

US EPA ARCHIVE DOCUMENT

MICHIGAN DISPOSAL WASTE TREATMENT PLANT

USEPA ID# MID000724831

PCB COMMERCIAL STORAGE PERMIT APPLICATION

40 CFR 761.65

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1. PCB Commercial Storage Introduction

This Polychlorinated Biphenyl (PCB) Commercial Storage Approval Application covers proposed PCB storage and processing activities at the Michigan Disposal Waste Treatment Plant (WDWTP) located at 49350 Service Drive North in Belleville, Michigan. The PCB Commercial Storage Approval Application addresses specific portions of the MDWTP that will be utilized for handling and processing of Toxic Substance Control Act (TSCA)-regulated PCB wastes. The MDWTP is a Resource Conservation and Recovery Act (RCRA) and State of Michigan (Part 111 of Michigan P.A. 451) permitted hazardous waste storage and treatment facility. This PCB Commercial Storage Approval Application is intended to allow the facility to store and process additional waste streams that are regulated under the federal TSCA PCB regulations contained in 40 Code of Federal Regulations (CFR) Part 761.

In accordance with 40CFR Part 761.65(d), each Commercial Storer of PCB waste is required to submit an approval application to the United States Environmental Protection Agency (USEPA). A PCB Commercial Storage Application Approval Review Checklist developed for use by USEPA Region 5 is included as Attachment A to this document. The table below lists information which is required to be included in the approval application and references where the information is presented in this document.

Citation (40 CFR 761.65)	Requirement	Location Addressed
PCB Commercial Storage Application Requirements		
(d)(2)(i)	The applicant, its principals, and its key employees responsible for the establishment or operation of the commercial storage facility are qualified to engage in the business of commercial storage of PCB waste.	Section 3.1, 3.2
(d)(2)(ii)	The facility possesses the capacity to handle the quantity of PCB waste which the owner or operator of the facility has estimated will be the maximum quantity of PCB waste that will be handled at any one time at the facility.	Section 2.6,
(d)(2)(iii)	The owner or operator of the unit has certified compliance with the storage facility standards in paragraphs (b) and (c)(7) of this section.	Section 2.5
(d)(2)(iv)	The owner or operator has developed a written closure plan for the facility that is deemed acceptable by the Regional Administrator (or the appropriate official at EPA Headquarters, if the commercial storage area is ancillary to a disposal facility permitted by an official at EPA Headquarters) under the closure plan standards of paragraph (e) of this section.	Attachment B
(d)(2)(v)	The owner or operator has included in the application for final approval a demonstration of financial responsibility for closure that meets the financial responsibility standards of paragraph (g) of this section.	Attachment B
(d)(2)(vi)	The operation of the storage facility will not pose an unreasonable risk of injury to health or the environment.	Section 2, Attachment B
(d)(2)(vii)	The environmental compliance history of the applicant, its principals, and its key employees may be deemed to constitute a sufficient basis for denial of approval whenever in the judgment of the appropriate EPA official that history of environmental civil violations or criminal convictions evidences a pattern or practice of noncompliance that demonstrates the applicant's unwillingness or inability to achieve and maintain compliance with the regulations.	Section 4

Citation (40 CFR 761.65)	Requirement	Location Addressed
(d)(3)(i)	The identification of the owner and the operator of the facility, including all general partners of a partnership, any limited partner of a partnership, any stockholder of a corporation or any participant in any other type of business organization or entity who owns or controls, directly or indirectly, more than 5 percent of each partnership, corporation, or other business organization and all officials of the facility who have direct management responsibility for the facility.	Section 3.1, 3.2
(d)(3)(ii)	The identification of the person responsible for the overall operations of the facility (i.e., a plant manager, superintendent, or a person of similar responsibility) and the supervisory employees who are or will be responsible for the operation of the facility.	Section 3.2
(d)(3)(iii)	Information concerning the technical qualifications and experience of the persons responsible for the overall operation of the facility and the employees responsible for handling PCB waste or other wastes.	Attachment C
(d)(3)(iv)	Information concerning any past State or Federal environmental violations involving the same business or another business with which the principals or supervisory employees were affiliated directly that occurred within 5 years preceding the date of submission and which relate directly to violations that resulted in either a civil penalty (irrespective of whether the matter was disposed of by an adjudication or by a without prejudice settlement) or judgment of conviction whether entered after trial or a plea, either of guilt or nolo contendere or civil injunctive relief and involved storage, disposal, transport, or other waste handling activities.	Section 4
(d)(3)(v)	A list of all companies currently owned or operated in the past by the principals or key employees identified in paragraphs (d)(3)(i) and (d)(3)(ii) of this section that are or were directly or indirectly involved with waste handling activities.	Section 5
(d)(3)(vi)	The owner's or operator's estimate of maximum PCB waste quantity to be handled at the facility.	Section 2.7, Attachment B
(d)(3)(vii)	A written statement certifying compliance with paragraph (b) or (c) of this section and containing a certification as defined in § 761.3.	Section 9
(d)(3)(viii)	A written closure plan for the facility, as described in paragraph (e) of this section.	Attachment B
(d)(3)(ix)	The current closure cost estimate for the facility, as described in paragraph (f) of this section.	Attachment B
(d)(3)(x)	A demonstration of financial responsibility to close the facility, as described in paragraph (g) of this section.	Attachment E
PCB Storage Area Design Requirements		
(b)(1)(i)	Adequate roof and walls to prevent rain water from reaching the stored PCBs and PCB Items	Section 2.6
(b)(1)(ii)	An adequate floor that has continuous curbing with a minimum 6 inch high curb. The floor and curbing must provide a containment volume equal to at least two times the internal volume of the largest PCB Article or PCB Container or 25 percent of the total internal volume of all PCB Articles or PCB Containers stored there, whichever is greater. PCB/radioactive wastes are not required to be stored in an area with a minimum 6 inch high curbing. However, the floor and curbing must still provide a containment volume equal to at least two times the internal volume of the largest PCB Container or 25 percent of the total internal volume of all PCB Containers stored there, whichever is greater	Section 2.6, Attachment B
(b)(1)(iii)	No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area	Section 2.6

