 | MDCRRF-TAR-01    | Total/NA  | Waste  | 8082A  | 596980     |

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# QC Association Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## GC Semi VOA (Continued)

### Analysis Batch: 597151 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 240-196258-30 | MDCRRF-TO-05     | Total/NA  | Waste  | 8082A  | 596980     |

## Metals

### Processed Batch: 596360

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method        | Prep Batch |
|-------------------|------------------|-----------|--------|---------------|------------|
| 240-196258-21     | MDCRRF-CS-01     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-22     | MDCRRF-CS-02     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-23     | MDCRRF-CS-03     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-24     | MDCRRF-CS-04     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-25     | MDCRRF-CS-05     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-26     | MDCRRF-CS-06     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-21 MS  | MDCRRF-CS-01     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-21 MSD | MDCRRF-CS-01     | Total/NA  | Solid  | Part Size Red |            |

### Processed Batch: 596361

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method        | Prep Batch |
|---------------|------------------|-----------|--------|---------------|------------|
| 240-196258-14 | MDCRRF-TW-01     | TCLP      | Solid  | Part Size Red |            |

### Prep Batch: 596424

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-1       | MDCRRF-PS-01       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-2       | MDCRRF-PS-02       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-3       | MDCRRF-PS-03       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-4       | MDCRRF-PS-04       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-5       | MDCRRF-PS-05       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-6       | MDCRRF-PS-06       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-7       | MDCRRF-PS-07       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-8       | MDCRRF-PS-08       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-9       | MDCRRF-PS-09       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-10      | MDCRRF-PS-10       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-11      | MDCRRF-PS-11       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-13      | MDCRRF-PS-13       | Total/NA  | Solid  | 3050B  |            |
| MB 240-596424/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 240-596424/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 596437

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-27      | MDCRRF-PR-01       | Total/NA  | Solid  | 3050B  |            |
| 240-196258-28      | MDCRRF-PR-02       | Total/NA  | Solid  | 3050B  |            |
| MB 240-596437/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 240-596437/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 596440

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-27      | MDCRRF-PR-01       | Total/NA  | Solid  | 7471B  |            |
| 240-196258-28      | MDCRRF-PR-02       | Total/NA  | Solid  | 7471B  |            |
| MB 240-596440/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 240-596440/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

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# QC Association Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Metals

### Prep Batch: 596582

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-21      | MDCRRF-CS-01       | Total/NA  | Solid  | 3050B  | 596360     |
| 240-196258-22      | MDCRRF-CS-02       | Total/NA  | Solid  | 3050B  | 596360     |
| 240-196258-23      | MDCRRF-CS-03       | Total/NA  | Solid  | 3050B  | 596360     |
| 240-196258-24      | MDCRRF-CS-04       | Total/NA  | Solid  | 3050B  | 596360     |
| 240-196258-25      | MDCRRF-CS-05       | Total/NA  | Solid  | 3050B  | 596360     |
| 240-196258-26      | MDCRRF-CS-06       | Total/NA  | Solid  | 3050B  | 596360     |
| MB 240-596582/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 240-596582/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 240-196258-21 MS   | MDCRRF-CS-01       | Total/NA  | Solid  | 3050B  | 596360     |
| 240-196258-21 MSD  | MDCRRF-CS-01       | Total/NA  | Solid  | 3050B  | 596360     |

### Prep Batch: 596586

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-21      | MDCRRF-CS-01       | Total/NA  | Solid  | 7471B  | 596360     |
| 240-196258-22      | MDCRRF-CS-02       | Total/NA  | Solid  | 7471B  | 596360     |
| 240-196258-23      | MDCRRF-CS-03       | Total/NA  | Solid  | 7471B  | 596360     |
| 240-196258-24      | MDCRRF-CS-04       | Total/NA  | Solid  | 7471B  | 596360     |
| 240-196258-25      | MDCRRF-CS-05       | Total/NA  | Solid  | 7471B  | 596360     |
| 240-196258-26      | MDCRRF-CS-06       | Total/NA  | Solid  | 7471B  | 596360     |
| MB 240-596586/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 240-596586/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 240-196258-21 MS   | MDCRRF-CS-01       | Total/NA  | Solid  | 7471B  | 596360     |
| 240-196258-21 MSD  | MDCRRF-CS-01       | Total/NA  | Solid  | 7471B  | 596360     |

### Analysis Batch: 596591

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-27      | MDCRRF-PR-01       | Total/NA  | Solid  | 7471B  | 596440     |
| 240-196258-28      | MDCRRF-PR-02       | Total/NA  | Solid  | 7471B  | 596440     |
| MB 240-596440/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 596440     |
| LCS 240-596440/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 596440     |

### Leach Batch: 596626

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 240-196258-14     | MDCRRF-TW-01     | TCLP      | Solid  | 1311   | 596361     |
| LB 240-596626/1-B | Method Blank     | TCLP      | Solid  | 1311   |            |
| LB 240-596626/1-C | Method Blank     | TCLP      | Solid  | 1311   |            |

### Analysis Batch: 596659

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-27      | MDCRRF-PR-01       | Total/NA  | Solid  | 6010D  | 596437     |
| 240-196258-27      | MDCRRF-PR-01       | Total/NA  | Solid  | 6010D  | 596437     |
| 240-196258-28      | MDCRRF-PR-02       | Total/NA  | Solid  | 6010D  | 596437     |
| MB 240-596437/1-A  | Method Blank       | Total/NA  | Solid  | 6010D  | 596437     |
| LCS 240-596437/2-A | Lab Control Sample | Total/NA  | Solid  | 6010D  | 596437     |

### Prep Batch: 596678

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-14      | MDCRRF-TW-01       | TCLP      | Solid  | 3010A  | 596626     |
| LB 240-596626/1-B  | Method Blank       | TCLP      | Solid  | 3010A  | 596626     |
| MB 240-596678/2-A  | Method Blank       | Total/NA  | Solid  | 3010A  |            |
| LCS 240-596678/3-A | Lab Control Sample | Total/NA  | Solid  | 3010A  |            |

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# QC Association Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

## Metals

### Prep Batch: 596682

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-14      | MDCRRF-TW-01       | TCLP      | Solid  | 7470A  | 596626     |
| LB 240-596626/1-C  | Method Blank       | TCLP      | Solid  | 7470A  | 596626     |
| MB 240-596682/2-A  | Method Blank       | Total/NA  | Solid  | 7470A  |            |
| LCS 240-596682/3-A | Lab Control Sample | Total/NA  | Solid  | 7470A  |            |

### Analysis Batch: 596797

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-1       | MDCRRF-PS-01       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-2       | MDCRRF-PS-02       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-3       | MDCRRF-PS-03       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-4       | MDCRRF-PS-04       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-5       | MDCRRF-PS-05       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-6       | MDCRRF-PS-06       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-7       | MDCRRF-PS-07       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-8       | MDCRRF-PS-08       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-9       | MDCRRF-PS-09       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-10      | MDCRRF-PS-10       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-11      | MDCRRF-PS-11       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-13      | MDCRRF-PS-13       | Total/NA  | Solid  | 6010D  | 596424     |
| 240-196258-21      | MDCRRF-CS-01       | Total/NA  | Solid  | 6010D  | 596582     |
| 240-196258-22      | MDCRRF-CS-02       | Total/NA  | Solid  | 6010D  | 596582     |
| 240-196258-23      | MDCRRF-CS-03       | Total/NA  | Solid  | 6010D  | 596582     |
| 240-196258-24      | MDCRRF-CS-04       | Total/NA  | Solid  | 6010D  | 596582     |
| 240-196258-25      | MDCRRF-CS-05       | Total/NA  | Solid  | 6010D  | 596582     |
| 240-196258-26      | MDCRRF-CS-06       | Total/NA  | Solid  | 6010D  | 596582     |
| MB 240-596424/1-A  | Method Blank       | Total/NA  | Solid  | 6010D  | 596424     |
| LCS 240-596424/2-A | Lab Control Sample | Total/NA  | Solid  | 6010D  | 596424     |
| LCS 240-596582/2-A | Lab Control Sample | Total/NA  | Solid  | 6010D  | 596582     |
| 240-196258-21 MS   | MDCRRF-CS-01       | Total/NA  | Solid  | 6010D  | 596582     |
| 240-196258-21 MSD  | MDCRRF-CS-01       | Total/NA  | Solid  | 6010D  | 596582     |

### Analysis Batch: 596868

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-21      | MDCRRF-CS-01       | Total/NA  | Solid  | 7471B  | 596586     |
| 240-196258-22      | MDCRRF-CS-02       | Total/NA  | Solid  | 7471B  | 596586     |
| 240-196258-23      | MDCRRF-CS-03       | Total/NA  | Solid  | 7471B  | 596586     |
| 240-196258-24      | MDCRRF-CS-04       | Total/NA  | Solid  | 7471B  | 596586     |
| 240-196258-25      | MDCRRF-CS-05       | Total/NA  | Solid  | 7471B  | 596586     |
| 240-196258-26      | MDCRRF-CS-06       | Total/NA  | Solid  | 7471B  | 596586     |
| MB 240-596586/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 596586     |
| LCS 240-596586/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 596586     |
| 240-196258-21 MS   | MDCRRF-CS-01       | Total/NA  | Solid  | 7471B  | 596586     |
| 240-196258-21 MSD  | MDCRRF-CS-01       | Total/NA  | Solid  | 7471B  | 596586     |

### Analysis Batch: 596888

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-14      | MDCRRF-TW-01       | TCLP      | Solid  | 6010D  | 596678     |
| LB 240-596626/1-B  | Method Blank       | TCLP      | Solid  | 6010D  | 596678     |
| MB 240-596582/1-A  | Method Blank       | Total/NA  | Solid  | 6010D  | 596582     |
| MB 240-596678/2-A  | Method Blank       | Total/NA  | Solid  | 6010D  | 596678     |
| LCS 240-596678/3-A | Lab Control Sample | Total/NA  | Solid  | 6010D  | 596678     |

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## QC Association Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

### Metals

#### Analysis Batch: 596919

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-196258-14      | MDCRRF-TW-01       | TCLP      | Solid  | 7470A  | 596682     |
| LB 240-596626/1-C  | Method Blank       | TCLP      | Solid  | 7470A  | 596682     |
| MB 240-596682/2-A  | Method Blank       | Total/NA  | Solid  | 7470A  | 596682     |
| LCS 240-596682/3-A | Lab Control Sample | Total/NA  | Solid  | 7470A  | 596682     |

### General Chemistry

#### Processed Batch: 596360

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method        | Prep Batch |
|---------------|------------------|-----------|--------|---------------|------------|
| 240-196258-21 | MDCRRF-CS-01     | Total/NA  | Solid  | Part Size Red | 596360     |
| 240-196258-22 | MDCRRF-CS-02     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-23 | MDCRRF-CS-03     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-24 | MDCRRF-CS-04     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-25 | MDCRRF-CS-05     | Total/NA  | Solid  | Part Size Red |            |
| 240-196258-26 | MDCRRF-CS-06     | Total/NA  | Solid  | Part Size Red |            |

#### Analysis Batch: 596551

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 240-196258-21 | MDCRRF-CS-01     | Total/NA  | Solid  | Moisture | 596360     |
| 240-196258-22 | MDCRRF-CS-02     | Total/NA  | Solid  | Moisture | 596360     |
| 240-196258-23 | MDCRRF-CS-03     | Total/NA  | Solid  | Moisture | 596360     |
| 240-196258-24 | MDCRRF-CS-04     | Total/NA  | Solid  | Moisture | 596360     |
| 240-196258-25 | MDCRRF-CS-05     | Total/NA  | Solid  | Moisture | 596360     |
| 240-196258-26 | MDCRRF-CS-06     | Total/NA  | Solid  | Moisture | 596360     |

# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-PS-01**

**Lab Sample ID: 240-196258-1**

**Date Collected: 11/29/23 08:35**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 10              | 596497       | MBB     | EET CLE | 12/04/23 21:41       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:19       |

**Client Sample ID: MDCRRF-PS-02**

**Lab Sample ID: 240-196258-2**

**Date Collected: 11/29/23 08:40**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/04/23 21:56       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:24       |

**Client Sample ID: MDCRRF-PS-03**

**Lab Sample ID: 240-196258-3**

**Date Collected: 11/29/23 08:45**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/04/23 22:10       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:28       |

**Client Sample ID: MDCRRF-PS-04**

**Lab Sample ID: 240-196258-4**

**Date Collected: 11/29/23 08:50**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/04/23 22:25       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:41       |

**Client Sample ID: MDCRRF-PS-05**

**Lab Sample ID: 240-196258-5**

**Date Collected: 11/29/23 00:00**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/04/23 22:39       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:45       |

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# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-PS-06**

**Lab Sample ID: 240-196258-6**

Date Collected: 11/29/23 09:50

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/04/23 22:53       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:50       |

**Client Sample ID: MDCRRF-PS-07**

**Lab Sample ID: 240-196258-7**

Date Collected: 11/29/23 10:20

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 10              | 596549       | MBB     | EET CLE | 12/05/23 13:37       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:54       |

**Client Sample ID: MDCRRF-PS-08**

**Lab Sample ID: 240-196258-8**

Date Collected: 11/29/23 13:15

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596549       | MBB     | EET CLE | 12/05/23 13:51       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 19:59       |

**Client Sample ID: MDCRRF-PS-09**

**Lab Sample ID: 240-196258-9**

Date Collected: 11/29/23 13:20

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/04/23 23:37       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 20:03       |

**Client Sample ID: MDCRRF-PS-10**

**Lab Sample ID: 240-196258-10**

Date Collected: 11/29/23 13:40

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/04/23 23:51       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 20:07       |

Eurofins Cleveland

# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-PS-11**

**Lab Sample ID: 240-196258-11**

Date Collected: 11/29/23 13:50

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/05/23 00:06       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 20:12       |

**Client Sample ID: MDCRRF-PS-12**

**Lab Sample ID: 240-196258-12**

Date Collected: 11/29/23 14:00

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/05/23 00:20       |

**Client Sample ID: MDCRRF-PS-13**

**Lab Sample ID: 240-196258-13**

Date Collected: 11/29/23 09:20

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/05/23 00:35       |
| Total/NA  | Prep       | 3050B        |     |                 | 596424       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 10              | 596797       | RKT     | EET CLE | 12/06/23 20:37       |

**Client Sample ID: MDCRRF-TW-01**

**Lab Sample ID: 240-196258-14**

Date Collected: 11/29/23 09:10

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed                         |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------------------------------|
| TCLP      | Processed  | Part Size Red |     |                 | 596361       | POP     | EET CLE | 12/04/23 07:16                               |
| TCLP      | Leach      | 1311          |     |                 | 596626       | DRJ     | EET CLE | 12/05/23 16:50 - 12/06/23 09:05 <sup>1</sup> |
| TCLP      | Prep       | 3010A         |     |                 | 596678       | BN      | EET CLE | 12/06/23 14:00                               |
| TCLP      | Analysis   | 6010D         |     | 1               | 596888       | RKT     | EET CLE | 12/07/23 14:27                               |
| TCLP      | Processed  | Part Size Red |     |                 | 596361       | POP     | EET CLE | 12/04/23 07:16                               |
| TCLP      | Leach      | 1311          |     |                 | 596626       | DRJ     | EET CLE | 12/05/23 16:50 - 12/06/23 09:05 <sup>1</sup> |
| TCLP      | Prep       | 7470A         |     |                 | 596682       | BN      | EET CLE | 12/06/23 14:00                               |
| TCLP      | Analysis   | 7470A         |     | 1               | 596919       | AJC     | EET CLE | 12/07/23 15:33                               |

**Client Sample ID: MDCRRF-TO-01**

**Lab Sample ID: 240-196258-15**

Date Collected: 11/29/23 10:45

Matrix: Waste

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3580A        |     |                 | 596980       | BV1     | EET CLE | 12/08/23 08:46       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596991       | MBB     | EET CLE | 12/08/23 16:56       |

Eurofins Cleveland

# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-TO-02**

**Lab Sample ID: 240-196258-16**

Date Collected: 11/29/23 11:00

Matrix: Waste

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3580A        |     |                 | 596980       | BV1     | EET CLE | 12/08/23 08:46       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596991       | MBB     | EET CLE | 12/08/23 17:13       |

**Client Sample ID: MDCRRF-TO-03**

**Lab Sample ID: 240-196258-17**

Date Collected: 11/29/23 13:00

Matrix: Waste

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3580A        |     |                 | 596980       | BV1     | EET CLE | 12/08/23 08:46       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 597151       | MBB     | EET CLE | 12/11/23 12:54       |

**Client Sample ID: MDCRRF-TO-04**

**Lab Sample ID: 240-196258-18**

Date Collected: 11/29/23 13:20

Matrix: Waste

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3580A        |     |                 | 596980       | BV1     | EET CLE | 12/08/23 08:46       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 597151       | MBB     | EET CLE | 12/11/23 13:11       |

**Client Sample ID: MDCRRF-WC-01**

**Lab Sample ID: 240-196258-19**

Date Collected: 11/29/23 11:00

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/05/23 01:33       |

**Client Sample ID: MDCRRF-WC-02**

**Lab Sample ID: 240-196258-20**

Date Collected: 11/29/23 11:15

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 10              | 596549       | MBB     | EET CLE | 12/05/23 14:05       |

**Client Sample ID: MDCRRF-CS-01**

**Lab Sample ID: 240-196258-21**

Date Collected: 11/29/23 13:45

Matrix: Solid

Date Received: 12/01/23 10:20

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Analysis   | Moisture      |     | 1               | 596551       | MS      | EET CLE | 12/05/23 09:27       |

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# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-CS-01**

**Lab Sample ID: 240-196258-21**

**Date Collected: 11/29/23 13:45**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

**Percent Solids: 93.8**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3546          |     |                 | 596687       | BV1     | EET CLE | 12/06/23 09:13       |
| Total/NA  | Analysis   | 8082A         |     | 1               | 596664       | BPM     | EET CLE | 12/06/23 15:08       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3050B         |     |                 | 596582       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 6010D         |     | 1               | 596797       | RKT     | EET CLE | 12/06/23 16:51       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 7471B         |     |                 | 596586       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 7471B         |     | 1               | 596868       | AJC     | EET CLE | 12/07/23 08:57       |

**Client Sample ID: MDCRRF-CS-02**

**Lab Sample ID: 240-196258-22**

**Date Collected: 11/29/23 14:00**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Analysis   | Moisture      |     | 1               | 596551       | MS      | EET CLE | 12/05/23 09:27       |

**Client Sample ID: MDCRRF-CS-02**

**Lab Sample ID: 240-196258-22**

**Date Collected: 11/29/23 14:00**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

**Percent Solids: 94.3**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3546          |     |                 | 596687       | BV1     | EET CLE | 12/06/23 09:13       |
| Total/NA  | Analysis   | 8082A         |     | 1               | 596664       | BPM     | EET CLE | 12/06/23 15:24       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3050B         |     |                 | 596582       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 6010D         |     | 1               | 596797       | RKT     | EET CLE | 12/06/23 17:21       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 7471B         |     |                 | 596586       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 7471B         |     | 1               | 596868       | AJC     | EET CLE | 12/07/23 09:04       |

**Client Sample ID: MDCRRF-CS-03**

**Lab Sample ID: 240-196258-23**

**Date Collected: 11/29/23 14:15**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Analysis   | Moisture      |     | 1               | 596551       | MS      | EET CLE | 12/05/23 09:27       |

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# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-CS-03**

**Lab Sample ID: 240-196258-23**

**Date Collected: 11/29/23 14:15**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

**Percent Solids: 95.3**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3546          |     |                 | 596687       | BV1     | EET CLE | 12/06/23 09:13       |
| Total/NA  | Analysis   | 8082A         |     | 1               | 596664       | BPM     | EET CLE | 12/06/23 15:39       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3050B         |     |                 | 596582       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 6010D         |     | 1               | 596797       | RKT     | EET CLE | 12/06/23 17:25       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 7471B         |     |                 | 596586       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 7471B         |     | 1               | 596868       | AJC     | EET CLE | 12/07/23 09:06       |

**Client Sample ID: MDCRRF-CS-04**

**Lab Sample ID: 240-196258-24**

**Date Collected: 11/29/23 14:30**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Analysis   | Moisture      |     | 1               | 596551       | MS      | EET CLE | 12/05/23 09:27       |

**Client Sample ID: MDCRRF-CS-04**

**Lab Sample ID: 240-196258-24**

**Date Collected: 11/29/23 14:30**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

**Percent Solids: 96.2**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3546          |     |                 | 596687       | BV1     | EET CLE | 12/06/23 09:13       |
| Total/NA  | Analysis   | 8082A         |     | 1               | 596664       | BPM     | EET CLE | 12/06/23 15:55       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3050B         |     |                 | 596582       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 6010D         |     | 1               | 596797       | RKT     | EET CLE | 12/06/23 17:30       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 7471B         |     |                 | 596586       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 7471B         |     | 1               | 596868       | AJC     | EET CLE | 12/07/23 09:08       |

**Client Sample ID: MDCRRF-CS-05**

**Lab Sample ID: 240-196258-25**

**Date Collected: 11/29/23 14:40**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Analysis   | Moisture      |     | 1               | 596551       | MS      | EET CLE | 12/05/23 09:27       |

# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-CS-05**

**Lab Sample ID: 240-196258-25**

**Date Collected: 11/29/23 14:40**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

**Percent Solids: 94.9**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3546          |     |                 | 596687       | BV1     | EET CLE | 12/06/23 09:13       |
| Total/NA  | Analysis   | 8082A         |     | 1               | 596664       | BPM     | EET CLE | 12/06/23 16:10       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3050B         |     |                 | 596582       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 6010D         |     | 1               | 596797       | RKT     | EET CLE | 12/06/23 17:34       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 7471B         |     |                 | 596586       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 7471B         |     | 1               | 596868       | AJC     | EET CLE | 12/07/23 09:10       |

**Client Sample ID: MDCRRF-CS-06**

**Lab Sample ID: 240-196258-26**

**Date Collected: 11/29/23 14:50**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Analysis   | Moisture      |     | 1               | 596551       | MS      | EET CLE | 12/05/23 09:27       |

**Client Sample ID: MDCRRF-CS-06**

**Lab Sample ID: 240-196258-26**

**Date Collected: 11/29/23 14:50**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

**Percent Solids: 98.0**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|---------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3546          |     |                 | 596687       | BV1     | EET CLE | 12/06/23 09:13       |
| Total/NA  | Analysis   | 8082A         |     | 5               | 596853       | EPF     | EET CLE | 12/07/23 12:33       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 3050B         |     |                 | 596582       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 6010D         |     | 1               | 596797       | RKT     | EET CLE | 12/06/23 17:38       |
| Total/NA  | Processed  | Part Size Red |     |                 | 596360       | POP     | EET CLE | 12/04/23 07:15       |
| Total/NA  | Prep       | 7471B         |     |                 | 596586       | DEE     | EET CLE | 12/05/23 14:00       |
| Total/NA  | Analysis   | 7471B         |     | 1               | 596868       | AJC     | EET CLE | 12/07/23 09:12       |

**Client Sample ID: MDCRRF-PR-01**

**Lab Sample ID: 240-196258-27**

**Date Collected: 11/29/23 10:00**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596497       | MBB     | EET CLE | 12/05/23 02:02       |
| Total/NA  | Prep       | 3050B        |     |                 | 596437       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 1               | 596659       | RKT     | EET CLE | 12/05/23 11:28       |
| Total/NA  | Prep       | 3050B        |     |                 | 596437       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 2               | 596659       | RKT     | EET CLE | 12/05/23 11:45       |
| Total/NA  | Prep       | 7471B        |     |                 | 596440       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 7471B        |     | 1               | 596591       | AJC     | EET CLE | 12/05/23 09:45       |

Eurofins Cleveland

# Lab Chronicle

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

**Client Sample ID: MDCRRF-PR-02**

**Lab Sample ID: 240-196258-28**

**Date Collected: 11/29/23 10:10**

**Matrix: Solid**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3546         |     |                 | 596381       | BV1     | EET CLE | 12/04/23 08:35       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 596549       | MBB     | EET CLE | 12/05/23 14:20       |
| Total/NA  | Prep       | 3050B        |     |                 | 596437       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 6010D        |     | 1               | 596659       | RKT     | EET CLE | 12/05/23 11:33       |
| Total/NA  | Prep       | 7471B        |     |                 | 596440       | DEE     | EET CLE | 12/04/23 13:00       |
| Total/NA  | Analysis   | 7471B        |     | 1               | 596591       | AJC     | EET CLE | 12/05/23 09:47       |

**Client Sample ID: MDCRRF-TAR-01**

**Lab Sample ID: 240-196258-29**

**Date Collected: 11/30/23 07:45**

**Matrix: Waste**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3580A        |     |                 | 596980       | BV1     | EET CLE | 12/08/23 08:46       |
| Total/NA  | Analysis   | 8082A        |     | 10              | 597151       | MBB     | EET CLE | 12/11/23 13:28       |

**Client Sample ID: MDCRRF-TO-05**

**Lab Sample ID: 240-196258-30**

**Date Collected: 11/30/23 09:29**

**Matrix: Waste**

**Date Received: 12/01/23 10:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3580A        |     |                 | 596980       | BV1     | EET CLE | 12/08/23 08:46       |
| Total/NA  | Analysis   | 8082A        |     | 1               | 597151       | MBB     | EET CLE | 12/11/23 13:46       |

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

## Accreditation/Certification Summary

Client: WSP USA Inc  
Project/Site: Covanta Energy - MDCRRF

Job ID: 240-196258-1

### Laboratory: Eurofins Cleveland

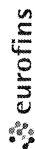
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority             | Program | Identification Number | Expiration Date |
|-----------------------|---------|-----------------------|-----------------|
| California            | State   | 2927                  | 02-27-24        |
| Georgia               | State   | 4062                  | 02-27-24        |
| Illinois              | NELAP   | 200004                | 07-31-24        |
| Iowa                  | State   | 421                   | 06-01-25        |
| Kentucky (UST)        | State   | 112225                | 02-28-24        |
| Kentucky (WW)         | State   | KY98016               | 12-31-23        |
| Michigan              | State   | 9135                  | 02-27-24        |
| Minnesota             | NELAP   | 039-999-348           | 12-31-23        |
| Minnesota (Petrofund) | State   | 3506                  | 08-01-23 *      |
| New Jersey            | NELAP   | OH001                 | 07-01-24        |
| New York              | NELAP   | 10975                 | 04-02-24        |
| Ohio                  | State   | 8303                  | 02-27-24        |
| Ohio VAP              | State   | ORELAP 4062           | 02-27-24        |
| Oregon                | NELAP   | 4062                  | 02-27-24        |
| Pennsylvania          | NELAP   | 68-00340              | 08-31-24        |
| Texas                 | NELAP   | T104704517-22-19      | 08-31-24        |
| Virginia              | NELAP   | 460175                | 09-14-24        |
| West Virginia DEP     | State   | 210                   | 12-31-23        |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland

## Chain of Custody Record



Environment Testing

## Client Information

Client Contact: Andy Lewis  
Company: WSP USA Inc  
Address: 46850 Magellan Drive Suite 190  
City: Novi  
State, Zip: MI, 48377  
Phone: 517-285-4704(Tel)  
Email: andy.lewis@wsp.com  
Project Name: Covanta Energy  
Site: MDCRRF

Lab PM: Brooks, Kris M  
E-Mail: Kris.Brooks@et.eurofins.com  
Carrier Tracking No(s):  
State of Origin:  
COC No: 240-114566-40645.6  
Page: 1 of 3  
Job #:

Due Date Requested:  
TAT Requested (days):  
Compliance Project: ☐ Yes ☒ No  
PO #: 202310979  
WO #: 202310979  
Eurofins Project #: 24032267  
SSOW#:

