

Volume I: WDI Operating License Application Master Cells VI F & G



**Wayne Disposal, Inc. - Site No. 2
MC VI - F & G (Woodlot) Development**

Prepared For:

**Wayne Disposal, Inc.
Belleville, MI**

**NTH Project No. 13-060921-03
February 2011
Revised September 2011**



**NTH Consultants, Ltd.
41780 Six Mile Road,
Northville, Michigan 48168**

**PHASE DESIGNATION
CROSS-REFERENCE TABLE**

REVISED CELL & PHASE DESIGNATION (FROM ENGINEERING DRAWINGS)	PREVIOUS PHASE DESIGNATION (IN ENGINEERING DRAWINGS & REPORTS FROM SUPPLEMENT TO APPLICATION: 6/10/11)	ORIGINAL PHASE DESIGNATION (FROM INITIAL SUBMISSION IN MARCH 2011)
CELL 6F – PHASE 1 (SUBCELL F1 & F2)	CELL 6F – PHASE 1	CELL 6F – PHASE 2
CELL 6F – PHASE 2 (SUBCELL F3 & F4)	CELL 6F – PHASE 2	CELL 6F – PHASE 1
CELL 6G – PHASE 1 (SUBCELL G1)	CELL 6G – PHASE 1	CELL 6G – PHASE 1 / PHASE 3
CELL 6G – PHASE 2 (SUBCELL G2 & G3)	CELL 6G – PHASE 2	CELL 6G – PHASE 1 / PHASE 2
CELL 6G – PHASE 3 (SUBCELL G4)	CELL 6G – PHASE 3	CELL 6G – PHASE 4
CELL 6G – PHASE 4 (SUBCELL G5)	CELL 6G – PHASE 4	CELL 6G – PHASE 5
CELL 6G – PHASE 5 (SUBCELL G6)	CELL 6G – PHASE 5	CELL 6G – PHASE 6
CELL 6G – PHASE 6 (SUBCELL G7)	CELL 6G – PHASE 6	CELL 6G – PHASE 7

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PART 111 - WDI OPERATING LICENSE APPLICATION - 2011

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PART 111 - WDI OPERATING LICENSE APPLICATION - 2011

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APPENDICIES

A	Wayne Disposal, Inc. Site No. 2, Master Cell VI-F&G Engineering Design Drawings
B	Draft Report on RCRA Facility Investigation, Phase II, Release Assessment for Wayne Disposal Site No. 1 Landfill (provided on compact disk)
C	Report on Host Community Engagement in Support of Operating License Application for Wayne Disposal, Inc.

Section 1. Application Forms

CONSTRUCTION PERMITS AND OPERATING LICENSES APPLICATION FORM FOR HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

Required under authority of Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 P.A. 451, as amended. Failure to submit this information may result in civil or criminal penalties.

Note: (Copies of the current DNRE Site Identification Form, EQP 5150, and the EPA Part A Permit Application, form 8700-23, must be submitted with this application form.)

I. FACILITY SITE ID NUMBER: MID 048 090 633

II. FACILITY'S LEGAL OWNER

A. NAME Wayne Disposal, Inc.

B. STREET OR P.O. BOX 49350 North I-94 Service Drive

C. CITY OR TOWN, STATE, ZIP CODE Belleville, MI 48111

D. TELEPHONE NUMBER (Area Code and Number) 1 800 592-5489

E. OWNER TYPE P F. OWNERSHIP CHANGE? Y N N/A DATE

III. FACILITY OPERATOR

A. NAME Wayne Disposal, Inc.

B. STREET OR P.O. BOX 49350 North I-94 Service Drive

C. CITY OR TOWN, STATE, ZIP CODE Belleville, MI 48111

D. TELEPHONE NUMBER (Area Code and Number) 1 800 592-5489

E. OPERATOR TYPE P F. OPERATOR CHANGE? Y N N/A DATE

IV. TITLEHOLDER OF LAND

A. NAME Wayne Disposal, Inc.

B. STREET OR P.O. BOX 49350 North I-94 Service Drive

C. CITY OR TOWN, STATE, ZIP CODE Belleville, MI 48111

D. TELEPHONE NUMBER (Area Code and Number) 1 800 592-5489

V. CONSTRUCTION PERMIT OR OPERATING LICENSE APPLICATION (Check One)

- A. OPERATING LICENSE APPLICATION CONSTRUCTION PERMIT APPLICATION*
1. FIRST APPLICATION
 2. RENEWAL APPLICATION
 3. APPLICATION FOR LICENSE MODIFICATION
 4. RESEARCH, DEVELOPMENT, AND DEMONSTRATION LICENSE APPLICATION

* 1., 2., 3., and 4. not applicable for Construction Permit Application.

VI. FIRST OR RENEWAL APPLICATION

Place an "X" in the appropriate box in either A or B below (mark only one box) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's site ID number, or if this is a revised application, enter your facility's site ID number in Item I above.

A. FIRST APPLICATION A.1. EXISTING FACILITY A.2. NEW FACILITY

B. REVISED APPLICATION B.1. EXISTING FACILITY B.2. NEW FACILITY

For existing facilities, provide date operation or construction began.

5/19/1980

For new facilities, provide date operation began or is expected to begin.

VII. PERMIT AND LICENSE FEES

A. CONSTRUCTION PERMIT FIXED FEE (complete the following)

1. Check type of facility:

Land Disposal (\$9,000)

Incineration or other treatment (\$7,200)

Storage (\$500)

2. Site size _____ acres (see fee schedule in Section 324.11118 of Act 451)

\$ _____
\$ _____
\$ _____
\$ _____

3. Projected waste volume (see fee schedule)		
	_____ Gallons/day	\$ _____
	OR _____ Cubic yards/day	\$ _____
4. Hydrogeological characteristics for land disposal (see fee schedule)		
<input type="checkbox"/> Natural Clay		
<input type="checkbox"/> Sand		
<input type="checkbox"/> Compacted Clay		
<input type="checkbox"/> Artificial Liner		\$ _____
5. For treatment or storage facilities: Is there surface water on the site?		
<input type="checkbox"/> No		\$ _____
<input type="checkbox"/> Yes (\$75)		\$ _____
TOTAL CONSTRUCTION PERMIT FIXED FEE:		\$ _____
B. <input checked="" type="checkbox"/> OPERATING LICENSE FEE (Per 2010 PA 383)		\$25000.00

VIII. EXISTING ENVIRONMENTAL PERMITS	
A. NPDES (Discharges to Surface Water)	X
B. UIC (Underground Injection of Fluids)	
C. RCRA (Hazardous Wastes)	X
D. PSD (Air Emissions From Proposed Sources)	
E. OTHER (Specify)	See Attached List in Section 3 in Application

IX. NATURE OF BUSINESS (*Provide a brief description*)

Disposal of TSCA, Hazardous & Non-Hazardous Solid Waste

X. MAP

Attach to this application a topographic map of the area extending at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for specific requirements. (see Section 5 of the License Application)

XI. FACILITY DRAWING

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

XII. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas (see instructions for more detail). (see Section 7 of the License Application)

XIII. PROCESS CODES AND DESIGN CAPACITIES (See instructions.)

LINE NUMBER	A. PROCESS CODE (from list)	B. PROCESS DESIGN CAPACITY			LINE NUMBER	A. PROCESS CODE (from list)	B. PROCESS DESIGN CAPACITY		
		B.1. AMOUNT (specify)	B.2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY			B.1. AMOUNT (specify)	B.2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
1	D80	11,000,000	Y		7				
2	T01	750,000	U		8				
3					9				
4					10				
5					11				
6					12				

C. ADDITIONAL PROCESS CODES OR DESCRIPTION OF NONLISTED PROCESSES (Code "T04").

XV. OTHER REQUIRED ATTACHMENTS

A. GENERAL INFORMATION

Attach each of the following items separately to the application:

- | | | |
|--------------------------------------|---|--|
| 1. General facility description | 6. Preparedness and prevention or waiver* | 11. Closure and Postclosure (C/PC) Plan* |
| 2. Chemical and Physical Analyses* | 7. Contingency Plan* | 12. C/PC Cost Estimates* |
| 3. Waste Analysis Plan* | 8. Traffic information | 13. Topographic map |
| 4. Security procedures and equipment | 9. Location information | 14. Liability mechanism |
| 5. Inspection Schedules* | 10. Personnel Training Program* | 15. Financial Assurance Instrument |

* Use template provided to complete and submit with application

B. SUPPLEMENTAL INFORMATION

To all applications:
Attach each of the following items separately:

- Status of compliance with other federal laws
- Corrective action information*
- Hydrogeological Report*
- Environmental Assessment*
- Environmental Monitoring Programs*
- Engineering plans

* Use template provided to complete and submit with application.

To all Operating License applications:
Attach each of the following items separately:

- Proof of issuance of other permits or licenses
- For new facilities, construction certification
- Capability certification/compliance schedule
- Restrictive covenant (landfills only)

C. FACILITY SPECIFIC INFORMATION

Attach the required technical information separately to all applications for:

- Containers*
- Tanks*
- Incineration or thermal treatment
- Treatment
- Surface impoundments
- Waste piles
- Landfills

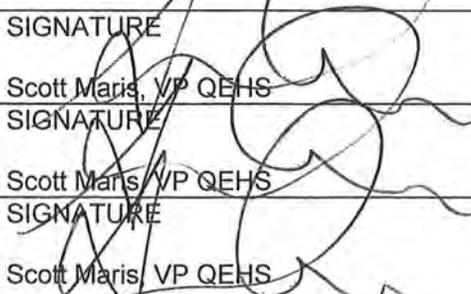
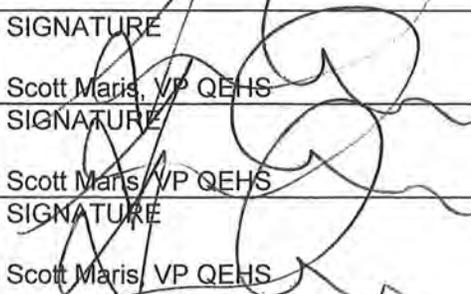
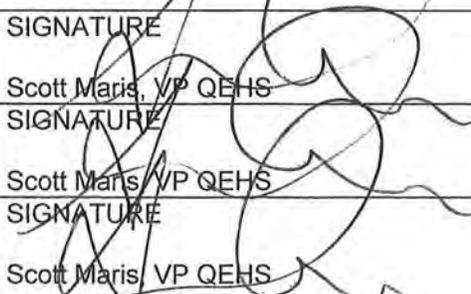
- Land treatment
- Miscellaneous units
- Underground mines or caves
- Air emissions from process vents, equipment leaks, tanks, containers & surface impoundments**
- Drip pads
- Boilers and industrial furnaces

** Use templates C11-AA, C11-BB, and C11-CC to complete and submit with application.

* Use template provided to complete and submit with application

XVI. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and/or imprisonment for knowing violations.

OWNER NAME (type or print) <i>Wayne Disposal, Inc.</i>	SIGNATURE  Scott Maris, VP QEHS	DATE SIGNED 3/2/2011
OPERATOR NAME (type or print) <i>Wayne Disposal, Inc.</i>	SIGNATURE  Scott Maris, VP QEHS	DATE SIGNED 3/2/2011
NAME OF TITLEHOLDER OF LAND (type or print) <i>Wayne Disposal, Inc.</i>	SIGNATURE  Scott Maris, VP QEHS	DATE SIGNED 3/2/2011

<p>Required under authority of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Failure to submit this information may result in civil or criminal penalties.</p>	<p>MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY Waste and Hazardous Materials Division</p> <h2 style="margin: 0;">SITE IDENTIFICATION</h2>			
<p>I. The form is being submitted</p> <p style="text-align: center;">CHECK CORRECT BOX(ES)</p> <p>If submitting a subsequent notification you can contact the MDEQ-WHMD District or Lansing office for a pre-populated form. For locations and phone numbers go to www.michigan.gov/deq.</p>	<p><input type="checkbox"/> as initial notification: to notify as a new site or new owner for the site: Mail this form and the user charge fee with either a receipt from paying the \$50.00 fee on-line using a Master Card, VISA, or Discover Card (https://www.thepayplace.com/mi/deq/siteid) or by check made payable to the State of Michigan. <u>Mail to MDEQ Revenue Office - HWCU, PO Box 30657, Lansing, MI 48909-8157</u> OR</p> <p><input checked="" type="checkbox"/> as subsequent notification: to change, update, or verify site information for an existing owner of a site with a previously issued site id number: <u>Mail directly to WHMD-MDEQ at WHMD-MDEQ, Notification Unit, PO Box 30241, Lansing, MI 48909-7741</u> if a fee is not required. Otherwise submit to MDEQ Revenue Office (see above).</p> <p style="text-align: center;">AND ANY OF THE FOLLOWING</p> <p><input checked="" type="checkbox"/> as a component of a Hazardous Waste Permit Part A (submit to WHMD-MDEQ)</p> <p><input type="checkbox"/> as a component of the Hazardous Waste (biennial) Report (submit to WHMD-MDEQ)</p>			
<p>II. Site's ID Number</p>	<p>A. Site's Identification (ID) Number: MID 048 090 633</p>			
<p>III. Name of Site</p> <p style="text-align: center;">TYPE OR PRINT CLEARLY</p>	<p>A. Legal Company Name: Wayne Disposal, Inc.</p> <p>B. Site Specific Name (d/b/a): Wayne Disposal, Inc.</p>			
<p>IV. NAICS for this Site</p>	<p>A. 562211</p>	<p>B.</p>	<p>C.</p>	<p>D.</p>
<p>V. Site Location Address and Other Site Information</p> <p style="text-align: center;">TYPE OR PRINT CLEARLY</p>	<p>Street Address line 1: 49350 North I-94 Service Drive</p> <p>Address line 2: _____ City, Town, or Village: Belleville</p> <p>State, Province or Subdivision (2 letters): MI Country: USA</p> <p>County Name (MI only): Wayne Zip or Postal Code: 48111 -</p> <p>Tax Number: 38-1579154 Approx / Ave Number of Employees: 25</p>			
<p>VI. Site Mailing Address</p> <p style="text-align: center;">TYPE OR PRINT CLEARLY</p>	<p>Street Address line 1 or PO Box: Same</p> <p>Address line 2: _____</p> <p>City, Town, or Village: _____ State, Province or Subdivision (2 letters): _____</p> <p>Country: _____ Zip or Postal Code: _____ -</p>			
<p>VII. Site Contact Person</p> <p style="text-align: center;">TYPE OR PRINT CLEARLY</p>	<p>First Name: Kerry MI: _____ Last Name: Durnen</p> <p>Phone Number: (734) 699-6265 Phone number extension: NA</p> <p>email address: kerry.durnen@eqonline.com Fax number: (313) 697-9886</p>			
<p>VIII. Indian Reservation</p>	<p>Facility on Indian Reservation Land <input type="checkbox"/>yes <input checked="" type="checkbox"/>no</p>			

IX. Owner of the site and/or Operator of Site TYPE OR PRINT CLEARLY Add any additional owners or operators on the comment page. The property owner is not required unless said property owner also acts as the owner or operator of the activity that generates the waste	A. (check applicable box(es)) <input checked="" type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator	Approx date became owner or operator: 5/18/1980 Approx date ceased as owner or operator: NA	
	Name: Wayne Disposal, Inc.		
	Type (check one): <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
	B. (check applicable box(es)) <input type="checkbox"/> Owner <input type="checkbox"/> Operator	Approx date became owner &/or operator: Approx date ceased as owner &/or operator:	
	Name:		
	Type (check one): <input type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
	C. (check applicable box(es)) <input type="checkbox"/> Owner <input type="checkbox"/> Operator	Approx date became owner or operator: Approx date ceased as owner or operator:	
	Name:		
Type (check one): <input type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other			

X. Type of Regulated Waste Activity: You must put an "X" in the appropriate box(es) for the current regulated waste activity. The date of the signature in Section XI will be used as the date the regulated waste activity(ies) you check below began. However, in Box A1, if the activity began earlier than the signature date, enter the correct date after "Date activity began" in yyyyddmm format. If any other regulated waste activity(ies) in A.2 - A.8 or Box-E began earlier, write in the correct date(s) in XII Comments. The date a certain activity began can subject the site to different requirements, such as annual user charges. If your activity(ies) change during the year a 'Subsequent Site Identification' form should be submitted indicating the change.

A. Hazardous Waste Activity(ies) at this location 1. Generator of hazardous waste (choose <u>one</u> of the following three categories a-c) <input checked="" type="checkbox"/> a. LQG: Greater than 1,000 kg/mo (2,200 lbs.) of non-acute hazardous waste; or <input type="checkbox"/> b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs.) of non-acute hazardous waste; or <input type="checkbox"/> c. CESQG: Less than 100 kg/mo of non-acute hazardous waste Date activity began: <u>05/18/1980</u>	3. Designated facility (hazardous waste received from off-site) <input checked="" type="checkbox"/> a. Treats or treated waste on-site at this location <input checked="" type="checkbox"/> b. Stores or stored waste on-site at this location <input checked="" type="checkbox"/> c. Disposes of or disposed of waste on-site at this location <input type="checkbox"/> d. Recycles recyclable materials on-site at this location [requires submittal of Part A & permit] <input type="checkbox"/> 4. Underground injection well on-site at this location <input checked="" type="checkbox"/> 5. Import agent for hazardous waste <input type="checkbox"/> 6. Generates mixed radioactive waste on-site at this location <input type="checkbox"/> 7. Accepts hazardous waste from CESQG & accumulates over 1000kg on-site at this location
For items 2 through 8, check all that apply 2. Transporter of hazardous waste <input type="checkbox"/> a. Transport hazardous waste <input type="checkbox"/> b. Comingle waste <input type="checkbox"/> c. Offloads during transportation [may require a permit & registration]	<input type="checkbox"/> 8. Exempt boiler and/or Industrial Furnace on-site at this location <input type="checkbox"/> a. Smelting, melting, and refining furnace exemption <input type="checkbox"/> b. Small quantity on-site burner exemption B. Polychlorinated biphenyls (PCBs) generated at this location. <input type="checkbox"/> Generated an item, product, or material containing a concentration equal to or greater than 100 ppm of PCB

Regulated Waste Activity section continues; see next page

X. Type of Regulated Waste Activity - CONTINUED

C. Used Oil Activities at this location, check all that apply: (used oil generator only - go to E.)
[see comments for additional information]

- 1. Used Oil Fuel Marketer
 - a. Marketer who directs shipments of off-specification used oil to used oil burner.
 - b. Marketer who first claims the used oil meets the specifications.
- 2. Off-specification Used Oil Burner
- 3. Used Oil Transporter (check one only)
 - a. Transporter only
 - b. Transporter with transfer facility
[requires a permit & registration]
- 4. Used Oil Processor
- 5. Used Oil Re-refiner
- 6. Used Oil Collection or Aggregation Point
- 7. Collection Center or Aggregation Point that accepts DIY Used Oil

D Universal Waste Activities at this location, check all that apply:

1. Large Quantity Handler: check the box(es) for the universal wastes generated or accumulated

<u>type of universal waste</u>	<u>generating</u>	<u>accumulating over 5,000kg</u>
a. Batteries	<input type="checkbox"/>	<input type="checkbox"/>
b. Thermostats	<input type="checkbox"/>	<input type="checkbox"/>
c. Mercury Thermometers	<input type="checkbox"/>	<input type="checkbox"/>
d. Devices containing elemental mercury	<input type="checkbox"/>	<input type="checkbox"/>
e. Mercury Switches	<input type="checkbox"/>	<input type="checkbox"/>
f. Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
g. Electric Lamps	<input type="checkbox"/>	<input type="checkbox"/>
h. Pharmaceuticals	<input type="checkbox"/>	<input type="checkbox"/>
i. Consumer Electronics	<input type="checkbox"/>	<input type="checkbox"/>

2. Destination Facility of Universal Waste (a hazardous waste permit may be required for this activity)

E. Liquid Industrial Waste Activities at this location, check all that apply: (not hazardous waste activity)

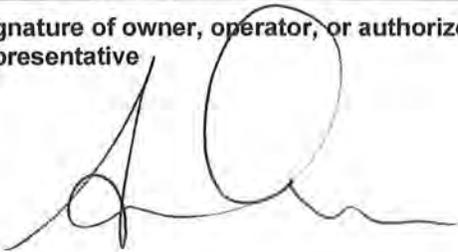
- 1. Liquid Industrial Waste Transporter
[requires a permit & registration]
- 2. Transporting own waste
- 3. Liquid Industrial Waste Generator
- 4. Liquid Industrial Waste Designated Facility

F.