Citation (40 CFR 761.65)	Requirement	Location Addressed
(b)(1)(iv)	Floors and curbing constructed of Portland cement, concrete, or a continuous, smooth, non-porous surface as defined at §761.3, which prevents or minimizes penetration of PCBs	Section 2.6, Attachment B
(b)(1)(v)	Not located at a site that is below the 100-year flood water elevation	Section 7, Attachment D

2. Facility Description

The MDWTP is located at 49350 North I-94 Service Drive, Sections 17 and 18, Township 3 South/Range 8 East, Van Buren Township, Wayne County, Michigan. The facility is situated between the I-94 expressway and the Willow Run Airport. Figure 1 shows the location of the site. The site occupies 4.82 acres licensed to Michigan Disposal, Inc. (MDI) and is surrounded on all sides by property owned by Wayne Disposal, Inc. (WDI), which owns and operates a hazardous waste and TSCA approved chemical waste landfill facility (see Figure 2). The entire WDI property that surrounds the MDWTP facility is a restricted access area with perimeter fencing and the only entry for commercial traffic and visitors is via an access road off the North I-94 Service Drive that is continuously monitored by onsite security personnel.

The MDWTP facility includes a RCRA-permitted hazardous and non-hazardous industrial waste treatment plant, designated waste storage tanks and container storage areas, and support facilities and ancillary structures. The facility receives both solid and liquid hazardous and nonhazardous wastes for storage and treatment. Both RCRA characteristic and listed hazardous wastes are received at the facility. Stored waste may be treated followed by transfer to an on-site or off-site facility or transshipped without treatment to another facility for treatment or disposal. The primary treatment conducted is waste stabilization to meet applicable RCRA land disposal requirements. Other treatment processes include chemical oxidation, chemical reduction and microencapsulation of hazardous debris. Under the RCRA permit, the MDWTP is licensed to treat up to 576,000 gallons of RCRA waste per day. The MDWTP is permitted to store up to 649,880 gallons of RCRA waste in tanks and 264,000 gallons of RCRA waste in containers.

The proposed PCB storage and processing activities will be conducted in the following areas of the facility (shown on Figure 3):

- North Container Storage Area (NCSA);
- East Waste Treatment Bay (EWTB); and
- West Waste Treatment Bay (WWTB).

TSCA-regulated PCB waste to be stored and processed at the facility will include:

1. Solid TSCA-regulated PCBs and PCB items that are designated for landfill disposal without further processing, including (but not limited to) PCB remediation waste, PCB bulk product waste, PCB articles, PCB article containers, and bulk materials such as piping, structural steel, and equipment.
2. Solid TSCA-regulated PCBs and PCB items that are designated for landfill disposal and require sizing (using a hydraulic sheer or other methods) to facilitate landfill disposal at WDI, including (but not limited to) bulk materials such as piping, structural steel, and equipment.
3. Specific TSCA-regulated PCB wastes that are also RCRA characteristic or listed hazardous wastes will be processed via stabilization or microencapsulation to meet applicable RCRA land disposal requirements.

4. Solid TSCA-regulated PCB wastes requiring the addition of reagents to improve physical properties (e.g., waste strength) to facilitate landfill disposal at WDI.
5. TSCA-regulated PCB wastes that are otherwise solid but have free liquids causing the waste to fail the paint filter test and thus require addition of reagent for solidification of the free liquids prior to landfill disposal.

The TSCA processing activities conducted at the facility do not result in any change to the mass or chemical properties of PCBs within the waste or to the regulated status of the waste under the federal Toxic Substances Control Act (TSCA) PCB regulations. No TSCA-regulated PCB treatment or disposal is conducted at the MDWTP. No draining of TSCA-regulated PCBs will be conducted at MDWTP without prior approval from USEPA and MDEQ.

2.1 Site Security

Wayne Disposal Inc. (WDI) and Michigan Disposal Waste Treatment Plant (MDWTP) maintain a secure facility in order to prevent unknowing entry and minimize the possibility for the unauthorized entry onto the active portion of the facility.