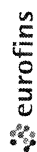
| Sample Identification | Sample Date | Sample Time | Sample Type<br>(C=Comp, G=grab) | Matrix<br>(W=water, S=solid, O=wastewater, BT=tissue, A=air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Print - 6010D/741B Metals, 8082A PCBs, Moisture | Solids - 6010D/741B Metals, 8082A PCBs, Moisture | Solids - 8082A PCBs, Moisture | Oil (Waste) - 8082A - PCBs | Masonry - 6010D/741B Metals, 8082A PCBs, Moisture | Analysis Requested | Preservation Codes:                                                                                                                                                                                                                                                                                                                                                            | Special Instructions/Note: |
|-----------------------|-------------|-------------|---------------------------------|--------------------------------------------------------------|-----------------------------------|----------------------------|-------------------------------------------------|--------------------------------------------------|-------------------------------|----------------------------|---------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| MDCRRF-PS-01          | 11/29/23    | 0835        | G                               | S                                                            | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    | A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2SO4<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>Y - Trizma<br>Z - other (specify) |                            |
| - PS-02               |             | 0840        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-03               |             | 0845        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-04               |             | 0850        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-05               |             | 0950        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-06               |             | 1020        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-07               |             | 1315        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-08               |             | 1320        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-09               |             | 1340        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-10               |             | 1350        |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |
| - PS-11               |             |             |                                 |                                                              | X                                 | X                          | N                                               | N                                                | N                             | N                          | N                                                 |                    |                                                                                                                                                                                                                                                                                                                                                                                |                            |

Possible Hazard Identification  
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological  
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer.)  
☐ Return To Client ☒ Disposal By Lab ☐ Archive For Months  
Special Instructions/QC Requirements:

|                                                                                |                   |          |
|--------------------------------------------------------------------------------|-------------------|----------|
| Relinquished by:                                                               | Date/Time:        | Company: |
| Relinquished by:                                                               | Date/Time:        | Company: |
| Relinquished by:                                                               | Date/Time:        | Company: |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | Custody Seal No.: |          |

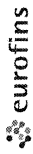
## Chain of Custody Record



Environment Testing

| Client Information                         |  | Sampler:                                                                                                                                                                                                               |  | Lab PM:                                                                                 |  | Carrier Tracking No(s):                                                             |  | COC No:                                                                                                                                                                            |  |                                                              |  |
|--------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------|--|
| Client Contact:<br>Andy Lewis              |  | Phone: 517 285 4704                                                                                                                                                                                                    |  | Brooks, Kris M                                                                          |  |                                                                                     |  | 240-114566-40645.6                                                                                                                                                                 |  |                                                              |  |
| Company:<br>WSP USA Inc                    |  | E-Mail:<br>Kris.Brooks@et.eurofins.com                                                                                                                                                                                 |  | E-Mail:                                                                                 |  | State of Origin:                                                                    |  | Page: 2 of 3                                                                                                                                                                       |  |                                                              |  |
| Address:<br>46850 Magellan Drive Suite 190 |  | City:<br>Novi                                                                                                                                                                                                          |  | State:<br>MI, 48377                                                                     |  | Job #:                                                                              |  |                                                                                                                                                                                    |  |                                                              |  |
| Phone:<br>517-285-4704(Tel)                |  | TAT Requested (days):<br>STD                                                                                                                                                                                           |  | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  | Analysis Requested                                                                  |  | Preservation Codes:                                                                                                                                                                |  |                                                              |  |
| Email:<br>andy.lewis@wsp.com               |  | PO #:<br>202310979                                                                                                                                                                                                     |  | WO #:<br>202310979                                                                      |  | Field Filtered Sample (Yes or No)                                                   |  | A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>Other: |  |                                                              |  |
| Project Name:<br>Covanta Energy            |  | SSOW#:                                                                                                                                                                                                                 |  | Sample Date                                                                             |  | Sample Time                                                                         |  | Sample Type<br>(C=Comp, G=grab)                                                                                                                                                    |  | Matrix<br>(W=water, S=solid, O=wastewater, BT=tissue, A=air) |  |
| Site:<br>MDCRF                             |  | Sample Identification                                                                                                                                                                                                  |  | Sample Date                                                                             |  | Sample Time                                                                         |  | Sample Type<br>(C=Comp, G=grab)                                                                                                                                                    |  | Matrix<br>(W=water, S=solid, O=wastewater, BT=tissue, A=air) |  |
| MDCRF-PS-12                                |  | 11/24/23                                                                                                                                                                                                               |  | 1400                                                                                    |  | G                                                                                   |  | S                                                                                                                                                                                  |  |                                                              |  |
| MDCRF-PS-13                                |  | 0920                                                                                                                                                                                                                   |  | 0910                                                                                    |  | S                                                                                   |  | S                                                                                                                                                                                  |  |                                                              |  |
| MDCRF-TW-03                                |  | 1045                                                                                                                                                                                                                   |  | 1100                                                                                    |  | O                                                                                   |  | O                                                                                                                                                                                  |  |                                                              |  |
| MDCRF-TO-01                                |  | 1300                                                                                                                                                                                                                   |  | 1320                                                                                    |  | O                                                                                   |  | O                                                                                                                                                                                  |  |                                                              |  |
| MDCRF-TO-02                                |  | 1100                                                                                                                                                                                                                   |  | 1115                                                                                    |  | S                                                                                   |  | S                                                                                                                                                                                  |  |                                                              |  |
| MDCRF-WC-01                                |  | 1345                                                                                                                                                                                                                   |  | 1400                                                                                    |  | S                                                                                   |  | S                                                                                                                                                                                  |  |                                                              |  |
| MDCRF-CS-01                                |  |                                                                                                                                                                                                                        |  |                                                                                         |  |                                                                                     |  |                                                                                                                                                                                    |  |                                                              |  |
| MDCRF-CS-02                                |  |                                                                                                                                                                                                                        |  |                                                                                         |  |                                                                                     |  |                                                                                                                                                                                    |  |                                                              |  |
| Possible Hazard Identification             |  | <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  | Deliverable Requested: I, II, III, IV, Other (specify)                                  |  | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) |  | Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/>                                                                                      |  | Archive For _____ Months                                     |  |
| Empty Kit Relinquished by:                 |  | Date:                                                                                                                                                                                                                  |  | Time:                                                                                   |  | Method of Shipment:                                                                 |  | Received by:                                                                                                                                                                       |  | Company:                                                     |  |
| Relinquished by:                           |  | Date/Time:                                                                                                                                                                                                             |  | Date/Time:                                                                              |  | Date/Time:                                                                          |  | Date/Time:                                                                                                                                                                         |  | Company:                                                     |  |
| Relinquished by:                           |  | Date/Time:                                                                                                                                                                                                             |  | Date/Time:                                                                              |  | Date/Time:                                                                          |  | Date/Time:                                                                                                                                                                         |  | Company:                                                     |  |
| Custody Seals Intact:                      |  | Custody Seal No.:                                                                                                                                                                                                      |  | Cooler Temperature(s) °C and Other Remarks:                                             |  |                                                                                     |  |                                                                                                                                                                                    |  |                                                              |  |

## Chain of Custody Record



Environment Testing

| Client Information                                                                                                                                                                                                                                       |             | Lab PM:                                                                      |                                 | Carrier Tracking No(s):                   |                                   | COC No:                    |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------|---------------------------------|-------------------------------------------|-----------------------------------|----------------------------|----------------------------------------|---------------------------------------------------|-------------------------------|----------------------------|----------------------------------------------------|------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Client Contact:<br>Andy Lewis                                                                                                                                                                                                                            |             | Brooks, Kris M                                                               |                                 |                                           |                                   | 240-114566-40645.6         |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Company:<br>WSP USA Inc                                                                                                                                                                                                                                  |             | E-Mail:<br>Kris.Brooks@et.eurofins.com                                       |                                 | State of Origin:                          |                                   | Page: 3 of 3               |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Address:<br>46850 Magellan Drive Suite 190                                                                                                                                                                                                               |             | PWSID:                                                                       |                                 | Job #:                                    |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| City:<br>Novi                                                                                                                                                                                                                                            |             | Due Date Requested:                                                          |                                 | Analysis Requested                        |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| State, Zip:<br>MI, 48377                                                                                                                                                                                                                                 |             | TAT Requested (days):<br>STD                                                 |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Phone:<br>517-285-4704(Tel)                                                                                                                                                                                                                              |             | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Email:<br>andy.lewis@wsp.com                                                                                                                                                                                                                             |             | PO #:<br>202310979                                                           |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Project Name:<br>Covanta Energy                                                                                                                                                                                                                          |             | WO #:<br>202310979                                                           |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Site:<br>MDX RRF                                                                                                                                                                                                                                         |             | Eurofins Project #:<br>24032267                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
|                                                                                                                                                                                                                                                          |             | SSOW#:                                                                       |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Sample Identification                                                                                                                                                                                                                                    | Sample Date | Sample Time                                                                  | Sample Type<br>(C=Comp, G=grab) | Matrix<br>(W=water, S=solid, O=waste/oli) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Paint - 6010D/7471B Metals, 8082A PCBs | Solids - 6010D/7471B Metals, 8082A PCBs, Moisture | Solids - 8082A PCBs, Moisture | Oil (Waste) - 8082A - PCBs | Masonry - 6010D/7471B Metals, 8082A PCBs, Moisture | Masonry - TENORM | Total Number of Containers | Special Instructions/Note:                                                                                                                                                                                                             |  |
| MDX RRF - CS-03                                                                                                                                                                                                                                          | 11/29/23    | 1415                                                                         | G                               | S                                         |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Please crush "CS" samples prior to analysis                                                                                                                                                                                            |  |
| -CS-04                                                                                                                                                                                                                                                   |             | 1430                                                                         |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| -CS-05                                                                                                                                                                                                                                                   |             | 1440                                                                         |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| -CS-06                                                                                                                                                                                                                                                   |             | 1450                                                                         |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| MDX RRF - PR-01                                                                                                                                                                                                                                          |             | 1000                                                                         |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| -PR-02                                                                                                                                                                                                                                                   |             | 1010                                                                         |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| MDX RRF - TAR-01                                                                                                                                                                                                                                         | 11/30/23    | 0745                                                                         | G                               | S                                         |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| MDX RRF - TO-05                                                                                                                                                                                                                                          | 11/30/23    | 0929                                                                         | G                               | S                                         |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |
| Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)<br><input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  |
| Deliverable Requested: I, II, III, IV, Other (specify)                                                                                                                                                                                                   |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Special Instructions/QC Requirements:                                                                                                                                                                                                  |  |
| Empty Kit Relinquished by:                                                                                                                                                                                                                               |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Time:                                                                                                                                                                                                                                  |  |
| Relinquished by:                                                                                                                                                                                                                                         |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Date:                                                                                                                                                                                                                                  |  |
| Relinquished by:                                                                                                                                                                                                                                         |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Date:                                                                                                                                                                                                                                  |  |
| Relinquished by:                                                                                                                                                                                                                                         |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Date:                                                                                                                                                                                                                                  |  |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                           |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Custody Seal No.:                                                                                                                                                                                                                      |  |
| Received by: <u>Alana Atkinson</u>                                                                                                                                                                                                                       |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Date/Time: 12-1-23 10:20                                                                                                                                                                                                               |  |
| Received by:                                                                                                                                                                                                                                             |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Date/Time:                                                                                                                                                                                                                             |  |
| Received by:                                                                                                                                                                                                                                             |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            | Date/Time:                                                                                                                                                                                                                             |  |
| Cooler Temperature(s) °C and Other Remarks:                                                                                                                                                                                                              |             |                                                                              |                                 |                                           |                                   |                            |                                        |                                                   |                               |                            |                                                    |                  |                            |                                                                                                                                                                                                                                        |  |

**Eurofins - Cleveland Sample Receipt Form/Narrative** Login # : \_\_\_\_\_  
**Barberton Facility**

Client WSP Site Name \_\_\_\_\_ Cooler unpacked by: Alicia Peterson  
Cooler Received on 12-1-23 Opened on 12-1-23  
FedEx: 1<sup>st</sup> Grd ☒ Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other \_\_\_\_\_

**Receipt After-hours: Drop-off Date/Time** \_\_\_\_\_ **Storage Location** \_\_\_\_\_

Eurofins Cooler # EC Foam Box Client Cooler Box Other \_\_\_\_\_  
Packing material used: Bubble Wrap Foam Plastic Bag None Other \_\_\_\_\_  
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form  
IR GUN # 21 (CF 0.2 °C) Observed Cooler Temp. 16.7 °C Corrected Cooler Temp 16.9 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity \_\_\_\_\_ Yes ☒ No ☒ NA  
- Were the seals on the outside of the cooler(s) signed & dated? Yes ☒ No ☒ NA  
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes ☒ No ☒ NA  
- Were tamper/custody seals intact and uncompromised? Yes ☒ No ☒ NA

3. Shippers' packing slip attached to the cooler(s)? ☒ Yes ☒ No  
4. Did custody papers accompany the sample(s)? ☒ Yes ☒ No  
5. Were the custody papers relinquished & signed in the appropriate place? ☒ Yes ☒ No  
6. Was/were the person(s) who collected the samples clearly identified on the COC? ☒ Yes ☒ No  
7. Did all bottles arrive in good condition (Unbroken)? ☒ Yes ☒ No  
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? ☒ Yes ☒ No  
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? ☒ Yes ☒ No  
10. Were correct bottle(s) used for the test(s) indicated? ☒ Yes ☒ No  
11. Sufficient quantity received to perform indicated analyses? ☒ Yes ☒ No  
12. Are these work share samples and all listed on the COC? ☒ Yes ☒ No  
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? ☒ Yes ☒ No ☒ NA pH Strip Lot# HC316719  
14. Were VOAs on the COC? ☒ Yes ☒ No ☒ NA  
15. Were air bubbles >6 mm in any VOA vials? ☒ Yes ☒ No ☒ NA Larger than this.   
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # \_\_\_\_\_ ☒ Yes ☒ No  
17. Was a LL Hg or Me Hg trip blank present? ☒ Yes ☒ No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
Concerning \_\_\_\_\_

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** ☐ additional next page Samples processed by: \_\_\_\_\_  
Received 3 8oz jars labeled MDCRRE-TW-01  
Did not receive sample MDCRRE-TW-03 as  
listed on COC

**19. SAMPLE CONDITION**  
Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
Sample(s) \_\_\_\_\_ were received in a broken container.  
Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**20. SAMPLE PRESERVATION**  
Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_  
VOA Sample Preservation - Date/Time VOAs Frozen: \_\_\_\_\_



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# Appendix B

## **Miami-Dade Resources Recovery Facility Building Materials Sampling and Analyses Plan**

| Area of Interest                                                                        | Objective/Approach                                                                                                                                                                                                                    | Existing Data                                                                                                                                                                                                                                                                                                                                                                        | Proposed Sampling                                                                                                                                                                                                                                                                                                                                                                      | Laboratory | Proposed Total Quantity of Samples | Laboratory Analytical Parameters                                                                           | Laboratory Analytical Methods                                                      |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Asbestos Containing Materials                                                           | Identify locations and quantities of asbestos containing materials to be abated for demolition and removal of all above-slab structures and flooring.                                                                                 | Pre-Demolition Asbestos Survey Report by Partner Engineering and Science, Inc.<br>848 samples for asbestos from various suspect materials.                                                                                                                                                                                                                                           | Collect bulk samples for analysis to determine if building materials contain asbestos (drywall, joint compound, ceiling tile, cove base, mastic, siding (including interior and exterior building materials and roofing)).                                                                                                                                                             | EMSL       | 300                                | Asbestos                                                                                                   | Polarized Light Microscopy<br>USEPA-600/R-93/116                                   |
| Asbestos Containing Materials                                                           | Confirmation for ACM containing <1%.                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                      | Assumed number of samples. Actual will depend on results of standard PLM analyses.                                                                                                                                                                                                                                                                                                     | EMSL       | 30                                 | PLM w/400 point count                                                                                      | USEPA-600/R-93/116, 400 point count with gravimetric reduction                     |
| Paint and Epoxy Chips                                                                   | Representative sampling for preliminary RCRA and TSCA waste profiling and information to support exposure assessments.                                                                                                                | RMS by WPS (January 2024) provides analysis results for PCBs and lead in:<br>2 epoxy samples from slabs<br>2 fallen paint samples<br>2 intact paint samples from steel structures<br>7 intact paint samples from above-slab concrete walls and bumper<br>PCBs ranged from ND to 1.1 mg/kg<br>Lead ranged from 43mg/kg to 1,800 mg/kg; 4 samples exceeded 20X rule for TCLP screening | Collect paint or epoxy chips (to substrate) as follows:<br>One sample to represent each building or area substrate not previously sampled (12 samples estimated)<br>Four RMS (2024) areas to be resampled for TCLP metals analysis where 20X screening criterion was exceeded for lead.<br>Two Discretionary Fallen Paint Composite Samples                                            | Eurofins   | 18                                 | Total RCRA 8 Metals<br><br>TCLP Metals<br>(Contingent on Rule of 20X Results for Total Metals)<br><br>PCBs | 6020/7471<br><br>1311 Extraction<br>6020A/7471<br><br>8082A w Microwave Extraction |
| Caulks, Expansion Joints, Glazing, Mastics,                                             | Confirm the presence/absence and concentration of PCBs in non-liquid building materials (not included in the paint and epoxy samples above) for comparison to PCB Bulk Product Waste screening criteria.                              | RMS by WPS (January 2024) provides analysis results for PCBs in:<br>1 window caulk between admin and GP<br>1 exterior door caulk<br>PCBs were not detected in either sample                                                                                                                                                                                                          | Collect 1 composite sample of each target material from each building or complex including slab expansion joints, window caulk, window glazing, door caulk, tile mastic, caulk/expansion seams between masonry walls and metal walls and roofing panels, and binders in asbestos laminated galvanized steel panels to be demolished.                                                   | Eurofins   | 24                                 | PCBs                                                                                                       | 8082A w Microwave Extraction                                                       |
| Hardfill (Walls)                                                                        | Representative sampling and analysis of concrete, concrete masonry units (CMUs), brick, and non-concrete block for preliminary RCRA and TSCA waste profiling, exposure assessments, and feasibility of recycling (onsite or offsite). | RMS by WPS (January 2024) provides analysis results for PCBs and RCRA 8 Metals in:<br>1 concrete wall sample inside ash building<br>PCBs were not detected<br>Lead at 150 mg/kg exceeded the 20X rule for TCLP screening                                                                                                                                                             | Collect samples with a rotary hammer drill, up to 2 inches deep, and composite by wall material type per building or complex.                                                                                                                                                                                                                                                          | Eurofins   | 20                                 | Total RCRA 8 Metals<br><br>TCLP Metals<br>(Contingent on Rule of 20X Results for Total Metals)<br><br>PCBs | 6020/7471<br><br>1311 Extraction<br>6020A/7471<br><br>8082A w Microwave Extraction |
| Hardfill (Concrete Slabs, Pads and Pedestals)                                           | Representative sampling and analysis of concrete slabs for preliminary RCRA and TSCA waste profiling, exposure assessments, and feasibility of recycling (onsite or offsite).                                                         | RMS by WPS (January 2024) provides analysis results for PCBs And RCRA 8 Metals in:<br>5 Concrete slabs in RTI Processing, Fuel Storage, GP, Vehicle Maintenance, and Turbine Hall<br>PCBs were not detected in any samples<br>Metals were detected in all samples but no results exceeded the 20X rule for TCLP screening                                                            | Collect samples with a rotary hammer drill, up to 2 inches deep, and composite by concrete material type per building, or complex, exterior pads, and tower and equipment pedestals (excluding concrete pads for oil containing electrical equipment that are included below).                                                                                                         | Eurofins   | 20                                 | Total RCRA 8 Metals<br><br>TCLP Metals<br>(Contingent on Rule of 20X Results for Total Metals)<br><br>PCBs | 6020/7471<br><br>1311 Extraction<br>6020A/7471<br><br>8082A w Microwave Extraction |
| Pads Supporting Oil Containing Electrical Equipment                                     | Representative sampling and analysis of concrete slabs supporting liquid containing electrical transformers or voltage regulators for TSCA waste profiling.                                                                           | RMS by WPS (January 2024) identified 17 pieces of equipment (transformers) containing oils did not sample any underlying concrete pads. One was labelled non-PCB.                                                                                                                                                                                                                    | Collect samples with a rotary hammer drill, 0.5 inches deep, as a single sample per pad consisting of 5-6 subsamples to provide one-30 gram sample per transformer pad for analysis.                                                                                                                                                                                                   | Eurofins   | 17                                 | PCBs                                                                                                       | 8082A w Microwave Extraction                                                       |
| Deenergized High Voltage Electrical Cables, Voltage Regulators, Switches and Reclosers, | To determine the presence/absence of liquid containing or liquid impregnated electrical components to determine if they contain PCBs, if not already labeled as PCB or non-PCBs.                                                      | RMS by WPS (January 2024) did not specifically identify electrical equipment and cables for potential to contain PCBs. Such equipment was energized at the time of the survey and excluded from any destructive inspection or sampling.                                                                                                                                              | Representative destructive sampling of deenergized and gapped electrical cables at the gap points, as well as sampling any liquid filled electrical regulating devices other than transformers. Suspect damp or oily insulation paper or fabrics between conductors within metal jacketed cables will be sampled with hand tools. Fluid-filled devices will be sampled at drain ports. | Eurofins   | 10                                 | PCBs                                                                                                       | 8082A w Microwave Extraction                                                       |



| Area of Interest                       | Objective/Approach                                                                                                                                          | Existing Data                                                                                                                                                                                                                        | Proposed Sampling                                                                                                                                                                                                  | Laboratory | Proposed Total Quantity of Samples | Laboratory Analytical Parameters                                                                                      | Laboratory Analytical Methods                                           |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Electrical Equipment Oils              | To classify electrical equipment oils for recycling or disposal                                                                                             | RMS by WPS (January 2024) identified 17 pieces of equipment (transformers) and was able to sampled 5 deenergized transformers for PCB analysis. One transformer is labeled no-PCB, leaving 11 transformers without current sampling. | Sampling oil from each transformer and other fluid filled electrical equipment that is not labeled no-PCB. Contingency to add 3 other equipment samples to anticipated 11 transformer samples = 15 samples.        | Eurofins   | 15                                 | PCBs                                                                                                                  | 8082A w Microwave Extraction                                            |
| General Construction Demolition Debris | Representative sampling of above-slab demolition debris to be generated                                                                                     | RMS by WPS (January 2024) did not specifically identify or sample general future construction and demolition (C&D) debris.                                                                                                           | Collect up to 18 locally segregated composite samples of general C&D (sheetrock, ceiling tiles, vinyl flooring, wood block tiles, poly block tiles, mic. debris, structural wood, trim wood, wood, plastic, etc.). | Eurofins   | 18                                 | Total RCRA 8 Metals<br><br>TCLP Metals<br>(Contingent on Rule of 20X Results for Total Metals)                        | 6020/7471<br><br>1311 Extraction<br>6020A/7471                          |
| Fire Damaged Debris                    | Representative sampling of above-slab demolition debris that has been charred by the 2023 fire.                                                             | RMS by WPS (January 2024) did not specifically identify or sample general future construction and demolition (C&D) that has been charred by the 2023 Fire, in anticipation of landfill restrictions on fire debris.                  | Collect up to 3 representative composite samples of charred organic debris, if still present on the site, for analysis of dioxin compounds.                                                                        | Eurofins   | 3                                  | Hexachlorodibenzo-p-dioxins and hexachlorodibenzofurans                                                               | 8280B                                                                   |
| Investigation based areas of concern   | Stained porous materials (e/g., concrete stained by oil or chemicals), laboratories with residual chemicals coating sinks and fume hoods,                   | RMS by WPS (January 2024) did not specifically identify any building materials potentially impacted by oils or chemicals.                                                                                                            | Contingency sampling based on visual observations and client knowledge. If slabs or walls appear to be impacted, these areas will be sampled separately from sampling listed above.                                | Eurofins   | 6                                  | Total RCRA 8 Metals<br><br>TCLP Metals<br>(Contingent on Rule of 20X Results for Total Metals)                        | 6020/7471<br><br>1311 Extraction<br>6020A/7472                          |
| Standing Water                         | Representative sampling of standing water in pits, sumps or depressions for preliminary RCRA waste profiling or feasibility of discharge to municipal POTW. | RMS by WPS (January 2024) did not specifically identify or sample standing water.                                                                                                                                                    | Collect representative grab or composite samples of standing water for analysis.                                                                                                                                   | Eurofins   | 3                                  | VOC<br>SVOC<br>PCBs<br>Total RCRA 8 Metals<br>Oil and Grease                                                          | 8260<br>8270<br>8082A<br>6010/7471<br>1664                              |
| Sludge or Sediments                    | Representative sampling of sludge or sediments in pits, sumps, subdrain systems, or other depressions within the buildings.                                 | RMS by WPS (January 2024) provides analysis results for RCRA 8 Metals in:<br>2 sediments samples from 2 trench drains:<br>lead results for both exceeded the 20X Rule for TCLP screening                                             | Collect representative samples of sediment or sludge (if accessible) for analysis.                                                                                                                                 | Eurofins   | 6                                  | VOC<br>SVOC<br>PCBs<br>Total RCRA 8 Metals<br><br>TCLP Metals<br>(Contingent on Rule of 20X Results for Total Metals) | 8260<br>8270<br>8082A<br>6010/7471<br><br>1311 Extraction<br>6020A/7472 |

Total Estimated Samples for Analyses162

Sampling and Analysis Plan Notes:

1. The number of samples listed is approximate. The actual number of samples collected will depend upon facility conditions encountered (i.e., the presence of staining), accessibility.
2. Additional samples may be collected from Areas of Interest identified during the site inspection that are not listed above upon further discussion with the County.
3. Additional laboratory analytical parameters may be recommended in some areas based on results of observations.
4. No samples will be collected by Arcadis from inaccessible areas (confined spaces, etc.).
5. Samples collected for chemical analysis during the project will be submitted to Eurofins Laboratory Network.
6. Total RCRA 8 Metals and TCLP Metals includes the following: arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.
7. Equipment and oil samples not included.
8. Delineation samples, if needed, are not included.
9. Assumes no listed wastes - Arcadis to review historical records to verify.

# Appendix C

## **Miami-Dade County, FL – Code of Ordinances: Chapter 24**

**Miami-Dade County, Florida - Code of Ordinances**

**Chapter 24, Article III, Division 3 – Contaminated Site Clean-Ups**

**Sec. 24-44. - Clean-up Target Levels (CTLs) and Procedures for Site Rehabilitation Actions (SRAs).**

- (1) STATE PROGRAM CONTAMINANT CLEAN-UP TARGET LEVELS (CTLs) AND PROCEDURES.
  - (a) For contaminants subject to Chapter 62-770, F.A.C., the CTLs and SRA procedures set forth in Chapter 62-777 and 62-770, Florida Administrative Code (F.A.C.) shall apply.
  - (b) For sites which have entered into a Brownfields Site Rehabilitation Agreement with the Department or the Florida Department of Environmental Protection pursuant to Chapter 62-785, F.A.C., the CTLs and SRA procedures set forth in Chapter 62-777 and 62-785, F.A.C. shall apply.
  - (c) For contaminants subject to Chapter 62-782, F.A.C., the CTLs and SRA procedures set forth in Chapter 62-777 and 62-782, F.A.C. shall apply.
  - (d) For lands owned by the state university system, the risk-based clean-up criteria as described in 376.3071, 376.3078, and 376.81, Florida Statutes, shall apply.

- (2) CLEAN-UP TARGET LEVELS (CTLs) AND PROCEDURES FOR SITES OR CONTAMINANTS OTHER THAN THOSE IDENTIFIED IN SECTION 24-44(1).
  - (a) Intent. To protect human health, public safety and environmental resources using risk-based corrective action strategies and to establish the point at which a site rehabilitation action is determined to be accomplished.
  - (b) The acceptable level of protection for the establishment of human health based CTLs shall be a lifetime excess cancer risk level of one in one million (1.0E-06) and a hazard quotient of one (1) or less. In addition, the CTLs shall be established to protect aquatic life and to prevent nuisance conditions as applicable.
  - (c) Applicability. The CTLs set forth in this section are not effluent standards and are not for the purpose of disposal or reuse.

The CTLs and SRA procedures set forth in this section shall not apply to those contaminants that are subject to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986, the Resource Conservation and Recovery Act, the federal Hazardous and Solid Waste Amendments of 1984, or the Toxic Substance Control Act of 1976.