- 1. The site is still in business at this location but generation of waste or any other regulated waste activity has ceased as of (date) (mm/dd/yyyy): _____
- 2. The site is out of business at this location and generation of waste or any other regulated waste activity has ceased as of (date) (mm/dd/yyyy): _____

XI. Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature of owner, operator, or authorized representative



Name and Official Title (type or print)

Scott Maris

Name

VP QEH5

Title

Date Signed (mm-dd-yyyy)

3/2/2011

XII. Comments:

To review the current regulated waste activity at this location please log into to the public website at <http://www.deqstate.mi.us/wdsp>

In accordance with the instructions in Section X (Type of Regulated Waste Activity) of this Form, the following the regulated waste activities checked in Section X began on a date other than the Signature Date set forth in Section XI (Certification):

X.A.3.b (Stores waste on site): 09/30/2010

X.A.3.c (Disposes of waste on site): 05/18/1980

Disclosure Statement

Wayne Disposal, Inc. submits the following Disclosure Statement pursuant to M.C.L. § 324.11123(2)(k):

(i) The full name and business address of all of the following:	
(A) The applicant.	Wayne Disposal, Inc., a Michigan corporation 49350 North I-94 Service Drive Belleville, MI 48111
(B) The 5 persons holding the largest shares of the equity in or debt liability of the proposed facility.	Wayne Disposal, Inc. is wholly owned by: EQ Holdings, Inc., a Delaware corporation 36255 Michigan Avenue Wayne, MI 48184
(C) The operator.	Wayne Disposal, Inc., a Michigan corporation 49350 North I-94 Service Drive Belleville, MI 48111
(D) If known, the 3 employees of the operator who will have the most responsibility for the day-to-day operation of the facility, including their previous experience with other hazardous waste treatment, storage, or disposal facilities.	<p>Kerry Durnen Director of Operations 49350 North I-94 Service Drive Belleville, MI 48111</p> <p>Michael Porath Operations Manager 49350 North I-94 Service Drive Belleville, MI 48111</p> <p>Michael Takacs Environmental Manager 49350 North I-94 Service Drive Belleville, MI 48111</p> <p>The above-listed employees' experience with hazardous waste treatment, storage or disposal facilities is provided in Exhibit A to this Disclosure Statement.</p>

(E) Any other partnership, corporation, association, or other legal entity if any person required to be listed under sub-subparagraphs (A) to (D) has at any time had 25% or more of the equity in or debt liability of that legal entity.	Wayne Disposal, Inc. does not own any equity or debt liability of any other entity. EQ Holdings, Inc. owns 100% of the equity in the entities listed in Exhibit B to this Disclosure Statement.
(ii) A list of all convictions for criminal violations of any environmental statute enacted by a federal, state, Canadian, or Canadian provincial agency for each person required to be listed under this subdivision.	
None	
(iii) A list of all environmental permits or licenses issued by a federal, state, local, Canadian, or Canadian provincial agency held by each person required to be listed under this subdivision that were permanently revoked because of noncompliance.	
None	
(iv) A list of all activities at property owned or operated by each person required to be listed under this subdivision that resulted in a threat or potential threat to the environment and for which public funds were used to finance an activity to mitigate the threat or potential threat to the environment, except if the public funds expended to facilitate the mitigation of environmental contamination were voluntarily and expeditiously recovered from the applicant or other listed person without litigation.	
None	

**Exhibit A to Disclosure Statement
Operator Employees' Experience With
Hazardous Waste Treatment, Storage, Or Disposal Facilities.**

Kerry Durnen: Director of Operations for Wayne Disposal, Inc., and Michigan Disposal, Inc.

Mr. Durnen is a Professional Engineer with over 18 years of experience in the environmental field. He has worked as a manager for Wayne Disposal, Inc., since 1997.

Michael Porath: Operations Manager III for Wayne Disposal, Inc.

Mr. Porath has a Bachelor of Science degree in geology and has worked in the landfill and environmental business for over 15 years. He has worked for Wayne Disposal, Inc., since 1995.

Michael Takacs: Environmental Manager

Mr. Takacs has a Masters of Science degree in geochemistry and has worked in the landfill and environmental business for 24 years, 10 of which have been with Wayne Disposal, Inc.

**Exhibit B to Disclosure Statement
Legal Entities Wholly Owned by EQ Holdings, Inc.**

EQ Augusta, Inc., a Michigan corporation
3920 Goshen Industrial Blvd.
Augusta, GA 30906

EQ Detroit, Inc., a Michigan corporation
1923 Frederick Street
Detroit, MI 48211

EQ Florida, Inc., a Michigan corporation
7202 East 8th Avenue
Tampa, FL 33619

EQ Industrial Services, Inc., a Michigan corporation
2701 North I-94 Service Drive
Ypsilanti, MI 48198

EQ The Environmental Quality Company (f/k/a EQ Management Services Company), a
Michigan corporation
36255 Michigan Avenue
Wayne, MI 48184

EQ Mobile Recycling, Inc., a Michigan corporation
504 W. Independence Blvd.
Mt. Airy, NC 27030

EQ Northeast, Inc., a Massachusetts corporation
185 Industrial Road
PO Box 617
Wrentham, MA 02093

EQ Oklahoma, Inc., a Michigan corporation
2700 South 25th West Ave.
Tulsa, OK 74107

EQ Resource Recovery, Inc., a Michigan corporation
36345 Van Born Road
Romulus, MI 48174-4057

Michigan Disposal, Inc. (f/k/a EQ The Environmental Quality Company), a Michigan
corporation
49350 North I-94 Service Drive
Belleville, MI 48111

Wayne Energy Recovery, Inc., a Michigan corporation
49350 North I-94 Service Drive
Belleville, MI 48111

Wayne Disposal, Inc., a Michigan corporation
49350 North I-94 Service Drive
Belleville, MI 48111

Envirite of Ohio, Inc. (DBA-EQ Ohio), a Delaware corporation
2050 Central Avenue SE,
Canton, OH 44707

Envirite of Illinois, Inc. (DBA-EQ Illinois), a Delaware corporation
16435 Central Avenue
Harvey, IL 60426-6078

Envirite of Pennsylvania, Inc. (DBA-EQ Pennsylvania), a Delaware corporation
730 Vogelsong Rd.
York, PA 17402

8677136.1

Section 2. License Application Fees

A check in the amount of \$34,000 was submitted to:

DNRE Office of Financial Management
Revenue Control Unit
PO Box 30657
Lansing, MI 48909

And was confirmed to have been processed on March 3, 2011

Section 3. List of Permits

WAYNE DISPOSAL SITE #2 LANDFILL
ENVIRONMENTAL AND CONSTRUCTION PERMITS

40 CFR 270.13k and MI Act 451 R508(1)b

The following list describes which permits or construction approvals were received or applied for under the referenced regulations:

<u>PERMIT</u>	<u>Issuance Date</u>	<u>Expiration Date</u>
RCRA Hazardous Waste Management Permit (Resource Conservation and Recovery Act) *RCRA Permit no longer required	4/14/97	5/19/02*
MI Hazardous Waste Management Facility (MI PA 451, Part 111, 1995)	9/30/2010	9/30//2020
TSCA Approval Environmental Protection Agency	4/14/97	04/15/11 (renewal pending)
Solid Waste Area Operating License No. 7922 (Michigan Act 451 Part 115)	2/27/92	Closed
Class D Wastewater Discharge Permit No. D-11202 South Huron Valley Utility Authority	5/30/03	5/09/13
NPDES Certificate of Coverage Permit No. MI0056413	05/01/09	10/1/13

Regulations and Permits not applicable to this facility

UIC program under the SDWA

Prevention of Significant Deterioration (PSD) program under CAA

Non-attainment program under CAA

National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under CAA

Ocean Dumping permits under the Marine Protection Research and Sanctuaries Act

Dredge or Fill permits under CWA Section 404



**State of Michigan
Department of Natural Resources and Environment
HAZARDOUS WASTE MANAGEMENT FACILITY OPERATING LICENSE**

NAME OF LICENSEE: Wayne Disposal, Inc.

NAME OF FACILITY OWNER: EQ – The Environmental Quality Company

NAME OF FACILITY OPERATOR: Wayne Disposal, Inc.

NAME OF TITLEHOLDER OF LAND: Wayne Disposal, Inc.

FACILITY NAME: Wayne Disposal, Inc.

FACILITY LOCATION: 49350 North I-94 Service Drive
Belleville, Michigan 48111

EPA IDENTIFICATION (ID) NUMBER: MID 048 090 633

EFFECTIVE DATE: September 30, 2010

REAPPLICATION DATE: April 3, 2020

EXPIRATION DATE: September 30, 2020

AUTHORIZED ACTIVITIES

Pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), being §§324.11101 to 324.11153 of the Michigan Compiled Laws, and the hazardous waste management administrative rules (hereafter called the "rules") promulgated thereunder, being R 299.9101 *et. seq.* of the Michigan Administrative Code, by the Department of Natural Resources and Environment (DNRE), an operating license (hereafter called the "license") is issued to Wayne Disposal, Inc. (hereafter called the "licensee"), to operate a hazardous waste management facility (hereafter called the "facility") located at latitude 42° 13' 30" N and longitude 83° 31' 00" W. The licensee is authorized to conduct the following hazardous waste management activities:

- | | | | |
|--|--|--|---|
| <input checked="" type="checkbox"/> STORAGE | <input type="checkbox"/> TREATMENT | <input checked="" type="checkbox"/> DISPOSAL | <input checked="" type="checkbox"/> POSTCLOSURE |
| <input type="checkbox"/> Container | <input type="checkbox"/> Container | <input checked="" type="checkbox"/> Landfill | <input type="checkbox"/> Tank |
| <input checked="" type="checkbox"/> Tank | <input type="checkbox"/> Tank | <input type="checkbox"/> Land Application | <input type="checkbox"/> Surface Impoundment |
| <input type="checkbox"/> Waste Pile | <input type="checkbox"/> Surface Impoundment | <input type="checkbox"/> Surface Impoundment | <input checked="" type="checkbox"/> Landfill |
| <input type="checkbox"/> Surface Impoundment | <input type="checkbox"/> Incinerator | | <input type="checkbox"/> Waste Pile |
| <input type="checkbox"/> Drip Pad | <input type="checkbox"/> Other: | | |

APPLICABLE REGULATIONS AND LICENSE APPROVAL

The conditions of this license were developed in accordance with the applicable provisions of the rules, effective March 17, 2008. The licensee shall comply with all terms and conditions of this license. This license consists of the 32 pages of conditions attached hereto (along with those in Attachments 1 through 16) and the applicable regulations contained in R 299.9101 through R 299.11008, as specified in the license. For purposes of compliance with this license, applicable rules are those that are in effect on the date of issuance of this license in accordance with R 299.9521(3)(a).

This license is based on the information in the license application submitted on October 12, 2006, and any subsequent amendments (hereafter referred to as "the application"). Pursuant to R 299.9519(11)(c), the license may be revoked if the licensee fails, in the application or during the license issuance process, to disclose fully all relevant facts or, at any time, misrepresents any relevant facts. As specified in R 299.9519(1), the facility shall be constructed, operated, and maintained in accordance with Part 111 of Act 451, the rules, and this license.

This license is effective on the date of issuance and shall remain in effect for 10 years from the date of issuance, unless revoked pursuant to R 299.9519 or continued in effect as provided by the Michigan Administrative Procedures Act, 1969 PA 306, as amended (Act 306). Pursuant to R 299.9516, this license shall be reviewed by the DNRE 5 years after the date of issuance and shall be modified as necessary in accordance with the provisions of R 299.9519 and R 299.9520.

Issued this 30th day of September

by Liane J. Shekter Smith
Liane J. Shekter Smith, P.E., Chief
Environmental Resource Management Division



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3580

NOV 13 2009

REPLY TO THE ATTENTION OF:

L-8J

Mr. David Lusk
President of Hazardous Waste Operations
Wayne Disposal Inc.
Corporate Offices
36255 Michigan Avenue
Wayne, Michigan 48184-1652

Re: TSCA/PCB Approval Extension

Dear Mr. Lusk:

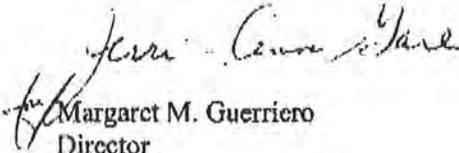
The U.S. Environmental Protection Agency, Region 5, hereby extends the expiration date of the August 21, 2001 Approval for Wayne Disposal Incorporated (WDI) to dispose of Polychlorinated Biphenyls (TSCA/PCB Approval) from the current expiration date November 14, 2009, to May 14, 2010.

I am extending the expiration date in order to coordinate the approval process between the Michigan Department of Environmental Quality (MDEQ) and their Hazardous Waste License for the landfill and the EPA Toxic Substances Control Act (TSCA) PCB program. The coordination will consider the WDI revised application of May 22, 2008 and modifications made to it in response to notifications of deficiency made by MDEQ upon final submittal to U.S. EPA.

The existing TSCA/PCB Approval was issued in accordance with Section 6 of TSCA (Public Law 94-496) 15 U.S.C. § 2605, and the Federal PCB regulations, 40 C.F.R. § 761.75. This extension does not relieve you of the responsibility to comply with TSCA and any and all applicable federal, state and local laws, regulations or requirements. Furthermore, any violation of the terms and conditions of the TSCA/PCB Approval may be subject to enforcement action under Section 15 of TSCA.

If you have any further questions regarding my letter, please feel free to contact Steve Johnson, of my staff, at (312) 886-1330.

Sincerely,


Margaret M. Guerriero
Director
Land and Chemicals Division

cc: Scott Maris, VP, EQ
Mike Takcis, EQ
Steve Buda, MDEQ
Dan Swallow, VBT



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

April 23, 2009

Wayne Disposal, Incorporated
49350 North I-94 Service Drive
Belleville, Michigan 48111

Dear Sir or Madam:

SUBJECT: National Pollutant Discharge Elimination System (NPDES); Permit No. MI0056413
Designated Name: Wayne Disposal Inc. LF

Your NPDES Permit has been processed in accordance with the appropriate state and federal regulations. It contains the requirements necessary for you to comply with state and federal water pollution control laws.

The issuance of this permit does not authorize the violation of any federal, state, or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality (DEQ) permits, or approvals from other units of government as may be required by law.

REVIEW THE PERMIT EFFLUENT LIMITS AND COMPLIANCE SCHEDULES CAREFULLY. These are subject to the criminal and civil enforcement provisions of both state and federal law. Permit violations are audited by the DEQ and the United States Environmental Protection Agency (USEPA), and may appear in a published quarterly noncompliance report made available to agencies and the public.

Your monitoring and reporting responsibilities must be complied with in accordance with this permit. If required by the permit, self-monitoring data shall be reported via the Michigan DEQ Electronic Environmental Discharge Monitoring Reporting (e2-DMR) system. Other reports, notifications, or questions regarding the enclosed permit or the NPDES program should be directed to the following address:

Ms. Hae-Jin Yoon, District Supervisor
Southeast Michigan District Office, Water Bureau, DEQ
27700 Donald Court
Warren, Michigan 48092-2793
Telephone: 586-753-3700, Fax: 586-753-3751

Sincerely,

Daniel Dell, Chief
Permits Section
Water Bureau
517-241-1346

dd/sea



SOUTH HURON VALLEY UTILITY AUTHORITY
34001 WEST JEFFERSON AVE
BROWNSTOWN TOWNSHIP, MI 48173
(734) 379-3855
INDUSTRIAL PRETREATMENT PROGRAM
CLASS D WASTEWATER DISCHARGE PERMIT



Permit No.: D-11201
Expiration Date: 5/29/13
Effective Date: 5/30/08
Modification Date 7/30/09

In accordance with the provisions of Article V, Section 4.02 of the South Huron Valley Utility Authority (SHVUA) Rules and Regulations and pursuant to the requirements of the Industrial Pretreatment Program as specified in 40 CFR 403.8 (f),

Wayne Disposal, Inc.(WDI)
49350 N. I 94 Service Drive
Belleville, MI 48111

Contact Person(s):

Ken Weber

Phone No. (734) 699-6280
(734) 576-0153 (Cell)
(734) 699-6265
(734) 576-0189

Kerry Durnen

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein into the sanitary sewer system tributary to the South Huron Valley Wastewater Treatment Plant in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable Pretreatment regulations, standards, or requirements, or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of the South Huron Valley Utility Authority Rules and Regulations.

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for permit reissuance in accordance with the requirements of Article V, Section 4 of the Rules and Regulations, a minimum of 90 days prior to the expiration date.

The permittee shall pay an ANNUAL SURVEILLANCE FEE OF \$4,095.00, in accordance with the conditions of Part II.A.4 of this permit.

Authorization of Permit: South Huron Valley Utility Authority

Signature of Official: 

Printed Name: Mark Houle

Title: Operations Manager – SHVUA WWTP

Date: 7-30-09

MEMBER COMMUNITIES

wnship ♦ City of Flat Rock ♦ City of Gibraltar ♦ Huron Township ♦ City of Romulus ♦ Village of South Rockwood ♦ Van Buren Charter Township ♦ City of Woodhaven

Section 4. Nature of the Business

NATURE OF THE BUSINESS

40 CFR 270.13

AND

NREPA 451, Part 111 R504(1)b

See MDEQ Application Form (EQP 5111), IX.

Section 5. Topographic Map

TOPOGRAPHIC MAPS

40 CFR 270.13 & 270.14

AND

NREPA 451, Part 111 R504(1)b & R504(1)c

Section 6. Certification of Capability to Dispose of Hazardous Waste

CERTIFICATE OF CAPABILITY TO DISPOSE OF HW

NREPA 451, Part 111 508(1)d



NNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

May 23, 2008

Mr. Kerry Durnen, P.E.
Director of Operations
The Environmental Quality Company
Wayne Disposal, Inc.
49350 North I-94 Service Drive
Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Construction Certification Master Cell VI-E Phase 2 West; Wayne Disposal, Inc. (WDI), Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the March 2008 "Construction Certification Master Cell VI-E Phase 2 West," submitted on your behalf by NTH Consultants, Ltd., on March 17, 2008, and the revised Panel Layout Drawings G-1 and G-2 provided on April 25, 2008, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the WHMD has determined that the submitted certification for Master Cell VI-E Phase 2 West satisfies the requirements of Part 111 and is hereby approved.

Should you have any questions regarding this information, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely,

George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

cc: Mr. Scott Maris, WDI
Mr. David Andersen, WDI
Mr. Michael Porath, WDI
Mr. Timothy Tilotti, WDI
Mr. Robb B. Moore, NTH Consultants, Ltd.
Mr. Ibraheem Alshunnar, NTH Consultants, Ltd.
Mr. JengHwa Lyang, NTH Consultants, Ltd.
Mr. Jim Sygo, Deputy Director, DEQ
Mr. Steve Buda, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Ms. Christine Grossman, DEQ
Dr. Xuede (Dan) Qian, DEQ
Mr. Leo Parks, DEQ
Mr. Peter Quackenbush/Operating License File, DEQ



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



WIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

February 6, 2007

Mr. Kerry Durnen, P.E., Director of Operations
The Environmental Quality Company
Wayne Disposal, Inc.
49350 North I-94 Service Drive
Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Construction Certification Master Cell VI-E Phase 2 SE; Wayne Disposal, Inc. (WDI), Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the December 2006 "Construction Certification Master Cell VI-E Phase 2 SE," submitted on December 29, 2006, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the WHMD has determined that the submitted certification for Phase 2 SE of Master Cell VI-E satisfies the requirements of Part 111 and is hereby approved. However, please be advised that the WHMD anticipates resolution of the compliance issues addressed under the draft polychlorinated biphenyl order transmitted to WDI on October 6, 2006, and the draft Master Cell IX order transmitted on November 17, 2006, prior to the issuance of a renewed Part 111 operating license to WDI.

Should you have any questions regarding this information, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely,

George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

cc: Mr. Scott Maris, WDI
Mr. Michael Porath, WDI
Mr. Timothy Tilotti, WDI
Mr. Robb B. Moore, NTH Consultants, Ltd.
Mr. Ibraheem Alshunnar, NTH Consultants, Ltd.
Mr. Jim Sygo, Deputy Director, DEQ
Mr. Steve Buda/Operating License File, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Ms. Christine Grossman, DEQ
Mr. Xuede (Dan) Qian, DEQ
Mr. Peter Quackenbush, DEQ
Mr. Leo Parks, DEQ



ANNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

September 20, 2006

Mr. Kerry Durnen, P.E.
Director of Operations
The Environmental Quality Company
Wayne Disposal, Inc.
49350 North I-94 Service Drive
Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Reinforcement of Leak Detection Riser at Subcell A-North of Master Cell VI;
Wayne Disposal, Inc. (WDI), Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the September 11, 2006, Certification of the Reinforcement of Leak Detection Riser at Subcell A-North of Master Cell VI, submitted on WDI's behalf by NTH Consultants, Ltd. (NTH), pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on our review, the WHMD agrees that the leak detection system for Subcell A-North is fully functional and hereby approves the certification. WDI's plan to begin placing waste in the tie-in trench between Subcell A-North and Subcell E is consistent with WDI's "Recommended Action for Cleanouts" as proposed in the Evaluation of Leachate Collection System Cleanouts for Master Cell VI and may proceed.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely,

George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

cc: Mr. JengHwa Lyang, NTH
Mr. Michael Porath, WDI
Mr. Scott Maris, WDI
Mr. Timothy Tilotti, WDI
Mr. David Andersen, The Environmental Quality Company
Mr. Steve Buda, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Mr. David Slayton/C&E File, DEQ
Ms. Christine Grossman, DEQ
Mr. Xuede Qian, DEQ
Mr. Peter Quackenbush, DEQ
Mr. Leo Parks, DEQ



NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

38955 Hills Tech Drive
Farmington Hills, MI 48331
248.553.6300
248.324.5178 Fax

Mr. Peter Quackenbush
MDEQ - WHMD
Constitution Hall, Atrium North
PO Box 30241
525 W. Allegan Street
Lansing, Michigan 48909

September 11, 2006
NTH Proj. No. 13-030550-01

RE: Reinforcement of Leak Detection Riser at Subcell A-North
Wayne Disposal, Inc., Site No. 2, Master Cell VI
Belleville, Michigan

Dear Mr. Quackenbush:

On behalf of Wayne Disposal, Inc., NTH Consultants, Ltd. submits the attached certification letter for the reinforcement of the secondary riser at subcell A-North in Master Cell VI. Reinforcement of the subcell A-North riser was completed in substantial conformance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006 with modifications stated in the certification letter.

We understand that waste placement in the tie-in trench between subcell A-North and subcell E is authorized to begin following submittal of the attached certification letter.

Please contact Mr. Kerry Durnen of Wayne Disposal, Inc. at 734-699-6265 or me at 248-324-5312 if you have any questions or comments regarding this submittal.

Sincerely,

NTH Consultants, Ltd.