The entire site is surrounded by fencing with warning signs meeting the specification of 40 CFR 264.14(c).

- At each entrance of the active portion of the facility and at other locations in sufficient numbers to be seen from any approach to the active portion, signs are posted indicating only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.
- Signs are legible from a distance of at least 25 feet.

Additional signs communicating directions to unfamiliar guests and drivers are also posted at the entrance of the facility.

Unless in use, all access gates are closed and locked. If in use, an open gate is monitored to ensure unauthorized personnel do not enter the facility.

2.2 Other Permit Currently Held By Facility

Other permits held by the MDWTP are summarized as follows:

Permit	Issuance Date	Expiration Date
EPA RCRA Hazardous Waste Management Permit (Resource Conservation and Recovery Act)	8/10/2007	9/11/2017
MI Part 111 Operating License (MI 1994 PA 451,1980)	10/31/2007	10/31/2017
Solid Waste Area Operating License No. 82-000019 (Michigan Act 451 Part 115)	10/17/14	10/17/19
MDEQ Renewable Operating Permit for Site 2 (MDWTP/WDI/WES) Permit No. MI-ROP-M4782-2010	Effective 9/1/2010	9/1/2015

2.3 Environmental Setting

The MDWTP and the surrounding WDI property are situated on a glacial lake plain characterized by relatively flat topography. Topographic elevations in Van Buren Township range from approximately 715 feet above mean sea level (MSL) to 651 feet MSL at Belleville Lake, which is a man-made impoundment of the Huron River that is located south of I-94, more than 1,000 feet from the WDI property boundary. The land surface in the vicinity of the site generally slopes gently southeasterly toward Lake Erie.

The nearest residents are a significant distance away from the site property. The closest residents are approximately 1,000 feet from the facility boundary to the south and are separated from the facility by a major six-lane expressway (I-94). A large screening berm runs along the south site boundary as well. To the east, the closest residents are at least 1,000 feet from the waste boundary but over 4,000 feet away from active site operations. There is a park, a wooded area and closed municipal waste landfill cells that isolate the active operations from these residents. To the north and partially to the west is Willow Run Airport that serves as a buffer of at least a mile between the facility and residents. To the west there is part of the airport, old closed landfills, an asphalt plant, a wastewater treatment plant and an industrial area that provides nearly two miles of separation from residents in this direction.

A general summary of the site geology (natural subsurface conditions prior to landfill development) is as follows: Overlying the site is a surface deposit of brown and gray fine to medium sand containing varying amounts of silt. This sand represents a deltaic deposit from the most recent glacial advance. In some areas, the shallow sand is underlain by sandy silt that is likely lacustrine in origin. The deltaic and lacustrine materials are underlain by a silty, clay glacial till over the entire site. The till contains varying amounts of sand and gravel incorporated within a silt and clay matrix. At its base, the till grades to primarily granular material, progressing from gray clayey silt, to silt, and eventually an extensive deposit of gray silty fine sand. This lower sand contains zones of both finer and coarser material and it is sufficiently

extensive to be considered a usable aquifer. Underlying these unconsolidated deposits is dark brown or black shale considered to be a member of the Antrim Formation.

Groundwater in the vicinity of the facility occurs in the upper sand unit (not considered a usable aquifer), the glacial sand aquifer and in the upper, weathered portion of the shale. All groundwater flows to the south toward Belleville Lake.

2.4 Storm Water

Runoff patterns and surface water flow is controlled on-site by engineered storm water control features. At the MDWTP, which is all paved, most of the storm water collects in blind sumps and is pumped into storage tanks and then used in the treatment process as a wetting agent. The rest of the MDWTP and surrounding property is divided into three sub-watersheds designated as the North Sedimentation Basin (NSB), the South Sedimentation Basin (SSB) and the Lined Pond. The storm water management system for each on-site watershed includes a network of conveyance structures (e.g., ditches, culverts, pipes, etc.) and one collection structure. The storm water generated from paved areas near the MDWTP is managed as potential "contact storm water" and is collected in the lined pond. Runoff collected in the Lined Pond, which includes some of the run-off near the MDWTP, is treated in the on-site wastewater pre-treatment plant and discharged to a Publicly Owned Treatment Works (POTW) in accordance with an Industrial Pretreatment Permit (IPP) issued by the South Huron Valley Utility Authority (SHVUA).

2.5 Design of Storage and Treatment Areas and Structures

A description of the areas at the facility where PCB storage and processing activities will be conducted is presented below:

East Waste Treatment Bay and West Waste Treatment Bay

PCB storage and process activities at the EWTB will be conducted within an approximately 4,000 square foot (ft²) waste storage and handling area and in Waste Treatment Tanks E, F, G and H. PCB storage and processing activities at the WWTB will be conducted within an approximately 4,000 ft² waste storage and handling area and in Waste Treatment Tanks A, B, C, and D.

The EWTB and WWTB are completely enclosed by the MDWTP building and are permitted to store containers for less than an 8-hour shift. The EWTB and WWTB each have a concrete floor with an abrasion resistant concrete topping material MG Crete to reduce surface wear. Each has a sloped roof served by gutters and downspouts to convey rainfall to drainage on the exterior of the building. Section 2.4 of this report describes the on-site storm water system.