In addition, the soil CTLs set forth in Section 24-44(2)(f)(v)2. shall not apply to contaminants in soil that are present as a result of the application of registered pesticides that were applied in accordance with state and federal law and the EPA approved applicable registered labels. In making a determination of the applicability of CTLs pursuant to this provision, the party or parties responsible for SRAs shall provide records substantiating such pesticide applications to the Department upon request. Notwithstanding the foregoing provisions of Section 24-44(2)(b), if groundwater contains contaminants above the groundwater CTLs set forth in Section 24-44(2)(f)(v)1. as a result of the pesticide application, then the CTLs and SRA procedures set forth in Section 24-44(2) shall apply.

- (d) Party or parties responsible for site rehabilitation actions shall be the discharger or, if the discharger is unknown or the contamination was the result of a previously unreported discharge, the property owner or operator who is subject to the provisions of Section 24-44(2).
- (e) Retroactivity. The CTLs and the SRA procedures set forth herein shall not apply to those contaminants for which, on or before the effective date of this ordinance, a no further action plan, a source removal plan, a remedial action plan or a monitoring only plan has been approved in writing by the Director, or the Director's designee, unless the party or parties responsible for SRAs

have failed to comply with the conditions of the plan approval. However, the party or parties responsible for SRAs may elect to complete site rehabilitation as provided in Section 24-44(2).

(f) The Clean-up Target Levels are as follows:

- (i) The groundwater and surface water CTLs are set forth in Section 24-44(2)(f)(v)1. The groundwater CTLs are equivalent to the numerical standards set forth in Section 24-43.3(2)(h) of this chapter. For contaminants not listed in Section 24-43.3(2)(h), the groundwater CTLs are equivalent to the numerical standards set forth in Chapter 62-550, F.A.C., Table 1, Table 2, Table 3, Table 4, Table 5 and Table 6, as same may be amended from time to time.

For contaminants not listed in Section 24-43.3(2)(h) or Chapter 62-550, F.A.C., Table 1, Table 2, Table 3, Table 4, Table 5 and Table 6, as same may be amended from time to time, groundwater CTLs are based upon the protection of human health and the prevention of nuisance conditions as set forth in Section 24-44(2)(b). The groundwater CTLs have been established using the procedures, equations and input parameters set forth in the DERM Technical Report: "Development of Clean-up Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County, Florida" (dated September, 2005).

The surface water CTLs are equivalent to the water quality standards set forth in Section 24-42(4) of this chapter.

For contaminants not listed in Section 24-42(4), the surface water CTLs are based upon the protection of human health and aquatic life and the prevention of nuisance conditions as set forth in Section 24-44(2)(b). The surface water CTLs have been established using the procedures, equations and input parameters set forth in the DERM Technical Report: "Development of Clean-up Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County, Florida" (dated September, 2005) and, as applicable, the numerical standards set forth in Chapter 62-302, F.A.C, as same may be amended from time to time.

Notwithstanding the foregoing provisions of Section 24-44(2)(f)(i), no groundwater or surface water CTLs shall be more stringent than the practical quantitation limits or naturally occurring background concentrations determined in a natural background concentration study which has been approved by the Director or the Director's designee.

- (ii) The soil CTLs are set forth in Section 24-44(2)(f)(v)2.. The soil CTLs are based upon the protection of human health as set forth in Section 24-44(2)(b) and groundwater and surface water CTLs set forth in Section 24-44(2)(f)(v)1.. The soil CTLs have been established using the procedures, equations and input parameters set forth in the DERM Technical Report: "Development of Clean-up Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County, Florida" (dated September, 2005).

However, the applicable leachability-based soil CTLs may be exceeded if it is demonstrated to the satisfaction of the Director, or the Director's designee, that:

1. Leachate concentrations do not exceed the applicable groundwater or surface water CTLs set forth in Section 24-44(2)(f)(v)1., using a laboratory leaching procedure which simulates soil leachability and which has been approved by the Director or the Director's designee; or
2. For soil that is and has been exposed to the elements (i.e., open ground, not covered by impermeable or semi-permeable cover) and subject to infiltration throughout the entire unsaturated zone for a minimum of two years, it has been subsequently demonstrated to the satisfaction of the Director, or the Director's designee, by a minimum of one year of groundwater monitoring data, that contaminants will not leach into the groundwater at concentrations that exceed the applicable groundwater or surface water CTLs set forth in Section 24-44(2)(f)(v)1.. This demonstration shall consider site-specific characteristics such as the thickness of the unsaturated zone,

depth and mass of soil contaminants, soil lithology, actual precipitation, concentration gradients, and the chemical and physical characteristics of the contaminants.

Notwithstanding the foregoing provisions of Section 24-44(2)(f)(ii), no soil CTLs shall be more stringent than the practical quantitation limits or naturally occurring background concentrations determined in a natural background concentration study which has been approved by the Director or the Director's designee.

- (iii) The Director, or the Director's designee, may approve alternative CTLs provided that: human health, public safety, and the environment are afforded equivalent protection to that provided in Section 24-44 (2)(f)(i) and Section 24-44(2)(f)(ii); and same are based upon one (1) of the following, or a combination of the following:
  1. The application of the procedures set forth in Section 24-44 (2)(k)(ii) or Section 24-44(2)(1)(ii).
  2. A demonstration, provided in a feasibility study approved by the Director, or the Director's designee, that achieving the CTLs is not feasible utilizing the best available technologies.
  3. Calculations of site-specific soil CTLs using appropriate site-specific soil properties and equations provided in the DERM Technical Report: "Development of Clean-up Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County, Florida" (dated September, 2005), and approved by the Director or the Director's designee.
  4. Calculations of site-specific soil CTLs for total recoverable petroleum hydrocarbons (TRPH) based upon the site-specific composition of TRPH, as determined by an analytical method approved by the Director or the Director's designee. Calculations utilized to comply with this provision shall be in accordance with the DERM Technical Report: "Development of Clean-up Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County, Florida" (dated September, 2005).
- (iv) The Director, or the Director's designee, shall maintain the DERM Technical Report: "Development of Clean-up Target Levels for Chapter 24 of the Code of Miami-Dade County, Florida" (dated September, 2005) which contains the risk equations, leachability equations and default input parameters used to calculate the CTLs set forth in Section 24-44(2)(f)(v) herein. The aforesaid Technical Report dated September, 2005, a copy of which is attached hereto, is hereby incorporated by reference, as same may be amended from time to time. Any changes, additions or deletions to the aforesaid Technical Report shall be approved by the Board of County Commissioners by ordinance.
- (v) Clean-up Target Levels (CTLs).
  1. *Groundwater and Surface Water CTLs.*

Table 1 Groundwater and Surface Water Clean-up Target levels

| Contaminants   | CAS#       | Groundwater Criteria | Freshwater Surface Water Criteria | Marine Surface Water Criteria | Non-Cancer Target Organs/Systems or Effects# |
|----------------|------------|----------------------|-----------------------------------|-------------------------------|----------------------------------------------|
| Acenaphthene   | 83-32-9    | 20                   | 3                                 | 3                             | -Liver                                       |
| Acenaphthylene | 208-96-8   | 210                  | *                                 | *                             | -Liver                                       |
| Acephate       | 30560-19-1 | 4                    | 190                               | 190                           | Cancer - Neurological                        |
| Acetone        | 67-64-1    | 6300                 | 1700                              | 1700                          | -Kidney -Liver -Neurological                 |

|                                 |            |       |         |         |                             |
|---------------------------------|------------|-------|---------|---------|-----------------------------|
| Acetonitrile                    | 75-05-8    | 42    | 20000   | 20000   | -Mortality                  |
| Acetophenone                    | 98-86-2    | 700   | 7800    | 7800    | -None Specified             |
| Acifluorfen, sodium [or Blazer] | 62476-59-9 | 1     | 190     | 190     | -Kidney                     |
| Acrolein                        | 107-02-8   | 3.5   | 0.4     | 0.4     | -Nasal                      |
| Acrylamide                      | 79-06-1    | 0.008 | 0.3     | 0.3     | Cancer - Neurological       |
| Acrylic acid                    | 79-10-7    | 3500  | NA      | NA      | -Developmental              |
| Acrylonitrile                   | 107-13-1   | 0.06  | 0.2     | 0.2     | Cancer -Nasal -Reproductive |
| Alachlor                        | 15972-60-8 | 2     | 0.5     | 0.5     | Cancer -Blood               |
| Aldicarb [or Temik]             | 116-06-3   | 7     | 0.9     | 0.9     | -Neurological               |
| Aldicarb sulfone                | 1646-88-4  | 7     | 46      | 46      | -Neurological               |
| Aldicarb sulfoxide              | 1646-87-3  | 7     | 4.2     | 4.2     | -Neurological               |
| Aldrin                          | 309-00-2   | 0.002 | 0.00014 | 0.00014 | Cancer -Liver               |
| Ally [or Metsulfuron, methyl]   | 74223-64-6 | 1800  | NA      | NA      | -Body Weight                |
| Allyl alcohol                   | 107-18-6   | 35    | 5       | 5       | -Kidney -Liver              |
| Allyl chloride                  | 107-05-1   | 35**  | NA      | NA      | -Neurological               |
| Aluminum                        | 7429-90-5  | 200   | 13      | 1500    | -Body Weight                |
| Aluminum phosphide              | 20859-73-8 | 2.8   | 6.5     | 6.5     | -Body Weight                |
| Ametryn                         | 834-12-8   | 63    | 6.2     | 6.2     | -Liver                      |
| Ammonia                         | 7664-41-7  | NA    | 20      | NA      | -Body Weight                |
| Ammonia (as Total)              |            | 2800  | 500     | 500     | -Respiratory                |
| Ammonium sulfamate              | 7773-06-0  | 1400  | 10000   | 10000   | -Body Weight                |
| Anilazine [or Dyrene]           | 101-05-3   | 2.8   | NA      | NA      | -None Specified             |
| Aniline                         | 62-53-3    | 6.1   | 4       | 4       | Cancer - Blood -Spleen      |

|                                |            |        |        |        |                               |
|--------------------------------|------------|--------|--------|--------|-------------------------------|
| Anthracene                     | 120-12-7   | 2100   | 0.3    | 0.3    | -None Specified               |
| Antimony                       | 7440-36-0  | 6      | 4300   | 4300   | -Blood                        |
| Aramite                        | 140-57-8   | 1.4    | 3      | 3      | -Cancer                       |
| Aroclor mixture [see PCBs]     |            |        |        |        |                               |
| Arsenic                        | NOCAS      | 10     | 50     | 50     | -Cancer -Cardiovascular -Skin |
| Atrazine                       | 1912-24-9  | 3      | 1.9    | 1.9    | -Cancer -Cardiovascular       |
| Azinphos, methyl [see Guthion] |            |        |        |        |                               |
| Azobenzene                     | 103-33-3   | 0.3    | 3.6    | 3.6    | -Cancer                       |
| Barium (soluble salts)         | 7440-39-3  | 2000   | NA     | NA     | -Cardiovascular               |
| Baygon [or Propoxur]           | 114-26-1   | 28     | 0.4    | 0.4    | -Blood -Neurological          |
| Bayleton                       | 43121-43-3 | 210    | 500    | 500    | -Blood                        |
| Benomyl                        | 17804-35-2 | 35**   | 0.3    | 0.3    | -Developmental                |
| Bensulide                      | 741-58-2   | 46     | NA     | NA     | -None Specified               |
| Bentazon                       | 25057-89-0 | 210    | NA     | NA     | -Blood                        |
| Benzaldehyde                   | 100-52-7   | 700    | 54     | 54     | -Gastrointestinal -Kidney     |
| Benzene                        | 71-43-2    | 1      | 71.28  | 71.28  | -Cancer -Blood                |
| Benzenethiol                   | 108-98-5   | 0.07   | NA     | NA     | -Liver                        |
| Benzydine                      | 92-87-5    | 0.0002 | 0.0002 | 0.0002 | -Cancer -Liver -Neurological  |
| Benzo(a)anthracene             | 56-55-3    | 0.05   | *      | *      | -Cancer                       |
| Benzo(a)pyrene                 | 50-32-8    | 0.2    | *      | *      | -Cancer                       |
| Benzo(b)fluoranthene           | 205-99-2   | 0.05   | *      | *      | -Cancer                       |
| Benzo(g,h,i)perylene           | 191-24-2   | 210    | *      | *      | -Neurological                 |
| Benzo(k)fluoranthene           | 207-08-9   | 0.5    | *      | *      | -Cancer                       |

|                                                                    |            |       |       |       |                                        |
|--------------------------------------------------------------------|------------|-------|-------|-------|----------------------------------------|
| Benzoic acid                                                       | 65-85-0    | 28000 | 9000  | 9000  | -None Specified                        |
| Benzotrichloride                                                   | 98-07-7    | 0.003 | 0.002 | 0.002 | -Cancer                                |
| Benzyl alcohol                                                     | 100-51-6   | 2100  | 500   | 500   | -Gastrointestinal                      |
| Benzyl chloride                                                    | 100-44-7   | 0.2   | 2     | 2     | -Cancer                                |
| Beryllium                                                          | 7440-41-7  | 4     | 0.13  | 0.13  | -Cancer -Gastrointestinal -Respiratory |
| Beta radiation                                                     | NOCAS      | 4     | NA    | NA    | -Cancer                                |
| BHC, alpha- [see Hexachlorocyclohexane, alpha-] (b)                |            |       |       |       |                                        |
| BHC, beta- [see Hexachlorocyclohexane, beta-] (b)                  |            |       |       |       |                                        |
| BHC, delta- [see Hexachlorocyclohexane, delta-]                    |            |       |       |       |                                        |
| BHC, gamma- [see Hexachlorocyclohexane, gamma-] (b)                |            |       |       |       |                                        |
| BHC, gamma- [see Hexachlorocyclohexane, Technical] (b)             |            |       |       |       |                                        |
| Bidrin [or Dicrotophos]                                            | 141-66-2   | 0.7   | 22    | 22    | -Developmental                         |
| Bioallethrin                                                       | 28057-48-9 | 35    | NA    | NA    | -Liver                                 |
| Biphenyl, 1,1'- [or Diphenyl]                                      | 92-52-4    | 0.5   | 18    | 18    | -Kidney                                |
| Bis(2-chloro-1-methylethyl)ether [see Bis(2-chloroisopropyl)ether] |            |       |       |       |                                        |
| Bis(2-chloroethyl)ether                                            | 111-44-4   | 0.03  | 0.5   | 0.5   | -Cancer                                |
| Bis(2-chloroisopropyl)ether [or Bis(2-chloro-1-methylethyl)ether]  | 39638-32-9 | 0.5   | 23    | 23    | -Cancer -Blood                         |
| Bis(2-ethylhexyl)adipate                                           | 103-23-1   | 400   | 33    | 33    | -Cancer -Body Weight                   |
| Bis(2-ethylhexyl)phthalate [or DEHP]                               | 117-81-7   | 6     | 2.2   | 2.2   | -Cancer -Liver                         |
| Bisphenol A                                                        | 80-05-7    | 350   | 55    | 55    | -Body Weight                           |
| Blazer [see Acifluorfen, sodium]                                   |            |       |       |       |                                        |
| Boron                                                              | 7440-42-8  | 1400  | NA    | NA    | -Reproductive -Respiratory             |

|                                           |            |       |                                 |        |                                |
|-------------------------------------------|------------|-------|---------------------------------|--------|--------------------------------|
| Bravo [see Chlorothalonil]                |            |       |                                 |        |                                |
| Bromacil                                  | 314-40-9   | 70**  | 97                              | 97     | -Body Weight                   |
| Bromate                                   | 15541-45-4 | 10    | NA                              | 100000 | -Cancer -Kidney                |
| Bromochloromethane                        | 74-97-5    | 91    | NA                              | NA     | -None Specified                |
| Bromodichloromethane                      | 75-27-4    | 0.6   | 22                              | 22     | -Cancer -Kidney                |
| Bromoform                                 | 75-25-2    | 4.4   | 360                             | 360    | -Cancer -Liver                 |
| Bromomethane [or Methyl bromide]          | 74-83-9    | 9.8   | 35                              | 35     | -Gastrointestinal -Respiratory |
| Bromoxynil                                | 1689-84-5  | 140   | NA                              | NA     | -None Specified                |
| Bromoxynil octanoate                      | 1689-99-2  | 140   | NA                              | NA     | -Neurological                  |
| Butane                                    | 106-97-8   | 9100  | NA                              | NA     | -Neurological -Respiratory     |
| Butanol, n-                               | 71-36-3    | 700   | 25000                           | 25000  | -Neurological                  |
| Butanol, tert- [see Butyl alcohol, tert-] |            |       |                                 |        |                                |
| Butanone, 2- [see Methyl ethyl ketone]    |            |       |                                 |        |                                |
| Butyl acetate, n-                         | 123-86-4   | 43    | 1000                            | 1000   | -None Specified                |
| Butyl alcohol, tert- [or Butanol, tert-]  | 75-65-0    | 1400  | NA                              | NA     | -Kidney -Neurological          |
| Butyl benzyl phthalate                    | 85-68-7    | 140** | 26                              | 26     | -Liver                         |
| Butylate                                  | 2008-41-5  | 350   | 11                              | 11     | -Liver                         |
| Butylbenzene, n-                          | 104-51-8   | 280   | NA                              | NA     | -Kidney -Liver -Neurological   |
| Butylbenzene, sec                         | 135-98-8   | 280   | 240                             | 240    | -Kidney -Neurological          |
| Butylbenzene, tert                        | 98-06-6    | 280   | NA                              | NA     | -Kidney -Neurological          |
| Butylphthalyl butylglycolate              | 85-70-1    | 7000  | NA                              | NA     | -None Specified                |
| Cadmium                                   | 7440-43-9  | 5     | e <sup>(0.7852[lnH]-3.49)</sup> | 9.3    | -Cancer -Kidney                |
| Calcium cyanide                           | 592-01-8   | 280   | NA                              | NA     | -Neurological -Thyroid         |

|                                                       |            |        |         |         |                                 |
|-------------------------------------------------------|------------|--------|---------|---------|---------------------------------|
| Captafol                                              | 2425-06-1  | 4.1    | 0.9     | 0.9     | -Cancer -Kidney                 |
| Captan                                                | 133-06-2   | 10     | 1.9     | 1.9     | -Cancer -Body Weight            |
| Carbaryl [or Sevin]                                   | 63-25-2    | 700    | 0.06    | 0.06    | -Kidney -Liver                  |
| Carbazole                                             | 86-74-8    | 1.8    | 47      | 47      | -Cancer                         |
| Carbofuran                                            | 1563-66-2  | 40     | 0.1     | 0.1     | -Neurological -Reproductive     |
| Carbon disulfide                                      | 75-15-0    | 700    | 110     | 110     | -Developmental -Neurological    |
| Carbon tetrachloride                                  | 56-23-5    | 3      | 4.42    | 4.42    | -Cancer -Liver                  |
| Carbophenothion [or Trithion]                         | 786-19-6   | 0.9    | 0.1     | 0.1     | -Neurological                   |
| Carboxin                                              | 5234-68-4  | 700    | 60      | 60      | -Body Weight                    |
| CFC 113 [see Trichloro-1,2,2-trifluoroethane, 1,1,2-] |            |        | NA      | NA      | -Adrenals                       |
| Chloral hydrate                                       | 302-17-0   | 70**   | NA      | NA      | -Gastrointestinal -Neurological |
| Chloramben                                            | 133-90-4   | 110    | NA      | NA      | -Liver                          |
| Chlordane (total)                                     | (i)        | 2      | 0.00059 | 0.00059 | -Cancer -Liver                  |
| Chloride                                              | 16887-00-6 | 250000 | 500000  | e       | -None Specified                 |
| Chlorine                                              | 7782-50-5  | 4000   | 10      | 10      | -Respiratory                    |
| Chlorine cyanide [or Cyanogen chloride]               | 506-77-4   | 350    | 1.4     | 1.4     | -Neurological -Thyroid          |
| Chlorite (sodium salt) [or Sodium chlorite]           | 7758-19-2  | 1000   | 29      | 29      | -Developmental -Neurological    |
| Chloro-1,3-butadiene [or Chloroprene]                 | 126-99-8   | 140    | NA      | NA      | -Hair Loss -Nasal               |
| Chloro-3-methylphenol, 4- [see Chloro-m-cresol, p-]   |            |        |         |         |                                 |
| Chloroacetic acid                                     | 79-11-8    | 14     | 2500    | 2500    | -Cardiovascular                 |
| Chloroaniline, p-                                     | 106-47-8   | 28     | 2.5     | 2.5     | -Spleen                         |
| Chlorobenzene                                         | 108-90-7   | 100    | 17      | 17      | -Liver                          |
| Chlorobenzilate                                       | 510-15-6   | 0.1    | 0.02    | 0.02    | -Cancer -Body Weight            |

|                                                    |            |      |                             |       |                                                            |
|----------------------------------------------------|------------|------|-----------------------------|-------|------------------------------------------------------------|
| Chloroethane [see Ethyl chloride]                  |            |      |                             |       |                                                            |
| Chloroform                                         | 67-66-3    | 70   | 470.8                       | 470.8 | -Cancer -Liver                                             |
| Chloro-m-cresol, p- [or Chloro-3-methylphenol, 4-] | 59-50-7    | 63   | 100                         | 100   | -Body Weight                                               |
| Chloromethane [see Methyl chloride]                |            |      |                             |       |                                                            |
| Chloronaphthalene, beta-                           | 91-58-7    | 560  | 1600                        | 1600  | -Liver -Respiratory                                        |
| Chloronitrobenzene, p-                             | 100-00-5   | 1.9  | 110                         | 110   | -Cancer                                                    |
| Chlorophenol, 2-                                   | 95-57-8    | 35   | 130                         | 130   | -Reproductive                                              |
| Chlorophenol, 3-                                   | 108-43-0   | 0.1  | 170                         | 170   | -Reproductive                                              |
| Chlorophenol, 4-                                   | 106-48-9   | 0.1  | 180                         | 180   | -Reproductive                                              |
| Chloropicrin                                       | 76-06-2    | 7.3  | NA                          | NA    | -None Specified                                            |
| Chloroprene [see Chloro-1,3-butadiene]             |            |      |                             |       |                                                            |
| Chlorothalonil [or Bravo]                          | 1897-45-6  | 3.2  | 0.8                         | 0.8   | -Cancer -Kidney                                            |
| Chlorotoluene, o-                                  | 95-49-8    | 140  | 390                         | 390   | -Body Weight                                               |
| Chlorotoluene, p-                                  | 106-43-4   | 140  | NA                          | NA    | -None Specified                                            |
| Chlorpropham                                       | 101-21-3   | 1400 | 190                         | 190   | -Bone Marrow -Kidney -Liver -Spleen                        |
| Chlorpyrifos                                       | 2921-88-2  | 21   | 0.002                       | 0.002 | -Neurological                                              |
| Chlorpyrifos, methyl                               | 5598-13-0  | 70   | 0.04                        | 0.04  | -Reproductive                                              |
| Chlorsulfuron                                      | 64902-72-3 | 350  | 16                          | 16    | -Body Weight                                               |
| Chromium (hexavalent)                              | 18540-29-9 | NA   | 11                          | 50    | -Cancer -Respiratory                                       |
| Chromium (total)                                   | NOCAS      | 100  | 11                          | 50    | -Cancer                                                    |
| Chromium (trivalent)                               | 16065-83-1 | NA   | $e^{(0.819[\ln H]+0.6848)}$ | 520   | -None Specified                                            |
| Chrysene                                           | 218-01-9   | 4.8  | *                           | *     | -Cancer                                                    |
| Cobalt                                             | 7440-48-4  | 140  | NA                          | NA    | -Cardiovascular -Immunological -Neurological -Reproductive |

|                                                  |            |       |                                  |        |                                           |
|--------------------------------------------------|------------|-------|----------------------------------|--------|-------------------------------------------|
| Copper                                           | 7440-50-8  | 1000  | e <sup>(0.8545[lnH]-1.702)</sup> | 2.9    | -Gastrointestinal                         |
| Copper cyanide                                   | 544-92-3   | 35    |                                  |        | -Kidney                                   |
| Coumaphos                                        | 56-72-4    | 1.8   | 0.004                            | 0.004  | -Neurological                             |
| Cresol, m- [see Methylphenol, 3-]                |            |       |                                  |        |                                           |
| Cresol, o- [see Methylphenol, 2-]                |            |       |                                  |        |                                           |
| Cresol, p- [see Methylphenol, 4-]                |            |       |                                  |        |                                           |
| Crotonaldehyde                                   | 123-73-9   | 0.02  | NA                               | NA     | -Cancer                                   |
| Cumene [or Isopropyl benzene]                    | 98-82-8    | 0.8   | 260                              | 260    | -Adrenals -Kidney                         |
| Cyanazine                                        | 21725-46-2 | 0.04  | 5.5                              | 5.5    | -Cancer                                   |
| Cyanide, free                                    | 57-12-5    | 140   | 5.2                              | 1      | -Neurological -Thyroid                    |
| Cyanogen                                         | 460-19-5   | 280   | NA                               | NA     | -Neurological -Thyroid                    |
| Cyanogen chloride [see Chlorine cyanide]         |            |       |                                  |        |                                           |
| Cycloate                                         | 1134-23-2  | 35    | 130                              | 130    | -Neurological                             |
| Cyclohexanone                                    | 108-94-1   | 35000 | 26000                            | 26000  |                                           |
| Cyclohexylamine                                  | 108-91-8   | 1400  | 4000                             | 4000   | -Reproductive                             |
| Cyhalothrin [or Karate]                          | 68085-85-8 | 35    | 18                               | 18     | -Developmental                            |
| Cymene, p- (or 4-Isopropyltoluene)               | 99-87-6    | 700   | NA                               | NA     | -Gastrointestinal -Neurological -Skin     |
| Cypermethrin                                     | 52315-07-8 | 7**   | 0.0005                           | 0.0005 | -Gastrointestinal                         |
| Dacthal [or DCPA]                                | 1861-32-1  | 70    | 310                              | 310    | -Eye -Kidney -Liver -Respiratory -Thyroid |
| Dalapon                                          | 75-99-0    | 200   | 5000                             | 5000   | -Kidney                                   |
| DB, 2,4- [see Dichlorophenoxybutyric acid, 2,4-] |            |       |                                  |        |                                           |
| DBCP, 1,2- [see Dibromo-3-chloropropane, 1,2-]   |            |       |                                  |        |                                           |

|                                                          |           |       |       |       |                                            |
|----------------------------------------------------------|-----------|-------|-------|-------|--------------------------------------------|
| DDD, 4,4'- [see Dichlorodiphenyl dichloroethane, p,p']   |           |       |       |       |                                            |
| DDE, 4,4'- [see Dichlorodiphenyl dichloroethylene, p,p'] |           |       |       |       |                                            |
| DDT, 4,4'- [see Dichlorodiphenyl trichloroethane, p,p']  |           |       |       |       |                                            |
| Decabromodiphenyl ether                                  | 1163-19-5 | 7**   | NA    | NA    | -None Specified                            |
| DEET                                                     | 134-62-3  | 6300  | NA    | NA    | -Body Weight                               |
| DEHP [see Bis(2-ethylhexyl)phthalate]                    |           |       |       |       |                                            |
| Demeton                                                  | 8065-48-3 | 0.3   | 0.1   | 0.1   | -Eye -Neurological                         |
| Diallate                                                 | 2303-16-4 | 0.6   | NA    | NA    | -Cancer -None Specified                    |
| Diazinon                                                 | 333-41-5  | 6.3   | 0.002 | 0.002 | -Neurological                              |
| Dibenz(a,h)anthracene                                    | 53-70-3   | 0.005 | *     | *     | -Cancer                                    |
| Dibenzofuran                                             | 132-64-9  | 28    | 67    | 67    | -None Specified                            |
| Dibromo-3-chloropropane, 1,2- [or DBCP, 1,2-]            | 96-12-8   | 0.2   | NA    | NA    | -Cancer -Reproductive                      |
| Dibromobenzene, 1,4-                                     | 106-37-6  | 70    | 240   | 240   | -Liver                                     |
| Dibromochloromethane                                     | 124-48-1  | 0.4   | 34    | 34    | -Cancer -Liver                             |
| Dibromoethane, 1,2- [or EDB]                             | 106-93-4  | 0.02  | 13    | 13    | -Cancer -Reproductive                      |
| Dibutyl phthalate                                        | 84-74-2   | 700   | 23    | 23    | -Mortality                                 |
| Dicamba                                                  | 1918-00-9 | 210   | 200   | 200   | -Developmental                             |
| Dichloroacetic acid                                      | 79-43-6   | 0.7   | 1200  | 1200  | -Cancer -Liver -Neurological -Reproductive |
| Dichloroacetonitrile                                     | 3018-12-0 | 5.6** | NA    | NA    | -None Specified                            |
| Dichlorobenzene, 1,2-                                    | 95-50-1   | 600   | 99    | 99    | -Body Weight                               |
| Dichlorobenzene, 1,3-                                    | 541-73-1  | 210   | 85    | 85    | -None Specified                            |
| Dichlorobenzene, 1,4-                                    | 106-46-7  | 75    | 3     | 3     | -Cancer -Liver                             |
| Dichlorobenzidine, 3,3'-                                 | 91-94-1   | 0.08  | 0.03  | 0.03  | -Cancer                                    |