JengHwa Lyang, Ph.D., P.E.
Manager, Engineer Group

JHL/pb

Attachment

cc: Xuede Qian (MDEQ)
Kerry Durnen (WDI)
Michael Porath (WDI)
David Andersen (EQ)



WAYNE DISPOSAL, INC.

June 14, 2006

Mr. Peter Quackenbush
Michigan Department of Environmental Quality
525 West Allegan
Lansing, MI 48933

RE: Wayne Disposal Inc. (WDI), MID 048090633
MCVI - E Phase II Cell Construction

Dear Mr. Quackenbush:

WDI is currently installing a portion of the Phase II cell of Master Cell VI E. This portion of the Phase II construction is being installed in accordance with the "Engineering Report on Basis of Design - Master Cell VI Design Modification" prepared by NTH Consultants, Ltd dated March 2001. Upon completion of construction, WDI will provide for your review a Construction Documentation Report pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

If you have any questions regarding this information or need extra copies of any of the drawings provided, please feel free to call me at 734-699-6297 or Kerry Durnen at 734-699-6265.

Sincerely,

David Andersen, WDI

Enclosure

CC: Leo Parks, MDEQ
Kerry Durnen, WDI
Scott Maris, EQ

File: WDI 2.1.3



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



J. JOSEPH R. BLUNT
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

April 5, 2006

Mr. Kerry Durnen, P.E.
Director of Operations
The Environmental Quality Company
Wayne Disposal, Inc.
49350 North I-94 Service Drive
Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Reinforcement of Leak Detection Riser at Subcell B of Master Cell VI; Wayne Disposal, Inc. (WDI), Site #2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the March 28, 2006, certification of the Reinforcement of Leak Detection Riser at Subcell B of Master Cell VI, submitted on WDI's behalf by NTH Consultants, Ltd., pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Based on that review, the WHMD agrees that the leak detection system for Subcell B is fully functional and hereby approves the certification.

WDI's plan to begin placing waste in the tie-in trench between Subcell B and Subcell E is consistent with WDI's "Recommended Action for Cleanouts," as proposed in the Evaluation of Leachate Collection System Cleanouts for Master Cell VI, and, therefore, may proceed.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely,

George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

cc: Mr. James J. Parsons, P.E., NTH Consultants, Ltd.
Mr. Scott Maris, WDI
Mr. Timothy Tilotti, WDI
Mr. Steve Buda, DEQ
Ms. De Montgomery/C&E File, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Ms. Christine Grossman, DEQ
Mr. Dan Qian, DEQ
Mr. Peter Quackenbush, DEQ
Mr. Leo Parks, DEQ



NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

38955 Hills Tech Drive
Farmington Hills, MI 48331
248.553.6300
248.324.5178 Fax

Mr. Peter Quackenbush
MDEQ - WHMD
Constitution Hall, Atrium North
PO Box 30241
525 W. Allegan Street
Lansing, Michigan 48909

March 28, 2006
NTH Proj. No. 13-030550-01

RE: Reinforcement of Leak Detection Riser at Sub Cell B
Wayne Disposal, Inc., Site No. 2, Master Cell VI
Belleville, Michigan

Dear Mr. Quackenbush:

On behalf of Wayne Disposal, Inc., NTH Consultants, Ltd. submits the attached certification letter for the reinforcement of the secondary riser at subcell B in Master Cell VI. Reinforcement of the subcell B riser was completed in substantial conformance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006.

We understand that, per your telephone conversation with Mr. Kerry Durnen of Wayne Disposal, Inc. on March 28, 2006, waste placement in the tie-in trench between subcell B and subcell E is authorized to begin following submittal of the attached certification letter.

We note that as part of the "Evaluation of Leachate Collection System Cleanouts" report submitted to the Department on January 5, 2006, NTH recommended reinforcement of cleanout riser B1. This letter also serves to reaffirm WDI's proactive and precautionary commitment to reinforce the B1 cleanout riser. Because this riser is currently fully functional and is located near the transfer box, which will not be filled in the near future, immediate reinforcement is not necessary. WDI will complete the recommended reinforcement before waste is placed in the transfer box.

Please contact Mr. Kerry Durnen of Wayne Disposal, Inc. at 734-699-6265 or me at 248-324-5329 if you have any questions or comments regarding this submittal.

Sincerely,

NTH Consultants, Ltd.


James J. Parsons, P.E.
Principal Engineer

JHL/pb

Attachment

cc: Xuede Qian (MDEQ)
Kerry Durnen (WDI)



NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

38955 Hills Tech Drive
Farmington Hills, MI 48331
248.553.6300
248.324.5178 Fax

Mr. Peter Quackenbush
MDEQ - WHMD
Constitution Hall, Atrium North
PO Box 30241
525 W. Allegan Street
Lansing, Michigan 48909

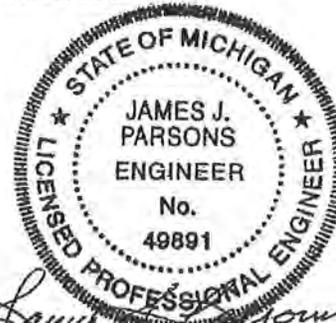
March 28, 2006
NTH Proj. No. 13-030550-01

RE: Certification for Reinforcement of Leak Detection Riser at Subcell B
Wayne Disposal, Inc., Site No. 2, Master Cell VI
Belleville, Michigan

Dear Mr. Quackenbush:

This letter certifies that the reinforcement of the leak detection riser in subcell B of Master Cell VI at Wayne Disposal, Inc. Site No. 2 in Belleville, Michigan has been reinforced in substantial compliance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006.

I, James J. Parsons, a Professional Engineer registered in the State of Michigan, hereby certify that representatives from NTH have monitored the activities associated with reinforcement of the leak detection riser in subcell B of Master Cell VI. To the best of my knowledge and belief, the reinforcement of the leak detection riser in subcell B was completed in compliance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006 with the following minor deviations; 1) Field modifications to the volume of filter material were made to assure that high strength grout was in place at the desired elbow location, and 2) Camera inspection could not be done due to inability to insert the camera through the elbow. Lengths of filter material, choke sand and grout within the annular space between the riser pipe and slipline pipe were confirmed at hourly intervals using a measured rod.



James J. Parsons
James J. Parsons, P.E.
State of Michigan Professional Engineer
Registration No. 49891

Attachments: Daily Field Reports



ANIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

June 4, 2004

Mr. Kerry Durnen, P.E., Director of Operations
The Environmental Quality Company
Wayne Disposal, Inc.
49350 North I-94 Service Drive
Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Certification of Construction, Phase I Cell VI E,
Wayne Disposal, Inc. (WDI), Site #2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the April 29, 2004, response to DEQ comments on the Construction Documentation Report submitted on November 4, 2003, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Based on that review, the WHMD has determined that the Certification of Construction for Phase I of Cell VI E satisfies the requirements of Part 111 and is hereby approved with the following condition:

No filling in the area between Cell E and Cells A-north and B will be allowed until the repair of the leak detection risers in A-north and B is completed and approved by the DEQ and the leachate clean-out deformations in that area have been addressed to the DEQ's satisfaction.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste and Radiological Protection Section, WHMD, at 517-373-7397.

Sincerely,

George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

cc: Mr. Steve Haton, WDI
Mr. Scott Maris, WDI
Mr. Michael Porath, WDI
Mr. Timothy Tilotti, WDI
Ms. Liane Shekter Smith, DEQ/Operating License File
Mr. Steve Buda, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Ms. Christine Kearns, DEQ
Mr. Dan Qian, DEQ
Mr. Peter Quackenbush, DEQ
Mr. Leo Parks, DEQ



ANIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

March 12, 2004

Mr. Kerry Durnen, P.E., Director of Operations
The Environmental Quality Company
Wayne Disposal, Inc.
49350 North I-94 Service Drive
Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Certification of Construction, Phase I Cell VI E,
Wayne Disposal, Inc. (WDI), Site #2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the Construction Documentation Report submitted on November 4, 2003, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. At this time the WHMD believes it would be inappropriate to approve this document because of concerns regarding the Master Cell (MC) VI leak detection system riser deformation problems. Therefore, the WHMD will not consider approval of the MC VI E Phase I construction certification until sufficient documentation is provided that the planned filling between the new cell and cells VI A-North and VI B will not adversely affect the integrity of the already compromised leak detection risers. Ultimately, failure to restore the MC VI leak detection systems to their design functionality may result in the WHMD determining that placing additional waste in those areas is an unacceptable option.

For your information, attached are the WHMD technical review comments on the Certification of Construction for Phase I of MC VI E, which also must be addressed to the WHMD's satisfaction prior to consideration for approval.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste and Radiological Protection Section, WHMD, at 517-373-7397.

Sincerely,

for George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

Attachment

cc: Mr. Steve Haton, WDI
Mr. Scott Maris, WDI
Mr. Michael Olson, Abletech Inc.
Mr. James Parsons, NTH Consultants, Ltd.
Mr. Michael Porath, WDI
Mr. Timothy Tilotti, WDI
Ms. Liane Shekter Smith, DEQ/Operating License File
Mr. Steve Buda, DEQ
Ms. Delores Montgomery, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Ms. Christine Kearns, DEQ
Mr. Dan Qian, DEQ
Mr. Peter Quackenbush, DEQ
Mr. Leo Parks, DEQ

**CONSTRUCTION DOCUMENTATION REPORT
PHASE I, CELL 6E, SITE 2 LANDFILL
(MASTER CELL VI DESIGN MODIFICATION)
WAYNE DISPOSAL, INC.
TECHNICAL COMMENTS
March 12, 2004**

1. The Shelby tube test location ST-9 was not shown in Plate 1 of Appendix B in the Construction Documentation Report (Report) submitted on November 4, 2003. After checking Appendix C, Tabulation of Flex Wall Permeability Data in the Report, it was found that the samples of ST-6 and ST-9 were taken at the same location and had different test results. The Report must include an explanation of why these two Shelby tube samples were taken at the same location.
2. The Report must include an explanation of why there was a moisture/density test run at Location 959 (N7790, E5295) of Lift 21 as shown in Plate 21 of Appendix B and there were no tests run at the same area of Lifts 19 and 20 under Lift 21.
3. The Report must include an explanation of why there were three moisture/density tests run at Locations 982 (N7760, E5170), 983 (N7850, E5175), and 984 (N7960, E5170) of Lift 26 as shown in Plate 26 of Appendix B and there were no tests run at the same area of Lifts 24 and 25 under Lift 26.
4. The Report must include an explanation of why there was a moisture/density test run at Location 858 (N7895, E5290) of Lift 34 as shown in Plate 34 of Appendix B and there were no tests run at same area for Lifts 22 to 33 under Lift 34. In addition, an explanation must be provided as to why there were no test locations shown for the entire liner area for Lifts 28 to 33.
5. The first lift of the primary clay liner was placed with a loose lift thickness of 18 inches and was compacted to a thickness of approximately 12 inches to prevent damage to the geocomposite drainage layer under the primary clay liner. The following lifts were placed with a maximum loose lift thickness not exceeding 9 inches. The loose lifts were compacted to a thickness of approximately 6 inches. In that case, the 5-foot primary clay liner should be compacted as 9 lifts. The Report must include an explanation of why there are only 8 lifts where moisture/density tests were run as shown in Appendix B.
6. Section 2.2.2 Geomembrane of the Report (page 5 of 13, Volume 1) states that "NTH sampled and tested the geomembrane to assure a residual interface friction equivalent to at least 15 degrees when tested within the compacted clay and the geocomposite. Appendix E presents these test results." However, page 2002201ds2 in Appendix E of the Report shows that

the residual friction angle between geocomposite and 80-millimeter texture high density polyethylene is only 10.6 degrees and the value of adhesion was not presented in the result figure. Pages 2002201ds3 and 2002201ds7 in Appendix E of the Report show that the residual friction angles for "geocomposite only" are only 8.2 degrees and 5.8 degrees, respectively, and the values of adhesion were not presented in the result figures. The Report did not include any equivalency demonstrations in Appendix E of the Report to assure residual interface frictions at different interfaces equivalent to at least 15 degrees. This demonstration must be provided in the Report.

7. Appendix E of the Report includes a direct shear strength test result presenting the relationship between displacement and apparent shear load for the interface between geocomposite and compacted clay under vertical pressure of 58 and 82 pounds per square inch. However, the Report does not specify the interface friction angle and adhesion based on the test result. As stated above, the Report did not include any equivalency demonstrations in Appendix E of the Report to assure residual interface frictions at different interfaces equivalent to at least 15 degrees. This demonstration must be provided in the Report.



WAYNE DISPOSAL, INC.

Hand Delivered

(4) copies.

November 4, 2003

Mr. George Bruchmann, Chief
Waste Management Division
Michigan Department Of Environmental Quality
525 West Allegan
Lansing, MI 48909-7741

Re: Certification of Construction
Phase I, Cell 6E, Site 2 Landfill

Ref: Construction Documentation Report
Phase I, Cell 6E (Master Cell VI Design Modification)
Site 2 Landfill, Wayne Disposal, Inc.
NTH Consultants, Ltd., October 24, 2003

Dear Mr. Bruchman:

Wayne Disposal, Inc. (WDI) has completed construction of Phase I, Cell 6E of the Site 2 Landfill. Pursuant to I.E.1(g) of our operating license¹ we are herewith submitting the above referenced Construction Documentation Report for this new cell. This report provides demonstration that WDI has completed construction of the cell in compliance with the operating license and approved plans therein. Appendix M of this report presents the certification of construction by a registered Professional Engineer.

We would like to request your review of this report, inspection of the project, and approval to place waste in this new cell. As we are close to the fill capacity of the existing approved landfill your timely review and approval of the new cell, so that disposal operations are not interrupted, will be greatly appreciated. Please contact me should you have any questions or comments concerning this report. Thank you for your attention to our project.

Sincerely,

Kerry Durnen, P.E.
Director of Operations

c: P. Quackenbush, WMD/MDEQ (3 copies)
M. Olson, Abletech, Inc.
J. Parsons, NTH Consultants, Ltd.
S. Haton, WDI
M. Porath, WDI
T. Tilotti, WDI

NOV 04 2003

Waste and Hazardous
Materials Division

¹ Hazardous Waste Management Facility Operating License pursuant to Part 111 of the Natural Resources and Environmental Protection Act, 1994 PA 451, Site 2 Landfill, Wayne Disposal, Inc., MID 048 090 633, July 13, 2001



WAYNE DISPOSAL, INC.

CORPORATE OFFICES
1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197
(313) 485-6460 • FAX: (313) 485-6450

December 10, 1991

Federal Express

RCRA Activities
U. S. EPA, Region V, P.O. Box A3587
Chicago, Illinois 60690-3587
Attn: Shari L. Kolak

Re: CQA Report/Construction Certification
Master Cell VI, Cell D
Site No. 2 Hazardous Waste Landfill, MID 048 090 633

Dear Ms. Kolak:

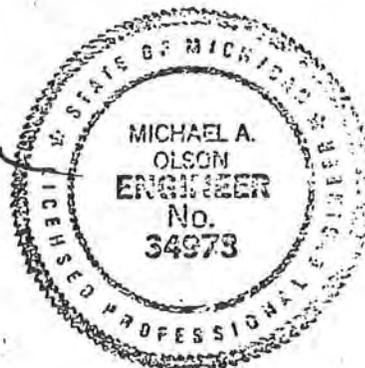
We are herewith transmitting a copy of the Construction Quality Assurance (CQA) Report and construction certification for Master Cell VI, Cell D of the above-captioned site. The cell was completed on August 14, 1991, and the construction certification for the cell was approved by the Michigan Department of Natural Resources Waste Management Division (MDNR/WMD) on October 10, 1991.

This is duplicate copy of the complete CQA Report and construction certification submitted to and approved by MDNR/WMD pursuant to the Michigan Act 64 operating license for the facility. However, to comply with additional requirements of the March 30, 1990 RCRA permit for the site, we have inserted documentation of personnel qualifications at the end of Volume 3, Appendix C, and a "Report on Fingerprinting Test Results of PE Pipe," at the end of Volume 3, Appendix H. Also, please note that Volume 3 actually spans two 3-ring binders, because of current photocopying limitations.

If you have any questions on this material, please do not hesitate to contact me at 313-485-6460.

Sincerely,

Michael A. Olson, P.E.
Project Engineer



cc: Jerry Fore, WDI
Don Vilnius, WDI
Mark Young, WDI



NATURAL RESOURCES COMMISSION

MARLENE J. FLUHARTY
GORDON E. GUYER
O. STEWART MYERS
RAYMOND POUPORE

JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
P.O. BOX 30028
LANSING, MI 48909

~~XXXXXXXXXXXXXXXXXXXX~~

Roland Harmes, Director



October 10, 1991

Mr. Jerry Fore
Vice President
Wayne Disposal, Inc.
1349 Huron Road
Ypsilanti, Michigan 48197

Dear Mr. Fore:

Subject: Master Cell VI D Construction Certification,
Wayne Disposal, Inc. MID 048 090 633

Waste Management Division has completed review of the construction certification documents for Master Cell VI D dated August 14, 1991. These documents satisfactorily demonstrate that the cell was constructed in accordance with the approved design plans and the construction quality assurance plans contained in the Act 64 operating license for Wayne Disposal. The construction certification for Master Cell VI D is, hereby, approved.

If you have any questions, please contact Mr. Peter Quackenbush at Waste Management Division, Department of Natural Resources, P.O. Box 30241, Lansing, Michigan 48909, or at telephone number 517-373-7397.

Sincerely,

Mindy Koch, Acting Chief
Waste Management Division
517-373-9523

cc: Mr. Richard Traub, EPA
Mr. Ken Burda, DNR/Operating License File
Mr. Peter Quackenbush, DNR
Mr. Al Taylor, DNR
Mr. Tarik Namour, DNR
Mr. Mike Busse, DNR-Livonia



WAYNE DISPOSAL, INC.

CORPORATE OFFICES
1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197
(313) 485-6460 • FAX: (313) 485-6450

August 14, 1991

REC ED

Mr. Peter Quackenbush
Mr. Allan Taylor
Michigan Department of Natural Resources
Waste Management Division
South Ottawa Tower
508 W. Allegan
Lansing, Michigan 48933

AUG 14 1991

Waste Management
Division

Re: CQA Report/Construction Certification
Master Cell VI, Cell D
Site No. 2 Hazardous Waste Landfill, MID 048 090 633

Ref: "Wayne Disposal, Inc., Site No. 2 Hazardous Waste Landfill, Master Cell VI, Cell D, Proposed Final Design", submitted to Peter Quackenbush and Allan Taylor, MDNR/WMD on 11/13/90; including subsequent letters from WDI to Quackenbush and Taylor dated 11/20/90, 7/17/91, and 8/13/91, and MDNR interoffice communications from Quackenbush and Taylor to the WDI Site No. 2 Operating License File dated 12/11/91.

Dear Messrs. Quackenbush and Taylor:

We are herewith submitting the Construction Quality Assurance (CQA) Report for Master Cell VI, Cell D- our next and last hazardous waste disposal cell at the Wayne Disposal, Inc., Site No. 2 Hazardous Waste Landfill.

The report documents construction of the cell per the above-referenced design document and demonstrates the implementation of the CQA Plan for the project. The Table of Contents for the report is attached.

Messrs. Quackenbush and Taylor
Page 2
August 14, 1991

With this CQA Report, Wayne Disposal, Inc. hereby certifies that construction of Cell D of Master Cell VI at the Site No. 2 Hazardous Waste Landfill has been completed in substantial accordance with Michigan Act 64 standards; the March 30, 1990 operating license for the facility (which includes the CQA Plan) issued thereunder; and the above-referenced design document, and that the cell is ready to receive wastes.

We are requesting your review and approval of this CQA Report. Should any questions arise, please do not hesitate to contact us. A book of project photographs is available for review in our office if you desire. Thank you for your helpful participation throughout the completion of this construction project.

Sincerely,



Donald B. Schroat
Construction Manager



Michael A. Olson, P.E.
Project Engineer/CQA Officer

c: Jerry Fore, WDI
Don Vilnius, WDI
Mark Young, WDI





WAYNE DISPOSAL, INC.

CORPORATE OFFICES
1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197
(313) 485-6460 • FAX: (313) 485-6450

April 13, 1990

Mr. Terrance J. McNiel
Mr. Peter Quackenbush
Michigan Department of Natural Resources
Waste Management Division
P.O. Box 30028
Lansing, Michigan 48909

Re: Construction Quality Assurance Report
Master Cell VI, Cell C
Wayne Disposal, Inc., Site No. 2
Hazardous Waste Landfill, MID 048 090 633

Ref: Letter Wayne Disposal, Inc. to Michigan
Department of Natural Resources, January 15, 1990
re: same as above

Letter Wayne Disposal, Inc. to Michigan
Department of Natural Resources, March 21, 1990
re: same as above

Dear Messrs. McNiel and Quackenbush:

We herewith submit Part 2, Volumes 5, 7, 8 and 9, of the subject Construction Quality Assurance Report. These volumes complete the CQA Report and provide construction records for the primary geomembrane as well as the leachate collection system. Volumes 1 through 4 (Part 1) were submitted with the January 15 letter referenced above. Volume 6 (Part 2) was submitted with the March 21 letter, also referenced above. A set of as-built drawings for Cell C are included herewith in Volume 9 of the CQA Report.

RECEIVED

APR 13 1990

Waste Management
Division

Likki Harris Receptionist

With these documents are several individual items which should be inserted in the previously submitted volumes of the CQA Report. They are identified as follows:

- 1) A revised Table of Contents reflecting the final format of the complete CQA Report. This should replace the original version at the front of Volume 1.
- 2) Quality control documents for an additional shipment of 80-mil National Seal geomembrane. These should be inserted in appropriate subsections of Section 6, Volume 4.
- 3) Quality control documents for Fluid Systems' PN-4000 geonet. A small amount of this net was used as noted in the Daily Field Report for March 21, 1990. The two geonets (PN-4000 and CONWED XB-8410) are identical in origin but are marketed under different names. These documents should be inserted in appropriate subsection of Section 7, Volume 4.
- 4) Quality control documents for additional shipments of geotextile. These should be inserted in appropriate subsections of Section 8, Volume 4.