The storage/treatment tanks A through H are constructed of 1-inch thick steel contained within a concrete vault. The concrete vault is a secondary containment structure for the steel tank. The tanks and secondary containment slope to the north and center of each tank. A monitoring sump is located at the low point of each secondary containment unit. The treatment tanks are open-topped and are continuously monitored during operations to ensure adequate freeboard is maintained and to ensure any spillage is removed immediately.

Both the EWTB and the WWTB have air pollution control systems that maintain negative pressure in the buildings and remove at least 99% of particulate matter using baghouses. The EWTB is additionally equipped with a regenerative thermal oxidizer (RTO) that destroys at least 95% of VOCs followed by a caustic scrubber. Air pollution control systems are operated in accordance with the facility's Title V Renewable Operating Permit administered by the Michigan Department of Environmental Quality's (MDEQ) Air Quality Division (AQD)

North Container Storage Area

The NCSA is located directly north of the waste treatment plant, and is enclosed by a roof, surrounding walls and a concrete base. The hazardous waste storage area is approximately 227.45 feet long east to west and 49.79 feet wide north to south. A maximum of 82,500 gallons or 1,500 55-gallon container equivalents may be stored in the NCSA.

The NCSA is the only one of the three RCRA permitted storage areas at the facility that is enclosed to prevent precipitation from contact with waste containers and is the only container storage area where PCBs will be stored. The NCSA has a sloped roof served by gutters and downspouts to convey rainfall to drainage on the exterior of the building. Section 2.4 of this report describes the on-site storm water system.

The NCSA area is sloped approximately 1/2 percent to the north where a drainage trench serves as a collection point for any liquids in the event of spills or leaks in the NCSA. This drainage trench is a blind sump and is not connected to any pipes or drains that would allow spilled waste to escape containment. The floor is made of concrete and treated with Xypex™ to prevent penetration of waste constituents into the concrete and damage to the floor from spills.

2.6 Storage Design Analysis

Per 761.65(b)(1)(i) the EWTB, the WWTB and the NCSA each meet the regulatory requirements for a PCB storage area. All of the areas are covered by a roof that prevents precipitation from contact with waste or waste containers. The floor, curbing and liquid containment of the storage areas meet the requirements of 761.65(b)(1)(ii). The containment volume requirement under TSCA is 25 percent of the total PCB container volume. The total permitted storage capacity for the NCSA is 82,500 gallons. Thus, 20,625 gallons of containment capacity is required. The blind sump has a capacity of 14,332 gallons and the building floor that is contained within walls, curbing or sloped surfaces can contain an additional 24,440 gallons. Assuming 1,500 55 gallon liquid drums occupy the NCSA each occupying approximately 2.63 ft² the net containment volume of the area is 20,972 gallons of containment inside the building is available. Therefore, even if the entire storage area was filled with liquid TSCA waste (a scenario that will likely never happen) the containment would meet TSCA requirements. Tanks A through D in the WWTB and Tanks E through H in the EWTB, are located within a concrete vault which effectively provides adequate containment for the entire volume of all of the tanks.

Per 761.65(b)(1)(iii) there are no drain valves, floor drains, expansion joints, sewer lines or other openings that would permit liquids to flow from the storage area or treatment bays. Per 761.65(b)(1)(iv) floors and curbing in the NCSA are constructed of concrete treated with Xypex™ and joints are sealed with

Waterstop™. The treatment bays have a impervious concrete base with Xypex™ and joints sealed with Waterstop™ and the treatment tanks are lined with a minimum ½-inch steel plate. These surfaces meet the requirement for a continuous, smooth, non-porous surface.

2.7 PCB Waste Inventory

The maximum inventory of PCB waste which will be stored or processed at the MDWTP facility is detailed in PCB Closure Plan (included in Attachment B) and summarized below.

East Waste Treatment Building

Tank #	Waste Type	Volume (g)	Volume (yd ³)
E	Solid Waste	43,589	216
F	Solid Waste	43,589	216
G	Solid Waste	53,881	267
H	Solid Waste	53,881	267
Totals:		194,940	966

West Waste Treatment Building

Tank #	Waste Type	Volume (g)	Volume (yd ³)
A	Solid Waste	53,881	267
B	Solid Waste	53,881	267
C	Solid Waste	43,589	216
D	Solid Waste	43,589	216
Totals:		194,940	966

North Container Storage Area

	Waste Type	Volume (g)	Volume (yd ³)
Totals:	Solid Waste	82,500	408

A total maximum PCB waste in storage would be 472,380 g (2340 yd³).

2.8 Description of Storage and Processing Operations

The following section of this document provides an overview of the waste storage and processing operations at the MDWTP including waste acceptance, storage, and processing activities.