|                                                         |          |       |         |         |                                  |
|---------------------------------------------------------|----------|-------|---------|---------|----------------------------------|
| Dichlorobenzophenone, 4,4'-                             | 90-98-2  | 210   | 1600    | 1600    | -None Specified                  |
| Dichlorodifluoromethane                                 | 75-71-8  | 1400  | NA      | NA      | -Liver                           |
| Dichlorodiphenyldichloroethane, p,p'- [or DDD, 4,4'-]   | 72-54-8  | 0.1   | 0.0003  | 0.0003  | -Cancer                          |
| Dichlorodiphenyldichloroethylene, p,p'- [or DDE, 4,4'-] | 72-55-9  | 0.1   | 0.0002  | 0.0002  | -Cancer                          |
| Dichlorodiphenyltrichloroethane, p,p'- [or DDT, 4,4'-]  | 50-29-3  | 0.1   | 0.00059 | 0.00059 | -Cancer -Liver                   |
| Dichloroethane, 1,1-                                    | 75-34-3  | 70**  | NA      | NA      | -Kidney                          |
| Dichloroethane, 1,2- [or EDC]                           | 107-06-2 | 3     | 37      | 37      | -Cancer -None Specified          |
| Dichloroethene, 1,1-                                    | 75-35-4  | 7**   | 3.2     | 3.2     | -Liver                           |
| Dichloroethene, 1,2- (mixture)                          | 540-59-0 | NA    | 7000    | 7000    | -Blood -Liver                    |
| Dichloroethene, cis-1,2-                                | 156-59-2 | 70    | NA      | NA      | -Blood                           |
| Dichloroethene, trans-1,2-                              | 156-60-5 | 100   | 11000   | 11000   | -Blood -Liver                    |
| Dichlorophenol, 2,3-                                    | 576-24-9 | 0.04  | 56      | 56      | -Immunological                   |
| Dichlorophenol, 2,4-                                    | 120-83-2 | 0.3   | 13      | 13      | -Immunological                   |
| Dichlorophenol, 2,5-                                    | 583-78-8 | 0.5   | 90      | 90      | -Immunological                   |
| Dichlorophenol, 2,6-                                    | 87-65-0  | 0.2   | 73      | 73      | -Immunological                   |
| Dichlorophenol, 3,4-                                    | 95-77-2  | 0.3   | 61      | 61      | -Immunological                   |
| Dichlorophenoxy acetic acid, 2,4-                       | 94-75-7  | 70    | 80      | 80      | -Blood -Kidney -Liver            |
| Dichlorophenoxy butyric acid, 2,4- [or DB, 2,4-]        | 94-82-6  | 56    | NA      | NA      | -Blood -Cardiovascular           |
| Dichloropropane, 1,2-                                   | 78-87-5  | 5     | 14      | 14      | -Cancer -Nasal                   |
| Dichloropropene, 1,3-                                   | 542-75-6 | 0.4   | 12      | 12      | -Cancer -Gastrointestinal -Nasal |
| Dichlorprop                                             | 120-36-5 | 35    | 42      | 42      | -None Specified                  |
| Dichlorvos                                              | 62-73-7  | 0.1   | 0.005   | 0.005   | -Cancer -Neurological            |
| Dicofol [or Kelthane]                                   | 115-32-2 | 0.08  | 0.006   | 0.006   | -Cancer -Adrenals                |
| Dicrotophos [see Bidrin]                                |          |       |         |         |                                  |
| Dieldrin                                                | 60-57-1  | 0.002 | 0.00014 | 0.00014 | -Cancer -Liver                   |

|                                    |           |          |        |        |                                      |
|------------------------------------|-----------|----------|--------|--------|--------------------------------------|
| Diethyl phthalate                  | 84-66-2   | 5600     | 380    | 380    | -Body Weight                         |
| Diethylene glycol, monoethyl ether | 111-90-0  | 14000    | 170000 | 170000 | -Kidney                              |
| Diethylstilbestrol                 | 56-53-1   | 0.000007 |        |        | -Cancer                              |
| Diisopropyl methylphosphonate      | 1445-75-6 | 560      | 13000  | 13000  | -None Specified                      |
| Dimethoate                         | 60-51-5   | 1.4      | 0.1    | 0.1    | -Neurological                        |
| Dimethoxybenzidine, 3,3'-          | 119-90-4  | 2.5      | NA     | NA     | -Cancer                              |
| Dimethrin                          | 70-38-2   | 2100     | 1.1    | 1.1    | -Liver                               |
| Dimethylaniline, 2,4-              | 95-68-1   | 0.05     | 1700   | 1700   | -Cancer -Blood -Spleen               |
| Dimethylaniline, N,N-              | 121-69-7  | 14       | 1700   | 1700   | -Spleen                              |
| Dimethylbenzidine, 3,3'-           | 119-93-7  | 0.004    | NA     | NA     | -Cancer                              |
| Dimethylformamide, N,N-            | 68-12-2   | 700      | 50000  | 50000  | -Gastrointestinal -Liver             |
| Dimethylphenol, 2,4-               | 105-67-9  | 140      | 160    | 160    | -Blood -Neurological                 |
| Dimethylphenol, 2,6-               | 576-26-1  | 4.2      | 560    | 560    | -Kidney -Liver -Spleen               |
| Dimethylphenol, 3,4-               | 95-65-8   | 7        | 380    | 380    | -Kidney -Liver -Spleen               |
| Dimethylphthalate                  | 131-11-3  | 70000    | 1400   | 1400   | -Kidney                              |
| Dinitrobenzene, 1,2- (o)           | 528-29-0  | 2.8      | 30     | 30     | -Spleen                              |
| Dinitrobenzene, 1,3- (m)           | 99-65-0   | 0.7      | 72     | 72     | -Spleen                              |
| Dinitrobenzene, 1,4- (p)           | 100-25-4  | 2.8      | 30     | 30     | -Spleen                              |
| Dinitro-o-cyclohexylphenol         | 131-89-5  | 14       | NA     | NA     | -Eye                                 |
| Dinitrophenol, 2,4-                | 51-28-5   | 14       | 3      | 3      | -Eye                                 |
| Dinitrotoluene, 2,4-               | 121-14-2  | 0.05     | 9.1    | 9.1    | -Cancer -Liver -Neurological         |
| Dinitrotoluene, 2,6-               | 606-20-2  | 0.05     | 0.7    | 0.7    | -Cancer -Blood -Kidney -Neurological |
| Di-n-octylphthalate                | 117-84-0  | 140      | NA     | NA     | -Kidney -Liver                       |
| Dinoseb                            | 88-85-7   | 7        | 5.9    | 5.9    | -Developmental                       |
| Dioxane, 1,4-                      | 123-91-1  | 3.2      | 120    | 120    | -Cancer                              |

|                                                      |            |         |             |             |                         |
|------------------------------------------------------|------------|---------|-------------|-------------|-------------------------|
| Dioxins, as total 2,3,7,8-TCDD equivalents (c)       | 1746-01-6  | 0.00003 | 0.000000005 | 0.000000005 | -Cancer                 |
| Diphenamid                                           | 957-51-7   | 210     | 1600        | 1600        | -Liver                  |
| Diphenyl [see Biphenyl, 1,1-]                        |            |         |             |             |                         |
| Diphenylamine, N,N-                                  | 122-39-4   | 180     | NA          | NA          | -Kidney -Liver          |
| Diphenylhydrazine, 1,2-                              | 122-66-7   | 0.04    | 0.2         | 0.2         | -Cancer                 |
| Diquat                                               | 85-00-7    | 20      | 1.5         | 1.5         | -Eye                    |
| Disulfoton                                           | 298-04-4   | 0.3     | 0.3         | 0.3         | -Neurological           |
| Diuron                                               | 330-54-1   | 14      | 8           | 8           | -Blood                  |
| Dyrene [see Anilazine]                               |            |         |             |             |                         |
| EDB [see Dibromoethane, 1,2-]                        |            |         |             |             |                         |
| EDC [see Dichloroethane, 1,2-]                       |            |         |             |             |                         |
| Endosulfan (alpha+beta+sulfate)                      | 115-29-7   | 42      | 0.056       | 0.0087      | -Cardiovascular -Kidney |
| Endothall                                            | 145-73-3   | 100     | 110         | 110         | -Gastrointestinal       |
| Endrin                                               | 72-20-8    | 2       | 0.0023      | 0.0023      | -Liver                  |
| EPEG [see Ethylphthalyl ethylglycolate]              |            |         |             |             |                         |
| Epichlorohydrin                                      | 106-89-8   | 3.5     | 130         | 130         | -Cancer -Kidney -Nasal  |
| EPN [see Ethyl p-nitrophenyl phenylphosphorothioate] |            |         |             |             |                         |
| EPTC [see Ethyl dipropylthiocarbamate, S-]           |            |         |             |             |                         |
| Ethanol                                              | 64-17-5    | 10000   | NA          | NA          | -Developmental          |
| Ethion                                               | 563-12-2   | 3.5     | 0.007       | 0.007       | -Neurological           |
| Ethoprop                                             | 13194-48-4 | 0.7     | 0.3         | 0.3         | -Neurological           |
| Ethoxyethanol acetate, 2-                            | 111-15-9   | 2100    | 2000        | 2000        | -Developmental          |
| Ethoxyethanol, 2-                                    | 110-80-5   | 2800    | NA          | NA          | -Reproductive           |
| Ethyl acetate                                        | 141-78-6   | 6300    | 6300        | 6300        | -Body Weight            |

|                                                     |            |       |        |        |                               |
|-----------------------------------------------------|------------|-------|--------|--------|-------------------------------|
| Ethyl acrylate                                      | 140-88-5   | 0.4   | 130    | 130    | -Cancer                       |
| Ethyl chloride [or Chloroethane]                    | 75-00-3    | 12    | NA     | NA     | -Cancer -Developmental        |
| Ethyl dipropylthiocarbamate, S- [or EPTC]           | 759-94-4   | 180   | 240    | 240    | -Cardiovascular               |
| Ethyl ether                                         | 60-29-7    | 750   | 130000 | 130000 | -Body Weight                  |
| Ethyl methacrylate                                  | 97-63-2    | 630   | NA     | NA     | -Kidney                       |
| Ethyl p-nitrophenyl phenylphosphorothioate [or EPN] | 2104-64-5  | 0.07  | 0.02   | 0.02   | -Neurological                 |
| Ethylbenzene                                        | 100-41-4   | 30    | 610    | 610    | -Developmental -Kidney -Liver |
| Ethylene diamine                                    | 107-15-3   | 140   | 800    | 800    | -Blood -Cardiovascular        |
| Ethylene glycol                                     | 107-21-1   | 14000 | 16000  | 16000  | -Kidney                       |
| Ethylene oxide                                      | 75-21-8    | 0.03  | 4200   | 4200   | -Cancer                       |
| Ethylene thiourea [or ETU]                          | 96-45-7    | 0.3   | 1300   | 1300   | -Cancer -Thyroid              |
| Ethylphthalyl ethylglycolate [or EPEG]              | 84-72-0    | 21000 | NA     | NA     | -Kidney                       |
| Ethyltoluene, o-                                    | 622-96-8   | 210   | NA     | NA     | -Body Weight -Liver           |
| Ethyltoluene, p-                                    | 611-14-3   | 210   | NA     | NA     | -Body Weight -Liver           |
| ETU [see Ethylene thiourea]                         |            |       |        |        |                               |
| Famphur                                             | 52-85-7    | 3.5   | NA     | NA     | -Blood                        |
| Fenamiphos                                          | 22224-92-6 | 1.8   | 0.2    | 0.2    | -Neurological                 |
| Fensulfothion                                       | 115-90-2   | 1.8   | 0.5    | 0.5    | -Neurological                 |
| Fenvalerate [see Pydrin]                            |            |       |        |        |                               |
| Fluometuron                                         | 2164-17-2  | 91    | 190    | 190    | -None Specified               |
| Fluoranthene                                        | 206-44-0   | 280   | 0.3    | 0.3    | -Blood -Kidney -Liver         |
| Fluorene                                            | 86-73-7    | 280   | 30     | 30     | -Blood                        |
| Fluoride                                            | 7782-41-4  | 2000  | 10000  | 5000   | -Teeth mottling               |
| Fluoridone                                          | 59756-60-4 | 560   | 110    | 110    | -Kidney -Reproductive         |

|                                                           |            |          |         |         |                           |
|-----------------------------------------------------------|------------|----------|---------|---------|---------------------------|
| Fonofos                                                   | 944-22-9   | 14       | 0.1     | 0.1     | -Liver -Neurological      |
| Formaldehyde                                              | 50-00-0    | 600      | 110     | 110     | -Cancer -Gastrointestinal |
| Formic acid                                               | 64-18-6    | 14000    | 4500    | 4500    | -Body Weight              |
| Furan                                                     | 110-00-9   | 7        | NA      | NA      | -Liver                    |
| Furfural                                                  | 98-01-1    | 21       | 650     | 650     | -Liver -Nasal             |
| Glycidaldehyde                                            | 765-34-4   | 2.8      | NA      | NA      | -Adrenals -Blood -Kidney  |
| Glyphosate [or Roundup]                                   | 1071-83-6  | 700      | 120     | 120     | -Kidney                   |
| Gross alpha radiation                                     | 14127-62-9 | 15       | 15      | 15      | -Cancer                   |
| Guthion [or Methyl azinphos]                              | 86-50-0    | 11       | 0.01    | 0.01    | -Neurological             |
| Heptachlor                                                | 76-44-8    | 0.4      | 0.00021 | 0.00021 | -Cancer -Liver            |
| Heptachlor epoxide                                        | 1024-57-3  | 0.2      | 0.00004 | 0.00004 | -Cancer -Liver            |
| Hexachloro-1,3-butadiene                                  | 87-68-3    | 0.4      | 49.7    | 49.7    | -Cancer -Kidney           |
| Hexachlorobenzene                                         | 118-74-1   | 1        | 0.0003  | 0.0003  | -Cancer -Liver            |
| Hexachlorocyclohexane, alpha- [or BHC, alpha-]            | 319-84-6   | 0.006    | 0.005   | 0.005   | -Cancer                   |
| Hexachlorocyclohexane, beta- [BHC, beta-]                 | 319-85-7   | 0.02     | 0.046   | 0.046   | -Cancer                   |
| Hexachlorocyclohexane, delta- [or BHC, delta-]            | 319-86-8   | 2.1      | NA      | NA      | -Kidney -Liver            |
| Hexachlorocyclohexane, gamma- [or Lindane or BHC, gamma-] | 58-89-9    | 0.2      | 0.063   | 0.063   | -Cancer -Kidney -Liver    |
| Hexachlorocyclohexane, technical [or BHC, technical]      | 608-73-1   | 0.02     | 0.02    | 0.02    | -Cancer                   |
| Hexachlorocyclopentadiene                                 | 77-47-4    | 50       | 3       | 3       | -Gastrointestinal         |
| Hexachlorodibenzo-p-dioxin (mixture)                      | 19408-74-3 | 0.000006 | NA      | NA      | -Cancer                   |
| Hexachloroethane                                          | 67-72-1    | 2.5      | 3.3     | 3.3     | -Cancer -Kidney           |
| Hexachlorophene                                           | 70-30-4    | 2.1      | 1.1     | 1.1     | -Neurological             |
| Hexahydro-1,3,5-trinitro-1,3,5-triazine [or RDX]          | 121-82-4   | 0.3      | 180     | 180     | -Cancer -Reproductive     |
| Hexane, n-                                                | 110-54-3   | 6        | 3400    | 3400    | -Neurological             |

|                                                    |            |       |                                 |       |                          |
|----------------------------------------------------|------------|-------|---------------------------------|-------|--------------------------|
| Hexanone, 2- [or Methyl butyl ketone]              | 591-78-6   | 280   | NA                              | NA    | -None Specified          |
| Hexazinone                                         | 51235-04-2 | 230   | 25000                           | 25000 | -Body Weight             |
| HMX [see Octahydro-1,3,5,7-tetranitro-tetrazocine] |            |       |                                 |       |                          |
| Hydrogen cyanide (as Cyanide)                      | 74-90-8    | 140   | 3.5                             | 3.5   | -Neurological -Thyroid   |
| Hydrogen sulfide                                   | 7783-06-4  | 21    | 0.1                             | 0.1   | -Gastrointestinal -Nasal |
| Hydroquinone                                       | 123-31-9   | 280   | 4.5                             | 4.5   | -Blood                   |
| Indeno(1,2,3-cd)pyrene                             | 193-39-5   | 0.05  | *                               | *     | -Cancer                  |
| Iprodione                                          | 36734-19-7 | 280   | 150                             | 150   | -Blood                   |
| Iron                                               | 7439-89-6  | 300   | 1000                            | 300   | -Gastrointestinal        |
| Isobutyl alcohol                                   | 78-83-1    | 2100  | 47000                           | 47000 | -Neurological            |
| Isophorone                                         | 78-59-1    | 37    | 650                             | 650   | -Cancer -None Specified  |
| Isopropyl benzene [see Cumene]                     |            |       |                                 |       |                          |
| 4-Isopropyl toluene [see Cymene]                   |            |       |                                 |       |                          |
| Kelthane [see Dicofol]                             |            |       |                                 |       |                          |
| Kepone                                             | 143-50-0   | 0.004 | NA                              | NA    | -Cancer                  |
| Lead                                               | 7439-92-1  | 15    | e <sup>(1.273[lnH]-4.705)</sup> | 8.5   | -Neurological            |
| Limonene                                           | 138-86-3   | 700   |                                 |       | -Kidney -Liver           |
| Lindane [see Hexachlorocyclohexane, gamma-]        |            |       |                                 |       |                          |
| Linuron                                            | 330-55-2   | 1.4** | 45                              | 45    | -Blood                   |
| Lithium                                            | 7439-93-2  | 140   | NA                              | NA    | -None Specified          |
| Malathion                                          | 121-75-5   | 140   | 0.1                             | 0.1   | -Neurological            |
| Maleic anhydride                                   | 108-31-6   | 700   | NA                              | NA    | -Kidney                  |
| Maleic hydrazide                                   | 123-33-1   | 3500  | 750                             | 750   | -Kidney                  |

|                                                         |            |       |         |         |                                   |
|---------------------------------------------------------|------------|-------|---------|---------|-----------------------------------|
| Mancozeb                                                | 8018-01-7  | 210   | 3.5     | 3.5     | -Thyroid                          |
| Maneb                                                   | 12427-38-2 | 35    | 5.5     | 5.5     | -Thyroid                          |
| Manganese                                               | 7439-96-5  | 50    | NA      | NA      | -Neurological                     |
| MCPA [see Methyl-4- chlorophenoxy acetic acid, 2-]      |            |       |         |         |                                   |
| MCPP [see Propionic acid, 2-(2-methyl-4-chlorophenoxy)] |            |       |         |         |                                   |
| Mercuric chloride (as Mercury)                          | 7487-94-7  | 0.2** | 0.05    | 0.05    | -Immunological -Kidney            |
| Mercury                                                 | 7439-97-6  | 2     | 0.012   | 0.025   | -Neurological                     |
| Mercury, methyl- [see Methylmercury]                    |            |       |         |         |                                   |
| Merphos                                                 | 150-50-5   | 0.2   | NA      | NA      | -Neurological                     |
| Merphos oxide                                           | 78-48-8    | 0.2   | 0.2     | 0.2     | -Neurological                     |
| Metalaxyl                                               | 57837-19-1 | 420   | 37      | 37      | -Blood -Liver -Neurological       |
| Methacrylonitrile                                       | 126-98-7   | 0.7   | NA      | NA      | -Liver                            |
| Methamidophos                                           | 10265-92-6 | 0.4   | 0.00001 | 0.00001 | -Neurological                     |
| Methanol                                                | 67-56-1    | 3500  | 45000   | 45000   | -Developmental -Eye -Neurological |
| Methidathion                                            | 950-37-8   | 0.7** | 0.03    | 0.03    | -Liver                            |
| Methomyl                                                | 16752-77-5 | 180   | 1       | 1       | -Kidney -Spleen                   |
| Methoxy-5-nitroaniline, 2-                              | 99-59-2    | 0.8   | NA      | NA      | -Cancer                           |
| Methoxychlor                                            | 72-43-5    | 40    | 0.03    | 0.03    | -Developmental -Reproductive      |
| Methoxyethanol, 2-                                      | 109-86-4   | 7     | NA      | NA      | -Reproductive                     |
| Methyl acetate                                          | 79-20-9    | 3000  | NA      | NA      | -Liver                            |
| Methyl acrylate                                         | 96-33-3    | 210   | NA      | NA      | -None Specified                   |
| Methyl azinphos [see Guthion]                           |            |       |         |         |                                   |

|                                                  |            |        |        |        |                            |
|--------------------------------------------------|------------|--------|--------|--------|----------------------------|
| Methyl bromide [see Bromomethane]                |            |        |        |        |                            |
| Methyl butyl ketone [see Hexanone, 2-]           |            |        |        |        |                            |
| Methyl chloride [or Chloromethane]               | 74-87-3    | 2.7    | 470.8  | 470.8  | -Cancer -Neurological      |
| Methyl chloroform [see Trichloroethane, 1,1,1-]  |            |        |        |        |                            |
| Methyl ethyl ketone [or Butanone, 2-]            | 78-93-3    | 4200   | 120000 | 120000 | -Developmental             |
| Methyl isobutyl ketone [or MIBK]                 | 108-10-1   | 560    | 23000  | 23000  | -Kidney -Liver             |
| Methyl methacrylate                              | 80-62-6    | 25     | 6500   | 6500   | -Nasal                     |
| Methyl parathion [or Parathion, methyl]          | 298-00-0   | 1.8    | 0.01   | 0.01   | -Blood -Neurological       |
| Methyl tert-butyl ether [or MTBE]                | 1634-04-4  | 20     | 34000  | 34000  | -Eye -Kidney -Liver        |
| Methyl-4-chlorophenoxy acetic acid, 2- [or MCPA] | 94-74-6    | 3.5    | 72     | 72     | -Kidney -Liver             |
| Methyl-5-nitroaniline, 2-                        | 99-55-8    | 1.1    | NA     | NA     | -Cancer                    |
| Methylaniline, 2-                                | 95-53-4    | 0.1    | 26     | 26     | -Cancer                    |
| Methylene bis(2-chloroaniline), 4,4-             | 101-14-4   | 0.3    | NA     | NA     | -Cancer -Liver -Bladder    |
| Methylene bromide                                | 74-95-3    | 70     | NA     | NA     | -Blood                     |
| Methylene chloride                               | 75-09-2    | 5      | 1580   | 1580   | -Cancer -Liver             |
| Methylmercury [or Mercury, methyl]               | 22967-92-6 | 0.07** | NA     | NA     | -Neurological              |
| Methylnaphthalene, 1-                            | 90-12-0    | 28     | 95     | 95     | -Nasal                     |
| Methylnaphthalene, 2-                            | 91-57-6    | 28     | 30     | 30     | -Nasal                     |
| Methylphenol, 2- [or Cresol, o-]                 | 95-48-7    | 35**   | 250    | 250    | -Neurological              |
| Methylphenol, 3- [or Cresol, m-]                 | 108-39-4   | 35**   | 450    | 450    | -Neurological              |
| Methylphenol, 4- [or Cresol, p-]                 | 106-44-5   | 3.5**  | 70     | 70     | -Neurological -Respiratory |
| Metolachlor                                      | 51218-45-2 | 110**  | 1.1    | 1.1    | -Body Weight               |
| Metribuzin                                       | 21087-64-9 | 180    | 64     | 64     | -Kidney -Liver             |
| Metsulfuron, methyl [see Ally]                   |            |        |        |        |                            |

|                                    |            |        |                                 |       |                                 |
|------------------------------------|------------|--------|---------------------------------|-------|---------------------------------|
| Mevinphos                          | 7786-34-7  | 1.8    | 0.05                            | 0.05  | -Neurological                   |
| MIBK [see Methyl isobutyl ketone]  |            |        |                                 |       |                                 |
| Mirex                              | 2385-85-5  | 1.4    | 0.001                           | 0.001 | -Liver -Thyroid                 |
| Molinate                           | 2212-67-1  | 14     | 17                              | 17    | -Reproductive                   |
| Molybdenum                         | 7439-98-7  | 35     | NA                              | NA    | -Gout                           |
| MTBE [see Methyl tert-butyl ether] |            |        |                                 |       |                                 |
| Naled                              | 300-76-5   | 14     | 0.02                            | 0.02  | -Neurological                   |
| Naphthalene                        | 91-20-3    | 14**   | 26                              | 26    | -Nasal                          |
| Naphthylamine, 2-                  | 91-59-8    | 0.0003 | NA                              | NA    | -Cancer                         |
| Napropamide                        | 15299-99-7 | 700    | 210                             | 210   | -Body Weight                    |
| Nickel                             | 7440-02-0  | 100    | $e^{(0.846[\text{mH}]+0.0584)}$ | 8.3   | -Body Weight                    |
| Nickel subsulfide                  | 12035-72-2 | 100    | $e^{(0.846[\text{mH}]+0.0584)}$ | 8.3   | -Cancer                         |
| Nitrate                            | 14797-55-8 | 10000  | NA                              | NA    | -Blood                          |
| Nitrate+Nitrite                    | NOCAS      | 10000  | NA                              | NA    | -Blood                          |
| Nitrite                            | 14797-65-0 | 1000   | NA                              | NA    | -Blood                          |
| Nitroaniline, m-                   | 99-09-2    | 1.7    | NA                              | NA    | -Cancer -Blood                  |
| Nitroaniline, o-                   | 88-74-4    | 21     | NA                              | NA    | -Blood                          |
| Nitroaniline, p-                   | 100-01-6   | 1.7    | 1200                            | 1200  | -Cancer -Blood                  |
| Nitrobenzene                       | 98-95-3    | 3.5    | 90                              | 90    | -Adrenals -Blood -Kidney -Liver |
| Nitrophenol, 4-                    | 100-02-7   | 56     | 55                              | 55    | -None Specified                 |
| Nitroso-di-ethylamine, N-          | 55-18-5    | 0.0002 | 0.008                           | 0.008 | -Cancer                         |
| Nitroso-dimethylamine, N           | 62-75-9    | 0.0007 | 3                               | 3     | -Cancer                         |