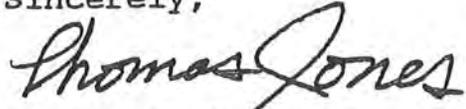
Your attention is directed to two Special Reports included in Section 9 of Volume 5. The first briefly discusses the effect of the apparent slope instability upon the subsequent construction of Cell C. It is included directly following the October 11, 1989, Daily Field Report by Mr. Thomas Jones of the WDI staff. The second addresses our response to cold weather geomembrane cracking. This Special Report is included directly following the March 26, 1989, Daily Field Report by Mr. Jones.

Wayne Disposal, Inc. hereby certifies that construction of Cell C of Master Cell VI at Wayne Disposal Site No. 2 Landfill has been completed in substantial accordance with Act 64 standards, the engineering plans, and the construction quality assurance plan, and that the cell is ready to receive wastes.

Page 3
Messrs. McNiel and Quackenbush
April 13, 1990

Thank you for your assistance in reviewing this documentation. Please do not hesitate to contact us if you have any questions.

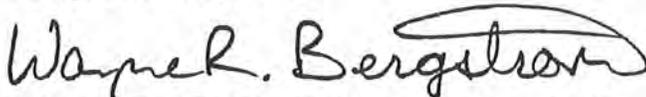
Sincerely,



Thomas A. Jones
Construction Inspector



Michael A. Olson, P.E.
Project Engineer



Wayne R. Bergstrom, Ph.D., P.E.
Senior Project Engineer

WRB/naw

Enclosures

cc: Don Vilnius; Wayne Disposal, Inc.
Jerry Fore; Wayne Disposal, Inc.
Mark Young; Wayne Disposal, Inc.



WAYNE DISPOSAL, INC.

CORPORATE OFFICES
1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197
(313) 485-6460 • FAX: (313) 485-6450

March 21, 1990

Mr. Terrance J. McNiel
Mr. Peter Quackenbush
Michigan Department of Natural Resources
Waste Management Division
P. O. Box 30028
Lansing, Michigan 48909

Re: Construction Quality Assurance Report
Master Cell VI, Cell C
Wayne Disposal, Inc., Site No. 2
Hazardous Waste Landfill, MID 048 090 633

Ref: Letter, Wayne Disposal, Inc., Michigan Department
of Natural Resources, January 15, 1990,
re: same as above.

Dear Messrs McNiel and Quackenbush:

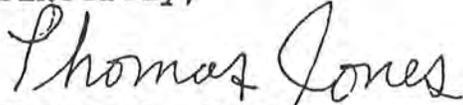
As discussed in our meeting with you in Lansing on March 7, 1990, we are herewith submitting Volume 6 of Part 2 of the Construction Quality Assurance Report for our next hazardous waste cell, identified above. Volume 6 documents geotechnical monitoring of the primary clay liner construction, completed in November, 1989. This volume is being submitted in advance of the other Part 2 volumes (Volumes 5, 7, and 8) with the hope that it may help you pace your review efforts. The balance of Part 2 will be submitted to your office shortly after completion of the project, now planned for April 1.

The above-referenced letter, and table of contents attached thereto, further explains where this submittal fits in with the entire Construction Quality Assurance Report for the cell. To keep your copy of the CQA report current, please insert this letter in the front of Volume 1, behind the above-referenced letter and in front of the Table of Contents.

Page 2
March 21, 1990

Thank you for your assistance. If you have any questions,
please contact us at 313-485-6460.

Sincerely,



Thomas A. Jones
Construction Inspector



Michael A. Olson, P.E.
Project Engineer



Wayne R. Bergstrom, Ph.D., P.E.
CQA Officer



WAYNE DISPOSAL, INC.

CORPORATE OFFICES
1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197
(313) 485-6460 • FAX: (313) 485-6450

January 15, 1990

Mr. Terrance J. McNiel
Mr. Peter Quackenbush
Michigan Department of Natural Resources
Waste Management Division
P. O. Box 30028
Lansing, Michigan 48909

Re: Construction Quality Assurance Report
Master Cell VI, Cell C
Wayne Disposal, Inc., Site No. 2
Hazardous Waste Landfill, MID 048 090 633

Dear Messrs McNiel and Quackenbush:

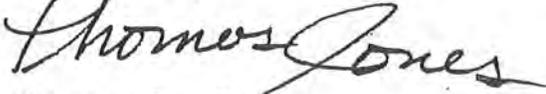
We are herewith submitting Part 1 of the two-part Construction Quality Assurance Report for our next hazardous waste cell, referenced above. Part 1 consists of four volumes which document construction of the secondary clay liner, secondary geomembrane, and the leak detection, collection and removal system. These cell components were constructed in general accordance with the engineering plans prepared by Midwestern Consulting, Inc.. dated April 5, 1989 (as submitted to your office on 4/18/89 and revised through subsequent correspondence dated 5/23/89, 6/5/89, 6/8/89, and 8/4/89), and in general accordance with the Construction Quality Assurance Plan prepared by Wayne Disposal, dated August 1987.

Part 2 of the Construction Quality Assurance Report will document construction of the primary clay liner, primary geomembrane, and the leachate collection system, and will be submitted to your office shortly after completion of the cell, which is planned for March 1. A statement certifying the compliance of cell construction with the engineering plans and Construction Quality Assurance Plan will accompany the submittal of Part 2. A copy of the Table of Contents for the report is attached hereto for convenient reference.

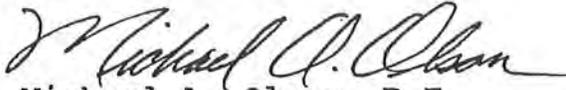
Page 2
Messrs McNiel and Quackenbush
January 15, 1990

Your timely review of this documentation will be greatly appreciated. Thank you for your assistance. If you have any questions, please contact us on 313-485-6460.

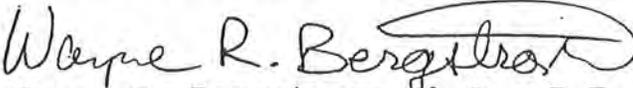
Sincerely,



Thomas A. Jones
Construction Inspector



Michael A. Olson, P.E.
Project Engineer



Wayne R. Bergstrom, Ph.D., P.E.
CQA Officer



WAYNE DISPOSAL, INC.

POST OFFICE BOX 5187, DEARBORN, MICHIGAN 48128 • (313) 326-0200

October 18, 1988

Mr. Ken Burda
Michigan Department of Natural Resources
Waste Management Division
P.O. Box 30028
Lansing, Michigan 48909

Re: Certification of Construction
Cell B, Master Cell VI
Wayne Disposal Site #2 Landfill
MID 048 090 633

Dear Mr. Burda:

This Construction Quality Assurance Report documents construction of our next hazardous waste disposal cell, captioned above. Please note that two notebook volumes are provided with this letter. These volumes document the construction of the perimeter dike, secondary liner, leak detection system, and the compacted clay portion of the primary liner. These cell systems were constructed in accordance with the engineering plans prepared by Midwestern Consulting, Inc., dated September 15, 1987, and in accordance with the CQA Plan prepared by WDI, dated May 1986.

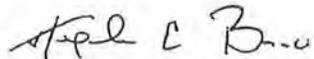
A second submittal will complete the construction documentation for this cell and will include construction details regarding the primary FML and the leachate collection system. A full set of as-built plans will also be provided with the second submittal. A photographic log of the work in prints or in slides is available for review at our Engineering Office.

The final volume of the CQA Report and detailed as-built plans, to be prepared by Midwestern Consulting, Inc., will be submitted to the MDNR as soon as they are completed. We expect this to be early in November. A statement certifying the compliance of cell construction with the applicable engineering plans will accompany the second submittal.

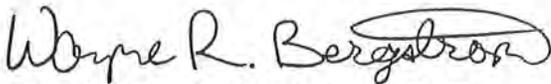
Page Two
Mr. Ken Burda
October 18, 1988

Thank you for your assistance in reviewing this documentation.
Please contact us if you have any questions.

Sincerely,



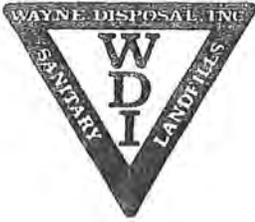
Stephen E. Brao
Construction Inspector



Wayne R. Bergstrom, P.E.
Senior Project Engineer

WRB/kld

cc: Mark Young, Wayne Disposal, Inc.
Jerry Fore, Wayne Disposal, Inc.
Don Vilnius, Wayne Disposal, Inc.



WAYNE DISPOSAL, INC.

POST OFFICE BOX 5187, DEARBORN, MICHIGAN 48128 • (313) 326-0200

December 10, 1987

Mr. John Bohunsky, Region III Supervisor
Michigan Department of Natural Resources
Waste Management Division
P.O. Box 30038
Lansing, Michigan 48909

Re: Certification of Construction
Cell A-North, Master Cell VI
Wayne Disposal Site #2 Landfill

Dear Mr. Bohunsky:

As indicated in our letter to you dated November 17, 1987, this follow-up letter transmits the as-built detail drawings for our next hazardous waste disposal cell, captioned above.

We anticipate the need to cross the short dike from Cell A-South into Cell A-North in about 2 to 4 weeks. We would greatly appreciate notification of the results of your review in accordance with this timetable, if possible.

Thank you very much for your co-operation. We look forward to your comments. Please phone me or Jerry Fore if questions should arise or to arrange a review of the photographic log.

Sincerely,
WAYNE DISPOSAL, INC.

Mark A. Young
Mark A. Young, P.E.
Engineering Manager

MAY/bk

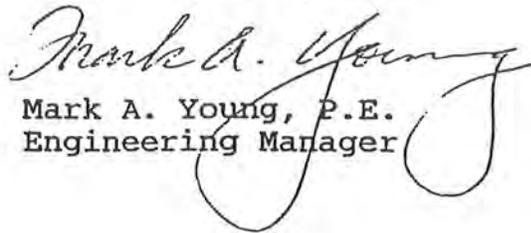
Enclosures

cc: Don Vilnius, WDI
Jerry Fore, WDI

Page Two
Mr. John Bohunsky
November 17, 1987

Please phone me or Jerry Fore if questions should arise or to
arrange a review of the photographic log.

Sincerely,
WAYNE DISPOSAL, INC.


Mark A. Young, P.E.
Engineering Manager

Enclosures

MAY/kld

cc: Don Vilnius, WDI
Jerry Fore, WDI



WAYNE DISPOSAL, INC.

POST OFFICE BOX 5187, DEARBORN, MICHIGAN 48128 • (313) 326-0200

FEDERAL EXPRESS

November 17, 1987

Mr. John Bohunsky, Region III Supervisor
Michigan Department of Natural Resources
Waste Management Division
P.O. Box 30038
Lansing, Michigan 48909

Re: Certification of Construction
Cell A-North, Master Cell VI
Wayne Disposal Site #2 Landfill

Dear Mr. Bohunsky:

This letter documents completion of construction of our next hazardous waste disposal cell, captioned above.

This cell has been constructed in accordance with the engineering plans prepared by Midwestern Consulting, Inc., dated September 15, 1987 and in accordance with the construction quality assurance plan prepared by Wayne Disposal, Inc., dated May 1986. As evidence of compliance with these documents, we submit the construction quality assurance report, in two volumes, enclosed with this letter. A photographic log of the work in prints or in slides is available for review at our office.

Details of construction will be provided on as-built plans to be prepared by Midwestern Consulting, Inc., and submitted to the Department. These as-built plans will contain surveyed location and elevation information to verify compliance with Act 64 Rules standards. We anticipate the as-built plans to be submitted in about two to three weeks.

Wayne Disposal, Inc. hereby certifies that construction of Cell A-North of Master VI at Wayne Disposal Site #2 Landfill has been completed in accordance with Act 64 standards, the engineering plans and the construction quality assurance plan, and that the cell is ready to receive wastes.

STATE OF MICHIGAN

NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

~~FORWARDED TO THE DIRECTOR~~

Gordon E. Guyer, Director

December 11, 1986

Mr. Jerry Fore, Environmental Manager
Wayne Disposal, Inc.
P.O. Box 5187
Dearborn, Michigan 48128

Dear Mr. Fore:

With the receipt of engineering plans dated November 7, 1986, the certification document for construction of Master Cell VI - Cell A - South is now complete. These plans certify location, elevation and as-built information as shown on the May 15, 1986, plans. The complete certification document has been found to be acceptable.

If there are any questions, please feel free to call.

Sincerely,

A handwritten signature in cursive script that reads "Terrance J. McNiel".

Terrance J. McNiel
Geotechnical Engineer
Technical Services Section
Hazardous Waste Division
517-373-2730

cc: Mr. J. Bohunsky/C & E File
Mr. L. AuBuchon
Ms. D. Montgomery
Mr. K. Burda



WAYNE DISPOSAL, INC.

POST OFFICE BOX 5187, DEARBORN, MICHIGAN 48128 • (313) 326-0200

September 15, 1986

Mr. John Bohunsky, Chief
Compliance Section, Hazardous Waste Division
Michigan Department of Natural Resources
P.O. Box 30038
Lansing, Michigan 48909

Re: Certification of Construction
Cell A-South, Master Cell VI
Wayne Disposal Site #2 Landfill

Dear Mr. Bohunsky:

This letter documents completion of construction of our next hazardous waste disposal cell, captioned above.

This cell has been constructed in accordance with the engineering plans prepared by Midwestern Consulting, Inc., dated May 15, 1986 and in accordance with the construction quality assurance plan prepared by Wayne Disposal, Inc., dated May, 1986. As evidence of compliance with these documents, we submit the construction quality assurance report enclosed with this letter. A photographic log of the work in prints or in slides is available for review at our office.

Two exceptions of construction in accordance with the plans are (1) the access ramp now located in the southeast corner of the cell, and (2) the exclusion of stainless steel hardware from the primary liner seal at the leachate collection manhole. Details of these changes will be provided on as-built plans to be prepared by Midwestern Consulting, Inc., and submitted to the Department. These as-built plans will also contain surveyed location and elevation information to verify compliance with Act 64 rules standards.

Wayne Disposal, Inc. hereby certifies that construction of Cell A-South of Master Cell VI at Wayne Disposal Site #2 Landfill has been completed in accordance with Act 64 standards, the engineering plans and the construction quality assurance plan, and that the cell is ready to receive wastes.

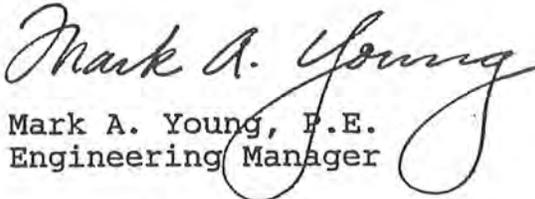
Mr. John Bohunsky

2

September 15, 1986

Please phone me or Jerry Fore if questions should arise or to arrange a review of the photographic log.

Sincerely
WAYNE DISPOSAL, INC.


Mark A. Young, P.E.
Engineering Manager

Enclosures

cc: Don Vilnius
Jerry Fore

Section 7. Facility Photographs



1

Entrance to site from I-94 Service Drive



2

Entrance and security building from inside the site



3

Trucks in line at inbound scale at receiving



4

Truck at receiving being sampled for fingerprint tests



5

Access road to waste transfer box



6

Waste being unloaded into waste transfer box



7

Truck finishing unloading process



8

Waste compaction within the landfill



9

Truck going through wheel wash before leaving the site



10

Truck on outbound scale

Section 8. Description of Hazardous Waste Types

DESCRIPTION OF HAZARDOUS WASTE TYPES

40 CFR 270.13

AND

NREPA 451, PART 111 R504(1)b

See MDEQ Application Form (EQP 5111) XIV "Description of Hazardous Waste Types".