2.8.1 Waste Acceptance

All waste accepted by MDWTP goes through a pre-approval process that includes a generator waste characterization report (GWCR). The generator also provides any supplemental information necessary to characterize their waste. This may include results from testing and Material Safety Data Sheets. An additional pre-approval sample may be required for analysis at the on-site laboratory in some instances. When the waste arrives at the facility, it is visually examined, and a sample pulled for a fingerprint test at the on-site lab. Specific sampling procedures for bulk waste and containers are outlined in the Waste

Analysis Plan (WAP). Fingerprint tests are run on the samples collected and must match the pre-approval fingerprint. The waste is either deemed acceptable or rejected in accordance with the procedures and criteria specified in the WAP. Once accepted, the receiving laboratory assigns a treatment and/or storage location. After vehicles have been unloaded, drivers are directed back to the Receiving Building prior to leaving the site. Off-specification wastes and rejected loads are managed following the procedures specified in the facilities WAP.

2.8.2 Waste Storage

PCB waste received at the MDWTP will consist of both containerized and bulk waste. Containerized waste and bulk waste will be handled differently as described below.

Containerized Waste – PCB waste received in containers (drums, totes, roll-offs, etc.) is visually inspected to ensure that the containers are in good condition and not leaking and then placed in rows within the staging area. The PCB waste will be moved into the NCSA. In some instances, containerized waste can also be stored for a short period (less than one 8-hour shift) in the EWTB and WWTB. As described above the storage areas are constructed of materials that are compatible with the wastes to be managed within them. Stored containerized hazardous wastes are placed in rows and are segregated with respect to the DOT Segregation requirements. The rows are maintained with aisle space sufficient to meet the requirements of 40 CFR 264.35.

Bulk Waste – PCBs waste received in bulk at the MDWTP (trailers, roll-offs, etc.) will generally be delivered directly into the waste treatment tanks A through H located in the EWTB and WWTB. The type of waste to be stored and processed in either the EWTB or the WWTB will be dictated in part by the air pollution control equipment; the WTB has a baghouse to capture particulate emissions while the ETB has a thermal oxidizer for volatile organic emissions, a scrubber, and a baghouse for particulates.

2.8.3 PCB Waste Processing

In the event that a TSCA commercial storage approval is granted to the MDWTP, PCB “processing” would occur in three instances: 1) TSCA waste that needs to be solidified to improve characteristics for landfill disposal prior to disposal in a TSCA approved landfill, 2) TSCA waste that needs to be sized or physically amended to facilitate landfill disposal in a TSCA approved landfill, and 3) mixed RCRA and TSCA wastes that are treated for the RCRA component of the waste prior to land disposal. In no case would the PCBs be the target of treatment reagents. To assure that the PCBs are not modified or subjected to unacceptable levels of heat during the treatment process, significantly exothermic treatment reactions will not be performed on mixed RCRA/TSCA waste. For this reason, the only TSCA wastes that are being proposed for to go into the treatment tanks at the MWDTP are wastes that need to be solidified or “stiffened” by sorbents or drying agents and TSCA waste mixed with RCRA waste that can be treated by stabilization or microencapsulation.

The majority of the wastes that are treated by stabilization or microencapsulation by MDWTP are RCRA hazardous for metals. For mixed RCRA/TSCA wastes subject to Land Disposal Restrictions (LDRs), the waste will still be subject to LDRs for PCBs per 40CFR 268.32 and 40CFR 268.49(d). For mixed TSCA and RCRA hazardous for D004-D011 soils the LDR is <1000 ppm total halogenated compounds (PCBs and other halogenated organics) and for non-soil the limit is 10 ppm. For all listed wastes or other

characteristic waste codes the LDRs are 100 ppm and 10 ppm for soils and non-soils, respectively. Therefore, at least for RCRA wastes subject to LDRs, the PCB concentrations allowed to go through stabilization followed by land disposal will be limited by these rules.

Waste solidification is conducted within Tanks A through H inside the waste treatment plant building. Bulk waste in roll-off boxes, vacuum boxes or dump trailers is delivered directly into the treatment tank. Containerized wastes are removed from storage and transferred into one of the treatment tanks with compatible wastes. Solid waste containers are moved with a fork truck to the appropriate waste storage/treatment tank. The operator removes the entire lid or top of the container and the drum grapppler inverts the drum, decanting the contents into the tank. After the operator visually confirms the container is RCRA empty, the container is righted and taken to the empty container disposal roll-off box. The containers are then compacted or crushed, and subsequently transported to a permitted landfill for disposal or to an appropriate recycling facility. Dump trailers and roll-off containers are reusable and are returned to service after they are determined to be RCRA empty. If it is observed by the operator that a container is not RCRA empty, the container is processed with the waste.

MDWTP stabilizes waste in a batch process using a pozzolanic-type process incorporating dolomitic kiln dust (DKD), lime, and other reagents. A treatment train (a stepwise progression of treatments using different reagents) is sometimes required to treat the different constituents of concern. The treatment process involves the addition of suitable amounts of treatment reagents to the waste and mixing of the reagents with the waste via a backhoe within the treatment tanks.

The amount of reagent used in the treatment is determined by trained personnel and is a function of 1) the concentration of all constituents the waste, or 2) the treatability study run on the waste, and/or 3) the trained personnel's previous experience with the waste. All batches treated must also be shown to pass the relevant treatment standards before the treatment is deemed complete.