|                                                   |            |       |          |          |                                 |
|---------------------------------------------------|------------|-------|----------|----------|---------------------------------|
| Nitroso-di-n-butylamine, N-                       | 924-16-3   | 0.006 | 0.04     | 0.04     | -Cancer                         |
| Nitroso-di-n-propylamine, N-                      | 621-64-7   | 0.005 | 0.5      | 0.5      | -Cancer                         |
| Nitroso-diphenylamine, N-                         | 86-30-6    | 7.1   | 6        | 6        | -Cancer                         |
| Nitroso-N-methylethylamine, N-                    | 10595-95-6 | 0.002 | 0.06     | 0.06     | -Cancer                         |
| Nitrosopyrrolidine, N-                            | 930-55-2   | 0.02  | NA       | NA       | -Cancer                         |
| Nitrotoluene, m-                                  | 99-08-1    | 140   | 380      | 380      | -Spleen                         |
| Nitrotoluene, o-                                  | 88-72-2    | 70    | 550      | 550      | -Spleen                         |
| Nitrotoluene, p-                                  | 99-99-0    | 70    | 550      | 550      | -Spleen                         |
| Nonylphenol                                       | 25154-52-3 | 8.4   | 5.9      | 1.4      | -Kidney                         |
| Norflurazon                                       | 27314-13-2 | 280   | NA       | NA       | -Kidney -Liver -Thyroid         |
| Octahydro-1,3,5,7-tetranitro-tetrazocine [or HMX] | 2691-41-0  | 350   | 1300     | 1300     | -Blood -Liver                   |
| Octamethylpyrophosphoramide                       | 152-16-9   | 14    | NA       | NA       | -Neurological                   |
| Oil and Grease                                    | NOCAS      | 5000  | 5000     | 5000     | -None Specified                 |
| Oryzalin                                          | 19044-88-3 | 35**  | NA       | NA       | -Adrenals -Blood -Kidney -Liver |
| Oxadiazon                                         | 19666-30-9 | 35    | 44       | 44       | -Liver                          |
| Oxamyl                                            | 23135-22-0 | 200   | 8.5      | 8.5      | -Body Weight                    |
| Paraquat                                          | 1910-42-5  | 3.2** | 47       | 47       | -Respiratory                    |
| Parathion                                         | 56-38-2    | 4.2** | 0.04     | 0.04     | -Neurological                   |
| Parathion, methyl [see Methyl parathion]          |            |       |          |          |                                 |
| PCBs [or Aroclor mixture]                         | 1336-36-3  | 0.5   | 0.000045 | 0.000045 | -Cancer -Immunological          |
| PCE [see Tetrachloroethene]                       |            |       |          |          |                                 |
| Pebulate                                          | 1114-71-2  | 350   | 310      | 310      | -Blood                          |

|                                                 |            |       |       |       |                             |
|-------------------------------------------------|------------|-------|-------|-------|-----------------------------|
| Pendimethalin                                   | 40487-42-1 | 280   | 10    | 10    | -Liver                      |
| Pentachlorobenzene                              | 608-93-5   | 5.6   | 1.7   | 1.7   | -Kidney -Liver              |
| Pentachloronitrobenzene                         | 82-68-8    | 0.1   | 0.02  | 0.02  | -Cancer -Liver              |
| Pentachlorophenol                               | 87-86-5    | 1     | 8.2   | 7.9   | -Cancer -Kidney -Liver      |
| Perchlorate                                     | 7601-90-3  | 4     | NA    | NA    | -Thyroid                    |
| Permethrin                                      | 52645-53-1 | 350   | 0.001 | 0.001 | -Liver                      |
| Phenanthrene                                    | 85-01-8    | 210   | *     | *     | -Kidney                     |
| Phenmedipham [or Betanal]                       | 13684-63-4 | 1800  | 200   | 200   | -None Specified             |
| Phenol                                          | 108-95-2   | 10    | 6.5   | 6.5   | -Developmental              |
| Phenylenediamine, m-                            | 108-45-2   | 42    | NA    | NA    | -Liver                      |
| Phenylenediamine, p-                            | 106-50-3   | 1300  | NA    | NA    | -Whole Body                 |
| Phenylphenol, 2-                                | 90-43-7    | 18    | 36    | 36    | -Cancer                     |
| Phorate                                         | 298-02-2   | 1.4   | 0.005 | 0.005 | -Neurological               |
| Phosmet                                         | 732-11-6   | 140   | 0.1   | 0.1   | -Liver -Neurological        |
| Phosphine                                       | 7803-51-2  | 2.1   | NA    | NA    | -Body Weight                |
| Phthalic anhydride                              | 85-44-9    | 14000 | NA    | NA    | -Kidney -Nasal -Respiratory |
| Picloram                                        | 1918-02-1  | 500   | 70    | 70    | -Liver                      |
| Polychlorinated dibenzo-p-dioxins [see Dioxins] |            |       |       |       |                             |
| Polycyclic Aromatic Hydrocarbons (PAHs)         |            |       | 0.031 | 0.031 | -Various Endpoints          |
| Potassium cyanide                               | 151-50-8   | 350   | 5.5   | 5.5   | -Neurological -Thyroid      |
| Profluralin                                     | 26399-36-0 | 42    | NA    | NA    | -None Specified             |
| Prometon                                        | 1610-18-0  | 110   | 600   | 600   | -None Specified             |

|                                                        |            |        |        |        |                              |
|--------------------------------------------------------|------------|--------|--------|--------|------------------------------|
| Prometryn                                              | 7287-19-6  | 28     | 21     | 21     | -Bone Marrow -Kidney -Liver  |
| Pronamide                                              | 23950-58-5 | 53**   | NA     | NA     | -None Specified              |
| Propachlor                                             | 1918-16-7  | 91     | 12     | 12     | -Liver                       |
| Propanil                                               | 709-98-8   | 35     | 20     | 20     | -Spleen                      |
| Propargite                                             | 2312-35-8  | 140    | 1.6    | 1.6    | -None Specified              |
| Propazine                                              | 139-40-2   | 14**   | 190    | 190    | -Body Weight                 |
| Propham                                                | 122-42-9   | 140    | 500    | 500    | -Neurological                |
| Propiconazole                                          | 60207-90-1 | 91     | 26     | 26     | -Gastrointestinal            |
| Propionic acid, 2-(2-methyl-4-chlorophenoxy) [or MCPP] | 93-65-2    | 7      | NA     | NA     | -Kidney                      |
| Propoxur [see Baygon]                                  |            |        |        |        |                              |
| Propylbenzene, n-                                      | 103-65-1   | 280    | NA     | NA     | -Kidney -Liver -Neurological |
| Propylene glycol                                       | 57-55-6    | 140000 | 36000  | 36000  | -Blood -Bone Marrow          |
| Propylene glycol monomethyl ether                      | 107-98-2   | 4900   | NA     | NA     | -Kidney -Liver -Neurological |
| Propylene oxide                                        | 75-56-9    | 0.1    | NA     | NA     | -Cancer -Nasal -Respiratory  |
| Pydrin [or Fenvalerate]                                | 51630-58-1 | 180    | 0.0004 | 0.0004 | -Neurological                |
| Pyrene                                                 | 129-00-0   | 210    | 0.3    | 0.3    | -Kidney                      |
| Pyridine                                               | 110-86-1   | 7      | 1300   | 1300   | -Liver                       |
| Quinoline                                              | 91-22-5    | 0.01   | NA     | NA     | -Cancer                      |
| Radium, 226 and 228 (combined)                         | 7440-14-4  | 5      | 5      | 5      | -Cancer                      |
| RDX [see Hexahydro-1,3,5-trinitro-1,3,5-triazine]      |            |        |        |        |                              |
| Resmethrin                                             | 10453-86-8 | 210    | 0.003  | 0.003  | -Reproductive                |
| Ronnel                                                 | 299-84-3   | 350    | 0.06   | 0.06   | -Liver                       |

|                                                                 |            |        |       |       |                                |
|-----------------------------------------------------------------|------------|--------|-------|-------|--------------------------------|
| Rotenone                                                        | 83-79-4    | 28     | 0.1   | 0.1   | -Developmental                 |
| Roundup [see Glyphosate]                                        |            |        |       |       |                                |
| Selenious acid (as Selenium)                                    | 7783-00-8  | 35     | 40    | 40    | -Hair Loss -Neurological -Skin |
| Selenium                                                        | 7782-49-2  | 50     | 5     | 71    | -Hair Loss -Neurological -Skin |
| Sevin [see Carbaryl]                                            |            |        |       |       |                                |
| Silver                                                          | 7440-22-4  | 100    | 0.07  | 0.4   | -Skin                          |
| Silvex [see Trichlorophenoxy propionic acid]                    |            |        |       |       |                                |
| Simazine                                                        | 122-34-9   | 4      | 7.3   | 7.3   | -Cancer -Blood                 |
| Sodium                                                          | 7440-23-5  | 160000 | NA    | NA    | -None Specified                |
| Sodium chlorite [see Chlorite (sodium salt)]                    |            |        |       |       |                                |
| Sodium cyanide (as Cyanide)                                     | 143-33-9   | 280    | 3.8   | 3.8   | -Neurological                  |
| Strontium                                                       | 7440-24-6  | 4200   |       |       | -Bone                          |
| Strychnine                                                      | 57-24-9    | 2.1    | 38    | 38    | -Mortality                     |
| Styrene                                                         | 100-42-5   | 100    | 460   | 460   | -Blood -Liver -Neurological    |
| Sulfate                                                         | 14808-79-8 | 250000 | NA    | NA    | -None Specified                |
| TCDD, 2,3,7,8- [see Dioxins, as total 2,3,7,8-TCDD equivalents] |            |        |       |       |                                |
| TCE [see Trichloroethene]                                       |            |        |       |       |                                |
| TCMTB [see Thiocyanomethylthio-benzothiazole, 2-]               |            |        |       |       |                                |
| TDS [see Total dissolved solids]                                |            |        |       |       |                                |
| Tebuthiuron                                                     | 34014-18-1 | 490    | 310   | 310   | -Body Weight                   |
| Temephos                                                        | 3383-96-8  | 140    | 0.002 | 0.002 | -None Specified                |

|                                                  |            |        |        |        |                              |
|--------------------------------------------------|------------|--------|--------|--------|------------------------------|
| Temik [see Aldicarb]                             |            |        |        |        |                              |
| Terbacil                                         | 5902-51-2  | 91     | 2500   | 2500   | -Liver -Thyroid              |
| Terbufos                                         | 13071-79-9 | 0.2    | 0.01   | 0.01   | -Neurological                |
| Terbutryn                                        | 886-50-0   | 7      | 3.1    | 3.1    | -Blood                       |
| Tetrachlorobenzene, 1,2,4,5-                     | 95-94-3    | 2.1    | 1.6    | 1.6    | -Kidney                      |
| Tetrachloroethane, 1,1,1,2-                      | 630-20-6   | 1.3    | NA     | NA     | -Cancer -Kidney -Liver       |
| Tetrachloroethane, 1,1,2,2-                      | 79-34-5    | 0.2    | 10.8   | 10.8   | -Cancer -Liver               |
| Tetrachloroethene [or PCE]                       | 127-18-4   | 3      | 8.85   | 8.85   | -Cancer -Liver               |
| Tetrachlorophenol, 2,3,4,6-                      | 58-90-2    | 210    | 4.5    | 4.5    | -Liver                       |
| Tetraethyl dithiopyrophosphate                   | 3689-24-5  | 3.5    | 0.01   | 0.01   | -Bone Marrow -Neurological   |
| Thallium                                         | 7440-28-0  | 2      | 6.3    | 6.3    | -Hair Loss -Liver            |
| Thallium sulfate (as Thallium)                   | 7446-18-6  | 0.6    | 26     | 26     | -Blood -Hair Loss -Liver     |
| Thiobencarb                                      | 28249-77-6 | 70     | NA     | NA     | -Kidney                      |
| Thiocyanomethylthio-benzothiazole, 2- [or TCMTB] | 21564-17-0 | 2.8**  | 0.4    | 0.4    | -Gastrointestinal            |
| Thiram                                           | 137-26-8   | 35     | 0.2    | 0.2    | -Neurological                |
| Tin                                              | 7440-31-5  | 4200   | NA     | NA     | -Kidney -Liver               |
| Titanium Dioxide                                 | 13463-67-7 | 28000  | NA     | NA     |                              |
| Toluene                                          | 108-88-3   | 40     | 480    | 480    | -Kidney -Liver -Neurological |
| Toluene-2,4-diamine                              | 95-80-7    | 0.01   | NA     | NA     | -Cancer                      |
| Toluidine, p-                                    | 106-49-0   | 0.2    | NA     | NA     | -Cancer                      |
| Total dissolved solids [or TDS]                  | C-010      | 500000 | NA     | NA     | -None Specified              |
| Toxaphene                                        | 8001-35-2  | 3      | 0.0002 | 0.0002 | -Cancer -Developmental       |

|                                                            |           |        |        |        |                                      |
|------------------------------------------------------------|-----------|--------|--------|--------|--------------------------------------|
| Triallate                                                  | 2303-17-5 | 91     | 65     | 65     | -Liver -Spleen                       |
| Tributyltin oxide                                          | 56-35-9   | 2.1    | 0.05   | 0.05   | -Immunological                       |
| Trichloro-1,2,2-trifluoroethane, 1,1,2- [or CFC 113]       | 76-13-1   | 210000 | NA     | NA     | -Neurological                        |
| Trichloroacetic acid                                       | 76-03-9   | 9.1    | 100000 | 100000 | -None Specified                      |
| Trichlorobenzene, 1,2,3-                                   | 87-61-6   | 70     | 85     | 85     | -Adrenals                            |
| Trichlorobenzene, 1,2,4-                                   | 120-82-1  | 70     | 23     | 23     | -Adrenals                            |
| Trichlorobenzene, 1,3,5-                                   | 108-70-3  | 40     | NA     | NA     | -None Specified                      |
| Trichloroethane, 1,1,1- [or Methyl chloroform]             | 71-55-6   | 200    | 270    | 270    | -None Specified                      |
| Trichloroethane, 1,1,2-                                    | 79-00-5   | 5      | 16     | 16     | -Cancer -Liver                       |
| Trichloroethene [or TCE]                                   | 79-01-6   | 3      | 80.7   | 80.7   | -Cancer -None Specified              |
| Trichlorofluoromethane                                     | 75-69-4   | 2100   | NA     | NA     | -Cardiovascular -Kidney -Respiratory |
| Trichlorophenol, 2,4,5-                                    | 95-95-4   | 1      | 23     | 23     | -Kidney -Liver                       |
| Trichlorophenol, 2,4,6-                                    | 88-06-2   | 3.2    | 6.5    | 6.5    | -Cancer                              |
| Trichlorophenoxy acetic acid, 2,4,5-                       | 93-76-5   | 70     | 140    | 140    | -Kidney                              |
| Trichlorophenoxy propionic acid, 2, (2, 4, 5-) [or Silvex] | 93-72-1   | 50     | NA     | NA     | -Liver                               |
| Trichloropropane, 1,1,2-                                   | 598-77-6  | 35     | NA     | NA     | -Cancer -Kidney -Liver -Thyroid      |
| Trichloropropane, 1,2,3-                                   | 96-18-4   | 0.02   | 0.2    | 0.2    | -Cancer -Kidney -Liver               |
| Trichloropropene, 1,2,3-                                   | 96-19-5   | 35     | NA     | NA     | -Eye                                 |
| Trifluralin                                                | 1582-09-8 | 4.5    | 0.2    | 0.2    | -Cancer -Blood -Liver                |
| Trimethyl phosphate                                        | 512-56-1  | 0.9    | NA     | NA     | -Cancer                              |
| Trimethylbenzene, 1,2,3-                                   | 526-73-8  | 10     | NA     | NA     | -None Specified                      |
| Trimethylbenzene, 1,2,4-                                   | 95-63-6   | 10     | 220    | 220    | -None Specified                      |
| Trimethylbenzene, 1,3,5-                                   | 108-67-8  | 10     | 220    | 220    | -None Specified                      |
| Trinitrobenzene, 1,3,5-                                    | 99-35-4   | 210    | 19     | 19     | -Blood -Spleen                       |
| Trinitrophenylmethylnitramine                              | 479-45-8  | 70     |        |        | -Kidney -Liver -Spleen               |

|                                  |            |      |                               |      |                                        |
|----------------------------------|------------|------|-------------------------------|------|----------------------------------------|
| Trinitrotoluene, 2,4,6-          | 118-96-7   | 1.2  | 49                            | 49   | -Cancer -Liver                         |
| Trithion [see Carbophenothion]   |            |      |                               |      |                                        |
| TRPH                             | NOCAS      | 5000 | 5000                          | 5000 | -Multiple Endpoints Mixed Contaminants |
| Uranium, soluble salts           | 7440-61-1  | 21   | NA                            | NA   | -Kidney                                |
| Vanadium                         | 7440-62-2  | 49   | NA                            | NA   | -Hair Loss                             |
| Vanadium pentoxide (as Vanadium) | 1314-62-1  | 63   | 13                            | 13   | -Hair Loss                             |
| Vernam                           | 1929-77-7  | 7    | 12                            | 12   | -Body Weight                           |
| Vinyl acetate                    | 108-05-4   | 88   | 700                           | 700  | -Kidney -Nasal                         |
| Vinyl chloride (d)               | 75-01-4    | 1    | 2.4                           | 2.4  | -Cancer -Liver                         |
| White phosphorus                 | 7723-14-0  | 0.1  | NA                            | 0.1  | -Maternal Death - Reproductive         |
| Xylenes, total                   | 1330-20-7  | 20   | 370                           | 370  | -Neurological                          |
| Zinc                             | 7440-66-6  | 5000 | $e^{(0.8473[\ln H] + 0.884)}$ | 86   | -Blood                                 |
| Zinc chloride                    | 7646-85-7  | 2100 | 1.5                           | 1.5  | -Blood                                 |
| Zinc phosphide                   | 1314-84-7  | 2.1  | NA                            | NA   | -Body Weight                           |
| Zineb                            | 12122-67-7 | 350  | 14                            | 14   | -Thyroid                               |

CTLs are expressed in units of ug/l (ppb).

# = These default Target Organ(s)/Systems or Effects are those reported to occur at the doses used to derive the referenced dose. Non-default Target Organ(s)/Systems or Effects may be justified through a detailed toxicological analysis of the chemicals present at a specific site.

\* = There are no surface water standards for these individual polycyclic aromatic hydrocarbons. Per Chapter 62-302, F.A.C., the surface water criterion for PolycyclicAromatic Hydrocarbons (PAHs) shall apply to the total concentration of Acenaphthylene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(fluoranthene, Benzo(g,i,h) perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h,)anthracene, Indenol(1,2,3-cd)pyrene, and Phenanthrene.

\*\* = Groundwater CTLs for Class C carcinogens with no cancer slope factor were developed using the referenced dose divided by a factor of 10, as described in the DERM Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 24, of the Code of Miami-Dade County (September 2005).

(a) = Freshwater surface water criterion for Ammonia based on un-ionized ammonia only. All other water criteria for ammonia are based on total ammonia.

(b) = The common name BHC is a misnomer for Hexachlorocyclohexane.

(c) = Criteria for Dioxins, as total 2,3,7,8-TCDD equivalents shall be compared to the total dioxin equivalents for chlorinated dioxin and dibenzofuran congeners using the approach set forth in the DERM Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County (September 2005).

(d) = Surface water values protective of human health for Vinyl chloride calculated assuming continuous lifetime exposure from birth as described in the DERM Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County (September 2005).

(e) = Not to exceed 10% above ambient, as set forth in Sec. 24-42(4).

(f) = Hardness-dependent as set forth in Chapter 62-302, F.A.C.

(g) = Criteria for these metals are measured as total recoverable metal. However, they may be applied as dissolved metals when, as part of a permit application, a dissolved metals translator has been established according to the procedures set forth in the document, "Guidance for Establishing a Metals Translator", Florida Department of Environmental Protection, December 17, 2001.

(h) = In the absence of concentration data specific for the III and VI valence states of chromium, total chromium concentrations in surface water shall be compared to the criteria for Chromium (hexavalent).

(i) = 12789-03-6 or 57-74-9

NA = Not available.

None Specified = Target organ(s) not available.

Note: Freshwater and marine surface waters, and groundwater at the point of discharge into surface water shall pass acute and chronic toxicity bioassay tests: The user shall consult the standard definitions for acute and chronic toxicity set forth in F.A.C. 62-302.200(1) and F.A.C. 62-302.200(4), respectively.

Table 2 Soil Clean-up Target Levels

| Contaminants | CAS#    | Direct Exposure |                           | Leachability Based on |                           |                         | Target Organs/Systems |
|--------------|---------|-----------------|---------------------------|-----------------------|---------------------------|-------------------------|-----------------------|
|              |         | Residential     | Commercial/<br>Industrial | Groundwater           | Fresh<br>Surface<br>Water | Marine Surface<br>Water | or Effects#           |
| Acenaphthene | 83-32-9 | 2400            | 20000                     | 2.1                   | 0.3                       | 0.3                     | -Liver                |

|                                 |            |       |        |         |       |       |                              |
|---------------------------------|------------|-------|--------|---------|-------|-------|------------------------------|
| Acenaphthylene                  | 208-96-8   | 1800  | 20000  | 27      | NA    | NA    | -Liver                       |
| Acephate                        | 30560-19-1 | 120   | 720    | 0.02    | 0.8   | 0.8   | -Cancer -Neurological        |
| Acetaldehyde                    | 75-07-0    | 15    | 20     | NA      | NA    | NA    | -Nasal                       |
| Acetone                         | 67-64-1    | 11000 | 68000  | 25      | 6.8   | 6.8   | -Kidney -Liver -Neurological |
| Acetophenone                    | 98-86-2    | 3900  | 32000  | 3.9     | 44    | 44    | -None Specified              |
| Acifluorfen, sodium [or Blazer] | 62476-59-9 | 28    | 140    | 0.1     | 25    | 25    | -Kidney                      |
| Acrolein                        | 107-02-8   | 0.05  | 0.3    | 0.01    | 0.002 | 0.002 | -Nasal                       |
| Acrylamide                      | 79-06-1    | 0.1   | 0.4    | 0.00003 | 0.001 | 0.001 | -Cancer -Neurological        |
| Acrylic acid                    | 79-10-7    | 48    | 250    | 14      | NA    | NA    | -Developmental               |
| Acrylonitrile                   | 107-13-1   | 0.3   | 0.6    | 0.0003  | 0.001 | 0.001 | Cancer -Nasal -Reproductive  |
| Alachlor                        | 15972-60-8 | 11    | 44     | 0.02    | 0.005 | 0.005 | -Cancer -Blood               |
| Aldicarb [or Temik]             | 116-06-3   | 68    | 920    | 0.03    | 0.004 | 0.004 | -Neurological                |
| Aldrin                          | 309-00-2   | 0.06  | 0.3    | 0.2     | 0.01  | 0.01  | -Cancer -Liver               |
| Ally [or Metsulfuron, methyl]   | 74223-64-6 | 19000 | 300000 | 12      | NA    | NA    | -Body Weight                 |
| Allyl alcohol                   | 107-18-6   | 140   | 970    | 0.1     | 0.02  | 0.02  | -Kidney -Liver               |
| Allyl chloride                  | 107-05-1   | 0.5   | 2.7    | 0.2     | NA    | NA    | -Neurological                |
| Aluminum                        | 7429-90-5  | 80000 | *      | ***     | ***   | ***   | -Body Weight                 |
| Aluminum phosphide              | 20859-73-8 | 35    | 880    | ***     | ***   | ***   | -Body Weight                 |
| Ametryn                         | 834-12-8   | 670   | 11000  | 0.8     | 0.08  | 0.08  | -Liver                       |
| Ammonia (a)                     | 7664-41-7  | NA    | NA     | NA      | ***   | NA    | -Respiratory                 |
| Ammonia (as Total)              | 7664-41-7  | 4400  | 26,400 | ***     | ***   | ***   | -Respiratory                 |
| Aniline                         | 62-53-3    | 27    | 150    | 0.03    | 0.02  | 0.02  | -Cancer -Blood -Spleen       |
| Anthracene                      | 120-12-7   | 21000 | 300000 | 2500    | 0.4   | 0.4   | -None Specified              |

|                                |            |        |        |         |         |         |                               |
|--------------------------------|------------|--------|--------|---------|---------|---------|-------------------------------|
| Antimony (b)                   | 7440-36-0  | 27     | 370    | 5.4     | 3900    | 3900    | -Blood                        |
| Aroclor mixture [see PCBs]     |            |        |        |         |         |         |                               |
| Arsenic                        | NOCAS      | 2.1    | 12     | ***     | ***     | ***     | -Cancer -Cardiovascular -Skin |
| Atrazine                       | 1912-24-9  | 4.3    | 19     | 0.06    | 0.04    | 0.04    | Cancer -Cardiovascular        |
| Azinphos, methyl [see Guthion] |            |        |        |         |         |         |                               |
| Azobenzene                     | 103-33-3   | 7.9    | 31     | 0.03    | 0.4     | 0.4     | -Cancer                       |
| Barium (soluble salts) (b)     | 7440-39-3  | 120**  | 130000 | 1600    | NA      | NA      | -Cardiovascular               |
| Baygon [or Propoxur]           | 114-26-1   | 280    | 4100   | 0.2     | 0.002   | 0.002   | -Blood -Neurological          |
| Bayleton                       | 43121-43-3 | 2400   | 46000  | 4.8     | 11      | 11      | -Blood                        |
| Benomyl                        | 17804-35-2 | 4000   | 77000  | 3.1     | 0.03    | 0.03    | -Developmental                |
| Bentazon                       | 25057-89-0 | 2100   | 32000  | 1.2     | NA      | NA      | -Blood                        |
| Benzaldehyde                   | 100-52-7   | 3300   | 24000  | 4.8     | 0.4     | 0.4     | -Gastrointestinal -Kidney     |
| Benzene                        | 71-43-2    | 1.2    | 1.7    | 0.007   | 0.5     | 0.5     | -Cancer -Blood                |
| Benzenethiol                   | 108-98-5   | 0.2    | 1.3    | 0.001   | NA      | NA      | -Liver                        |
| Benzidine                      | 92-87-5    | 0.004  | 0.02   | 0.00002 | 0.00002 | 0.00002 | -Cancer -Liver -Neurological  |
| Benzo(a)anthracene             | 56-55-3    | ##     | ##     | 0.8     | NA      | NA      | -Cancer                       |
| Benzo(a)pyrene                 | 50-32-8    | 0.1    | 0.7    | 8       | NA      | NA      | -Cancer                       |
| Benzo(b)fluoranthene           | 205-99-2   | ##     | ##     | 2.4     | NA      | NA      | -Cancer                       |
| Benzo(g,h,i)perylene           | 191-24-2   | 2500   | 52000  | 32000   | NA      | NA      | -Neurological                 |
| Benzo(k)fluoranthene           | 207-08-9   | ##     | ##     | 24      | NA      | NA      | -Cancer                       |
| Benzoic acid                   | 65-85-0    | 180000 | *      | 110     | 36      | 36      | -None Specified               |
| Benzotrichloride               | 98-07-7    | 0.04   | 0.09   | 0.0001  | 0.00008 | 0.00008 | -Cancer                       |
| Benzyl alcohol                 | 100-51-6   | 26000  | 670000 | 9.5     | 2.3     | 2.3     | -Gastrointestinal             |