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
1	D001 ^R	200000	Y	D80		
2	D002	200000	Y	D80		
3	D003 ^R	200000	Y	D80		
4	D004	200000	Y	D80		
5	D005	200000	Y	D80		
6	D006	200000	Y	D80		
7	D007	200000	Y	D80		
8	D008	200000	Y	D80		
9	D009	200000	Y	D80		
10	D010	200000	Y	D80		
11	D011	200000	Y	D80		
12	D012	200000	Y	D80		
13	D013	200000	Y	D80		
14	D014	200000	Y	D80		
15	D015	200000	Y	D80		
16	D016	200000	Y	D80		
17	D017	200000	Y	D80		
18	D018	200000	Y	D80		
19	D019	200000	Y	D80		
20	D020	200000	Y	D80		
21	D021	200000	Y	D80		
22	D022	200000	Y	D80		
23	D023	200000	Y	D80		
24	D024	200000	Y	D80		
25	D025	200000	Y	D80		
26	D026	200000	Y	D80		
27	D027	200000	Y	D80		
28	D028	200000	Y	D80		
29	D029	200000	Y	D80		
30	D030	200000	Y	D80		
31	D031	200000	Y	D80		
32	D032	200000	Y	D80		
33	D033	200000	Y	D80		
34	D034	200000	Y	D80		
35	D035	200000	Y	D80		
36	D036	200000	Y	D80		
37	D037	200000	Y	D80		
38	D038	200000	Y	D80		
39	D039	200000	Y	D80		
40	D040	200000	Y	D80		
41	D041	200000	Y	D80		
42	D042	200000	Y	D80		
43	D043	200000	Y	D80		
44	F001	200000	Y	D80		
45	F002	200000	Y	D80		
46	F003	200000	Y	D80		
47	F004	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
48	F005	200000	Y	D80		
49	F006	200000	Y	D80		
50	F007	200000	Y	D80		
51	F008	200000	Y	D80		
52	F009	200000	Y	D80		
53	F010	200000	Y	D80		
54	F011	200000	Y	D80		
55	F012	200000	Y	D80		
56	F019	200000	Y	D80		
57	F024	200000	Y	D80		
58	F025	200000	Y	D80		
59	F032	200000	Y	D80		
60	F034	200000	Y	D80		
61	F035	200000	Y	D80		
62	F037	200000	Y	D80		
63	F038	200000	Y	D80		
64	F039	200000	Y	D80		
65	K001	200000	Y	D80		
66	K002	200000	Y	D80		
67	K003	200000	Y	D80		
68	K004	200000	Y	D80		
69	K005	200000	Y	D80		
70	K006	200000	Y	D80		
71	K007	200000	Y	D80		
72	K008	200000	Y	D80		
73	K009	200000	Y	D80		
74	K010	200000	Y	D80		
75	K011	200000	Y	D80		
76	K013	200000	Y	D80		
77	K014	200000	Y	D80		
78	K015	200000	Y	D80		
79	K016	200000	Y	D80		
80	K017	200000	Y	D80		
81	K018	200000	Y	D80		
82	K019	200000	Y	D80		
83	K020	200000	Y	D80		
84	K021	200000	Y	D80		
85	K022	200000	Y	D80		
86	K023	200000	Y	D80		
87	K024	200000	Y	D80		
88	K025	200000	Y	D80		
89	K026	200000	Y	D80		
90	K027 ^R	200000	Y	D80		
91	K028	200000	Y	D80		
92	K029	200000	Y	D80		
93	K030	200000	Y	D80		
94	K031	200000	Y	D80		
95	K032	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
96	K033	200000	Y	D80		
97	K034	200000	Y	D80		
98	K035	200000	Y	D80		
99	K036	200000	Y	D80		
100	K037	200000	Y	D80		
101	K038	200000	Y	D80		
102	K039	200000	Y	D80		
103	K040	200000	Y	D80		
104	K041	200000	Y	D80		
105	K042	200000	Y	D80		
106	K043	200000	Y	D80		
107	K044 ^R	200000	Y	D80		
108	K045 ^R	200000	Y	D80		
109	K046	200000	Y	D80		
110	K047 ^R	200000	Y	D80		
111	K048	200000	Y	D80		
112	K049	200000	Y	D80		
113	K050	200000	Y	D80		
114	K051	200000	Y	D80		
115	K052	200000	Y	D80		
116	K060	200000	Y	D80		
117	K061	200000	Y	D80		
118	K062	200000	Y	D80		
119	K069	200000	Y	D80		
120	K071	200000	Y	D80		
121	K073	200000	Y	D80		
122	K083	200000	Y	D80		
123	K084	200000	Y	D80		
124	K085	200000	Y	D80		
125	K086	200000	Y	D80		
126	K087	200000	Y	D80		
127	K088	200000	Y	D80		
128	K090	200000	Y	D80		
129	K091	200000	Y	D80		
130	K093	200000	Y	D80		
131	K094	200000	Y	D80		
132	K095	200000	Y	D80		
133	K096	200000	Y	D80		
134	K097	200000	Y	D80		
135	K098	200000	Y	D80		
136	K100	200000	Y	D80		
137	K101	200000	Y	D80		
138	K102	200000	Y	D80		
139	K103	200000	Y	D80		
140	K104	200000	Y	D80		
141	K105	200000	Y	D80		
142	K106	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
143	K107	200000	Y	D80		
144	K108	200000	Y	D80		
145	K109	200000	Y	D80		
146	K110	200000	Y	D80		
147	K111	200000	Y	D80		
148	K112	200000	Y	D80		
149	K113	200000	Y	D80		
150	K114	200000	Y	D80		
151	K115	200000	Y	D80		
152	K116	200000	Y	D80		
153	K117	200000	Y	D80		
154	K118	200000	Y	D80		
155	K123	200000	Y	D80		
156	K124	200000	Y	D80		
157	K125	200000	Y	D80		
158	K126	200000	Y	D80		
159	K131	200000	Y	D80		
160	K132	200000	Y	D80		
161	K136	200000	Y	D80		
162	K141	200000	Y	D80		
163	K142	200000	Y	D80		
164	K143	200000	Y	D80		
165	K144	200000	Y	D80		
166	K145	200000	Y	D80		
167	K147	200000	Y	D80		
168	K148	200000	Y	D80		
169	K149	200000	Y	D80		
170	K150	200000	Y	D80		
171	K151	200000	Y	D80		
172	K156	200000	Y	D80		
173	K157	200000	Y	D80		
174	K158	200000	Y	D80		
175	K159	200000	Y	D80		
176	K161	200000	Y	D80		
177	K169	200000	Y	D80		
178	K170	200000	Y	D80		
179	K171	200000	Y	D80		
180	K172	200000	Y	D80		
181	K174	200000	Y	D80		
182	K175	200000	Y	D80		
183	K176	200000	Y	D80		
184	K177	200000	Y	D80		
185	K178	200000	Y	D80		
186	K181	200000	Y	D80		
187	P001	200000	Y	D80		
188	P002	200000	Y	D80		
189	P003	200000	Y	D80		
190	P004	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
191	P005	200000	Y	D80		
192	P006	200000	Y	D80		
193	P007	200000	Y	D80		
194	P008	200000	Y	D80		
195	P009	200000	Y	D80		
196	P010	200000	Y	D80		
197	P011	200000	Y	D80		
198	P012	200000	Y	D80		
199	P013	200000	Y	D80		
200	P014	200000	Y	D80		
201	P015	200000	Y	D80		
202	P016	200000	Y	D80		
203	P017	200000	Y	D80		
204	P018	200000	Y	D80		
205	P020	200000	Y	D80		
206	P021	200000	Y	D80		
207	P022	200000	Y	D80		
208	P023	200000	Y	D80		
209	P024	200000	Y	D80		
210	P026	200000	Y	D80		
211	P027	200000	Y	D80		
212	P028	200000	Y	D80		
213	P029	200000	Y	D80		
214	P030	200000	Y	D80		
215	P031	200000	Y	D80		
216	P033	200000	Y	D80		
217	P034	200000	Y	D80		
218	P036	200000	Y	D80		
219	P037	200000	Y	D80		
220	P038	200000	Y	D80		
221	P039	200000	Y	D80		
222	P040	200000	Y	D80		
223	P041	200000	Y	D80		
224	P042	200000	Y	D80		
225	P043	200000	Y	D80		
226	P044	200000	Y	D80		
227	P045	200000	Y	D80		
228	P046	200000	Y	D80		
229	P047	200000	Y	D80		
230	P048	200000	Y	D80		
231	P049	200000	Y	D80		
232	P050	200000	Y	D80		
233	P051	200000	Y	D80		
234	P054	200000	Y	D80		
235	P056	200000	Y	D80		
236	P057	200000	Y	D80		
237	P058	200000	Y	D80		
238	P059	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
239	P060	200000	Y	D80		
240	P062	200000	Y	D80		
241	P063	200000	Y	D80		
242	P064	200000	Y	D80		
243	P065	200000	Y	D80		
244	P066	200000	Y	D80		
245	P067	200000	Y	D80		
246	P068	200000	Y	D80		
247	P069	200000	Y	D80		
248	P070	200000	Y	D80		
249	P071	200000	Y	D80		
250	P072	200000	Y	D80		
251	P073	200000	Y	D80		
252	P074	200000	Y	D80		
253	P075	200000	Y	D80		
254	P076	200000	Y	D80		
255	P077	200000	Y	D80		
256	P078	200000	Y	D80		
257	P081	200000	Y	D80		
258	P082	200000	Y	D80		
259	P084	200000	Y	D80		
260	P085	200000	Y	D80		
261	P087	200000	Y	D80		
262	P088	200000	Y	D80		
263	P089	200000	Y	D80		
264	P092	200000	Y	D80		
265	P093	200000	Y	D80		
266	P094	200000	Y	D80		
267	P095	200000	Y	D80		
268	P096	200000	Y	D80		
269	P097	200000	Y	D80		
270	P098	200000	Y	D80		
271	P099	200000	Y	D80		
272	P101	200000	Y	D80		
273	P102	200000	Y	D80		
274	P103	200000	Y	D80		
275	P104	200000	Y	D80		
276	P105	200000	Y	D80		
277	P106	200000	Y	D80		
278	P108	200000	Y	D80		
279	P109	200000	Y	D80		
280	P110	200000	Y	D80		
281	P111	200000	Y	D80		
282	P112	200000	Y	D80		
283	P113	200000	Y	D80		
284	P114	200000	Y	D80		
285	P115	200000	Y	D80		
286	P116	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
287	P118	200000	Y	D80		
288	P119	200000	Y	D80		
289	P120	200000	Y	D80		
290	P121	200000	Y	D80		
291	P122	200000	Y	D80		
292	P123	200000	Y	D80		
293	P127	200000	Y	D80		
294	P128	200000	Y	D80		
295	P185	200000	Y	D80		
296	P188	200000	Y	D80		
297	P189	200000	Y	D80		
298	P190	200000	Y	D80		
299	P191	200000	Y	D80		
300	P192	200000	Y	D80		
301	P194	200000	Y	D80		
302	P196	200000	Y	D80		
303	P197	200000	Y	D80		
304	P198	200000	Y	D80		
305	P199	200000	Y	D80		
306	P201	200000	Y	D80		
307	P202	200000	Y	D80		
308	P203	200000	Y	D80		
309	P204	200000	Y	D80		
310	P205	200000	Y	D80		
311	U001	200000	Y	D80		
312	U002	200000	Y	D80		
313	U003	200000	Y	D80		
314	U004	200000	Y	D80		
315	U005	200000	Y	D80		
316	U006	200000	Y	D80		
317	U007	200000	Y	D80		
318	U008	200000	Y	D80		
319	U009	200000	Y	D80		
320	U010	200000	Y	D80		
321	U011	200000	Y	D80		
322	U012	200000	Y	D80		
323	U014	200000	Y	D80		
324	U015	200000	Y	D80		
325	U016	200000	Y	D80		
326	U017	200000	Y	D80		
327	U018	200000	Y	D80		
328	U019	200000	Y	D80		
329	U020	200000	Y	D80		
330	U021	200000	Y	D80		
331	U022	200000	Y	D80		
332	U023	200000	Y	D80		
333	U024	200000	Y	D80		
334	U025	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
335	U026	200000	Y	D80		
336	U027	200000	Y	D80		
337	U028	200000	Y	D80		
338	U029	200000	Y	D80		
339	U030	200000	Y	D80		
340	U031	200000	Y	D80		
341	U032	200000	Y	D80		
342	U033	200000	Y	D80		
343	U034	200000	Y	D80		
344	U035	200000	Y	D80		
345	U036	200000	Y	D80		
346	U037	200000	Y	D80		
347	U038	200000	Y	D80		
348	U039	200000	Y	D80		
349	U041	200000	Y	D80		
350	U042	200000	Y	D80		
351	U043	200000	Y	D80		
352	U044	200000	Y	D80		
353	U045	200000	Y	D80		
354	U046	200000	Y	D80		
355	U047	200000	Y	D80		
356	U048	200000	Y	D80		
357	U049	200000	Y	D80		
358	U050	200000	Y	D80		
359	U051	200000	Y	D80		
360	U052	200000	Y	D80		
361	U053	200000	Y	D80		
362	U055	200000	Y	D80		
363	U056	200000	Y	D80		
364	U057	200000	Y	D80		
365	U058	200000	Y	D80		
366	U059	200000	Y	D80		
367	U060	200000	Y	D80		
368	U061	200000	Y	D80		
369	U062	200000	Y	D80		
370	U063	200000	Y	D80		
371	U064	200000	Y	D80		
372	U066	200000	Y	D80		
373	U067	200000	Y	D80		
374	U068	200000	Y	D80		
375	U069	200000	Y	D80		
376	U070	200000	Y	D80		
377	U071	200000	Y	D80		
378	U072	200000	Y	D80		
379	U073	200000	Y	D80		
380	U074	200000	Y	D80		
381	U075	200000	Y	D80		
382	U076	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
383	U077	200000	Y	D80		
384	U078	200000	Y	D80		
385	U079	200000	Y	D80		
386	U080	200000	Y	D80		
387	U081	200000	Y	D80		
388	U082	200000	Y	D80		
389	U083	200000	Y	D80		
390	U084	200000	Y	D80		
391	U085	200000	Y	D80		
392	U086	200000	Y	D80		
393	U087	200000	Y	D80		
394	U088	200000	Y	D80		
395	U089	200000	Y	D80		
396	U090	200000	Y	D80		
397	U091	200000	Y	D80		
398	U092	200000	Y	D80		
399	U093	200000	Y	D80		
400	U094	200000	Y	D80		
401	U095	200000	Y	D80		
402	U096	200000	Y	D80		
403	U097	200000	Y	D80		
404	U098	200000	Y	D80		
405	U099	200000	Y	D80		
406	U101	200000	Y	D80		
407	U102	200000	Y	D80		
408	U103	200000	Y	D80		
409	U105	200000	Y	D80		
410	U106	200000	Y	D80		
411	U107	200000	Y	D80		
412	U108	200000	Y	D80		
413	U109	200000	Y	D80		
414	U110	200000	Y	D80		
415	U111	200000	Y	D80		
416	U112	200000	Y	D80		
417	U113	200000	Y	D80		
418	U114	200000	Y	D80		
419	U115	200000	Y	D80		
420	U116	200000	Y	D80		
421	U117	200000	Y	D80		
422	U118	200000	Y	D80		
423	U119	200000	Y	D80		
424	U120	200000	Y	D80		
425	U121	200000	Y	D80		
426	U122	200000	Y	D80		
427	U123	200000	Y	D80		
428	U124	200000	Y	D80		
429	U125	200000	Y	D80		
430	U126	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
431	U127	200000	Y	D80		
432	U128	200000	Y	D80		
433	U129	200000	Y	D80		
434	U130	200000	Y	D80		
435	U131	200000	Y	D80		
436	U132	200000	Y	D80		
437	U133	200000	Y	D80		
438	U134	200000	Y	D80		
439	U135	200000	Y	D80		
440	U136	200000	Y	D80		
441	U137	200000	Y	D80		
442	U138	200000	Y	D80		
443	U140	200000	Y	D80		
444	U141	200000	Y	D80		
445	U142	200000	Y	D80		
446	U143	200000	Y	D80		
447	U144	200000	Y	D80		
448	U145	200000	Y	D80		
449	U146	200000	Y	D80		
450	U147	200000	Y	D80		
451	U148	200000	Y	D80		
452	U149	200000	Y	D80		
453	U150	200000	Y	D80		
454	U151	200000	Y	D80		
455	U152	200000	Y	D80		
456	U153	200000	Y	D80		
457	U154	200000	Y	D80		
458	U155	200000	Y	D80		
459	U156	200000	Y	D80		
460	U157	200000	Y	D80		
461	U158	200000	Y	D80		
462	U159	200000	Y	D80		
463	U160	200000	Y	D80		
464	U161	200000	Y	D80		
465	U162	200000	Y	D80		
466	U163	200000	Y	D80		
467	U164	200000	Y	D80		
468	U165	200000	Y	D80		
469	U166	200000	Y	D80		
470	U167	200000	Y	D80		
471	U168	200000	Y	D80		
472	U169	200000	Y	D80		
473	U170	200000	Y	D80		
474	U171	200000	Y	D80		
475	U172	200000	Y	D80		
476	U173	200000	Y	D80		
477	U174	200000	Y	D80		
478	U176	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES	D2. PROCESS DESCRIPTION
479	U177	200000	Y	D80	
480	U178	200000	Y	D80	
481	U179	200000	Y	D80	
482	U180	200000	Y	D80	
483	U181	200000	Y	D80	
484	U182	200000	Y	D80	
485	U183	200000	Y	D80	
486	U184	200000	Y	D80	
487	U185	200000	Y	D80	
488	U186	200000	Y	D80	
489	U187	200000	Y	D80	
490	U188	200000	Y	D80	
491	U189	200000	Y	D80	
492	U190	200000	Y	D80	
493	U191	200000	Y	D80	
494	U192	200000	Y	D80	
495	U193	200000	Y	D80	
496	U194	200000	Y	D80	
497	U196	200000	Y	D80	
498	U197	200000	Y	D80	
499	U200	200000	Y	D80	
500	U201	200000	Y	D80	
501	U202	200000	Y	D80	
502	U203	200000	Y	D80	
503	U204	200000	Y	D80	
504	U205	200000	Y	D80	
505	U206	200000	Y	D80	
506	U207	200000	Y	D80	
507	U208	200000	Y	D80	
508	U209	200000	Y	D80	
509	U210	200000	Y	D80	
510	U211	200000	Y	D80	
511	U213	200000	Y	D80	
512	U214	200000	Y	D80	
513	U215	200000	Y	D80	
514	U216	200000	Y	D80	
515	U217	200000	Y	D80	
516	U218	200000	Y	D80	
517	U219	200000	Y	D80	
518	U220	200000	Y	D80	
519	U221	200000	Y	D80	
520	U222	200000	Y	D80	
521	U223	200000	Y	D80	
522	U225	200000	Y	D80	
523	U226	200000	Y	D80	
524	U227	200000	Y	D80	
525	U228	200000	Y	D80	
526	U234	200000	Y	D80	

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
527	U235	200000	Y	D80		
528	U236	200000	Y	D80		
529	U237	200000	Y	D80		
530	U238	200000	Y	D80		
531	U239	200000	Y	D80		
532	U240	200000	Y	D80		
533	U243	200000	Y	D80		
534	U244	200000	Y	D80		
535	U246	200000	Y	D80		
536	U247	200000	Y	D80		
537	U248	200000	Y	D80		
538	U249	200000	Y	D80		
539	U271	200000	Y	D80		
540	U278	200000	Y	D80		
541	U279	200000	Y	D80		
542	U280	200000	Y	D80		
543	U328	200000	Y	D80		
544	U353	200000	Y	D80		
545	U359	200000	Y	D80		
546	U364	200000	Y	D80		
547	U367	200000	Y	D80		
548	U372	200000	Y	D80		
549	U373	200000	Y	D80		
550	U387	200000	Y	D80		
551	U389	200000	Y	D80		
552	U394	200000	Y	D80		
553	U395	200000	Y	D80		
554	U404	200000	Y	D80		
555	U409	200000	Y	D80		
556	U410	200000	Y	D80		
557	U411	200000	Y	D80		
558	001S	200000	Y	D80		
559	002S	200000	Y	D81		
560	003S	200000	Y	D82		
561	004S	200000	Y	D83		
562	005S	200000	Y	D84		
563	006S	200000	Y	D85		
564	007S	200000	Y	D86		
565	001K	200000	Y	D80		
566	002K	200000	Y	D80		
567	001U	200000	Y	D80		
568	002U	200000	Y	D80		
569	003U	200000	Y	D80		
570	004U	200000	Y	D80		
571	005U	200000	Y	D80		
572	006U	200000	Y	D80		
573	007U	200000	Y	D80		
574	008U	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTE CODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES	D2. PROCESS DESCRIPTION
575	009U	200000	Y	D80	
576	011U	200000	Y	D80	
577	012U	200000	Y	D80	
578	013U	200000	Y	D80	
579	014U	200000	Y	D80	
580	015U	200000	Y	D80	
581	016U	200000	Y	D80	
582	017U	200000	Y	D80	
583	020U	200000	Y	D80	
584	021U	200000	Y	D80	
585	022U	200000	Y	D80	
586	023U	200000	Y	D80	
587	024U	200000	Y	D80	
588	025U	200000	Y	D80	
589	027U	200000	Y	D80	
590	028U	200000	Y	D80	
591	029U	200000	Y	D80	
592	030U	200000	Y	D80	
593	031U	200000	Y	D80	
594	032U	200000	Y	D80	
595	033U	200000	Y	D80	
596	034U	200000	Y	D80	
597	036U	200000	Y	D80	
598	037U	200000	Y	D80	
599	038U	200000	Y	D80	
600	040U	200000	Y	D80	
601	041U	200000	Y	D80	
602	042U	200000	Y	D80	
603	043U	200000	Y	D80	
604	044U	200000	Y	D80	
605	046U	200000	Y	D80	
606	047U	200000	Y	D80	
607	048U	200000	Y	D80	
608	049U	200000	Y	D80	
609	050U	200000	Y	D80	
610	051U	200000	Y	D80	
611	052U	200000	Y	D80	
612	054U	200000	Y	D80	
613	055U	200000	Y	D80	
614	056U	200000	Y	D80	
615	057U	200000	Y	D80	
616	058U	200000	Y	D80	
617	059U	200000	Y	D80	
618	061U	200000	Y	D80	
619	063U	200000	Y	D80	
620	064U	200000	Y	D80	
621	065U	200000	Y	D80	
622	068U	200000	Y	D80	

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTE CODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
623	070U	200000	Y	D80		
624	071U	200000	Y	D80		
625	072U	200000	Y	D80		
626	073U	200000	Y	D80		
627	074U	200000	Y	D80		
628	075U	200000	Y	D80		
629	076U	200000	Y	D80		
630	077U	200000	Y	D80		
631	078U	200000	Y	D80		
632	079U	200000	Y	D80		
633	080U	200000	Y	D80		
634	082U	200000	Y	D80		
635	083U	200000	Y	D80		
636	086U	200000	Y	D80		
637	088U	200000	Y	D80		
638	089U	200000	Y	D80		
639	090U	200000	Y	D80		
640	092U	200000	Y	D80		
641	093U	200000	Y	D80		
642	094U	200000	Y	D80		
643	095U	200000	Y	D80		
644	096U	200000	Y	D80		
645	097U	200000	Y	D80		
646	098U	200000	Y	D80		
647	099U	200000	Y	D80		
648	100U	200000	Y	D80		
649	101U	200000	Y	D80		
650	102U	200000	Y	D80		
651	103U	200000	Y	D80		
652	104U	200000	Y	D80		
653	106U	200000	Y	D80		
654	108U	200000	Y	D80		
655	110U	200000	Y	D80		
656	111U	200000	Y	D80		
657	112U	200000	Y	D80		
658	113U	200000	Y	D80		
659	114U	200000	Y	D80		
660	115U	200000	Y	D80		
661	116U	200000	Y	D80		
662	117U	200000	Y	D80		
663	118U	200000	Y	D80		
664	119U	200000	Y	D80		
665	120U	200000	Y	D80		
666	121U	200000	Y	D80		
667	122U	200000	Y	D80		
668	124U	200000	Y	D80		
669	127U	200000	Y	D80		
670	128U	200000	Y	D80		

Description of Hazardous Wastes
Wayne Disposal, Inc., Site # 2
MID 048 090 633

LINE NO.	A. EPA HAZARDOUS WASTECODE	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D1. PROCESS CODES		D2. PROCESS DESCRIPTION
671	129U	200000	Y	D80		
672	131U	200000	Y	D80		
673	132U	200000	Y	D80		
674	134U	200000	Y	D80		
675	135U	200000	Y	D80		
676	136U	200000	Y	D80		
677	137U	200000	Y	D80		
678	138U	200000	Y	D80		
679	139U	200000	Y	D80		
680	140U	200000	Y	D80		
681	141U	200000	Y	D80		
682	142U	200000	Y	D80		
683	143U	200000	Y	D80		
684	144U	200000	Y	D80		
685	146U	200000	Y	D80		
686	147U	200000	Y	D80		
687	148U	200000	Y	D80		
688	150U	200000	Y	D80		
689	151U	200000	Y	D80		
690	152U	200000	Y	D80		
691	153U	200000	Y	D80		
692	154U	200000	Y	D80		
693	155U	200000	Y	D80		
694	157U	200000	Y	D80		
695	158U	200000	Y	D80		
696	159U	200000	Y	D80		
697	160U	200000	Y	D80		
698	161U	200000	Y	D80		
699	162U	200000	Y	D80		
700	163U	200000	Y	D80		
701	164U	200000	Y	D80		
702	165U	200000	Y	D80		
703	166U	200000	Y	D80		
704	167U	200000	Y	D80		
705	168U	200000	Y	D80		
706	169U	200000	Y	D80		
707	170U	200000	Y	D80		
708	171U	200000	Y	D80		
709	172U	200000	Y	D80		
710	173U	200000	Y	D80		
711	174U	200000	Y	D80		
712	175U	200000	Y	D80		
713	PCBs	200000	Y	D80		
714	CAMU-eligible	200000	Y	D80		

9: DESCRIPTION OF
HW DEBRIS & CONTAMINANT
CATEGORIES

Section 9. Description of Hazardous Waste Debris & Contaminant Categories

DESCRIPTION OF HAZARDOUS DEBRIS CATEGORIES AND
CONTAMINANT CATEGORIES

40 CFR 270.13

AND

NREPA 451, Part 111 R504(1)b

See the attached "Waste Analysis Plan"

Section 10. General Description of Facility

GENERAL DESCRIPTION OF THE FACILITY

40 CFR 270.14b

AND

NREPA 451, Part 111 R504(1)c

See the attached "Waste Analysis Plan"

11: CHEMICAL/PHYSICAL
ANALYSES OF HW &
DEBRIS TO BE HANDLED

Section 11. Chemical & Physical Analyses of Wastes and Debris to be Handled

CHEMICAL AND PHYSICAL ANALYSES OF WASTES
AND DEBRIS TO BE HANDLED

40 CFR 270.14b

AND

NREPA 451, Part 111 R504(1)c

See the attached "Waste Analysis Plan".