Because the processing of PCBs will be limited to solidification and stabilization, it is important to ensure that PCB wastes are not inadvertently subjected to other treatment processes conducted within the MDWTP. There are a series of existing standard operating procedures to control the make-up of each treatment batch that will ensure that PCB waste is handled appropriately.

Upon arrival at the site, the waste transporter checks in with receiving and presents the manifest for the waste being delivered. The manifest information is entered into EQAI, the computer waste tracking system used by MDWTP and the WDI landfill. At this time two internal documents are produced by EQAI: the lab worksheet and the post-inspection sheet. These documents, along with the manifest and accompanying Land Disposal Restriction form (LDR), are passed to the lab to be matched up with the sample checklist. All paperwork is examined for accuracy and completeness. The following information is verified on the Lab Worksheet against the manifest: generator name and EPA ID number, manifest number, approval number, waste codes, receipt date, quantity of waste, bill unit, hazardous waste report management method code, and transporter. The lab worksheet contains specific instructions for the waste from the approval process; the instructions to avoid certain treatment reagents are included on this worksheet. After the fingerprint test is completed for bulk loads, the receiving lab stamps the post-inspection form with treatment tank assignment based on waste compatibility and pre-established scheduling. The transporter is directed to the treatment plant and must present the post-inspection sheet to the spotter to verify that the tank stamp on the post-inspection sheet matches the batch ticket. The spotter enters the information for each truck onto the truck log to ensure that the load is delivered to the right tank and then directs the truck to the treatment tank. The treatment process for that tank has been pre-determined for that day based on the waste characteristics.

For waste delivered in drums, the paperwork has been delivered to receiving where the post-inspection, the lab worksheet and drum labels are printed for the load. The driver, with these documents and a copy of the manifest is instructed to move on to the MDWTP. The drums are then delivered to the drum pad where they are off-loaded by MDWTP personnel. The drums are staged and the labels are affixed by matching the pre-printed labels to the approval number on the drum. Each drum is inspected and samples are collected for finger-print samples per the WAP. Once accepted, the drums are moved to the appropriate storage area based on the waste type.

When drums are to be processed, the operator generates a list of drums to be processed based on the waste type that is to be processed in a particular treatment batch and submits the drum logs to the lab for a compatibility check. Once the lab has the drum logs they will verify the appropriate waste type for the treatment batch the drums are to be processed in and compatibilize the containers. This may involve actually combining samples from different drums to ensure there is no reaction. After the waste type is verified and compatibility checked, the lab signs off on the container log and assigns the drums to the batch that contains acceptable treatment code(s) and gives the container log back to the plant operator for processing. The plant operator either barcode scans or enters the drum information into the computer before it is processed. If the treatment code associated with the drum does not match that the acceptable treatment codes for that batch, the drum is not processed.

2.9 Management of Containment Liquids and Environmental Monitoring

As described above, the NSCA is designed to transmit liquid from spills or precipitation to blind sumps (trenches). Liquids collected in these sumps is removed by a vacuum truck or pumped to the vertical tanks. Removed liquids are managed either through the waste treatment plant, through the on-site wastewater pre-treatment plant or, if necessary, at an off-site facility. The container storage area(s) and trench(s) are inspected at least once per day. Accumulated liquids collected in the containment structure or trench are removed within 24 hours of detection. Solids are removed by vacuum truck or by other means.

2.9.1 Inspections and Spill Response

The MDWTP is inspected per RCRA requirements. The daily inspection at the MDWTP includes verification that there are no spills within containment, that no tanks or valves are leaking, that trenches are empty of liquids and that containers are in good condition and properly labeled. The monthly inspection focuses on security, safety and emergency equipment such as fire extinguishers, the fire suppression system, spill control equipment and emergency showers and eyewashes. Each of these must be verified to be in good working condition and properly stocked with supplies. On an annual basis, all of the tanks are inspected (and if necessary certified) to be free of cracks and leaks with acceptable seam integrity and shell thickness.

In the event of spills of TSCA waste in the NCSA, EWTB, or WWTB, the clean-up will be conducted per the requirements of 40 CFR 761 Subpart G.

2.9.2 Monitoring Programs

There are no Type I and IIa public water supplies located within 2,000 feet of MDWTP or WDI facilities. Additionally, no private water wells were identified within 1 mile of the facilities. On-site groundwater monitoring is conducted for the treatment plant in the uppermost aquifer utilizing a subset of wells from the WDI landfill monitoring program. Monitoring of a surficial water-bearing sand unit is conducted around the southeast container storage area (SECSA) using shallow wells installed for this purpose. The SECSA will not be used for storage or processing of PCB waste and is the only storage area that is underlain and surrounded by this sand unit; in other areas the sand has been removed and replaced by clay soil and concrete structures. At this time, both groundwater monitoring programs are in routine detection monitoring with no evidence of a release of hazardous waste or waste constituents to the groundwater.