|                                                                    |            |       |        |        |       |       |                                        |
|--------------------------------------------------------------------|------------|-------|--------|--------|-------|-------|----------------------------------------|
| Benzyl chloride                                                    | 100-44-7   | 1     | 1.6    | 0.002  | 0.02  | 0.02  | -Cancer                                |
| Beryllium (b)                                                      | 7440-41-7  | 120   | 1400   | 63     | 2.1   | 2.1   | -Cancer -Gastrointestinal -Respiratory |
| Betanal [see Phenmedipham]                                         |            |       |        |        |       |       |                                        |
| BHC, alpha- [see Hexachloro cyclohexane, alpha-] (f)               |            |       |        |        |       |       |                                        |
| BHC, beta- [see Hexachloro cyclohexane, beta-] (f)                 |            |       |        |        |       |       |                                        |
| BHC, delta- [see Hexachloro cyclohexane, delta-] (f)               |            |       |        |        |       |       |                                        |
| BHC, gamma- [see Hexachloro cyclohexane, gamma-] (f)               |            |       |        |        |       |       |                                        |
| Bidrin [or Dicrotophos]                                            | 141-66-2   | 7.4   | 120    | 0.005  | 0.1   | 0.1   | -Developmental                         |
| Biphenyl, 1,1- [or Diphenyl]                                       | 92-52-4    | 3000  | 34000  | 0.2    | 5.8   | 5.8   | -Kidney                                |
| Bis(2-chloro-1-methylethyl)ether [see Bis(2-chloroisopropyl)ether] |            |       |        |        |       |       |                                        |
| Bis(2-chloroethoxy)methane                                         | 111-91-1   | 250   | 5700   | 63     | NA    | NA    | -Liver                                 |
| Bis(2-chloroethyl)ether                                            | 111-44-4   | 0.3   | 0.5    | 0.0001 | 0.002 | 0.002 | -Cancer                                |
| Bis(2-chloroisopropyl)ether [or Bis(2-chloro-1-methylethyl)ether]  | 39638-32-9 | 6     | 12     | 0.009  | 0.4   | 0.4   | -Cancer -Blood                         |
| Bis(2-ethylhexyl)adipate                                           | 103-23-1   | 620   | 1900   | 780    | 64    | 64    | -Cancer -Body Weight                   |
| Bis(2-ethylhexyl)phthalate [or DEHP]                               | 117-81-7   | 72    | 390    | 3600   | 1300  | 1300  | -Cancer -Liver                         |
| Bisphenol A                                                        | 80-05-7    | 4000  | 79000  | 11     | 1.7   | 1.7   | -Body Weight                           |
| Blazer [see Acifluorfen, sodium]                                   |            |       |        |        |       |       |                                        |
| Boron                                                              | 7440-42-8  | 17000 | 430000 | ***    | NA    | NA    | -Reproductive -Respiratory             |
| Bravo [see Chlorothalonil]                                         |            |       |        |        |       |       |                                        |
| Bromacil                                                           | 314-40-9   | 7500  | 120000 | 0.5    | 0.6   | 0.6   | -Body Weight                           |
| Bromate                                                            | 15541-45-4 | 1     | 2.8    | 0.04   | NA    | 460   | -Cancer -Kidney                        |
| Bromochloromethane                                                 | 74-97-5    | 95    | 530    | 0.6    | NA    | NA    | -None Specified                        |

|                                           |           |       |        |       |        |        |                                |
|-------------------------------------------|-----------|-------|--------|-------|--------|--------|--------------------------------|
| Bromodichloromethane                      | 75-27-4   | 1.5   | 2.2    | 0.004 | 0.1    | 0.1    | Cancer -Kidney                 |
| Bromoform                                 | 75-25-2   | 48    | 93     | 0.03  | 2.7    | 2.7    | -Cancer -Liver                 |
| Bromomethane [or Methyl bromide]          | 74-83-9   | 3.1   | 16     | 0.05  | 0.2    | 0.2    | -Gastrointestinal -Respiratory |
| Bromoxynil                                | 1689-84-5 | 1600  | 29000  | 3     | NA     | NA     | -None Specified                |
| Butanol, n-                               | 71-36-3   | 2900  | 21000  | 3     | 110    | 110    | -Neurological                  |
| Butanol, tert- [see Butyl alcohol, tert-] |           |       |        |       |        |        |                                |
| Butanone, 2- [see Methyl ethyl ketone]    |           |       |        |       |        |        |                                |
| Butyl alcohol, tert- [or Butanol, tert-]  | 75-65-0   | 3200  | 19000  | 5.7   | NA     | NA     | -Kidney -Neurological          |
| Butyl benzyl phthalate                    | 85-68-7   | 17000 | 380000 | 310   | 56     | 56     | -Liver                         |
| Butylate                                  | 2008-41-5 | 3200  | 40000  | 5.2   | 0.2    | 0.2    | -Liver                         |
| Butylbenzene, n-                          | 104-51-8  | 410   | 2400   | 21    | NA     | NA     | -Kidney -Liver -Neurological   |
| Butylbenzene, sec                         | 135-98-8  | 360   | 2000   | 19    | NA     | NA     | -Kidney -Neurological          |
| Butylbenzene, tert                        | 98-06-6   | 360   | 2100   | 15    | NA     | NA     | -Kidney -Neurological          |
| Butylphthalyl butylglycolate              | 85-70-1   | 84000 | *      | 4200  | NA     | NA     | -None Specified                |
| Cadmium (b,c,h)                           | 7440-43-9 | 82    | 1700   | 7.5   | (k)    | 14     | Cancer -Kidney                 |
| Calcium cyanide                           | 592-01-8  | 3500  | 88000  | ***   | NA     | NA     | -Neurological -Thyroid         |
| Captafol                                  | 2425-06-1 | 110   | 570    | 0.5   | 0.1    | 0.1    | -Cancer -Kidney                |
| Captan                                    | 133-06-2  | 230   | 750    | 0.1   | 0.03   | 0.03   | -Cancer -Body Weight           |
| Carbaryl [or Sevin]                       | 63-25-2   | 7700  | 130000 | 8.7   | 0.0007 | 0.0007 | -Kidney -Liver                 |
| Carbazole                                 | 86-74-8   | 49    | 240    | 0.2   | 6.5    | 6.5    | -Cancer                        |
| Carbofuran                                | 1563-66-2 | 130   | 910    | 0.2   | 0.0006 | 0.0006 | -Neurological -Reproductive    |
| Carbon disulfide                          | 75-15-0   | 270   | 1500   | 5.6   | 0.8    | 0.8    | -Developmental -Neurological   |
| Carbon tetrachloride                      | 56-23-5   | 0.5   | 0.7    | 0.04  | 0.06   | 0.06   | -Cancer -Liver                 |
| Carbophenothion [or Trithion]             | 786-19-6  | 11    | 250    | 13    | 1.5    | 1.5    | -Neurological                  |

|                                                       |           |       |        |      |       |       |                                 |
|-------------------------------------------------------|-----------|-------|--------|------|-------|-------|---------------------------------|
| Carboxin                                              | 5234-68-4 | 7400  | 120000 | 5    | 0.4   | 0.4   | -Body Weight                    |
| CFC 113 [see Trichloro-1,2,2-trifluoroethane, 1,1,2-] |           |       |        |      |       |       | -Adrenals                       |
| Chloral hydrate                                       | 302-17-0  | 5700  | 62000  | 0.3  | NA    | NA    | -Gastrointestinal -Neurological |
| Chloramben                                            | 133-90-4  | 960   | 12000  | 0.5  | NA    | NA    | -Liver                          |
| Chlordane (total)                                     | (j)       | 2.8   | 14     | 9.6  | 0.003 | 0.003 | -Cancer -Liver                  |
| Chlorine cyanide [or Cyanogen chloride]               | 506-77-4  | 3100  | 37000  | 71   | 0.3   | 0.3   | -Neurological -Thyroid          |
| Chloro-1, 1-difluoroethane, 1-                        | 75-68-3   | 16000 | 84000  | NA   | NA    | NA    | -None Specified                 |
| Chloro-1,3-butadiene [or Chloroprene]                 | 126-99-8  | 3.5   | 19     | 1.5  | NA    | NA    | -Hair Loss -Nasal               |
| Chloro-3-methylphenol, 4- [see Chloro-m-cresol, p-]   |           |       |        |      |       |       |                                 |
| Chloroacetic acid                                     | 79-11-8   | 130   | 1700   | 0.07 | 13    | 13    | -Cardiovascular                 |
| Chloroaniline, p-                                     | 106-47-8  | 270   | 3700   | 0.2  | 0.02  | 0.02  | -Spleen                         |
| Chlorobenzene                                         | 108-90-7  | 120   | 650    | 1.3  | 0.2   | 0.2   | -Liver                          |
| Chlorobenzilate                                       | 510-15-6  | 3.6   | 18     | 0.1  | 0.01  | 0.01  | -Cancer -Body Weight            |
| Chlorobenzoic acid, p-                                | 74-11-3   | 16000 | 290000 | 28   | NA    | NA    | -None Specified                 |
| Chlorobenzotrifluoride, 4-                            | 98-56-6   | 130   | 710    | 5.2  | NA    | NA    | -Kidney                         |
| Chlorobutane, 1-                                      | 109-69-3  | 780   | 4200   | 26   | NA    | NA    | -Blood -Neurological            |
| Chlorodifluoromethane                                 | 75-45-6   | 16000 | 82000  | NA   | NA    | NA    | -Adrenals -Kidney -Pituitary    |
| Chloroethane [see Ethyl chloride]                     |           |       |        |      |       |       |                                 |
| Chloroform                                            | 67-66-3   | 0.4   | 0.6    | 0.4  | 2.8   | 2.8   | Cancer -Liver                   |
| Chloro-m-cresol, p- [or Chloro-3-methylphenol, 4-]    | 59-50-7   | 600   | 8000   | 0.4  | 0.6   | 0.6   | -Body Weight                    |
| Chloromethane [see Methyl chloride]                   |           |       |        |      |       |       |                                 |
| Chloronaphthalene, beta-                              | 91-58-7   | 5000  | 61000  | 260  | 740   | 740   | -Liver -Respiratory             |
| Chloronitrobenzene, o-                                | 88-73-3   | 22    | 51     | 0.02 | NA    | NA    | Cancer                          |
| Chloronitrobenzene, p-                                | 100-00-5  | 31    | 73     | 0.03 | 1.6   | 1.6   | Cancer                          |

|                                        |            |        |        |         |        |        |                                                                |
|----------------------------------------|------------|--------|--------|---------|--------|--------|----------------------------------------------------------------|
| Chlorophenol, 2-                       | 95-57-8    | 130    | 860    | 0.7     | 2.5    | 2.5    | -Reproductive                                                  |
| Chlorophenol, 3-                       | 108-43-0   | 370    | 5900   | 0.002   | 3.1    | 3.1    | -Reproductive                                                  |
| Chlorophenol, 4-                       | 106-48-9   | 330    | 4400   | 0.0007  | 1.2    | 1.2    | -Reproductive                                                  |
| Chloroprene [see Chloro-1,3-butadiene] |            |        |        |         |        |        |                                                                |
| Chloropropane, 2-                      | 75-29-6    | 47     | 250    | NA      | NA     | NA     | -Liver                                                         |
| Chlorothalonil [or Bravo]              | 1897-45-6  | 88     | 420    | 0.2     | 0.06   | 0.06   | -Cancer -Kidney                                                |
| Chlorotoluene, o-                      | 95-49-8    | 200    | 1200   | 2.8     | 7.7    | 7.7    | -Body Weight                                                   |
| Chlorotoluene, p-                      | 106-43-4   | 170    | 990    | 2.5     | NA     | NA     | -None Specified                                                |
| Chlorpropham                           | 101-21-3   | 16000  | 310000 | 51      | 7      | 7      | -Bone Marrow -Kidney -Liver -Spleen                            |
| Chlorpyrifos                           | 2921-88-2  | 250    | 5000   | 15      | 0.001  | 0.001  | -Neurological                                                  |
| Chromium (hexavalent) (b)              | 18540-29-9 | 310    | 470    | NA      | 4.2    | 19     | -Cancer -Respiratory                                           |
| Chromium (total) (b,g)                 | NOCAS      | 310    | 470    | 38      | 4.2    | 19     | -Cancer                                                        |
| Chromium (trivalent) (b)               | 16065-83-1 | 110000 | *      | NA      | NA     | *      | -None Specified                                                |
| Chrysene                               | 218-01-9   | ##     | ##     | 77      | NA     | NA     | -Cancer                                                        |
| Cobalt                                 | 7440-48-4  | 1700   | 42000  | ***     | NA     | NA     | -Cardiovascular -Immunological -<br>Neurological -Reproductive |
| Copper                                 | 7440-50-8  | 150**  | 89000  | ***     | (k)    | ***    | -Gastrointestinal                                              |
| Coumaphos                              | 56-72-4    | 21     | 450    | 0.3     | 0.0007 | 0.0007 | -Neurological                                                  |
| Cresol, m- [see Methylphenol, 3-]      |            |        |        |         |        |        |                                                                |
| Cresol, o- [see Methylphenol, 2-]      |            |        |        |         |        |        |                                                                |
| Cresol, p- [see Methylphenol, 4-]      |            |        |        |         |        |        |                                                                |
| Crotonaldehyde                         | 123-73-9   | 0.6    | 3.3    | 0.00008 | NA     | NA     | -Cancer                                                        |
| Cumene [or Isopropyl benzene]          | 98-82-8    | 220    | 1200   | 0.2     | 56     | 56     | -Adrenals -Kidney                                              |
| Cyanide, free (b)                      | 57-12-5    | 34**   | 11000  | 0.56    | 0.02   | 0.004  | -Neurological -Thyroid                                         |

|                                                          |            |        |        |        |         |         |                                       |
|----------------------------------------------------------|------------|--------|--------|--------|---------|---------|---------------------------------------|
| Cyanogen                                                 | 460-19-5   | 560    | 3400   | 57     | NA      | NA      | -Neurological -Thyroid                |
| Cyanogen chloride [see Chlorine cyanide]                 |            |        |        |        |         |         |                                       |
| Cycloate                                                 | 1134-23-2  | 340    | 4700   | 0.7    | 2.5     | 2.5     | -Neurological                         |
| Cyclohexanone                                            | 108-94-1   | 150000 | *      | 150    | 110     | 110     |                                       |
| Cyclohexylamine                                          | 108-91-8   | 18000  | 440000 | 7.9    | 22      | 22      | -Reproductive                         |
| Cyhalothrin [or Karate]                                  | 68085-85-8 | 420    | 9600   | 290    | 150     | 150     | -Developmental                        |
| Cymene, p- (or Isopropyltoluene)                         | 99-87-6    | 960    | 5600   | NA     | NA      | NA      | -Gastrointestinal -Neurological -Skin |
| Cypermethrin                                             | 52315-07-8 | 840    | 19000  | 30     | 0.002   | 0.002   | -Gastrointestinal                     |
| DBCP, 1,2- [see Dibromo-3-chloropropane, 1,2-]           |            |        |        |        |         |         |                                       |
| DDD, 4,4'- [see Dichlorodiphenyl dichloroethane, p,p']   |            |        |        |        |         |         |                                       |
| DDE, 4,4'- [see Dichlorodiphenyl dichloroethylene, p,p'] |            |        |        |        |         |         |                                       |
| DDT, 4,4'- [see Dichlorodiphenyl dichloroethane, p,p']   |            |        |        |        |         |         |                                       |
| Decabromodiphenyl ether                                  | 1163-19-5  | 840    | 19000  | 9.3    | NA      | NA      | -None Specified                       |
| DEHP [see Bis(2-ethylhexyl)phthalate]                    |            |        |        |        |         |         |                                       |
| Diallate                                                 | 2303-16-4  | 16     | 82     | 0.6    | NA      | NA      | -Cancer -None Specified               |
| Diazinon                                                 | 333-41-5   | 70     | 1200   | 0.2    | 0.00005 | 0.00005 | -Neurological                         |
| Dibenz(a,h)anthracene                                    | 53-70-3    | ##     | ##     | 0.7    | NA      | NA      | -Cancer                               |
| Dibenzofuran                                             | 132-64-9   | 320    | 6300   | 15     | 36      | 36      | -None Specified                       |
| Dibromo-3-chloropropane, 1,2- [or DBCP, 1,2-]            | 96-12-8    | 0.7    | 3.8    | 0.001  | NA      | NA      | -Cancer -Reproductive                 |
| Dibromobenzene, 1,4-                                     | 106-37-6   | 430    | 3600   | 7.8    | 27      | 27      | -Liver                                |
| Dibromochloromethane                                     | 124-48-1   | 1.5    | 2.3    | 0.003  | 0.2     | 0.2     | -Cancer -Liver                        |
| Dibromoethane, 1,2- [or EDB]                             | 106-93-4   | 0.1    | 0.2    | 0.0001 | 0.07    | 0.07    | -Cancer -Reproductive                 |
| Dibutyl phthalate                                        | 84-74-2    | 8200   | 170000 | 47     | 1.5     | 1.5     | -Mortality                            |

|                                                          |           |      |       |        |        |        |                                            |
|----------------------------------------------------------|-----------|------|-------|--------|--------|--------|--------------------------------------------|
| Dicamba                                                  | 1918-00-9 | 2300 | 40000 | 2.6    | 2.4    | 2.4    | -Developmental                             |
| Dichloroacetic acid                                      | 79-43-6   | 21   | 120   | 0.005  | 8.1    | 8.1    | -Cancer -Liver -Neurological -Reproductive |
| Dichloroacetonitrile                                     | 3018-12-0 | 340  | 2900  | 0.03   | NA     | NA     | -None Specified                            |
| Dichlorobenzene, 1,2-                                    | 95-50-1   | 880  | 5000  | 17     | 2.8    | 2.8    | -Body Weight                               |
| Dichlorobenzene, 1,3-                                    | 541-73-1  | 380  | 2200  | 7      | 2.8    | 2.8    | -None Specified                            |
| Dichlorobenzene, 1,4-                                    | 106-46-7  | 6.4  | 9.9   | 2.2    | 0.09   | 0.09   | -Cancer -Liver                             |
| Dichlorobenzidine, 3,3'-                                 | 91-94-1   | 2.1  | 9.9   | 0.003  | 0.0009 | 0.0009 | Cancer                                     |
| Dichlorobenzophenone, 4,4'-                              | 90-98-2   | 2500 | 51000 | 25     | 190    | 190    | -None Specified                            |
| Dichlorodifluoromethane                                  | 75-71-8   | 77   | 410   | 44     | NA     | NA     | -Liver                                     |
| Dichlorodiphenyl-dichloroethane, p,p'- [or DDD, 4,4'-]   | 72-54-8   | 4.2  | 22    | 5.8    | 0.01   | 0.01   | Cancer                                     |
| Dichlorodiphenyl-dichloroethylene, p,p'- [or DDE, 4,4'-] | 72-55-9   | 2.9  | 15    | 18     | 0.04   | 0.04   | Cancer                                     |
| Dichlorodiphenyl-trichloroethane, p,p'- [or DDT, 4,4'-]  | 50-29-3   | 2.9  | 15    | 11     | 0.06   | 0.06   | -Cancer -Liver                             |
| Dichloroethane, 1,1-                                     | 75-34-3   | 390  | 2100  | 0.4    | NA     | NA     | -Kidney                                    |
| Dichloroethane, 1,2- [or EDC]                            | 107-06-2  | 0.5  | 0.7   | 0.01   | 0.2    | 0.2    | -Cancer -None Specified                    |
| Dichloroethene, 1,1-                                     | 75-35-4   | 95   | 510   | 0.06   | 0.03   | 0.03   | -Liver                                     |
| Dichloroethene, cis-1,2-                                 | 156-59-2  | 33   | 180   | 0.4    | NA     | NA     | -Blood                                     |
| Dichloroethene, trans-1,2-                               | 156-60-5  | 53   | 290   | 0.7    | 75     | 75     | -Blood -Liver                              |
| Dichlorophenol, 2,3-                                     | 576-24-9  | 230  | 4100  | 0.0008 | 1.2    | 1.2    | -Immunological                             |
| Dichlorophenol, 2,4-                                     | 120-83-2  | 190  | 2400  | 0.003  | 0.1    | 0.1    | -Immunological                             |
| Dichlorophenol, 2,5-                                     | 583-78-8  | 240  | 4600  | 0.02   | 4.3    | 4.3    | -Immunological                             |
| Dichlorophenol, 2,6-                                     | 87-65-0   | 220  | 3600  | 0.007  | 2.5    | 2.5    | -Immunological                             |
| Dichlorophenol, 3,4-                                     | 95-77-2   | 230  | 3700  | 0.01   | 2      | 2      | -Immunological                             |
| Dichlorophenoxy acetic acid, 2,4-                        | 94-75-7   | 770  | 13000 | 0.7    | 0.9    | 0.9    | -Blood -Kidney -Liver                      |
| Dichloropropane, 1,2-                                    | 78-87-5   | 0.6  | 0.9   | 0.03   | 0.09   | 0.09   | -Cancer -Nasal                             |

|                                    |           |        |        |        |         |         |                                  |
|------------------------------------|-----------|--------|--------|--------|---------|---------|----------------------------------|
| Dichloropropene, 1,3-              | 542-75-6  | 1.4    | 2.2    | 0.002  | 0.09    | 0.09    | -Cancer -Gastrointestinal -Nasal |
| Dichlorprop                        | 120-36-5  | 370    | 5800   | 0.3    | 0.3     | 0.3     | -None Specified                  |
| Dichlorvos                         | 62-73-7   | 0.3    | 0.4    | 0.0006 | 0.00002 | 0.00002 | -Cancer -Neurological            |
| Dicofol [or Kelthane]              | 115-32-2  | 2.2    | 11     | 0.01   | 0.0008  | 0.0008  | -Cancer -Adrenals                |
| Dicrotophos [see Bidrin]           |           |        |        |        |         |         |                                  |
| Dieldrin                           | 60-57-1   | 0.06   | 0.3    | 0.002  | 0.0001  | 0.0001  | -Cancer -Liver                   |
| Diethyl phthalate                  | 84-66-2   | 61000  | *      | 86     | 5.9     | 5.9     | -Body Weight                     |
| Diethylene glycol, monoethyl ether | 111-90-0  | 130000 | *      | 63     | 750     | 750     | -Kidney                          |
| Diisopropyl methylphosphonate      | 1445-75-6 | 4500   | 49000  | 3.6    | 85      | 85      | -None Specified                  |
| Dimethoate                         | 60-51-5   | 13     | 170    | 0.006  | 0.0004  | 0.0004  | -Neurological                    |
| Dimethoxybenzidine, 3,3'-          | 119-90-4  | 69     | 330    | 0.2    | NA      | NA      | -Cancer                          |
| Dimethrin                          | 70-38-2   | 24000  | 440000 | 2500   | 1.3     | 1.3     | -Liver                           |
| Dimethylaniline, 2,4-              | 95-68-1   | 0.5    | 1      | 0.0005 | 19      | 19      | -Cancer -Blood -Spleen           |
| Dimethylaniline, N,N-              | 121-69-7  | 55     | 380    | 0.1    | 12      | 12      | -Spleen                          |
| Dimethylbenzidine, 3,3'-           | 119-93-7  | 0.1    | 0.6    | 0.001  | NA      | NA      | -Cancer                          |
| Dimethylformamide, N,N-            | 68-12-2   | 1400   | 8600   | 3      | 210     | 210     | -Gastrointestinal -Liver         |
| Dimethylphenol, 2,4-               | 105-67-9  | 1300   | 18000  | 1.7    | 1.9     | 1.9     | -Blood -Neurological             |
| Dimethylphenol, 2,6-               | 576-26-1  | 34     | 370    | 0.04   | 5.2     | 5.2     | -Kidney -Liver -Spleen           |
| Dimethylphenol, 3,4-               | 95-65-8   | 71     | 1000   | 0.06   | 3.4     | 3.4     | -Kidney -Liver -Spleen           |
| Dimethylphthalate                  | 131-11-3  | 690000 | *      | 380    | 7.8     | 7.8     | -Kidney                          |
| Dinitrobenzene, 1,2- (o)           | 528-29-0  | 23     | 240    | 0.01   | 0.2     | 0.2     | -Spleen                          |
| Dinitrobenzene, 1,3- (m)           | 99-65-0   | 5.8    | 64     | 0.004  | 0.4     | 0.4     | -Spleen                          |
| Dinitrobenzene, 1,4- (p)           | 100-25-4  | 35     | 890    | 0.04   | 0.4     | 0.4     | -Spleen                          |
| Dinitro-o-cresol, 4,6-             | 534-52-1  | 8.4    | 180    | 0.4    | NA      | NA      | -Metabolic Disorders             |
| Dinitrophenol, 2,4-                | 51-28-5   | 110    | 1200   | 0.06   | 0.01    | 0.01    | -Eye                             |

|                                                      |           |      |       |        |       |        |                                      |
|------------------------------------------------------|-----------|------|-------|--------|-------|--------|--------------------------------------|
| Dinitrotoluene, 2,4-                                 | 121-14-2  | 1.2  | 4.3   | 0.0004 | 0.07  | 0.07   | -Cancer -Liver -Neurological         |
| Dinitrotoluene, 2,6-                                 | 606-20-2  | 1.2  | 3.8   | 0.0004 | 0.005 | 0.005  | -Cancer -Blood -Kidney -Neurological |
| Di-n-octylphthalate                                  | 117-84-0  | 1700 | 39000 | 480000 | NA    | NA     | -Kidney -Liver                       |
| Dinoseb                                              | 88-85-7   | 65   | 840   | 0.03   | 0.03  | 0.03   | -Developmental                       |
| Dioxane, 1,4-                                        | 123-91-1  | 23   | 38    | 0.01   | 0.5   | 0.5    | -Cancer                              |
| Dioxins, as total 2,3,7,8-TCDD equivalents (e)       | 1746-01-6 | 7E-6 | 3E-5  | 0.003  | 6E-7  | 6E-7   | -Cancer                              |
| Diphenamid                                           | 957-51-7  | 2300 | 41000 | 2.6    | 20    | 20     | -Liver                               |
| Diphenyl [see Biphenyl, 1,1-]                        |           |      |       |        |       |        |                                      |
| Diphenylamine, N,N-                                  | 122-39-4  | 2000 | 40000 | 14     | NA    | NA     | -Kidney -Liver                       |
| Diphenylhydrazine, 1,2-                              | 122-66-7  | 1.1  | 4.8   | 0.002  | 0.007 | 0.007  | -Cancer                              |
| Diquat                                               | 85-00-7   | 190  | 4300  | 800    | 60    | 60     | -Eye                                 |
| Disulfoton                                           | 298-04-4  | 3.3  | 66    | 0.09   | 0.1   | 0.1    | -Neurological                        |
| Diuron                                               | 330-54-1  | 150  | 2300  | 0.3    | 0.2   | 0.2    | -Blood                               |
| EDB [see Dibromoethane, 1,2-]                        |           |      |       |        |       |        |                                      |
| EDC [see Dichloroethane, 1,2-]                       |           |      |       |        |       |        |                                      |
| Endosulfan (alpha+beta+sulfate)                      | 115-29-7  | 450  | 7600  | 3.8    | 0.005 | 0.0008 | -Cardiovascular -Kidney              |
| Endothall                                            | 145-73-3  | 1800 | 44000 | 0.4    | 0.4   | 0.4    | -Gastrointestinal                    |
| Endrin                                               | 72-20-8   | 25   | 510   | 1      | 0.001 | 0.001  | -Liver                               |
| EPEG [see Ethylphthalyl ethylglycolate]              |           |      |       |        |       |        |                                      |
| Epichlorohydrin                                      | 106-89-8  | 14   | 80    | 0.03   | 1.1   | 1.1    | -Cancer -Kidney -Nasal               |
| EPN [see Ethyl p-nitrophenyl phenylphosphorothioate] |           |      |       |        |       |        |                                      |
| EPTC [see Ethyl dipropylthiocarbamate, S-]           |           |      |       |        |       |        |                                      |
| Ethanol                                              | 64-17-5   | *    | *     | 40     | NA    | NA     | -Developmental                       |
| Ethion                                               | 563-12-2  | 42   | 920   | 1.7    | 0.003 | 0.003  | -Neurological                        |