**FORM EQP 5111 ATTACHMENT TEMPLATE A2
CHEMICAL AND PHYSICAL ANALYSES**

This document is an attachment to the Michigan Department of Natural Resources and Environment's *Instructions for Completing Form EQP 5111, Hazardous Waste Treatment, Storage, and Disposal Facilities Construction Permit and Operating License Application Form*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), being R 299.9504, R 299.9508, and R 299.9605, and Title 40 of the Code of Federal Regulations (CFR) §§264.13(a) and 270.14(b)(2), establish requirements for chemical and physical analyses at hazardous waste management facilities. All references to the 40 CFR citations specified herein are adopted by reference in R 299.11003

This license application template addresses requirements for chemical and physical analyses at the hazardous waste management facility for Wayne Disposal, Inc. in Belleville, Michigan. The information included in the template demonstrates how the facility meets the chemical and physical analyses requirements for hazardous waste management facilities.

Type of applicant: *(Check as appropriate)*

- Operating License applicant (R 299.9508 and R 299.9605)
- Construction Permit applicant (R 299.9504 and R 299.9605)

Type of Facility: *(Check as appropriate)*

- On-site Facility (generates hazardous waste)
- Off-site Facility (accepts hazardous waste from other generators)

Type of Units to be Constructed or Operated at the Facility: *(Check as appropriate)*

- Containers
- Tank(s)
- Waste Pile(s)
- Landfilled Waste
- Waste Incineration
- Land Treatment
- Miscellaneous Unit(s)
- Boilers and Industrial Furnaces

The application for renewal of the Operating License and this EQP Form 5111 Attachment Template A2 were developed from the same state and federal rules. The Application therefore answers all the substantive requirements of this Template and differs only in organization and form. Wayne Disposal, Inc. has reviewed this Template against the Application. After each requirement in this Template below we have referenced the appropriate section of the Application that addresses that requirement [blue text].

This template is organized as follows:

- A2.A WASTE DESCRIPTION
 - A2.A.1 Waste Description (*generate on-site wastes*)
 - A2.A.2 Waste Description (*receive wastes from off-site generators*)
 - A2.A.2(a) Procedures for Obtaining Chemical and Physical Analyses from Off-Site Generators
 - Table A2.A.1 Hazardous Waste Generated at the Facility
 - Attachment A2.A.1 Laboratory Report Detailing Chemical and Physical Analyses of Representative Samples
 - Table A2.A.2 Hazardous Wastes Accepted at the Facility
- A2.B CONTAINERIZED WASTE
 - A2.B.1 Wastes Compatible with Container
 - A2.B.2 Containers without Secondary Containment System
- A2.C WASTE IN TANK SYSTEMS
 - A2.C.1 Wastes Compatible with Tanks
 - A2.C.2 Tanks without Secondary Containment System
- A2.D WASTE IN PILES
 - A2.D.1 Waiver from Waste Pile Requirements
- A2.E LANDFILLED WASTES
 - A2.E.1 Containerized or Bulk Wastes
 - A2.E.2 Procedures to Determine Addition of Biodegradable Sorbent
- A2.F WASTES INCINERATED AND WASTES USED IN PERFORMANCE TESTS
 - Attachment A2.F.1 Analyses of Wastes Incinerated and Used in Performance Tests
- A2.G WASTES TO BE LAND TREATED
 - A2.G.1 Treatment Zone Demonstration
 - A2.G.2 Food Chain Crops Grown In or On Treatment Zone
- A2.H WASTE IN MISCELLANEOUS UNITS
- A2.I WASTE IN BOILERS AND INDUSTRIAL FURNACES
 - Table A2.I.1 Waste Feed Streams: Hazardous Waste, Other Fuels, and Industrial Furnace Feed Stocks
 - Table A2.I.2 Hazardous Waste Feed Streams
 - Attachment A2.I.1 Blending Prior to Firing

A2.A WASTE DESCRIPTION

[R 299.9504(1)(c) and 40 CFR §270.14(b)(2)]

The Facility is primarily an off-site facility (receives wastes from off-site generators). The facility accepts the waste codes listed in Section 8 of the Operating License Application provided that the waste meets Land Disposal Restrictions. WDI does generate on-site wastes that are incidental to disposal operations.

A2.A.1 Waste Description (generate on-site wastes)

[R 299.9504(1)(c) and 40 CFR §270.14(b)(2)]

 For each hazardous waste stored, treated, or disposed at the facility, describe the waste, the hazard characteristics, the basis for hazard designation, and provide a laboratory report detailing the chemical and physical analyses of representative samples.

The facility generates on-site wastes that are incidental to disposal operations. These include filter cake from the on-site Waste Water Treatment Plant, spent carbon used to treat landfill leachate, condensate from landfill gas recovery operations, and spent solvents from maintenance operations. See Table A2.A.1 for description of these wastes. See Attachment A2.A.1 for laboratory reports (where applicable).

Table A2.A.1 Hazardous Waste Generated at the Facility (page 7)

See Table A2.A.1 for description of hazardous waste generated on site.

Attachment A2.A.1 Laboratory Report Detailing Chemical and Physical Analyses of Representative Samples

See Attachment A2.A.1 for laboratory reports (where applicable).

A2.A.2 Waste Description (receive wastes from off-site generators)

[R 299.9504(1)(c) and 40 CFR §270.14(b)(2)]

A2.A.2(a) Procedures for Obtaining Chemical and Physical Analyses from Off-Site Generators

See the Section 12 of the Operating License Application, the [Waste Analysis Plan](#).

Table A2.A.2 Hazardous Wastes Accepted at the Facility (page 8)

A2.B CONTAINERIZED WASTE

[R 299.9504(1)(c) and 40 CFR §264.172]

A2.B.1 Wastes Compatible with Container

See Section 12, [Waste Analysis Plan](#) and Section 21, [Container Storage Information](#) of the Operating License Application.

A2.B.2 Containers without Secondary Containment System

N/a. The Facility does not store containers of wastes without a secondary containment system.

A2.C WASTE IN TANK SYSTEMS

[R 299.9504(1)(c) and 40 CFR §§264.190(a), 264.191(b)(2), 264.192(a)(2)]

A2.C.1 Wastes Compatible with Tanks

Only wastes acceptable under the [Waste Analysis Plan](#), Section 12 of the Operating License Application can be placed in the tank which ensures the wastes are compatibility with the tank. See also Section 40 [Tank System Plans and Specifications](#) of the Application.

A2.C.2 Tanks without Secondary Containment System

N/a. The Facility does not maintain tanks without a secondary containment system.

A2.D WASTE IN PILES

[R 299.9504(1)(c) and 40 CFR §264.250(c)(1) and (4)]

A2.D.1 Waiver from Waste Pile Requirements

N/a. There are no waste pile units or operations at the Facility.

A2.E LANDFILLED WASTES

[R 99.9504(1)(c) and 40 CFR §§264.13(c)(3) and 264.314]

A2.E.1 Containerized or Bulk Wastes

See Section 12 of the Operating License Application the [Waste Analysis Plan](#).

A2.E.2 Procedures to Determine Addition of Biodegradable Sorbent

For bulk wastes, the waste is visually inspected at receiving for evidence of biodegradable sorbents (see the Waste Analysis Plan). If suspicious materials are identified WDI contacts the generator to resolve the issue. If biodegradable materials are present the waste is rejected. For containerized waste, WDI has a requirement for checking for biodegradable sorbent in the SOP for Non-Bulk Waste Unloading Procedure (LOM-OP-007-BEL). In this way, personnel that inspect each container will be trained to look for biodegradable sorbent.

A2.F WASTES INCINERATED AND WASTES USED IN PERFORMANCE TESTS

[R 299.9504(1)(c) and 40 CFR §264.341]

Attachment A2.F.1 Analyses of Wastes Incinerated and Used in Performance Tests

N/a. There are no waste incineration units or operations at the Facility.

A2.G WASTES TO BE LAND TREATED

[R 299.9504(1)(c) and 40 CFR §§264. 271(a)(1) and (2), 264.272, and 264.276]

A2.G.1 Treatment Zone Demonstration

N/a. There are no land treatment units or operations at the Facility.

A2.G.2 Food Chain Crops Grown In or On Treatment Zone

N/a. There are no food-chain crops grown at the Facility.

A2.H WASTE IN MISCELLANEOUS UNITS

[R 299.9504(1)(c) and 40 CFR §270.13(d)]

N/a. There are no miscellaneous treatment units or operations at the Facility.

A2.I WASTE IN BOILERS AND INDUSTRIAL FURNACES

N/a. There are no boiler or industrial furnace units or operations at the Facility.

Section 12. Waste Analysis Plan

**FORM EQP 5111 ATTACHMENT TEMPLATE A3
WASTE ANALYSIS PLAN (WAP)**

This document is an attachment to the Michigan Department of Natural Resources and Environment's *Instructions for Completing Form EQP 5111, Hazardous Waste Treatment, Storage, and Disposal Facilities Construction Permit and Operating License Application Form*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), being R 299.9504, R 299.9508, and R 299.9605, and Title 40 of the Code of Federal Regulations (CFR) §§270.14(b)(3) and 264.13(b) and (c), establish requirements for WAPs for hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template addresses requirements for a WAP for the hazardous waste management units and the hazardous waste management facility for the WDI facility.

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Documentation of Variations on Test Methods Used for Waste
Analysis

A3.A COMMERCIAL FACILITY

The Wayne Disposal, Inc. (WDI) Site No. 2 Facility is a commercial facility that receives wastes generated off site. Wayne Disposal, Inc. (WDI) has developed a WAP to ensure that its facility at 49350 N I-94 Service Dr., Belleville, Michigan will accept only wastes that it is authorized to accept. The hazardous wastes stored at the Facility will be properly characterized prior to waste acceptance. All generators will be required to provide a complete waste characterization, including chemical analysis when appropriate. Waste screening will be conducted on every shipment of waste to ensure that the waste conforms to the waste profile for the generator and information on incoming manifests and to ensure that the waste is properly managed within the facility.

All analysis performed pursuant to this application will be consistent with the QA/QC procedures developed by WDI's on site laboratories. All samples for the purpose of waste characterization will be collected, transported, stored, and disposed by trained and qualified individuals in accordance with these procedures.

In accordance with R 299.9609 and 40 CFR §264.73 and Part 264, Appendix I, WDI will retain all records and results of waste determinations performed as specified in 40 CFR §§264.13, 264.17, 264.314, 264.1034, 24.1063, 264.1083, 268.4(a), and 268.7 in the facility operating record until closure of the facility.

A3.A.1 Initial Waste Characterization Requirements for Generators [R 299.9605(1) and R 299.9504(1)(c) and 40 CFR §264.13(b)(5)]

Waste generator characterization requirements are described in Section 3.1 of the WAP, which is included as Section 12 of the Operating License application.

A3.A.1(a) Generator Waste Characterization Discrepancies [R 299.9605(1) and R 299.9504(1)(c) and 40 CFR §§264.13(a)(3) and (4), 264.13(b)(c), and 264.72]

See Sections 3.1.4 and 3.3.1 of the WAP.

A3.A.1(b) Subsequent Waste Shipment Procedures [R 299.9605(1) and R 299.9504(1)(c) and 40 CFR §§264.13(a)(3) and 264.13(b)(4)]

See Section 3.1.6 of the WAP.

A3.A.1(c) Additional Waste Analysis Requirements [R 299.9605(1) and R 299.9504(1)(c) and 40 CFR §§264.13(b)(6) and 264.13(c)(3)]

WDI will review the waste profile information to ensure that the facility is authorized to receive the waste, and can manage the waste in compliance with the following:

- R 299.9605 and 40 CFR §264.17 General requirements for ignitable, reactive, or incompatible wastes
- R 299.9605 and 40 CFR §264.314 Special requirements for bulk and containerized liquids
[Template _____, Section _____]
- R 299.9630 and 40 CFR §264.1034(d) Test methods and procedures (Subpart AA)
[Template A3, Section A3.A.2(c)]
- R 299.9631 and 40 CFR §264.1063(d) Test methods and procedures (Subpart BB)
[Template A3, Section A3.A.2(c)]
- 40 CFR §264.1083 Waste determination procedures (Subpart CC)
[Template A3, Section A3.A.2(c)]
- R 299.9627 and 40 CFR §268.7 Waste analysis and record keeping LDR requirements
[Template A3, Sections A3.A.3, A3.B.3 and A3.C]
- R 299.9228 Universal waste requirements
[Template _____, Section _____]

 **For owners or operators of landfills receiving containerized hazardous waste:**
Describe procedures that will be used to determine whether a hazardous waste generator or treater shipping waste to your facility has added a biodegradable sorbent to the waste in the container.

Section 2.2 of the WAP prohibits containers holding biodegradable sorbents. The Facility uses waste pre-approval and acceptance procedures in the WAP, primarily sampling and visual inspection, to determine the whether the generator or treater has added a biodegradable sorbent.

 **For owners or operators of surface impoundments exempted from LDRs under R 299.9627 and 40 CFR §268.4(a):** Describe the procedures and schedules for:

N/a. There are no surface impoundment units or operations at the Facility.

A3.A.2 Waste Acceptance Procedures

[R 299.9605(1) and R 299.9504(1)(c), and 40 CFR §§264.13(c), 264.72(a) and (b), and 264.73(b)]

Upon receipt of wastes from an off-site generator, WDI will perform all of the following tasks:

- Review paperwork
- Visually inspect the waste
- Perform waste screening/fingerprint analysis of waste

These tasks are discussed below.

A3.A.2(a) Review Paperwork

[R 299.9605(1) and R 299.9504(1)(c), and 40 CFR §§264.13(c), 264.72(a) and (b), and 264.73(b)]

WDI will review all paperwork, including manifests and LDR notifications, before any wastes are accepted by the facility. WDI will review all paperwork for completeness. In addition, the manifest and LDR notification will be compared for consistency. The manifest will also be compared to the waste profile and analytical information provided by the generator and to the waste shipment to ensure the accuracy of information provided on shipment paperwork. The manifest will also be compared to the number of containers, the volume, and/or the weight of the waste in the shipment. All discrepancies will be resolved before processing the waste.

See Section 3.2 of the WAP

3.A.2(b) Visual Inspection of Waste

[R 299.9605(1) and R 299.9504(1)(c) and 40 CFR §264.13(c)]

WDI will visually inspect a minimum of one container and up to a maximum of 10 percent of the containers from each generator. The contents of the container will be visually inspected for the following:

See Sections 3.1.4 and 3.3.1 of the WAP.

A3.A.2(c) Waste Screening/Fingerprinting

[R 299.9605(1) and R 299.9504(1)(c) and 40 CFR §§264.13(b)(14) and 264.13(c)(2)]

See Sections 3.1.4, 3.3.1 and Sections 4.0, 5.0 and 6.0 of the WAP.

A3.A.3 Procedures to Ensure Compliance with Land Disposal Restrictions (LDR) Requirements [R 299.9627 and 40 CFR, Part 268]

See Section 3.8 of the WAP for land disposal restrictions.

All shipments of wastes subject to LDR received at the facility will be accompanied by appropriate generator notification and LDR notification in accordance with R 299.9627 and

40 CFR §268.7. The LDR notification accompanying generator wastes will be reviewed, and any discrepancies in the LDR notification and the associated manifest, analytical records, or Waste Profile Form will require shipment rejection unless additional, satisfactory, clarifying information is provided by the generator. All information obtained to document LDR compliance will be maintained in the facility operating record until closure of the facility.

If the facility receives a shipment of waste without LDR notification, or a notification with incorrect or incomplete information, the following actions will be conducted:

See Sections 3.1.4 and 3.3.1 of the WAP.

A3.A.3(a) Spent Solvent and Dioxin Wastes

[R 299.9627 and 40 CFR §§264.13(a)(1), 268.7, 268.30, 268.31, 268.40, 268.41, 268.42, and 268.43]

Spent solvent wastes (F001-F005) are accepted at the facility. Generator process knowledge will be used to determine the presence of spent solvent wastes (F001-F005). Generator process knowledge will be documented on the waste material profile report and LDR notification. The LDR notification will provide additional information regarding the appropriate treatment standards for the waste and whether it has already been treated to the appropriate standards.

A3.A.3(b) Listed Wastes

[R 299.9627, R 299.9213, and R 299.9214 and 40 CFR §§264.13(a)(1), 268.7, 268.33, 268.34, 268.35, 268.36, 268.39, 268.40, 268.41, 268.42, and 268.43]

Generator process knowledge will be used to determine whether listed waste meets the applicable treatment standards or to demonstrate that the waste has been treated by the appropriate specified treatment technology. In accordance with R 299.9627 and 40 CFR §268.41, where treatment standards are based on concentrations in the waste extract, the facility will use toxicity characteristic leaching procedures (TCLP) to determine if wastes meet treatment standards. Generator process knowledge will be documented on the waste material profile report and LDR notification.

A3.A.3(c) Characteristic Wastes

[R 299.9627, R 299.9208, and R 299.9212 and 40 CFR §§261.3(d)(1), 264.13(a)(1), 268.7, 268.9, 268.37, 268.40, 268.41, 268.42, 268.43 and Part 268, Appendix I and Appendix IX]

Generator process knowledge will be used to determine whether characteristic waste meets the applicable treatment standards or to demonstrate that the waste has been treated by the appropriate specified treatment technology. In accordance with R 299.9627 and 40 CFR §268.41, where treatment standards are based on concentrations in the waste extract, generators shipping waste to the facility will determine if their wastes meet treatment standards.

A3.A.3(d) Radioactive Mixed Waste

[R 299.9627 and 40 CFR §§268.7, 268.35(c), 268.35(d), 268.36, and 268.42(d)]

The facility does not accept radioactive mixed waste.

OR

- Generator process knowledge will be used to determine whether a radioactive mixed waste meets the applicable treatment standard.

A3.A.3(e) Leachates

[R 299.9627 and 40 CFR §260.10 and 40 CFR §§268.35(a) and 268.40]

- The facility does not accept single-source or multi-source F039 leachates.

OR

- Single-source leachate will not be combined to produce multi-source leachates.

N/a. The Facility does not accept F039 leachates.

A3.A.3(f) Laboratory Packs

[R 299.9627 and 40 CFR §§268.7 and 268.42(c) and Part 268, Appendix IV and Appendix V]

- The facility does not accept laboratory packs.

OR

- The laboratory packs accepted at the facility are not land disposed.

See Section 2.2 of the WAP. The Facility does not accept laboratory packs.

A3.A.3(g) Contaminated Debris

[R 299.9627 and 40 CFR §§268.2(g), 268.7, 268.9, 268.36, 268.45, and 270.13(n)]

See Section 3.8.5 and Appendix A of the WAP.

A3.A.3(h) Waste Mixtures and Wastes with Overlapping Requirements

[R 299.9627 and 40 CFR §§264.13(a), 268.7, 268.41(b), 268.43(b), and 268.45(a)]

Generator process information and analytical data will be used to demonstrate that those waste mixtures and wastes with multiple codes are properly characterized. Each waste that has more than one characteristic will be identified with a number for each characteristic. Waste identified as meeting a listing and exhibiting a characteristic will be primarily identified with the listed waste code for the purpose of manifesting, etc.

A3.A.3(i) Dilution and Aggregation of Wastes
[R 299.9627 and 40 CFR §268.3]

Listed wastes, if destined for land disposal, may not be diluted from the point of generation to the point of land disposal. Characteristic wastes may only be diluted if, (1) the waste is managed in a Clean Water Act (CWA)/CWA-equivalent surface unit or a Class I Safe Drinking Water Act injection well, (2) the waste has a concentration-based treatment standard or is treated using the DEACT technology-based treatment standard, and (3) the waste is not a D003 reactive waste. [Note: these requirements may change in the future. At that time, this template may be amended.]

The facility may not dilute or partially treat a listed waste to change its treatability category (i.e., from nonwastewater to wastewater), in order to comply with different treatment standards. If the wastes are all legitimately amenable to the same type of treatment to be performed, the facility may aggregate wastes for treatment.

A3.B CAPTIVE FACILITY

WDI is a commercial facility.

A3.C.1 Retention of Generator Notices and Certifications
[R 299.9627 and 40 CFR §268.7(a)(7)]

WDI will retain a copy of all notices, certifications, demonstrations, data, and other documentation associated with compliance to LDRs.

The following notices and certifications submitted by the initial generator of the waste will be reviewed and maintained:

- Notices of restricted wastes not meeting treatment standards or exceeding levels specified in RCRA §3004(d), including the information listed in R 299.9627 and 40 CFR §268.7(a)(1).
- Notices of restricted wastes meeting applicable treatment standards and prohibition levels, including the information in R 299.9627 and 40 CFR §268.7(a)(2).

A3.C.2 Notification and Certification Requirements for Treatment Facilities
[R 299.9627 and 40 CFR §268.7(b)]

The treatment facility will submit a notice and certification to the land disposal facility with each shipment of restricted waste or treatment residue of a restricted waste. The notice will include the information specified in R 299.9627 and 40 CFR §§268.7(b)(4) and 268.7(b)(5).

If the waste or treatment residue will be further managed at a different treatment or storage facility, the facility will comply with the notice and certification requirements applicable to generators as specified in R 299.9627 and 40 CFR §268.7(b)(6).

A3.C.3 Waste Shipped to Subtitle C Facilities
[R 299.9627 and 40 CFR §§268.7(a) and 268.7(b)(6)]

The facility does not ship waste to Subtitle C facilities.

OR

For restricted waste or waste treatment residues that will be further managed at a Subtitle C (hazardous waste management) facility, the facility will submit notifications and certifications in compliance with the notice and certification requirements applicable to generators under R 299.9627 and 40 CFR §268.7(a) and (b)(6).

A3.C.4 Waste Shipped to Subtitle D Facilities
[R 299.9627 and 40 CFR §§268.7(d) and 268.9(d)]

The facility does not ship waste to Subtitle D facilities.

OR

If the facility ships to a Subtitle D facility, the facility will submit a one-time notification and certification for characteristic wastes, or listed wastes that are listed only because they exhibit a characteristic, that have been treated to remove the hazardous characteristic and are no longer considered hazardous. The facility will place a certification and all treatment records in the facility's file and send a notification and certification to the Director, or delegated representative, describing the wastes and applicable treatment standards and identifying the Subtitle D (solid waste management) disposal facility receiving the waste. On an annual basis, the notification and certification will be updated and refiled if the process or operation generating the waste changes and/or if the Subtitle D facility receiving the waste changes.