The site is also monitored by several surface water monitoring programs under WDI permit requirements. Water from unpaved areas is collected in two sedimentation basins and treated by filtration and activated carbon and sampled and analyzed before discharge to a local surface water body in accordance with a National Pollutant Discharge Elimination System (NPDES) discharge permit. Surface water within the surface water conveyance structures and sediments within the sedimentation basins are monitored via WDI's hazardous waste operating license and TSCA Approval. The runoff from the paved areas is collected in a lined pond and is treated in the wastewater pre-treatment plant prior to discharge to the municipal sewer system per a wastewater discharge permit and the effluent is tested per a discharge permit (including PCBs). Based on monitoring reports submitted to the State by WDI, no PCBs have been detected in the effluent of the NPDES treatment system and wastewater discharge has been meeting discharge limitations.

The soil monitoring program in WDI's hazardous waste operating license evaluates the effectiveness of the controls on fugitive emissions of particulates and possible adherence to those particulates of PCBs by monitoring for PCBs in the soils outside of the active waste operations.

Air monitoring is conducted in accordance with a renewable operating permit issued by the State of Michigan for both the MDWTP and the WDI Landfill. Both the MDWTP and WDI hazardous waste operating licenses includes identical versions of an ambient air monitoring plan. This monitoring is conducted along the WDI property boundary every 12 days. The TSCA Approval for WDI includes response actions in the event that PCBs are detected in an air monitoring station. If the concentration of PCBs detected exceeds 0.3 ug/m³, WDI must notify EPA by phone within one day and in writing within seven days. If the results exceed 0.5 ug/m³, EPA may subject WDI to operational changes and if greater than 1.0 ug/m³, EPA may subject WDI to temporary work stoppage. These limitations would of course be applicable to MDWTP as well. If both facilities are accepting PCBs at the time PCBs are detected it will be necessary to determine where the emissions are originating.

3. Facility Information

Facility Name: Michigan Disposal, Inc. d/b/a Michigan Disposal Waste Treatment Plant
d/b/a US Ecology
Facility Address: 49350 North Interstate 94 Service Drive
Belleville, Michigan 48111

3.1 Owner, Operator, Stockholders

Owner and Operator of facility: Michigan Disposal, Inc. d/b/a Michigan Disposal Waste Treatment Plant
d/b/a US Ecology

Stockholders: US Ecology is a public traded company whose common stock is traded on the NASDAQ National Market under the trading symbol "ECOL".

3.2 Identification of the Person Responsible for Overall Operations of the Facility, and the Supervisory Employees Responsible for the Overall Operations of the Facility

MDI officials who have direct management responsibility for the facility:

Jeff R. Feeler, President/CEO

Simon Bell, Executive Vice President and Chief Operating Officer

Andrew Marshall, Senior Vice President of Environmental Health & Safety

Kerry Durnen, Vice President and Director of Operations

MDI Plant Manager:

Corey Grider

Technical qualifications and experience of the persons identified in the preceding section are included in Attachment C.

4. Environmental Violations

The following compliance history details past State and Federal environmental violations for the facility.

On the morning of February 11, 2008, WDI personnel discovered that contact water/leachate from WDI's Belleville, Michigan hazardous waste landfill facility Master Cell ("MC") VI had over-topped a containment dike and was flowing into a ditch adjacent to the landfill. The incident did not result in any off-site release. WDI reported the incident to MDEQ immediately by telephone and filed a written report on February 15, 2008. MDEQ issued to WDI a notice of violation concerning this incident on March 28, 2008 and WDI resolved the alleged violations in an administrative consent order (WHMD Order No. 111-01-09).

On July 3, 2008, WDI personnel observed leachate dripping from the capped ends of two leachate clean-out riser pipes installed in the leachate collection sump at the southeast corner of MC VI. A portion of the dripping liquid had entered a storm water ditch that borders the landfill. The release was contained on site and did not result in any off-site release. WDI reported the incident to MDEQ immediately by telephone and filed a written report on July 8, 2008. MDEQ issued to WDI a notice of violation concerning this incident on August 27, 2008 and WDI resolved the alleged violations in an administrative consent order (WHMD Order No. 111-01-09).

Between May 2008 and August 2008, WDI placed approximately 9,800 cubic yards of waste above the approved final grade elevations for MC VI. WDI reported the discovery of this fact to MDEQ in a letter, dated September 10, 2008. MDEQ issued to WDI a notice of violation concerning this incident on November 5, 2008 and WDI resolved the alleged violation in an administrative consent order (WHMD Order No. 111-01-09).

On March 18, 2008 and March 25, 2008, MDEQ conducted a compliance inspection of EQ Detroit, Inc.'s ("EQD") Detroit, Michigan treatment and storage facility. In an April 9, 2008 letter, MDEQ alleged the following violations identified during that inspection: failure to provide pre-notice of certain waste imports; failure to repair damaged secondary containment; failure to close one drum containing hazardous waste; and failure to properly document one generator's waste generation processes. EQD resolved the alleged violations in an administrative consent order (WHMD Fast Track Order No. 111-09-08).