|                                                     |            |        |        |        |       |       |                               |
|-----------------------------------------------------|------------|--------|--------|--------|-------|-------|-------------------------------|
| Ethoprop                                            | 13194-48-4 | 7.4    | 120    | 0.005  | 0.002 | 0.002 | -Neurological                 |
| Ethoxyethanol acetate, 2-                           | 111-15-9   | 14000  | 130000 | 8.8    | 8.4   | 8.4   | -Developmental                |
| Ethoxyethanol, 2-                                   | 110-80-5   | 10000  | 72000  | 13     | NA    | NA    | -Reproductive                 |
| Ethyl acetate                                       | 141-78-6   | 9100   | 53000  | 26     | 26    | 26    | -Body Weight                  |
| Ethyl acrylate                                      | 140-88-5   | 2      | 3      | 0.002  | 0.6   | 0.6   | -Cancer                       |
| Ethyl chloride [or Chloroethane]                    | 75-00-3    | 3.9    | 5.4    | 0.06   | NA    | NA    | -Cancer -Developmental        |
| Ethyl dipropylthiocarbamate, S- [or EPTC]           | 759-94-4   | 1400   | 14000  | 11     | 15    | 15    | -Cardiovascular               |
| Ethyl ether                                         | 60-29-7    | 260    | 1400   | 5      | 850   | 850   | -Body Weight                  |
| Ethyl methacrylate                                  | 97-63-2    | 630    | 3500   | 3.5    | NA    | NA    | -Kidney                       |
| Ethyl p-nitrophenyl phenylphosphorothioate [or EPN] | 2104-64-5  | 0.8    | 18     | 0.02   | 0.003 | 0.003 | -Neurological                 |
| Ethylbenzene                                        | 100-41-4   | 1500   | 9200   | 0.6    | 12    | 12    | -Developmental -Kidney -Liver |
| Ethylene diamine                                    | 107-15-3   | 1100   | 11000  | 0.6    | 3.2   | 3.2   | -Blood -Cardiovascular        |
| Ethylene glycol                                     | 107-21-1   | 110000 | *      | 56     | 65    | 65    | -Kidney                       |
| Ethylene oxide                                      | 75-21-8    | 0.3    | 0.4    | 0.0002 | 20    | 20    | -Cancer                       |
| Ethylene thiourea [or ETU]                          | 96-45-7    | 7      | 57     | 0.001  | 5.6   | 5.6   | -Cancer -Thyroid              |
| Ethylphthalyl ethylglycolate [or EPEG]              | 84-72-0    | 260000 | *      | 1200   | NA    | NA    | -Kidney                       |
| Ethyltoluene, o-                                    | 622-96-8   | 320    | 1900   | 8.1    | NA    | NA    | -Body Weight -Liver           |
| Ethyltoluene, p-                                    | 611-14-3   | 330    | 1900   | 8.1    | NA    | NA    | -Body Weight -Liver           |
| ETU [see Ethylene thiourea]                         |            |        |        |        |       |       |                               |
| Fenamiphos                                          | 22224-92-6 | 19     | 340    | 0.02   | 0.003 | 0.003 | -Neurological                 |
| Fensulfothion                                       | 115-90-2   | 19     | 310    | 0.01   | 0.004 | 0.004 | -Neurological                 |
| Fenvalerate [see Pydrin]                            |            |        |        |        |       |       |                               |
| Fluometuron                                         | 2164-17-2  | 980    | 16000  | 0.9    | 1.8   | 1.8   | -None Specified               |
| Fluoranthene                                        | 206-44-0   | 3200   | 59000  | 1200   | 1.3   | 1.3   | -Blood -Kidney -Liver         |

|                                                           |            |       |        |        |        |        |                           |
|-----------------------------------------------------------|------------|-------|--------|--------|--------|--------|---------------------------|
| Fluorene                                                  | 86-73-7    | 2600  | 33000  | 160    | 17     | 17     | -Blood                    |
| Fluoride                                                  | 7782-41-4  | 840** | 130000 | 6000   | 30000  | 15000  | -Teeth mottling           |
| Fluoridone                                                | 59756-60-4 | 7000  | 180000 | 2500   | 460    | 460    | -Kidney -Reproductive     |
| Fonofos                                                   | 944-22-9   | 140   | 2100   | 0.4    | 0.003  | 0.003  | -Liver -Neurological      |
| Formaldehyde                                              | 50-00-0    | 23    | 31     | 2.4    | 0.4    | 0.4    | -Cancer -Gastrointestinal |
| Furan                                                     | 110-00-9   | 4.8   | 26     | 0.09   | NA     | NA     | -Liver                    |
| Furfural                                                  | 98-01-1    | 190   | 2400   | 0.09   | 2.7    | 2.7    | -Liver -Nasal             |
| Glycidaldehyde                                            | 765-34-4   | 15    | 120    | 0.01   | NA     | NA     | -Adrenals -Blood -Kidney  |
| Glyphosate [or Roundup]                                   | 1071-83-6  | 8800  | 220000 | 3.3    | 0.5    | 0.5    | -Kidney                   |
| Guthion [or Methyl azinphos]                              | 86-50-0    | 120   | 2400   | 0.2    | 0.0002 | 0.0002 | -Neurological             |
| Heptachlor                                                | 76-44-8    | 0.2   | 1      | 23     | 0.01   | 0.01   | -Cancer -Liver            |
| Heptachlor epoxide                                        | 1024-57-3  | 0.1   | 0.5    | 0.6    | 0.0001 | 0.0001 | -Cancer -Liver            |
| Hexachloro-1,3-butadiene                                  | 87-68-3    | 6.2   | 13     | 1      | 110    | 110    | -Cancer -Kidney           |
| Hexachlorobenzene                                         | 118-74-1   | 0.4   | 1.2    | 2.2    | 0.0006 | 0.0006 | -Cancer -Liver            |
| Hexachlorocyclohexane, alpha- [or BHC, alpha-]            | 319-84-6   | 0.1   | 0.6    | 0.0003 | 0.0003 | 0.0003 | -Cancer                   |
| Hexachlorocyclohexane, beta- [BHC, beta-]                 | 319-85-7   | 0.5   | 2.4    | 0.001  | 0.003  | 0.003  | -Cancer                   |
| Hexachlorocyclohexane, delta- [or BHC, delta-]            | 319-86-8   | 24    | 490    | 0.2    | NA     | NA     | -Kidney -Liver            |
| Hexachlorocyclohexane, gamma- [or Lindane or BHC, gamma-] | 58-89-9    | 0.7   | 2.5    | 0.009  | 0.003  | 0.003  | -Cancer -Kidney -Liver    |
| Hexachlorocyclopentadiene                                 | 77-47-4    | 9.5   | 50     | 400    | 24     | 24     | -Gastrointestinal         |
| Hexachloroethane                                          | 67-72-1    | 38    | 87     | 0.2    | 0.2    | 0.2    | -Cancer -Kidney           |
| Hexachlorophene                                           | 70-30-4    | 26    | 670    | 53     | 26     | 26     | -Neurological             |
| Hexahydro-1,3,5-trinitro-1,3,5- triazine [or RDX]         | 121-82-4   | 7.7   | 28     | 0.002  | 1.3    | 1.3    | -Cancer -Reproductive     |
| Hexane, n-                                                | 110-54-3   | 680   | 3900   | 2.1    | 1200   | 1200   | -Neurological             |
| Hexanone, 2- [or Methyl butyl ketone]                     | 591-78-6   | 24    | 130    | 1.4    | NA     | NA     | -None Specified           |

|                                                    |            |       |       |        |       |       |                         |
|----------------------------------------------------|------------|-------|-------|--------|-------|-------|-------------------------|
| Hexazinone                                         | 51235-04-2 | 2300  | 32000 | 1.1    | 120   | 120   | -Body Weight            |
| Hydroquinone                                       | 123-31-9   | 2600  | 35000 | 1.4    | 0.02  | 0.02  | -Blood                  |
| Indeno(1,2,3-cd)pyrene                             | 193-39-5   | ##    | ##    | 6.6    | NA    | NA    | -Cancer                 |
| Iron                                               | 7439-89-6  | 53000 | *     | ***    | ***   | ***   | -Gastrointestinal       |
| Isobutyl alcohol                                   | 78-83-1    | 6400  | 42000 | 8.9    | 200   | 200   | -Neurological           |
| Isophorone                                         | 78-59-1    | 540   | 1200  | 0.2    | 3.8   | 3.8   | -Cancer -None Specified |
| Isopropyl benzene [see Cumene]                     |            |       |       |        |       |       |                         |
| Isopropyl toluene [see p-Cymene]                   |            |       |       |        |       |       |                         |
| Karate [see Cyhalothrin, lambda]                   |            |       |       |        |       |       |                         |
| Kelthane [see Dicofol]                             |            |       |       |        |       |       |                         |
| Lead (d)                                           | 7439-92-1  | 400   | 1400  | ***    | (k)   | ***   | -Neurological           |
| Limonene                                           | 138-86-3   | 640   | 3600  | 42     | NA    | NA    | -Kidney -Liver          |
| Lindane [see Hexachlorocyclohexane, gamma-]        |            |       |       |        |       |       |                         |
| Linuron                                            | 330-55-2   | 160   | 3100  | 0.04   | 1.4   | 1.4   | -Blood                  |
| Lithium                                            | 7439-93-2  | 1700  | 44000 | ***    | NA    | NA    | -None Specified         |
| Malathion                                          | 121-75-5   | 1500  | 24000 | 4.2    | 0.003 | 0.003 | -Neurological           |
| Maleic anhydride                                   | 108-31-6   | 3200  | 24000 | 2.8    | NA    | NA    | -Kidney                 |
| Maleic hydrazide                                   | 123-33-1   | 1000  | 5400  | 16     | 3.4   | 3.4   | -Kidney                 |
| Malonitrile                                        | 109-77-3   | 1.2   | 13    | 0.0006 | NA    | NA    | -Liver -Spleen          |
| Maneb                                              | 12427-38-2 | 410   | 8400  | 2.9    | 0.5   | 0.5   | -Thyroid                |
| Manganese                                          | 7439-96-5  | 3500  | 43000 | ***    | NA    | NA    | -Neurological           |
| MCPA [see Methyl-4- chlorophenoxy acetic acid, 2-] |            |       |       |        |       |       |                         |

|                                                         |            |       |        |       |        |        |                                   |
|---------------------------------------------------------|------------|-------|--------|-------|--------|--------|-----------------------------------|
| MCPP [see Propionic acid, 2-(2-methyl-4-chlorophenoxy)] |            |       |        |       |        |        |                                   |
| Mercury (c)                                             | 7439-97-6  | 3     | 17     | 2.1   | 0.01   | 0.03   | -Neurological                     |
| Mercury, methyl- [see Methylmercury]                    |            |       |        |       |        |        |                                   |
| Merphos                                                 | 150-50-5   | 2.5   | 52     | 0.5   | NA     | NA     | -Neurological                     |
| Merphos oxide                                           | 78-48-8    | 2.5   | 56     | 0.3   | 0.3    | 0.3    | -Neurological                     |
| Methacrylonitrile                                       | 126-98-7   | 1     | 5.9    | 0.003 | NA     | NA     | -Liver                            |
| Methamidophos                                           | 10265-92-6 | 3.1   | 36     | 0.001 | 0      | 0      | -Neurological                     |
| Methanol                                                | 67-56-1    | 13000 | 90000  | 14    | 180    | 180    | -Developmental -Eye -Neurological |
| Methidathion                                            | 950-37-8   | 68    | 950    | 0.003 | 0.0001 | 0.0001 | -Liver                            |
| Methomyl                                                | 16752-77-5 | 38    | 200    | 1.2   | 0.007  | 0.007  | -Kidney -Spleen                   |
| Methoxy-5-nitroaniline, 2-                              | 99-59-2    | 19    | 71     | 0.006 | NA     | NA     | -Cancer                           |
| Methoxychlor                                            | 72-43-5    | 420   | 8800   | 160   | 0.1    | 0.1    | -Developmental -Reproductive      |
| Methyl acetate                                          | 79-20-9    | 6800  | 38000  | 16    | NA     | NA     | -Liver                            |
| Methyl acrylate                                         | 96-33-3    | 260   | 1500   | 0.9   | NA     | NA     | -None Specified                   |
| Methyl azinphos [see Guthion]                           |            |       |        |       |        |        |                                   |
| Methyl bromide [see Bromomethane]                       |            |       |        |       |        |        |                                   |
| Methyl butyl ketone [see Hexanone, 2-]                  |            |       |        |       |        |        |                                   |
| Methyl chloride [or Chloromethane]                      | 74-87-3    | 4     | 5.7    | 0.01  | 2.3    | 2.3    | -Cancer -Neurological             |
| Methyl chloroform [see Trichloroethane, 1,1,1-]         |            |       |        |       |        |        |                                   |
| Methyl ethyl ketone [or Butanone, 2-]                   | 78-93-3    | 16000 | 110000 | 17    | 490    | 490    | -Developmental                    |
| Methyl isobutyl ketone [or MIBK]                        | 108-10-1   | 4300  | 44000  | 2.6   | 110    | 110    | -Kidney -Liver                    |
| Methyl methacrylate                                     | 80-62-6    | 1900  | 10000  | 0.1   | 32     | 32     | -Nasal                            |
| Methyl parathion [or Parathion, methyl]                 | 298-00-0   | 20    | 370    | 0.06  | 0.0003 | 0.0003 | -Blood -Neurological              |

|                                                  |            |       |        |        |        |        |                            |
|--------------------------------------------------|------------|-------|--------|--------|--------|--------|----------------------------|
| Methyl styrene (mixed)                           | 25013-15-4 | 120   | 770    | 0.8    | NA     | NA     | -Nasal                     |
| Methyl styrene, alpha                            | 98-83-9    | 1500  | 10000  | 11     | NA     | NA     | -Kidney -Liver             |
| Methyl tert-butyl ether [or MTBE]                | 1634-04-4  | 4400  | 24000  | 0.09   | 150    | 150    | -Eye -Kidney -Liver        |
| Methyl-4-chlorophenoxy acetic acid, 2- [or MCPA] | 94-74-6    | 35    | 500    | 0.02   | 0.4    | 0.4    | -Kidney -Liver             |
| Methylaniline, 2-                                | 95-53-4    | 2.6   | 6.4    | 0.0009 | 0.2    | 0.2    | -Cancer                    |
| Methylene bis(2-chloroaniline), 4,4-             | 101-14-4   | 6.4   | 23     | 0.001  | NA     | NA     | -Cancer -Liver -Bladder    |
| Methylene bromide                                | 74-95-3    | 96    | 550    | 0.3    | NA     | NA     | -Blood                     |
| Methylene chloride                               | 75-09-2    | 17    | 26     | 0.02   | 7.3    | 7.3    | -Cancer -Liver             |
| Methylene diphenyl diisocyanate                  | 101-68-8   | 400   | 2100   | NA     | NA     | NA     | -Nasal                     |
| Methylmercury [or Mercury, methyl]               | 22967-92-6 | 1.1   | 6.1    | 0.002  | NA     | NA     | -Neurological              |
| Methylnaphthalene, 1-                            | 90-12-0    | 200   | 1800   | 3.1    | 10     | 10     | -Nasal                     |
| Methylnaphthalene, 2-                            | 91-57-6    | 210   | 2100   | 8.5    | 9.1    | 9.1    | -Nasal                     |
| Methylphenol, 2- [or Cresol, o-]                 | 95-48-7    | 2900  | 31000  | 0.3    | 1.9    | 1.9    | -Neurological              |
| Methylphenol, 3- [or Cresol, m-]                 | 108-39-4   | 2900  | 33000  | 0.3    | 3.3    | 3.3    | -Neurological              |
| Methylphenol, 4- [or Cresol, p-]                 | 106-44-5   | 300   | 3400   | 0.03   | 0.5    | 0.5    | -Neurological -Respiratory |
| Metolachlor                                      | 51218-45-2 | 12000 | 200000 | 1.2    | 0.01   | 0.01   | -Body Weight               |
| Metribuzin                                       | 21087-64-9 | 54    | 290    | 2.2    | 0.8    | 0.8    | -Kidney -Liver             |
| Metsulfuron, methyl [see Ally]                   |            |       |        |        |        |        |                            |
| Mevinphos                                        | 7786-34-7  | 18    | 270    | 0.01   | 0.0003 | 0.0003 | -Neurological              |
| MIBK [see Methyl isobutyl ketone]                |            |       |        |        |        |        |                            |
| Molinate                                         | 2212-67-1  | 120   | 1300   | 0.1    | 0.1    | 0.1    | -Reproductive              |
| Molybdenum                                       | 7439-98-7  | 440   | 11000  | ***    | NA     | NA     | -Gout                      |
| MTBE [see Methyl tert-butyl ether]               |            |       |        |        |        |        |                            |

|                                |            |        |        |          |         |         |                                 |
|--------------------------------|------------|--------|--------|----------|---------|---------|---------------------------------|
| Naled                          | 300-76-5   | 150    | 2400   | 0.1      | 0.0002  | 0.0002  | -Neurological                   |
| Naphthalene                    | 91-20-3    | 55     | 300    | 1.2      | 2.2     | 2.2     | -Nasal                          |
| Nickel (b,c)                   | 7440-02-0  | 340**  | 35000  | 130      | (k)     | 11      | -Body Weight                    |
| Nitrate                        | 14797-55-8 | 140000 | *      | ***      | NA      | NA      | -Blood                          |
| Nitrite                        | 14797-65-0 | 8700   | 220000 | ***      | NA      | NA      | -Blood                          |
| Nitroaniline, m-               | 99-09-2    | 21     | 130    | 0.01     | NA      | NA      | -Cancer -Blood                  |
| Nitroaniline, o-               | 88-74-4    | 24     | 130    | 0.1      | NA      | NA      | -Blood                          |
| Nitroaniline, p-               | 100-01-6   | 17     | 96     | 0.008    | 5.9     | 5.9     | -Cancer -Blood                  |
| Nitrobenzene                   | 98-95-3    | 18     | 140    | 0.02     | 0.6     | 0.6     | -Adrenals -Blood -Kidney -Liver |
| Nitroglycerin                  | 55-63-0    | 27     | 54     | 0.03     | NA      | NA      | Cancer -Cardiovascular          |
| Nitrophenol, 4-                | 100-02-7   | 560    | 7900   | 0.3      | 0.3     | 0.3     | -None Specified                 |
| Nitroso-di-ethylamine, N-      | 55-18-5    | 0.003  | 0.005  | 0.000001 | 0.00003 | 0.00003 | -Cancer                         |
| Nitroso-dimethylamine, N-      | 62-75-9    | 0.009  | 0.02   | 0.000003 | 0.01    | 0.01    | -Cancer                         |
| Nitroso-di-n-butylamine, N-    | 924-16-3   | 0.05   | 0.08   | 0.00009  | 0.0005  | 0.0005  | -Cancer                         |
| Nitroso-di-n-propylamine, N-   | 621-64-7   | 0.08   | 0.2    | 0.00005  | 0.005   | 0.005   | -Cancer                         |
| Nitroso-diphenylamine, N-      | 86-30-6    | 180    | 730    | 0.4      | 0.3     | 0.3     | -Cancer                         |
| Nitroso-N-methylethylamine, N- | 10595-95-6 | 0.02   | 0.04   | 0.000006 | 0.0002  | 0.0002  | -Cancer                         |
| Nitrotoluene, m-               | 99-08-1    | 640    | 4700   | 1.4      | 3.6     | 3.6     | -Spleen                         |
| Nitrotoluene, o-               | 88-72-2    | 400    | 3300   | 0.9      | 7.3     | 7.3     | -Spleen                         |
| Nitrotoluene, p-               | 99-99-0    | 750    | 12000  | 0.9      | 7.3     | 7.3     | -Spleen                         |
| Nonylphenol                    | 25154-52-3 | 100    | 2200   | 20       | 14      | 3.4     | -Kidney                         |
| Octamethylpyro-phosphoramidate | 152-16-9   | 130    | 1600   | 0.06     | NA      | NA      | -Neurological                   |
| Oxamyl                         | 23135-22-0 | 1700   | 22000  | 0.9      | 0.04    | 0.04    | -Body Weight                    |

|                                                 |            |       |        |       |       |       |                             |
|-------------------------------------------------|------------|-------|--------|-------|-------|-------|-----------------------------|
| Paraquat                                        | 1910-42-5  | 340   | 5500   | 16    | 230   | 230   | -Respiratory                |
| Parathion                                       | 56-38-2    | 500   | 11000  | 1     | 0.01  | 0.01  | -Neurological               |
| Parathion, methyl [see Methyl parathion]        |            |       |        |       |       |       |                             |
| PCBs [or Aroclor mixture]                       | 1336-36-3  | 0.5   | 2.6    | 17    | 0.002 | 0.002 | -Cancer -Immunological      |
| PCE [see Tetrachloroethene]                     |            |       |        |       |       |       |                             |
| Pebulate                                        | 1114-71-2  | 2000  | 17000  | 8.5   | 7.4   | 7.4   | -Blood                      |
| Pendimethalin                                   | 40487-42-1 | 3200  | 58000  | 28    | 1     | 1     | -Liver                      |
| Pentachlorobenzene                              | 608-93-5   | 45    | 480    | 3.9   | 1.2   | 1.2   | -Kidney -Liver              |
| Pentachloronitrobenzene                         | 82-68-8    | 3.3   | 12     | 0.2   | 0.03  | 0.03  | -Cancer -Liver              |
| Pentachlorophenol                               | 87-86-5    | 7.2   | 28     | 0.03  | 0.2   | 0.2   | -Cancer -Kidney -Liver      |
| Permethrin                                      | 52645-53-1 | 4200  | 96000  | 2500  | 0.007 | 0.007 | -Liver                      |
| Phenanthrene                                    | 85-01-8    | 2200  | 36000  | 250   | NA    | NA    | -Kidney                     |
| Phenmedipham [or Betanal]                       | 13684-63-4 | 21000 | 450000 | 150   | 18    | 18    | -None Specified             |
| Phenol                                          | 108-95-2   | 500** | 220000 | 0.05  | 0.03  | 0.03  | -Developmental              |
| Phenylenediamine, m-                            | 108-45-2   | 360   | 4000   | 0.2   | NA    | NA    | -Liver                      |
| Phenylenediamine, o-                            | 95-54-5    | 17    | 54     | 0.004 | NA    | NA    | -Cancer                     |
| Phenylenediamine, p-                            | 106-50-3   | 12000 | 160000 | 6.2   | NA    | NA    | -Whole Body                 |
| Phenylphenol, 2-                                | 90-43-7    | 490   | 2100   | 0.4   | 0.8   | 0.8   | -Cancer                     |
| Phorate                                         | 298-02-2   | 16    | 320    | 0.3   | 0.001 | 0.001 | -Neurological               |
| Phosmet                                         | 732-11-6   | 1600  | 33000  | 5     | 0.004 | 0.004 | -Liver -Neurological        |
| Phthalic acid, p-                               | 100-21-0   | 8000  | 45000  | 110   | NA    | NA    | -Bladder                    |
| Phthalic anhydride                              | 85-44-9    | 11000 | 63000  | 76    | NA    | NA    | -Kidney -Nasal -Respiratory |
| Polychlorinated dibenzo-p-dioxins [see Dioxins] |            |       |        |       |       |       |                             |

|                                                        |            |       |        |        |        |        |                                |
|--------------------------------------------------------|------------|-------|--------|--------|--------|--------|--------------------------------|
| Prometon                                               | 1610-18-0  | 1200  | 23000  | 2.4    | 14     | 14     | -None Specified                |
| Prometryn                                              | 7287-19-6  | 320   | 6100   | 0.7    | 0.5    | 0.5    | -Bone Marrow -Kidney -Liver    |
| Propachlor                                             | 1918-16-7  | 990   | 17000  | 1.1    | 0.1    | 0.1    | -Liver                         |
| Propanil                                               | 709-98-8   | 390   | 6700   | 0.4    | 0.2    | 0.2    | -Spleen                        |
| Propazine                                              | 139-40-2   | 1600  | 28000  | 0.2    | 2.7    | 2.7    | -Body Weight                   |
| Propionic acid, 2-(2-methyl-4-chlorophenoxy) [or MCPP] | 93-65-2    | 64    | 800    | 0.03   | NA     | NA     | -Kidney                        |
| Propoxur [see Baygon]                                  |            |       |        |        |        |        |                                |
| Propylbenzene, n-                                      | 103-65-1   | 340   | 1900   | 12     | NA     | NA     |                                |
| Propylene glycol                                       | 57-55-6    | *     | *      | 560    | 140    | 140    | -Blood -Bone Marrow            |
| Propylene glycol monomethyl ether                      | 107-98-2   | 38000 | 390000 | 20     | NA     | NA     | -Kidney -Liver -Neurological   |
| Propylene oxide                                        | 75-56-9    | 3.1   | 9.3    | 0.0006 | NA     | NA     | -Cancer -Nasal -Respiratory    |
| Pydrin [or Fenvalerate]                                | 51630-58-1 | 2100  | 46000  | 70     | 0.0001 | 0.0001 | -Neurological                  |
| Pyrene                                                 | 129-00-0   | 2400  | 45000  | 880    | 1.3    | 1.3    | -Kidney                        |
| Pyridine                                               | 110-86-1   | 20    | 130    | 0.03   | 5.4    | 5.4    | -Liver                         |
| Quinoline                                              | 91-22-5    | 0.3   | 1.3    | 0.0009 | NA     | NA     | -Cancer                        |
| RDX [see Hexahydro-1,3,5-trinitro-1,3,5-triazine]      |            |       |        |        |        |        |                                |
| Resmethrin                                             | 10453-86-8 | 2500  | 56000  | 1200   | 0.01   | 0.01   | -Reproductive                  |
| Ronnel                                                 | 299-84-3   | 4200  | 88000  | 1300   | 0.2    | 0.2    | -Liver                         |
| Roundup [see Glyphosate]                               |            |       |        |        |        |        |                                |
| Selenium (b,c)                                         | 7782-49-2  | 440   | 11000  | 5.2    | 0.5    | 7.4    | -Hair Loss -Neurological -Skin |
| Sevin [see Carbaryl]                                   |            |       |        |        |        |        |                                |
| Silver (b)                                             | 7440-22-4  | 410   | 8200   | 17     | 0.01   | 0.06   | -Skin                          |

|                                                                 |            |       |        |       |        |        |                              |
|-----------------------------------------------------------------|------------|-------|--------|-------|--------|--------|------------------------------|
| Silvex [see Trichlorophenoxy propionic acid]                    |            |       |        |       |        |        |                              |
| Simazine                                                        | 122-34-9   | 7.8   | 35     | 0.08  | 0.1    | 0.1    | -Cancer -Blood               |
| Strontium                                                       | 7440-24-6  | 52000 | *      | ***   | NA     | NA     | -Bone                        |
| Strychnine                                                      | 57-24-9    | 23    | 380    | 0.02  | 0.3    | 0.3    | -Mortality                   |
| Styrene                                                         | 100-42-5   | 3600  | 23000  | 3.6   | 16     | 16     | -Blood -Liver -Neurological  |
| TCDD, 2,3,7,8- [see Dioxins, as total 2,3,7,8-TCDD equivalents] |            |       |        |       |        |        |                              |
| TCE [see Trichloroethene]                                       |            |       |        |       |        |        |                              |
| Temik [see Aldicarb]                                            |            |       |        |       |        |        |                              |
| Terbacil                                                        | 5902-51-2  | 920   | 14000  | 0.5   | 14     | 14     | -Liver -Thyroid              |
| Terbufos                                                        | 13071-79-9 | 1.9   | 29     | 0.02  | 0.001  | 0.001  | -Neurological                |
| Terbutryn                                                       | 886-50-0   | 88    | 2200   | 0.2   | 0.09   | 0.09   | -Blood                       |
| Tetrachlorobenzene, 1,2,4,5-                                    | 95-94-3    | 12    | 100    | 0.5   | 0.4    | 0.4    | -Kidney                      |
| Tetrachloroethane, 1,1,1,2-                                     | 630-20-6   | 2.9   | 4.3    | 0.01  | NA     | NA     | -Cancer -Kidney -Liver       |
| Tetrachloroethane, 1,1,2,2-                                     | 79-34-5    | 0.7   | 1.2    | 0.001 | 0.08   | 0.08   | -Cancer -Liver               |
| Tetrachloroethene [or PCE]                                      | 127-18-4   | 8.8   | 18     | 0.03  | 0.1    | 0.1    | -Cancer -Liver               |
| Tetrachlorophenol, 2,3,4,6-                                     | 58-90-2    | 2100  | 30000  | 3.2   | 0.07   | 0.07   | Liver                        |
| Tetraethyl dithiopyrophosphate                                  | 3689-24-5  | 35    | 510    | 0.1   | 0.0004 | 0.0004 | -Bone Marrow -Neurological   |
| Thallium                                                        | 7440-28-0  | 6.1   | 150    | 2.8   | 9      | 9      | -Hair Loss -Liver            |
| Thiobencarb                                                     | 28249-77-6 | 810   | 16000  | 2.9   | NA     | NA     | -Kidney                      |
| Thiram                                                          | 137-26-8   | 400   | 7700   | 1.1   | 0.005  | 0.005  | -Neurological                |
| Tin                                                             | 7440-31-5  | 47000 | 880000 | ***   | NA     | NA     | -Kidney -Liver               |
| Toluene                                                         | 108-88-3   | 7500  | 60000  | 0.5   | 5.6    | 5.6    | -Kidney -Liver -Neurological |