A3.C.5 Recyclable Materials
[R 299.9627 and 40 CFR §268.7(b)(7)]

The facility does **not accept** recyclable materials used in a manner constituting disposal.

OR

For wastes that are recyclable materials used in a manner constituting disposal, in accordance with R 299.9206 and 40 CFR §266.20(b), the facility will submit a notice and certification to the Director, or delegated representative, with each shipment of waste describing the waste and applicable treatment standards and identifying the facility receiving the waste.

A3.C.6 Record Keeping
[R 299.9608(4), R 299.9609, R 299.9610(3), and R 299.9627 and
40 CFR §§264.72, 264.73, 268.7(a)(5), 268.7(a)(6), 268(a)(7), and 268.7(d)]

WDI maintains a facility operating log in accordance with R 299.9609 and 40 CFR §264.73.

Copies of all necessary notifications and certifications, as well as relevant inspection forms and monitoring data, are also maintained on file at the facility. Files will be maintained for a minimum of three years (for inspection records and LDR notification), or until facility closure (for inventory records).

If a significant manifest discrepancy is discovered (such as variation in one-piece count or misrepresentation of the type of waste or corrosive rather than flammable) that cannot be resolved with the generator or transporter within 15 days of receipt, facility personnel will submit to the Director and Regional Administrator a letter describing the discrepancy and all attempts to reconcile the discrepancy. The letter will include a copy of the discrepant manifest or shipping document.

A3.C.7 Required Notice
[R 299.9605(1) and 40 CFR §264.12(a) and (b)]

The facility will notify the Division Chief in writing at least four weeks before the date the facility expects to receive hazardous waste from a foreign source. Notice of subsequent shipments of the same waste from the same foreign source is not required. When receiving such hazardous waste, the facility will comply with applicable treaties or other agreements entered into between the country in which the foreign source is located and the United States.

When the facility is to receive hazardous waste from an off-site source, the facility will inform the generator in writing that the facility has the appropriate license for and will accept the waste the generator is shipping. The facility will keep a copy of this written notice in the operating record.

WASTE ANALYSIS PLAN

40 CFR 264.13b & c

AND

MI ACT 451 R504(1)c

**Wayne Disposal Inc. (WDI) & Michigan Disposal Waste Treatment Plant (MDWTP)
49350-North I-94 Service Drive
Belleville, Michigan 48111**

**USEPA ID No. MID 048 090 633 (WDI)
USEPA ID No. MID 000 724 831 (MDWTP)**

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1.0 INTRODUCTION

The purpose of this Waste Analysis Plan (WAP) is to identify and document the overall operational procedures, analytical techniques, and the necessary sampling methodologies which are undertaken for hazardous wastes that are received by the **Michigan Disposal Waste Treatment Plant (MDWTP)** for treatment and/or storage and Wayne Disposal, Inc (WDI) for disposal as required by Part 111 of Act 451 of the Public Acts of 1994, the Natural Resources and Environmental Protection Act (NREPA), Administrative Rule 299.9504(1)(c).

Per 40 CFR 264.73, the required information will be kept as part of the operating record.

The forms referenced within this WAP are typical forms currently used by the facility. These forms will periodically require updating based upon changes in regulations, customer needs, operations, or as company policy dictates.

2.0 FACILITY DESCRIPTION

2.1 Description of General Processes

Wayne Disposal, Inc. (WDI)

The Wayne Disposal Site #2 Hazardous Waste Landfill (WDI) operations include the landfill disposal of hazardous and non-hazardous wastes permitted by the MDEQ under the facility operating license and the USEPA under a Resource Conservation and Recovery Act (RCRA) permit (MID 048 090 633).

The specific routine operations and work areas include:

- ◆ Waste receiving and Quality Control (QC);
- ◆ Waste unloading;
- ◆ Container staging; and
- ◆ Hazardous waste landfill and related appurtenances (pipings, pumps, operation and maintenance, truck wheel wash buildings located within the area bounded by North Interstate 94 (I-94) Service Drive and Willow Run Airport).

The landfill is currently permitted with a design capacity of 11,000,000 cubic yards (cy) of in-place waste.

The requirements for operations in these areas are defined in and regulated by the operating license and permit. Non-hazardous wastes are managed in accordance with Part 115. The Wayne Disposal Site #2 Hazardous Waste Landfill (WDI) - MID 048 090 633) is co-located at the same site as the Michigan Disposal Waste Treatment Plant (MDWTP) – MID 000 724 831. The WDI operations are supported by the MDWTP office/laboratory and waste receiving, storage, and treatment operations located near the entrance to the facility. These operations assist to control and evaluate shipments received for conformance with pre-approval information regarding the specific properties, treatment, and documentation requirements. The WDI waste analysis records are maintained at the receiving building and laboratory areas.

Michigan Disposal Waste Treatment Plant (MDWTP)

The MDWTP operations include receiving, storage, and treatment of hazardous wastes permitted by the MDEQ under the facility operating license and the USEPA under a Resource Conservation and Recovery Act (RCRA) permit (MID 000 724 831). The routine operations and work areas include:

- ◆ Waste receiving and Quality Control (QC);
- ◆ Waste loading and unloading;
- ◆ Reagent unloading and tank storage;
- ◆ Waste storage in tanks;
- ◆ Waste treatment in tanks;
- ◆ Container staging/storage; and
- ◆ Shipment of wastes off-site to treatment, storage, and disposal facilities (TSDFs).

Non-hazardous wastes are managed in accordance with the Solid Waste Processing and Transfer Facility Operating License issued under Part 115 of Act 451 of 1994, the Natural Resources and Environmental Protection Act (NREPA).

2.2 Waste Identification and Classification

The waste types acceptable for treatment and storage at MDWTP or disposal at WDI are defined in Appendix A of this WAP.

In addition, at WDI the following waste types **NOT ACCEPTABLE** for disposal:

- Ignitable wastes as described in R299.9212(1);
- Reactive wastes as described in R299.9212(3);
- Bulk or non-containerized liquid waste or waste containing free liquids;
- Containers holding free liquids, including laboratory packs;
- Wastes which will:
 - a. Adversely affect the permeability of the clay liner;
 - b. Produce a leachate that is incompatible with the synthetic liner, leachate collection system (LCS), discharge piping, and the off-site sewer system;
 - c. Generate gases which will adversely affect the permeability of the clay cap; and
 - d. Create a violation of 1975 PA 348 and rules promulgated thereunder;
- Waste which are banned from landfilling by regulations promulgated under 40 Code of Federal Regulations (CFR) Part 268 unless the wastes meet the applicable Land Disposal Restriction (LDR) treatment standards or a variance has been obtained from the USEPA.

2.3 Description of Waste Management Units

Wayne Disposal, Inc. (WDI)

The Wayne Disposal Site #2 Hazardous Waste Landfill includes a permitted hazardous waste landfill with primary and secondary liner systems, a leachate collection and removal system, and a leak detection, collection and removal system. The landfill operations also include run-on, run-off, and contaminant control systems including a vehicle wash facility and other landfill-related appurtenances and support buildings. When placed in the landfill, containers are at least 90-percent full or crushed, shredded, or similarly reduced in volume before burial in the landfill.

Michigan Disposal Waste Treatment Plant (MDWTP)

The MDWTP is a liquid and solid hazardous waste storage and treatment facility. Containerized wastes may be staged/stored on-site before and after treatment in one of the following areas:

- ◆ East Container Staging Area (ECSA)
- ◆ North Container Storage Area (NCSA)
- ◆ East and West Loading/Unloading Bays
- ◆ Southeast Container Storage Area (SECSA)

Wastes are placed directly into the waste treatment tanks, and mixed, with modifiers for deactivation, neutralization, chemical oxidation, and chemical reduction or stabilization reagents, as required for the specific wastes being treated. The facility currently uses a backhoe shear attachment to size solid containers. Prior to being sized over and into a treatment tank the containers are staged on the paved floor in front of the treatment tanks.

Liquid hazardous wastes to be treated in the pozzolanic stabilization process may be stored in four, 20,000-gallon, vertical storage tanks (16 through 19) or placed directly into treatment tanks A – H (formerly tanks 7A, 7B, 8A, 8B, 9A, 9B, 10A and 10B respectively). Liquid reagents are stored in two, 20,000-gallon vertical tanks (25 and 27).

Dry flowable bulk solid hazardous wastes may be stored in three 100 cubic yard (CY) silos (2, 3 and 6). Lime kiln flue dust, cement kiln flue dust, lime and fly ash are also used for stabilization and may be stored in all six silos (1 through 6). The dusts are fed from the silos to the closest pugmill and treatment tank at a controlled rate to effect treatment of liquid and solid wastes. Other reagents, such as ferrous sulfate, may be added directly to the tanks in bag, container, or bulk quantities.

Hazardous waste and non-hazardous waste are stored and treated in treatment tanks A, B, C, D, E, F, G and H (formerly treatment tanks 7A, 7B, 8A, 8B, 9A, 9B, 10A and 10B respectively) and Pugmills 14 and 15. Treatment consists of blending the wastes and treatment reagents in the storage/treatment tanks.

Tanks will be decontaminated if changed from the storage/treatment of listed wastes to characteristic wastes. Decontamination consists of water washing and/or dry decontaminating the tank. The rinse waters and/or dry decontamination material is directed to a listed batch tank (containing a compatible waste). The decontamination step is noted on the Batch Ticket for the tank receiving the rinse waters and/or dry decontamination material.

Containerized hazardous waste and non-hazardous wastes are staged/stored on concrete pads at the East Container Staging Area (ECSA), North Container Storage Area (NCSA), Southeast Container Storage Area (SECSA) and inside the bays the East and West Treatment Buildings at MDWTP prior to placement in one of the tanks. Drainage trenches/sumps are constructed within the NCSA and ECSA to contain and control liquid runoff. Containers are handled by removing the tops or bungs and emptying the contents with a vacuum truck or directly into one of the treatment tanks using a forklift, or pump.

The following wastes are stored in closed containers (such as drums) and/or in tarped bulk (such as roll-off boxes or trailers):	NCSA	ECSA	SECSA (see Section 2.d.1 of the Container Storage Attachment)	East and/or West Bays Temp Storage (< 8 hrs) -
Untreated hazardous waste	Yes	Yes	Yes	Yes
Untreated solid hazardous waste bulked into roll-offs boxes or trailers (see Section 3.5)	Yes	No	No	Yes
Treated hazardous waste awaiting analytical results	Yes	No	No	Yes
Decharacterized waste awaiting analytical results	Yes	No	No	Yes
Decharacterized waste with analytical data demonstrating compliance with LDRs	Yes	Yes	Yes	Yes

3.0 OPERATIONAL PROCEDURES

3.1 Pre-Approval Procedures

3.1.1 Generator-Supplied Information – MDWTP/WDI

The pre-approval process is a waste evaluation procedure that takes place prior to receiving hazardous and non-hazardous wastes at the MDWTP for storage or treatment and WDI for disposal. The initial step of the waste stream approval process is a review of the waste characterization as prepared by the generator.

The facility requires that the generator characterize their waste stream, in order to comply with 40 CFR Parts 261 and 268.

For the purposes of compliance with 40 CFR Part 268 or if the waste is not listed in Subpart D of 40 CFR Part 261 (R299.9213), per 40 CFR 262.11, the generators must determine whether their waste is identified in Subpart C of 40 CFR Part 261 (R299.9212) by either:

- ◆ Testing the waste according to the methods set forth in Subpart C (of 40 CFR Part 261) or according to an equivalent method approved by the Director of the MDEQ; or
- ◆ Applying knowledge of the hazard characteristic in light of the materials or processes used. Material Safety Data Sheets (MSDS) of products in combination with information provided by the generator on the GWCR are acceptable to properly characterize the waste stream.

The generator must complete a Generator Waste Characterization Report (GWCR) or equivalent form. The facility will accept other forms of documentation of waste characterization than the GWCR as long as all pertinent information is included. GWCRs are supplied to the generators in hard copy or online at www.eqonline.com. The elements of the GWCR include:

- ◆ Generator name, address, and telephone number;
- ◆ USEPA ID Number;
- ◆ Description of Generating Process;
- ◆ USEPA and/or Michigan Hazardous Waste Codes;
- ◆ Hazardous & Toxicity Characteristics;

- ◆ Actual &/or Potential Constituents;
- ◆ Fingerprint parameters as described in this WAP; and
- ◆ Generator's Written or Electronic Signature or a signed statement from the generator giving permission to a 3rd party to act on their behalf.

The GWCR, with the supporting analytical data where required, forms the basis of information upon which the facility determines if the waste can be accepted for disposal at WDI or storage, transshipment and treatment at MDWTP. Waste streams are also reviewed with respect to the Land Disposal Restrictions (LDR) requirements in 40 CFR Part 268. The analytical data, waste type, process description, waste chemical and physical characteristics, or a representative sample provide the facility with sufficient information to decide if the waste can be accepted or if additional data is required before a decision can be reached. If the generator does not provide sufficient information, the generator or their representative is contacted and requested to provide further information before the approval process will continue.

3.1.2 Special Conditions –MDWTP/WDI

Exceptions for the requirement of a sample of waste for acceptance at the facility (WDI/MDWTP) include the following waste types:

- ◆ Articles, equipment, clothing (such as personal protective equipment (PPE)) contaminated with chemicals;
- ◆ Empty containers which once held waste, commercial chemical products, or chemicals (small tanks, containers, bags, boxes, liners, cans, pails, etc.). Containers are considered "empty" according to the criteria specified in R299.9207;
- ◆ Asbestos-containing waste from cleaning or demolition activities that is properly bagged/containerized;
- ◆ Spent activated carbon, filters from inside tanks, ion-exchange resins, molecular sieves, filters/cartridges;
- ◆ Hazardous contaminated debris and demolition wastes (40 CFR 268);

- ◆ Chemical-containing devices/articles, such as cathode ray tubes (CRTs), fluorescent lights, batteries;
- ◆ Discarded, off-specification, or out-dated commercial products. A MSDS will be provided or made available for review;
- ◆ Wastes from food or animal processing;
- ◆ Animal feces
- ◆ Selected wastes from medical, veterinarian, taxidermy, or mortuary facilities;
- ◆ Septage or sewer treatment plant sludge from domestic users; and
- ◆ Tanks (whole or cut);
- ◆ Equipment, machinery, pumps, piping, etc.; and
- ◆ Waste streams approved by MDEQ on a case-by-case basis.

For wastes from which no samples will be taken prior to disposal, a visual inspection will be performed to determine if the waste resembles the description provided in the approval. Double contained asbestos waste will not be opened for visual inspection. However, during the pre-approval process, the generator must verify that the asbestos contains no free liquids and it is so stipulated on the GWCR for that waste stream.

3.1.3 Special Wastes

3.1.3.1 Source Material, NORM or TENORM – MDWTP/WDI

Waste streams containing NORM, TENORM, and exempted radioactive material may be managed at the facility (MDWTP/WDI) provided the following steps are taken:

1. During the facility pre-approval process, obtain a radiochemical analysis and/or other appropriate radiological information on each (NORM, TENORM, and exempted radioactive material) proposed waste stream as well as any other information required by this WAP including the WCR. No material classified as low-level radioactive waste pursuant to Title 42 of the United States Code, Chapter 23, Development and Control of Atomic Energy, Section 2021b, Definitions, is allowed at the site.
2. The radiochemical analysis and appropriate information are evaluated to determine if they can be accepted at the site. All material accepted at the site shall be in at least one of the following categories:

State of Michigan regulated materials

- a. Exempt concentrations: IRR Rule 65
- b. Exempt quantities: IRR Rule 74(1)
- c. NORM: The DNRE's *Cleanup and Disposal Guidelines for Sites Contaminated with Radium-226* (EQC 1602)
- d. Other material as specifically approved.

Note: For the purposes of interpreting the State of Michigan's *Ionizing Radiation Rules (IRR) Governing Radioactive Material*, refer to the definitions contained in IRR Rules 3 thru 20.

U.S. Nuclear Regulatory Commission (NRC) regulated materials

- a. Exempt concentrations: 10 CFR parts 30.14 and 40.13
- b. Exempt quantities: 10 CFR part 30.18
- c. Specific exemptions: 10 CFR parts 20.2005, 30.11, 30.15, 30.16, 30.19, 30.20, 30.21, and 40.14

Note: For the purposes of interpreting title 10 of the U.S. Code of Regulations (10 CFR), refer to the definitions contained in 10 CFR parts 20.1003, 30.4, and 40.4.

Disclaimer: This in no way represents approval or authorization for receipt of NRC regulated material. If you have questions about radioactive material regulated by the NRC, contact the NRC regional office at 630-829-9500.

3. A sample is obtained from the generator, if appropriate, to determine if the level of radioactivity, based on a gamma radiation reading, will be above Site 2's background limit. The reading will be recorded for that (NORM, TENORM, and exempted radioactive material) EQ waste stream.
4. WDI and/or MDWTP may approve for receipt each (NORM, TENORM, and exempted radioactive material) proposed waste stream that meets the above criteria.
5. A (NORM, TENORM, and exempted radioactive material) waste stream may not be received by the facility (WDI and/or MDWTP) until steps 1-4, above, have been followed.

Questions about radioactive material regulated by the State of Michigan should be directed to the DEQ.

3.1.3.2 Asbestos Waste Containing PCBs and/or RCRA Hazardous Waste - WDI

Asbestos containing waste that also contains PCBs and/or is also a RCRA hazardous waste is exempt from the requirement of a sample of waste for review and acceptance and visual inspection at the facility if all of the following conditions are met:

- ◆ The waste contains $\geq 1\%$ asbestos;
- ◆ The waste is properly bagged/containerized;
- ◆ Bulk asbestos waste will be handled in such a manner as to not cause any visual emissions;
- ◆ The generator verifies that the asbestos containing waste contains no free liquids and it is so stipulated on the approval.

3.1.4 Generator Waste Characterization Report (GWCR) Review – MDWTP/WDI

After the generator-supplied information is received, trained personnel (which may include, but is not limited to, the Laboratory Manager, Technical Support Manager, Approvals staff and facility (Operations Management & Supervisors or their designee) review the information then determine if additional information or analyses are required.

“Trained personnel” refers to those persons authorized to do a task based on the ISO Job Descriptions maintained on-site. These ISO Job Descriptions are considered living documents will be updated as needed and maintained at the facility and can be reviewed upon request at the facility.

Representative samples of waste may be provided by the generator, may be subject to the fingerprint analysis (see Sections 4.0, 5.0 and Table 3), except where noted in Section 3.1.2. Supplemental analysis (indicated with a “O” in Table 3) may also be performed at the direction of trained personnel based upon the available information provided by the generator, USEPA, or Michigan hazardous waste numbers and the facility’s operating requirements.

If, during the review, trained personnel determine that the waste characteristics do not conform to the information provided on the GWCR, the generator or their representative is notified in order to attempt

to resolve the discrepancy. If the inconsistency is not resolved, the waste will be rejected and not approved.

3.1.5 Treatment, Storage, and Disposal Approval – MDWTP/WDI

When it is determined that a waste stream can be safely handled at the facility in accordance with the operating license requirements, it is assigned a unique approval number. An approval letter is sent to the generator, serving as notification that the waste as represented may be shipped to the facility, and that the facility has the appropriate permit(s) to accept the waste. All approval files are maintained in the facility operating record in a paper or other archival form. Approval files with no shipments before expiration will not be kept in the facility operating record.

Section 4 details the testing procedures and criteria utilized by trained personnel to evaluate waste as part of the pre-approval process. Once the generator has received the approval to ship, the generator or their representative arranges for transportation and delivery by a licensed waste transporter.

3.1.6 Waste Approval Re-Evaluation – MDWTP/WDI

The facility requires that the GWCR, supporting information, and/or documentation be updated whenever any one of the following occur:

- ◆ There has been a change in the process generating the waste;
- ◆ Inspection of a waste shipment reveals that the waste does not meet the description/classification of the current approval record for the waste; or
- ◆ One year has passed since the last approval of the waste.

3.2. Incoming Load Pre-Acceptance Procedures

The procedures for incoming wastes are designed to assure that loads received for treatment and/or storage have been previously approved for acceptance, and are representative and consistent with the information submitted with the GWCR.

3.2.1 Inbound Load Procedure – MDWTP/WDI

When a shipment of waste arrives at the facility, the following step-wise procedure is followed:

- ◆ The driver proceeds to the inbound scale where the weight and truck number are recorded. The driver then proceeds to the sampling station (for containerized loads, this step may be omitted);
- ◆ The driver presents the manifest and any other shipping documents to trained personnel in the Receiving Building; and
- ◆ Trained personnel examine the manifest and other shipping documents, for manifests discrepancies, completeness and to ensure that the shipment was intended for treatment and/or storage at MDWTP and/or disposal at WDI.

3.2.2 Waste Inspection and Sampling

After reviewing the documents and determining that the waste stream has been approved, trained personnel check the computer or manual records for any notes or special handling instructions for the shipment and create a Post-Inspection Form (PIF). For bulk shipments, the sampler visually examines the load, pulls a sample, and submits the sample for testing.

For container loads, the driver is given a copy of each manifest and corresponding lab worksheet, PIF and drum log. For MDWTP, the vehicle is directed to the container truck dock where the containers are removed from the vehicle and placed into the staging/storage area(s). Trained personnel visually examine the load, pull a sample, and then submit the samples for testing. All waste streams are sampled as described under “Sampling Methodologies” in Section 6.0.

For WDI, container loads are delivered to the container unloading area at the waste transfer box. Here each container is opened, inspected and sampled in accordance with a standard operating procedure for non-bulk waste unloading. At least 10% of the containers must be sampled. The containers can only be left in the unloading area for the time it takes to clear or reject the load for disposal.