On June 2, 2008, a chemical reaction occurred in a hazardous waste micro-encapsulation batch being treated in Tank G in MDI's treatment facility. The reaction was localized at the point of entry where reagent had been introduced, and was neutralized using a foam suppression system, water, and sand. MDI reported the incident to MDEQ immediately by telephone and filed a written report on June 6, 2008. MDEQ issued to MDI a notice of violation concerning this incident on March 28, 2008 and MDI resolved the alleged violation in an administrative consent order (WHMD Fast Track Order No. 111-02-09).

In a June 16, 2008 Notice of Claim, the U.S. Department of Transportation, Federal Motor Carrier Safety Administration, alleged that EQ Industrial Services, Inc. ("EQIS") had failed to properly prepare one hazardous waste manifest. EQIS resolved the alleged violation by the payment of a civil penalty.

On October 27, 2009, a thermal event occurred in a leachate riser pipe installed in MC VI, which resulted in localized melting of the pipe and other minor damage to associated equipment. WDI filed with MDEQ a written report concerning the incident on November 3, 2009. MDEQ issued to WDI a notice of violation

concerning the incident on May 3, 2010 and WDI resolved the alleged violation by the payment of a July 16, 2010 stipulated penalty demand under WHMD Consent Order No. 111-01-09.

On January 12, 2010, a valve associated with the leachate collection system of MC VI malfunctioned, resulting in a small amount of leachate flowing to a paved area adjacent to MC VI. The incident did not result in any off-site release. WDI reported the incident to MDEQ immediately by telephone and filed a written report on January 15, 2010. MDEQ issued to WDI a notice of violation concerning this incident on May 4, 2010 and WDI resolved the alleged violation by the payment of a July 16, 2010 stipulated penalty demand under WHMD Consent Order No. 111-01-09.

On April 19, 2010, leachate seeped from interim cover placed on MC VI and flowed into an on-site perimeter ditch. The incident did not result in any off-site release. WDI reported the incident to MDEQ immediately by telephone and filed a written report on April 23, 2010. MDEQ issued to WDI a notice of violation concerning this incident on May 5, 2010 and WDI resolved the alleged violation by the payment of a July 16, 2010 stipulated penalty demand under WHMD Consent Order No. 111-01-09.

Following an April 19, 2011 joint EPA Region IV/Florida Department of Environmental Protection ("FDEP") hazardous waste field inspection of EQ Florida, Inc.'s ("EQF") Tampa, Florida treatment and storage facility, FDEP alleged in a June 20, 2011 warning letter that FDEP had identified 16 violations concerning hazardous waste labeling and storage. EQF resolved the alleged violations by the entry of a final administrative order with FDEP (OGC File No. 11-0334).

Following a June 10 – 19, 2008 EPA Multimedia inspection of Michigan Disposal, Inc., EPA alleged certain violations of RCRA recycling provisions and land disposal restrictions. The matter was closed with a Consent Agreement and Final Order on June 24, 2013.

5. Affiliation Listing

Other companies currently owned or operated in the past five years by the principals or key employees directly or indirectly involved with waste handling activities include:

MDI-Related Company	State of Incorporation
Envirite of Illinois, Inc.	Delaware (2690739)
Envirite of Ohio, Inc.	Delaware (2690738)
Envirite of Pennsylvania, Inc.	Delaware (2690745)
Envirite Transportation LLC	Ohio
EQ Alabama, Inc.	Michigan (04085U)
EQ Detroit, Inc.	Michigan (04676D)
EQ Augusta	Michigan (04676D)
EQ Florida, Inc.	Michigan (04679D)
EQ Industrial Services, Inc.	Michigan (525431)
EQ Mobile Recycling, Inc.	Michigan (04677D)
EQ Northeast, Inc.	Michigan (49132C)
EQ Oklahoma, Inc.	Michigan (03321T)
EQ Resource Recovery, Inc.	Michigan (329451)
EQ Terminal Services LLC	New Jersey
Michigan Disposal, Inc. (f/k/a EQ The Environmental Quality Company)	Michigan (200309)
Wayne Disposal, Inc.	Michigan (156223)
Wayne Energy Recovery, Inc.	Michigan (404824)

6. PCB Closure Plan and Cost Estimate

The PCB Commercial Storage Facility Closure Plan and Cost Estimate for MDWTP facility are included as Attachment B.

7. 100-Year Floodplain

No portions of the MDWTP or the adjacent WDI facility are located within the 100-year floodplain limits for Van Buren Township Michigan. The 100-year Floodplain for the area in the vicinity of the facility has recently been updated as part of a re-assessment of Flood insurance requirements by the Federal Emergency Management Agency. An updated Flood Plain Map for Van Buren Township Michigan is included as Attachment D.

8. Demonstration of Financial Assurance

761.65 (d)(3)(x) specifies that a PCB storage application must include a demonstration of financial assurance for facility closure. This demonstration is provided in Attachment E. The PCB Commercial Storage Facility Closure Plan and Cost Estimate is contained in Attachment B.

9. Facility Design Qualifications and Certifications

The facility complies with the design and construction standards in 40 CFR 761.65.

The following certification is made for compliance of the existing PCB facilities with facility design standards currently in effect:

Under the civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Signature: _____

Printed Name: _____

Date: _____