|                                                          |            |       |        |        |       |       |                                      |
|----------------------------------------------------------|------------|-------|--------|--------|-------|-------|--------------------------------------|
| Toluene diisocyanate, 2,4/2,6-mixture                    | 26471-62-5 | 1.3   | 15     | NA     | NA    | NA    | -Respiratory                         |
| Toluidine, p-                                            | 106-49-0   | 2.2   | 4.5    | 0.0009 | NA    | NA    | -Cancer                              |
| Toxaphene                                                | 8001-35-2  | 0.9   | 4.5    | 31     | 0.002 | 0.002 | -Cancer -Developmental               |
| Triallate                                                | 2303-17-5  | 980   | 16000  | 8.4    | 6     | 6     | -Liver -Spleen                       |
| Tributyltin oxide                                        | 56-35-9    | 25    | 570    | 7.6    | 0.2   | 0.2   | -Immunological                       |
| Trichloro-1,2,2-trifluoroethane, 1,1,2- [or CFC 113]     | 76-13-1    | 18000 | 96000  | 11000  | NA    | NA    | -Neurological                        |
| Trichloroacetic acid                                     | 76-03-9    | 770   | 8800   | 0.04   | 400   | 400   | -None Specified                      |
| Trichlorobenzene, 1,2,3-                                 | 87-61-6    | 650   | 8200   | 4.6    | 5.6   | 5.6   | -Adrenals                            |
| Trichlorobenzene, 1,2,4-                                 | 120-82-1   | 660   | 8500   | 5.3    | 1.7   | 1.7   | -Adrenals                            |
| Trichlorobenzene, 1,3,5-                                 | 108-70-3   | 260   | 2300   | 16     | NA    | NA    | -None Specified                      |
| Trichloroethane, 1,1,1- [or Methyl chloroform]           | 71-55-6    | 730   | 3900   | 1.9    | 2.6   | 2.6   | -None Specified                      |
| Trichloroethane, 1,1,2-                                  | 79-00-5    | 1.4   | 2      | 0.03   | 0.09  | 0.09  | -Cancer -Liver                       |
| Trichloroethene [or TCE]                                 | 79-01-6    | 6.4   | 9.3    | 0.03   | 0.9   | 0.9   | -Cancer -None Specified              |
| Trichlorofluoromethane                                   | 75-69-4    | 270   | 1500   | 33     | NA    | NA    | -Cardiovascular -Kidney -Respiratory |
| Trichlorophenol, 2,4,5-                                  | 95-95-4    | 7700  | 130000 | 0.07   | 1.5   | 1.5   | -Kidney -Liver                       |
| Trichlorophenol, 2,4,6-                                  | 88-06-2    | 70    | 230    | 0.06   | 0.1   | 0.1   | -Cancer                              |
| Trichlorophenoxy acetic acid, 2,4,5-                     | 93-76-5    | 690   | 9500   | 0.4    | 0.8   | 0.8   | -Kidney                              |
| Trichlorophenoxy propionic acid, 2, (2,4,5-) [or Silvex] | 93-72-1    | 660   | 14000  | 5.4    | NA    | NA    | -Liver                               |
| Trichloropropane, 1,1,2-                                 | 598-77-6   | 76    | 460    | 0.3    | NA    | NA    | -Kidney -Liver -Thyroid              |
| Trichloropropane, 1,2,3-                                 | 96-18-4    | 0.06  | 0.1    | 0.0001 | 0.001 | 0.001 | -Cancer -Kidney -Liver               |
| Trichloropropene, 1,2,3-                                 | 96-19-5    | 18    | 98     | 0.4    | NA    | NA    | -Eye                                 |
| Triethylamine                                            | 121-44-8   | 41    | 270    | NA     | NA    | NA    | -Nasal                               |
| Trifluralin                                              | 1582-09-8  | 92    | 280    | 3.6    | 0.2   | 0.2   | -Cancer -Blood -Liver                |
| Trimethyl phosphate                                      | 512-56-1   | 19    | 57     | 0.004  | NA    | NA    | -Cancer                              |

|                                |            |       |        |       |      |      |                                        |
|--------------------------------|------------|-------|--------|-------|------|------|----------------------------------------|
| Trimethylbenzene, 1,2,3-       | 526-73-8   | 18    | 96     | 0.3   | NA   | NA   | -None Specified                        |
| Trimethylbenzene, 1,2,4-       | 95-63-6    | 18    | 95     | 0.3   | 7.2  | 7.2  | -None Specified                        |
| Trimethylbenzene, 1,3,5-       | 108-67-8   | 15    | 80     | 0.3   | 6.7  | 6.7  | -None Specified                        |
| Trinitrobenzene, 1,3,5-        | 99-35-4    | 2000  | 26000  | 1     | 0.09 | 0.09 | -Blood -Spleen                         |
| Trinitrophenyl-methylnitramine | 479-45-8   | 790   | 15000  | 1.4   | NA   | NA   | -Kidney -Liver -Spleen                 |
| Trinitrotoluene, 2,4,6-        | 118-96-7   | 28    | 97     | 0.006 | 0.3  | 0.3  | -Cancer -Liver                         |
| Trithion [see Carbophenothion] |            |       |        |       |      |      |                                        |
| TRPH                           | NOCAS      | 460   | 2700   | 340   | 340  | 340  | -Multiple Endpoints Mixed Contaminants |
| Uranium, soluble salts         | 7440-61-1  | 110   | 820    | ***   | NA   | NA   | -Kidney                                |
| Vanadium (b)                   | 7440-62-2  | 67**  | 10000  | 980   | NA   | NA   | -Hair Loss                             |
| Vernam                         | 1929-77-7  | 51    | 510    | 0.1   | 0.2  | 0.2  | -Body Weight                           |
| Vinyl acetate                  | 108-05-4   | 320   | 1700   | 0.4   | 3    | 3    | -Kidney -Nasal                         |
| Vinyl chloride (i)             | 75-01-4    | 0.2   | 0.8    | 0.007 | 0.02 | 0.02 | -Cancer -Liver                         |
| Xylenes, total                 | 1330-20-7  | 130   | 700    | 0.2   | 3.9  | 3.9  | -Neurological                          |
| Zinc (b,c)                     | 7440-66-6  | 26000 | 630000 | ***   | (k)  | ***  | -Blood                                 |
| Zinc phosphide                 | 1314-84-7  | 26    | 660    | ***   | NA   | NA   | -Body Weight                           |
| Zineb                          | 12122-67-7 | 4100  | 82000  | 19    | 0.7  | 0.7  | -Thyroid                               |

CTLs are expressed in units of mg/kg (ppm) on a dry weight basis and rounded to two significant figures if >1 and to one significant figure if <1.

# = These default Target Organ(s)/Systems or Effects are those reported to occur at the doses used to derive the referenced dose. Non-default Target Organ(s)/Systems or Effects may be justified through a detailed toxicological analysis of the chemicals present at a specific site.

\* Contaminant is not a health concern for this exposure scenario.

\*\* Direct exposure value based on acute toxicity considerations. This criterion is applicable in scenarios where children might be exposed to soils (e.g. residences, schools, playgrounds).

\*\*\* Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

## = Site concentrations for carcinogenic polycyclic aromatic hydrocarbons shall be converted to Benzo(a)pyrene equivalents before comparison with the appropriate direct exposure SCTL for Benzo(a)pyrene using the approach described in the DERM Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 24, of the Code of Miami-Dade County (September 2005).

(a) = See discussion on the development of SCTLs for Ammonia in the DERM Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County (September 2005).

(b) = Leachability values derived from USEPA Soil Screening Guidance (1996). These values were derived assuming soil pH 6.8. These leachability values are dependent upon both the metal concentration in soil and soil characteristics. Thus, if site-specific soil characteristics are different than the defaults, these leachability values may not apply. If this is the case, site-specific leachability values may be derived using methods such as TCLP or SPLP.

(c) = Phytotoxicity must be considered.

(d) = Residential direct exposure value from USEPA Revised Interim Soil Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12 (1994). The industrial direct exposure value was derived using methodologies set forth in USEPA "Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil", December 1996; and in 'Blood Lead Concentrations of U.S. Adult Females: Summary Statistics from Phases 1 and 2 of the NHANES III', March 2002.

(e) = The SCTL for Dioxins, as total 2,3,7,8-TCDD equivalents should be compared to the total dioxin equivalents for chlorinated dioxin and dibenzofuran congeners using the approach described in the DERM Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County (September 2005).

(f) = The common name BHC is a misnomer for hexachlorocyclohexane.

(g) = Unless concentrations for both chromium III and VI are known, total chromium concentrations may be compared with direct exposures SCTLs for chromium VI.

(h) = Residential chronic SCTL for cadmium shall be used as a not-to-exceed value because the residential chronic SCTL for cadmium is indistinguishable from the SCTL based on acute toxicity.

(i) = Residential chronic SCTL for vinyl chloride calculated by adding prorated and non-prorated risks, as discussed in the DERM Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County (September 2005).

(j) = 12789-03-6 or 57-74-9

(k) = Hardness-dependent fresh surface water CTLs shall be calculated using the site-specific hardness prior to calculating the leachability based upon fresh surface water CTLs or comparing the SPLP leachate concentrations.

None Specified = Target organ(s) not determined.

NA = Not available.

3. For contaminants not listed in Section 24-44(2)(f)(v), CTLs shall be established as set forth in Section 24-44(2)(f)(i) and Section 24-44(2)(f)(ii). The CTLs calculated pursuant to Section 24-44(2)(f)(v)3. shall be provided in a technical report approved by the Director or the Director's designee.

- (g) All technical plans, reports, proposals, or studies shall be submitted by the party or parties responsible for SRAs in accordance with the written orders of the Director, or the Director's designee, or as set forth herein. The Director, or the Director's designee, shall review each technical plan, report, proposal, or study and approve, approve with modifications or disapprove the aforesaid in writing within sixty (60) calendar days from receipt of the submittal.

To facilitate a phased risk-based assessment process that is iterative and that tailors site rehabilitation actions to site-specific conditions, the party or parties responsible for SRAs may submit to the Department for approval a proposal to establish applicable exposure factors and a risk management approach based upon land use at the site pursuant to the requirements set forth in Section 24-44(2)(k)(ii) and Section 24-44(2)(l)(ii).

- (h) Site rehabilitation actions shall neither be, nor reasonably be expected to be, a source of pollution, as herein defined, or cause, or reasonably be expected to cause, a nuisance as defined in Section 24-5, Section 24-27 or Section 24-28.
- (i) Emergency response actions may be performed without prior approval from the Director, or the Director's designee, provided that these actions do not cause any adverse effects upon human health, public safety or the environment. The party or parties responsible for SRAs and performing the emergency response actions shall notify the Director, or the Director's designee, within 24 hours of the commencement of any such emergency response actions.
- (j) Point of compliance, notification, source removal, and assessment procedures shall be as follows:
- (i) The sampling points to determine compliance with Section 24-44(2) shall be as set forth in Section 24-44.1 herein. However, contamination may exist beyond the property boundary while clean-up, including natural attenuation in conjunction with appropriate monitoring, is proceeding.
  - (ii) When contamination exists beyond the property boundary of the site from which SRAs have been initiated the party or parties responsible for SRAs shall commence notification in accordance with the following:
    1. Laboratory analytical results, which comply with appropriate quality assurance protocols pursuant to Chapter 62-160, F.A.C., that document the off-site contamination, shall be submitted to the Department no later than ten (10) calendar days from the date that the laboratory analyses are completed. A site sketch shall be submitted along with the laboratory analytical data which indicates the locations where the samples were obtained that resulted in the confirmation of the contamination.
    2. The property owners, residents, and tenants of any property onto or into which the contamination extends shall be notified within sixty (60) calendar days of the approval of the site assessment report. Notification shall include, but not be limited to, the following type of information: the type of contaminant and site remedy selected, a description of the location of the subject site, the name and address of the party or parties responsible for SRAs, and the name of a Department contact. Persons receiving notice shall have thirty (30) calendar days upon receipt of the notice to comment on the

assessment and the site remedy selected. Nothing herein shall preclude any persons from initiating a civil action as a result of said contamination.

- (iii) Prior to site closure as set forth in Section 24-44(2)(k), source removal of free product and soil saturated with contaminants or free product is required, unless demonstrated through a feasibility study approved by the Director, or the Director's designee, that the source removal is neither cost effective nor technically feasible. Source removal of free product from a new discharge shall be initiated as soon as possible but, in any event, no later than seven (7) calendar days after the discovery of free product. Source removal of free product from a previous discharge shall be initiated in accordance with the written orders of the Director, or the Director's designee, or the timeframes set forth in a source removal plan approved by the Director or the Director's designee.

Source removal of contaminated soils and saturated soils by excavation may be implemented at any time upon prior written notification by the party or parties responsible for SRAs to the Director or the Director's designee. Such notification shall be submitted to the Department at least three (3) calendar days prior to performing the source removal by excavation. Excavated soils shall be disposed of in accordance with 40 CFR 261, 40 CFR 761, Chapter 62-701, F.A.C., Chapter 62-713, F.A.C., and any other applicable federal, state and local regulations. A source removal report shall be submitted to the Department within sixty (60) calendar days of completion of the source removal. The source removal report shall describe all activities performed during the source removal including all analytical results as well as all disposal manifests.

When excavated soil is temporarily stored or stockpiled on site, the soil shall be secured in a manner which prevents human exposure to contaminated soil and prevents soil exposure to conditions which may facilitate the spread of contamination. Any excavation shall be secured to prevent accidental or intentional entry by the public and shall comply with applicable federal, state and local regulations. Contaminated soils may be stored on site for ninety (90) calendar days, unless otherwise ordered by the Director or the Director's designee. Prior to the expiration of the ninety (90) calendar day period, the soils shall be disposed of in accordance with this section.

- (iv) The site assessment report shall include, but not be limited to: an investigation of the source(s) of contamination; an identification of the types of contaminants present; a determination of the extent and degree of contamination in all media which are impacted; a determination of the physical and environmental conditions and characteristics of the site and the underlying aquifer(s), if applicable; an identification of potential human and environmental receptors; and an evaluation of the current exposure and potential risk of exposure to those identified receptors. Groundwater sampling shall be performed less than two hundred seventy (270) calendar days before the submittal of the site assessment report.

The summary and conclusions of the approved site assessment report shall propose one of the following: no further action, no further action with conditions, monitoring only, risk assessment, or a remedial action plan.

- (k) Site closure, in the form of a no further action or a no further action with conditions, shall be approved by the Director, or the Director's designee, when the CTLs or alternative CTLs established pursuant to Section 24-44(2)(f)(iii) and the requirements set forth in this section have been achieved.
  - (i) A no further action proposal shall be approved by the Director, or the Director's designee, if such proposal demonstrates that human health, public safety and the environment are protected and the following criteria are met:
    1. Concentrations of contaminants detected in soil shall not exceed the lower of the direct exposure residential soil CTLs or the applicable leachability-based soil CTLs set forth in Section 24-44(2)(f)(v)(ii).

The applicable leachability-based soil CTLs shall be the groundwater leachability-based CTLs. If surface waters are, or are reasonably expected to be, affected by contaminated groundwater, as demonstrated using monitoring well data, groundwater flow rate and direction, or fate and transport modeling, then the applicable leachability-based soil CTLs shall be the lower of the groundwater or the applicable freshwater or marine surface water leachability-based CTLs.

Notwithstanding the foregoing provisions of Section 24-44(2)(k)(i)1, alternative residential direct exposure and leachability-based CTLs may be proposed in accordance with the procedures set forth in Section 24-44(2)(f)(iii)3. and Section 24-44(2)(f)(iii)4.

2. Concentrations of contaminants detected in groundwater shall not exceed the groundwater CTLs set forth in Section 24-44(2)(f)(v)1.

If surface waters are, or are reasonably expected to be, affected by contaminated groundwater, as demonstrated using monitoring well data, groundwater flow rate and direction, or fate and transport modeling, then the groundwater CTLs shall be the lower of the groundwater CTLs or the applicable freshwater or marine surface water CTLs set forth in Section 24-44(2)(f)(v)1.

3. Concentrations of contaminants detected in surface water shall not exceed the applicable freshwater or marine surface water CTLs set forth in Section 24-44(2)(f)(v)1.

Nothing herein shall supersede the rules governing Outstanding Florida Waters, aquatic preserves, areas of critical state concern and any other rules adopted pursuant to Section 403.061(34), Florida Statutes.

4. It is demonstrated that contaminants in sediments are not detected in concentrations, quantities, properties, levels or accumulations which are, or are reasonably expected to be, injurious to human, plant, animal, fish and other aquatic life, or property. This demonstration may be based, as applicable, on the Threshold Effects Levels published in the FDEP's guideline "Approach to the Assessment of Sediment Quality in Florida Coastal Waters" (dated November 1994), site specific bioassays, a site-specific risk assessment developed in accordance with Section 24-44(2)(1)(ii), or a combination thereof.

5. If more than one contaminant is present or contamination is present in more than one (1) medium, the human health-based CTLs shall be adjusted to achieve the following: for non-carcinogenic compounds affecting the same organ(s), the hazard index (sum of the hazard quotients) shall be one (1) or less; and for carcinogens, the cumulative lifetime excess cancer risk level (sum of the lifetime excess cancer risk levels for each carcinogenic contaminant) shall be 1.0E-06 or less.

- (ii) A no further action with conditions proposal shall be approved by the Director, or the Director's designee, provided the following: the property owner of the location elects to implement institutional and, if applicable, engineering controls; it is demonstrated, using site-specific data, modeling results, risk assessment studies, risk reduction techniques or a combination thereof, that human health, public safety and the environment are afforded protection equivalent to that provided in Section 24-44(2)(f)(i) and Section 24-44(2)(f)(ii); and the following criteria are met:

1. For contaminants detected in soil, a proposal for alternative soil CTLs shall be submitted to the Department and shall achieve one of the following or a combination of the following:
  - a. Concentrations of contaminants detected in soil shall not exceed the lower of the industrial direct exposure soil CTLs set forth in Section 24-44(2)(f)(v)2. or the applicable leachability-based soil CTLs, set forth in Section 24-44(2)(f).

The applicable leachability-based soil CTLs shall be the groundwater leachability-based CTLs or alternative groundwater leachability-based CTLs derived in accordance with Section 24-44(2)(k)(ii)1c and Section 24-44(2)(k)(ii)2. If surface waters are, or are reasonably expected to be, affected by contaminated groundwater, as demonstrated using monitoring well data, groundwater flow rate and direction, or fate and transport modeling, then the applicable leachability-based soil CTLs shall be the lower of the groundwater or the applicable freshwater or marine surface water leachability-based CTLs.

If a marine surface water is, or is reasonably expected to be, affected by contaminated groundwater, and no other property or fresh surface water bodies are located between the source property boundary and the marine surface water body and the groundwater on-site is not utilized, then the applicable leachability-based soil CTLs shall be the marine surface water leachability-based soil CTLs.

Notwithstanding the foregoing provisions of Section 24-44(2)(k)(ii)1a, alternative industrial direct exposure and leachability-based CTLs may be proposed in accordance with the procedures set forth in Section 24-44(2)(f)(iii)3 and Section 24-44(2)(f)(iii)4. In addition, the applicable leachability-based soil CTLs may be exceeded if it is demonstrated using groundwater monitoring data supported, if required, by site-specific modeling, that contaminants will not leach into groundwater at concentrations which exceed the applicable groundwater CTLs. The groundwater monitoring data shall be compiled for a minimum period of one (1) year and shall include four (4) quarterly sampling events.

- b. Concentrations of contaminants may exceed the soil CTLs if an engineering control, approved by the Director, or the Director's designee, in conjunction with the institutional control, is utilized to eliminate or control contaminant exposure and migration such that human health, public safety and the environment are afforded protection equivalent to that provided in Section 24-44(2)(f)(i) and Section 24-44(2)(f)(ii).
  - c. Concentrations of contaminants detected in soil shall not exceed the alternative soil CTLs derived in accordance with Section 24-44(2)(f)(iii) and Section 24-44(2)(1)(ii).
2. For contamination detected in groundwater, a proposal for alternative groundwater CTLs shall be submitted to the Department and shall provide the following:
- a. A complete evaluation of the current and projected use of the affected groundwater and documentation that the following conditions have been met:
    - (1) Source removal is completed as set forth in Section 24-44(2)(j)(iii).
    - (2) Groundwater contamination is not migrating away from a localized source.
    - (3) Groundwater concentrations at the property boundary, as determined by groundwater monitoring data supported, if required, by site-specific modeling, do not, and are not reasonably expected to, exceed the groundwater CTLs set forth in Section 24-44(2)(f)(v)1. The groundwater monitoring data shall be compiled for a minimum period of one (1) year and shall include four (4) quarterly sampling events.

If surface waters are, or are reasonably expected to be, affected by contaminated groundwater, as demonstrated using monitoring well data, groundwater flow rate and direction, or fate and transport modeling, then the groundwater CTLs shall be the lower of the groundwater CTLs or the applicable freshwater or marine surface water CTLs set forth in Section 24-44(2)(f)(v)1.

If a marine surface water is, or is reasonably expected to be, affected by contaminated groundwater, and no other property or fresh surface water bodies are located between the source property boundary and the marine surface water body and the groundwater on-site is not utilized, then the groundwater CTLs shall be the marine surface water CTLs.

- b. If there is a receptor which may potentially be exposed to on-site groundwater and such exposure has not been eliminated by the implementation of institutional and, if applicable, engineering controls, then concentrations of contaminants detected in groundwater shall not exceed the alternative groundwater CTLs derived in accordance with Section 24-44(2)(f)(iii) and Section 24-44 (2)(1)(ii).
3. Concentrations of contaminants detected in surface water shall not exceed the applicable freshwater or marine surface water CTLs set forth in Section 24-44(2)(f)(v)1.

Nothing herein shall supersede the rules governing Outstanding Florida Waters, aquatic preserves, areas of critical state concern and any other rules adopted pursuant to Section 403.061(34), Florida Statutes.

4. It is demonstrated that contaminants in sediments are not detected in concentrations, quantities, proportions, levels or accumulations which are, or are reasonably expected to be, injurious to human, plant, animal, fish and other aquatic life, or property. This demonstration may be based, as applicable, on the Threshold Effects Levels published in the FDEP's guideline "Approach to the Assessment of Sediment Quality in Florida Coastal Waters" (November 1994), site specific bioassays, a site-specific risk assessment developed in accordance with Section 24-44(2)(l)(ii), or a combination thereof.
5. If more than one (1) contaminant is present or contamination is present in more than one (1) media, the human health-based CTLs or alternative human health-based CTLs shall be adjusted to achieve the following: for non-carcinogenic compounds affecting the same organ(s), the hazard index (sum of the hazard quotients) shall be one (1) or less; and for carcinogens, the cumulative lifetime excess cancer risk level (sum of the lifetime excess cancer risk levels for each carcinogenic contaminant) shall be 1.0E-06 or less.
6. The property owner of the location at which site rehabilitation actions are being conducted elects to implement an institutional and, if applicable, engineering control to eliminate or control exposure of human and environmental receptors to contaminants. When an engineering control is used in conjunction with institutional controls, an engineering control plan shall be submitted to the Department. The engineering control plan shall provide details of the design and construction of the engineering control and shall demonstrate that the engineering control is effective, reliable and capable of being monitored and maintained.

The no further action with conditions proposal shall include a copy of the proposed institutional control, in a form prescribed by the Director, or the Director's designee, and approved by the Board of County Commissioners, with site-specific closure conditions. Upon written approval by the Director, or the Director's designee, of the institutional control and, if applicable, the engineering control plan, the institutional control shall be recorded in the public records of Miami-Dade County. A copy of the recorded instrument shall be submitted to the Department and the engineering control, if applicable, shall be implemented prior to approval of the no further action with conditions proposal.

Upon demonstration to the satisfaction of the Director, or the Director's designee, by the party or parties responsible for SRAs that institutional and, if applicable, engineering controls are no longer required because the conditions set forth in

Section 24-44(2)(k)(i) have been achieved, the Director, or the Director's designee, shall release the institutional control.

7. An operating permit in accordance with Section 24-18 shall be required for all sites for which site rehabilitation actions have been completed in accordance with the provisions set forth in Section 24-44(2)(k)(ii). The Director, or the Director's designee, shall approve, deny, or approve with conditions, restrictions or limitations any application for an operating permit.
- (l) For sites which do not qualify for site closure in accordance with Section 24-44(2)(k), one (1) of the following, or a combination of the following, shall be submitted for approval by the Director, or the Director's designee, to achieve site closure pursuant to Section 24-44(2)(k): a monitoring only plan, a risk assessment report, or a remedial action plan.
- (i) The monitoring only plan:
    1. The monitoring only plan for natural attenuation shall include, but shall not be limited to, an evaluation of the contaminant plume history, site conditions and aquifer chemical characteristics to demonstrate that the applicable CTLs will be attained in accordance with the approval by the Director, or the Director's designee, and that monitoring only is the most cost-effective remedial approach. The monitoring period shall be a minimum of one (1) year, unless two (2) consecutive quarterly samplings have indicated that applicable CTLs have been met. The monitoring only plan shall also demonstrate that human health, public safety, and the environment will be protected. Upon completion of the approved monitoring, a proposal for a no further action, a no further action with conditions, an extension of the monitoring only plan, risk assessment, or a remedial action plan, in accordance with the requirements herein, shall be submitted to the Department.
    2. The monitoring only plan to verify that compliance with the approved remedial action as set forth in Section 24-44(2)(l)(iii) has been achieved shall be for a minimum of a one (1) year period and shall include four (4) quarterly sampling events. However, if contamination was only present in the unsaturated zone during the site assessment and remediation tasks, only one groundwater sampling event approved by the Director, or the Director's designee, shall be required. Upon completion of the approved monitoring, a proposal for a no further action, a no further action with conditions, an extension of the monitoring only plan, risk assessment, or a remedial action plan modification, in accordance with the requirements herein, shall be submitted to the Department for approval.
  - (ii) The risk assessment shall include, but shall not be limited to, a human and environmental exposure assessment, toxicity assessment, cumulative risk characterization, and supporting documentation for the development of alternative CTLs. Alternative health-based CTLs shall be calculated using the risk equations set forth in the DERM Technical Report: "Development of Clean-up Target Levels (CTLs) for Chapter 24 of the Code of Miami-Dade County, Florida" (dated September, 2005), and site-specific exposure scenarios and input parameters. Upon approval of the risk assessment, a proposal for a no further action, no further action with conditions, monitoring only plan for natural attenuation or remedial action, in accordance with the requirements herein, shall be submitted to the Department.
  - (iii) The remedial action plan shall include, but not be limited to, all supporting documentation for the remedial technique proposed to achieve CTLs or alternative CTLs, or to qualify for natural attenuation in all contaminated media. Groundwater sampling shall be performed less than two hundred seventy (270) calendar days before the submittal of the remedial action plan to the Department. Detailed technical documentation shall be provided for all elements of the proposed remedial process. Pilot testing may be required to support the design. A monitoring schedule shall be included to evaluate the performance of the clean-up. Within one hundred twenty (120) calendar days after the approval of the remedial action plan, the approved remedial action plan shall be implemented and record drawings of the

operating remedial system shall be submitted. Upon achieving the CTLs or alternative CTLs, or qualifying for natural attenuation in all contaminated media, a monitoring only plan, prepared in accordance with the requirements set forth in Section 24-44(2)(l)(i), shall be submitted to the Department.

If implementation of the approved remedial action plan does not achieve the CTLs or alternative CTLs, or does not qualify for natural attenuation in all contaminated media a proposal for a monitoring only plan for natural attenuation, a risk assessment, or a remedial action plan modification, in accordance with the requirements herein, shall be submitted to the Department.

- (m) All sampling and analyses shall be performed in accordance with Chapter 62-160, F.A.C., Quality Assurance. Reports submitted to the Department which contain analytical data shall include, at a minimum, the following: original laboratory reports which include all information required in Chapter 62-160.670, F.A.C.; copies of the completed chain of custody records; copies of the completed water sampling log forms; and results from screening tests or on-site analyses.

(Ord. No. 04-214, §§ 1, 5, 12-2-04; Ord. No. 06-34, §§ 1—8, 3-7-06; Ord. No. 08-55, § 2, 5-6-08)

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