3.2.3 TSDF Evaluation and Approval

Trained personnel conduct the analytical tests and required observations specified for the particular waste stream as described in Section 5.1. If the results of the pre-acceptance fingerprint testing and observations agree with the pre-approval screening data, the waste load is approved for receipt. If the results fall outside the profiled range of variability, the procedures in Section 3.3.1 – Off- Specification and Rejected Load Procedures are followed.

For bulk shipments, the designated treatment and/or storage location is stamped on the PIF, it is handed to the driver, and then the vehicle is directed to the assigned tank located at the MDWTP East or West Treatment Buildings. For container loads, the PIF is handed to the driver at the Receiving Building, then the vehicle is directed to MDWTP and the load can be accepted.

3.2.4 Off-Site Inspection and Sampling - WDI

For some projects, it may be necessary to conduct the weight measurement (or volume estimate), waste inspection (section 3.2.2) and/or fingerprinting tests (section 3.2.3) at an off-site location, such as the site of generation. These activities must be performed by properly trained (by EQ) personnel using the methods and forms in the WAP. The results of the inspection and testing must be transmitted to the Receiving Department prior to the waste being accepted by WDI (i.e. with the waste shipment or before). For these projects, a description of the off-site testing must be submitted to MDEQ for review and approval prior to the start of the project. The description must include a summary of the project, how the sampling/testing will be conducted, post sampling waste security measures (if necessary) and a discussion of the paperwork flow.

3.3 Procedure for Unloaded Trucks – MDWTP/WDI

After unloading, vehicles are directed through the Truck Wash. Containerized loads wait in the holding area until cleared to leave. Bulk shipments proceed to the outbound scale. The driver returns the completed PIF to the Receiving Building and the outbound weight and truck number are recorded.

The manifest is signed, dated, disassembled, and the driver is given the "Transporter" copy. Remaining copies of the manifest are placed in a holding file for later distribution according to the instruction on the manifest form. In the event an electronic manifest is used, the established electronic manifest procedures are followed.

3.3.1 Off-Specification and Rejected Load Procedures – MDWTP/WDI

The facility will follow 40 CFR 264, Subpart E in determining if a significant discrepancy exists.

Discrepancies that do not fall within these criteria are considered to be "minor" and are not subject to a re-characterization review unless the facility has reason to believe that the variation is a continuing deviation and that a particular waste stream is indeed different from the waste approved. Significant inconsistencies in waste type, as defined in 40 CFR 264 Subpart E, result in re-characterization if the inconsistency cannot be reconciled with the generator or the facility has reason to believe that the waste composition has changed.

If a significant discrepancy is revealed during the incoming load procedure, the generator or their representative is contacted to resolve the problem. If the discrepancy is reconciled, the load may be received and the details of the reconciliation are recorded. If the discrepancy is not resolved, the shipment is rejected per 40 CFR 264, Subpart E. The appropriate manifest documents are then returned to the driver.

3.4. Storage - MDWTP

Stored containerized liquid and solid wastes are segregated following USDOT segregation and separation requirements (see Table 1). Liquid wastes, which are transferred from containers, portable tanks or tank trucks, may be transferred to storage tanks prior to subsequent treatment.

Prior to wastes being placed in any storage unit, facility (MDWTP) personnel will determine the compatibility of the waste with the storage unit materials of construction and with wastes already stored therein. The evaluation is based upon vendor/engineering data, materials of construction, and

knowledge of the waste and its characteristics from the GWCR. If such data are not available, compatibility testing will be performed prior to storage.

3.4.1 Container Storage - MDWTP

Containerized wastes in storage are segregated according to 49 CFR Subpart C—Segregation and Separation Chart of Hazardous Materials segregation rules. (See Table 1) Based on the hazard assessment of the waste, the containerized waste is organized into segregated storage areas within the NCSA, ECSA, SECSA and the East and West Loading/Unloading Bays.

3.4.2 Tank Storage - MDWTP

Wastes to be stored in tanks will undergo the fingerprint analyses, including a waste compatibility test. Additional testing will be based on the targeted treatment or disposal requirements. Liquid wastes, delivered in bulk form by tank trucks or decanted from containers or portable tanks, are placed in bulk storage tanks or directly into treatment/storage tanks prior to treatment.

3.4.3 Lab Compatibility Test - MDWTP

Prior to transferring any wastes into a storage tank, the compatibility of the waste, with the material already in the tank, will be determined by mixing in a “mock tank” a waste sample from the tank with samples of waste to be added to the tank. Following the preliminary screening and compatibility testing, specific storage and process compatibility will be determined. The current version of the Work Plan for the Lab Compatibility Test is maintained on-site. The parameters used to determine compatibility are briefly outlined below

- ◆ Gas Evolution - Materials that upon mixing, appear to liberate significant amounts of vapors, fumes, or mists, will not be combined.
- ◆ Heat Generation - Materials that, upon mixing, would generate excessive amounts of heat will not be combined.
- ◆ Adverse Reactions - Materials that, upon mixing, result in the formation of a large amount of sludge, or solidify or gel may not be combined if this causes a removal or subsequent handling problem.

When a bulk shipment is to be unloaded into a tank, a representative sample will be collected from the tank into which the waste is to be unloaded. The sample will be evaluated for the compatibility characteristics listed above. If it is determined that the mixture is incompatible, the waste will not be placed into that receiving tank. If the waste is determined to be incompatible with the tank materials of construction or with the tank contents, the procedure will be repeated, as needed, until a compatible tank is available. If no compatible tank is available, the load may be rejected and returned to the generator or transshipped off-site to another TSDF.

3.5 Waste Bulking and/or Consolidation - MDWTP

Wastes that are bulked and mixed, (excluding empty containers, site generated debris or closed and intact containers of non-hazardous waste), are subjected to the same compatibility and waste code evaluations as applied to wastes that are mixed in the treatment tanks. The following includes a list of items that may be bulked or consolidated.

- ◆ Empty Containers – as defined in Part 111, under Specific Conditions and are bulked in a roll-off container.
- ◆ Site Generated Debris – includes articles, equipment, clothing (such as personal protection equipment); ringbolts and rings from containers; pallets and pieces of pallets, etc., which are bulked in a roll-off container.
- ◆ Closed and intact containers of non-hazardous waste –non-hazardous solid waste in which all openings on the containers are closed.
- ◆ Liquid or solid hazardous waste containers being consolidated into larger or fewer containers (not for treatment at MDWTP)
 - I. Containers may need to be combined into larger or fuller containers (such as prior to transshipment)
 - II. If Roll-off containers or trailers will be used for consolidation, a liner will be utilized when bulking listed hazardous waste to prevent contamination from listed wastes to characteristic wastes.
 - III. All of the waste consolidated into a different container will only be done in the NCSA, the East Bay or West Bay.
 - IV. Compatibility - Waste to be consolidated will be from the same waste stream or will be evaluated to ensure that the waste being consolidated is compatible. If not from the same waste stream, samples will be added to a mock tank for compatibility prior to being consolidated.

- V. The following waste streams will not be consolidated: reactives, ignitables, cyanides, incompatibles and odorous.
- ◆ Solid (non-liquid) hazardous waste containers being bulked into a batch for treatment at MDWTP
- I. All of the waste bulked into a roll-off or trailer will only be done in the NCSA, the East Bay or West Bay.
 - II. The roll-off or trailer will utilize a liner when bulking listed hazardous waste to prevent contamination from listed wastes to characteristic wastes.
 - III. The containerized waste to be bulked in a roll-off or trailer will be pre-assigned to batch.
 - IV. Compatibility - Samples from the containers will be added to a mock tank for compatibility prior to being bulked into a roll-off or trailer.
 - V. After all of the containers assigned to that batch are bulked, the batch in the roll-off or trailer will be transferred to an assigned storage/treatment tank for treatment.
 - VI. The following waste streams will not be bulked: reactives, ignitables, cyanides, incompatibles and odorous.

3.6 Procedures for Ignitable, Reactive, and Incompatible Wastes

The facility (WDI/MDWTP) utilizes waste characterization data provided by the generator as well as analytical screening and testing procedures to obtain information regarding waste ignitability, reactivity, or incompatibility prior to treatment and/or storage. MDWTP also evaluates this information relative to waste compatibility with the facility equipment and treatment processes. Containerized wastes are segregated for storage following the DOT Segregation Chart (See Table 1 of the WAP). Wastes that are incompatible will not be stored adjacent to each other.

MDWTP does not accept for treatment ignitable wastes having a flashpoint less than 90°F. Ignitability data for wastes is obtained through process knowledge and/or performing flashpoint or ignitability screening tests, as described in Section 4. Ignitable wastes with a flash point less than 90°F may be received and subsequently transshipped. Containers accepted at MDWTP for transshipment are uniquely marked so that they can easily visually identified as a transship waste stream.

MDWTP does not accept for treatment wastes exhibiting the characteristic of reactivity. D003 (deactivated) waste may be accepted for treatment. Reactive wastes identified in R299.9212(3)(b-e)

may be received for storage in the NCSA and subsequently transshipped. Reactive wastes identified in R299.9212(3)(a, f, g, h) are prohibited. MDWTP evaluates potential reactivity characteristics through the use of process knowledge and for potential cyanide (CN) or sulfide-containing wastes, through analysis for total, amenable and reactive CN, and reactive sulfide. To evaluate the potential for incompatibility of wastes with the facility equipment, treatment processes, or with other wastes upon mixing/blending, MDWTP uses process knowledge, and compatibility testing described in Sections 3.4.1 – Container Storage, 3.4.2 – Tank Storage and 3.4.3 – Lab Compatibility Test. If the review of the waste characterization data and/or compatibility testing indicates a potential for incompatibility and unacceptability at the MDWTP, the wastes will be either rejected and returned to the generator or transferred to another permitted TSDf capable of managing the waste in accordance with the procedure outlined in Section 3.3.1 – Off-Specification and Rejected Load Procedures.

The Vertical Liquid Tanks are equipped with combination pressure relief valves/flash arrestors on top and high temperature cut-off valves at the bottom. These tanks are constructed and located in compliance with NFPA Chapter 30 regulations for flammable liquids, or in the vicinity of loading flammable liquids.

Wastes received in containers will be staged and stored in accordance with DOT Separation Requirements. Containers remain closed during storage except for during sampling. In addition to being physically separated from incompatible waste, containerized ignitable waste will not be stored within 50 feet of the property line, and will be stored in such a manner as to prevent fires or explosions. Reactive wastes received for transship to another facility will be physically separated from incompatible wastes and stored in a manner as to prevent fires, explosions, or release of toxic fumes, dusts, or gases that could threaten human health.

Smoking is allowed at the facility (MDWTP/WDI) only at a few designated areas. Maintenance work done at MDWTP follows the same standards described above for operation work. Hot Work Permit will be granted in advance and air monitoring testing will go on to prevent a flammable atmosphere before any operation goes underway.

3.7 Waste Treatment Technologies - MDWTP

3.7.1 Chemical Stabilization - MDWTP

The facility (MDWTP) treats wastes that require treatment to comply with the LDRs through chemical stabilization using a pozzolanic-type process incorporating CKD, lime, and other select reagents. Certain wastes may require more than one type of treatment, including neutralization, deactivation, chemical oxidation, and/or chemical reduction using reagents such as lime, oxidizing or reducing agents, to convert selected waste constituents into a physical or chemical form that is less soluble, less hazardous and/or more suitable for subsequent stabilization.

3.7.2 Chemical Oxidation - MDWTP

Hazardous wastes containing organic constituents above the LDR levels are chemically oxidized at the facility (MDWTP). The chemical oxidation process is described below and detailed in Figure 2. Chemical oxidation is also discussed as one of the Best Demonstrated Available Technologies (BDAT) for managing organic contaminated waste in 40 CFR 268.42 and Appendix VI.

Oxidation is the process in which an atom or compound acquires electrons (the oxidizing agent or oxidant) and reduction is the process in which an atom or compound loses electrons (the reducing agent or reductant). The two processes always occur simultaneously with one compound acting as the oxidant and the other the reductant.

For the treatment of hazardous organic containing waste, the facility (MDWTP) typically uses a sodium hypochlorite solution as the oxidizing agent. While sodium hypochlorite is the predominant oxidant used, the facility (MDWTP) may occasionally use other oxidizing agents, including but not

limited to hydrogen peroxide and potassium permanganate. In the oxidation process, electrons are stripped from the organic molecules to the extent that the carbon-to-carbon bonds are broken and carbon dioxide, sodium chloride and water are formed. Organic compounds are destroyed in this mildly exothermic reaction.

The amount of oxidant used in the treatment is determined by trained personnel and is a function of 1) the concentration of all organics in the waste, or 2) the treatability study run on the waste, and/or 3) the trained personnel's previous experience with the waste. Batches treated by chemical oxidation must be solidified by chemical stabilization before landfilling and must also be determined to pass the LDR standards as described in Section 3.8.

3.7.3 Treatability Studies (see Table 2, Table 3 & Section 4) - MDWTP

The pre-approval analyses for specific wastes to be treated to meet the applicable LDR(s) are specified in Table 3 and Section 4 – Waste Analysis Parameters. A bench-scale treatability study is performed to verify acceptability with the facility (MDWTP) treatment process and the treatment "recipe" required to meet the applicable treatment standards. The treated waste samples are analyzed as specified in Table 2, Table 3 and Section 4.

These pre-approval treatability studies are used to adjust the treatment processes for specific waste types and batches. Example treatment approaches for typical hazardous waste types are presented on Figures 1 through 4.

These treatment operations may combine several wastes or shipments from various generators to facilitate operational efficiency and utilization of available processing capacity. Batch treatment of multiple wastes and/or shipments will be based on chemical compatibility, USEPA hazardous waste numbers, and treatment requirements.

Post-treatment analyses, includes the TCLP and, where applicable, specific constituent analyses are performed on each batch of hazardous waste prior to landfill disposal. This post-treatment analysis is used to demonstrate that the treatment residue meets the LDRs. (See Table 2 and Table 3)

The facility (MDWTP) conducts treatability testing to ensure that wastes can be treated to the required LDR levels prior to acceptance of the waste. Examples of possible triggers for a treatability study are listed below:

- ◆ The waste type not previously treated at MDWTP
- ◆ The waste is generated by a process not previously treated at MDWTP
- ◆ The waste has levels of constituents outside the range normally treated at MDWTP
- ◆ The waste codes or constituents not previously treated at MDWTP

Tables 2 and 3 are provided to assist in guiding the chemists and technicians in determining if a treatability test is needed.

The treatability test involves simply mixing waste and treatment reagents in a ratio developed by the laboratory. Measured volumes of the waste are mixed with the treatment agents. Mixing is designed to emulate retention time in the pugmill mixer and mixing time per unit of waste in the treatment tanks. After mixing, a sample of the waste is collected for analysis for the constituents of concern. A treatability report is then prepared showing the after treatment concentrations of the constituents of concern. This report is placed into the waste stream technical approval file prior to acceptance of the waste.

To successfully treat certain waste streams, a modification of the standard process may be required. Modified treatments are first verified in the laboratory, and then implemented at the plant once the

waste is received. Modified treatments are considered Confidential Business Information. It is important to note that all treatments are verified through actual post treatment analysis of treatment residue, prior to disposal of the waste.

3.7.4 Mixing, Blending, & Commingling of Wastes for Treatment - MDWTP

As part of the treatment and storage process, various individual waste streams are mixed, blended, and/or commingled. The blending operations are conducted by the facility (MDWTP) Operations personnel under the direction and careful supervision of the facility's laboratory and treatment chemists.

3.7.5 Authorization to Mix or Blend - MDWTP

See Section 3.4.3, "Lab Compatibility" for a detailed discussion.

3.8 Land Disposal Restrictions (LDRs)

3.8.1 Waste Not Subject to the LDRs - MDWTP

The MDWTP stabilization process will also be utilized to treat wastes not subject to the LDRs, to solidify free liquids and render the waste more suitable for handling and landfill disposal.

The post-treatment analyses will include a visual observation, to ensure no free liquid is present. A paint filter test may be performed on selected loads when determined necessary by visual inspection.

3.8.2 Wastes Meeting the LDRs

Wastes that are certified, through analysis, to meet the LDRs specified in 40 CFR 268 may be directly landfilled at WDI or another off-site TSDF. The LDR certification and notification, and analytical documentation will be provided for each waste stream disposed of at WDI or shipped to another TSDF. Per 40 CFR 264.73, the required information will be kept as part of the operating record.

3.8.3 Wastes Requiring Treatment & LDRs - MDWTP

Wastes requiring deactivation, chemical oxidation, chemical reduction, and/or stabilization at the facility (MDWTP) will be treated in batch operations. Each batch may contain multiple USEPA hazardous waste numbers and treatment standards. The treated batches will be held in the treatment/storage tanks or in roll-off boxes or trailers while testing is performed prior to disposal (see Section 2.3). Treatment batch residues will be sampled and analyzed to determine whether the batch meets the applicable treatment standards defined in 40 CFR 268. Treatment batch residues, resulting from the treatment operations that exceed the applicable LDRs, will be reevaluated. Options include re-testing after additional cure time, retreating on-site until the LDRs are achieved or sent off-site for further treatment to meet the LDRs. Any off-site shipments will be accompanied by the LDR notification, a manifest, and data for the waste for the off-site TSDF in accordance with 40 CFR 268.7(a)(1).

Treatment residues that meet the applicable LDRs, will be disposed at WDI or another TSDF. The LDR certification, notification and analytical documentation will be provided for each waste disposed of at WDI or shipments to another TSDF. Per 40 CFR 264.73, the required information will be kept as part of the operating record.

3.8.4 Characteristic Wastes & LDRs

Characteristic wastes, which are batch-treated separately from listed wastes, may be disposed of in a solid waste/Subtitle D landfill, if it is determined that the LDRs have been achieved and the treatment residue no longer exhibits the characteristics of hazardous waste and all applicable underlying hazardous constituents (UHCs), have been treated in accordance with the Universal Treatment Standards (UTS) at 40 CFR 268.

3.8.5 Hazardous Debris & LDRs

As stated in 40 CFR 268.45, Hazardous debris (>60mm) must be treated prior to land disposal, unless the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standards specified in 40 CFR 268.45 using technologies identified in Table 1 of 268.45. MDWTP will ensure that debris requiring treatment to the waste specific treatment standards is treated to those standards or that the technology standard is met. MDWTP anticipates receiving hazardous debris that may be contaminated with any code or codes identified in Appendix A of the WAP.

Characteristic ignitable or corrosive hazardous debris will be deactivated at MDWTP during the micro-encapsulation process prior to landfill disposal. If immobilization, such as micro-encapsulation or macro-encapsulation, is used in a treatment train, it will be the last treatment technology applied. This requirement also will apply to debris contaminated with two or more contaminants subject to treatment. Hazardous debris will be treated for each contaminant, subject to treatment as specified by 40 CFR 268.45(b) for toxicity characteristic debris and debris contaminated with listed wastes. CN reactive debris will not be accepted by MDWTP.

MDWTP uses the micro- and macro-encapsulation immobilization technologies listed in 40 CFR 268.45 to achieve the performance standard of reduced leachability of the hazardous contaminants, in the case of micro-encapsulation, and completely encapsulates debris with a material(s) that is resistant to degradation by the debris and its contaminants and the material into which it may come into contact after placement (leachate, other waste, microbes), in the case of macro-encapsulation.

Treated hazardous debris will be managed as specified in 40 CFR 268.45. When treating debris in accordance with the alternative treatment standards for debris, the MDWTP uses only the immobilization technologies of micro and macro-encapsulation. Hazardous debris contaminated with listed or characteristic waste that is treated by micro or macro-encapsulation at the MDWTP are properly disposed in licensed Subtitle C landfills and are accompanied by an LDR notification and certification form in accordance with 40 CFR 268.7(b)(5). Treatment of debris using one of the

technology specific immobilization treatment standards at 40 CFR 268.45, constitutes compliance with the LDRs and no testing after treatment is required prior to disposal.

3.9 Macro-encapsulation

3.9.1 Description of the Macro-encapsulation Unit

The macro-encapsulation unit is made of approximately one-inch thick polyethylene using an injection molding process to create a rigid, one-piece “tub” that fits within a roll-off or is self-supporting. The macro-encapsulation units can be manufactured in any size but are most commonly manufactured to fit within a 20-yard roll-off. To seal the unit, a sheet of the same polyethylene in approximately the same thickness is screwed onto the lip of the tub using approximately 120 self-tapping screws. Screwing the down the lid provides a watertight seal that may be augmented with caulking or glue.

Debris placed within the macro-encapsulation units are jacketed within the polyethylene in an inert, durable, watertight material that will substantially reduce surface exposure to potential leaching media. The inert polyethylene material will completely encapsulate the debris and is resistant to degradation by the debris and debris contaminants managed by MDWTP and the wastes, leachate, or microbes with which it will contact once landfilled in a licensed hazardous waste cell.

3.9.2 Description of the Macro-encapsulation Process

Macro-encapsulation will be performed as follows:

- 1) Debris will be placed into one of the treatment tanks, Tanks A – H (formerly tanks 7A, 7B, 8A, 8B, 9A, 9B, 10A, 10B), or directly into a macro-encapsulation unit.
- 2) In the treatment tank, the debris is mixed, as needed, with an inert, finely divided material to fill the void spaces when encapsulated and to provide cushioning material. The inert filler includes cement kiln dust, sand, solidified non-hazardous waste, waste treated to the LDRs, or other non-biodegradable sorbent or fixation media. Fill material is also added directly to the macro-encapsulation units.
- 3) The debris is lifted from the tank with a backhoe and placed into a macro-encapsulation unit or is placed directly into the unit. As with dump trailers and dump trucks currently loaded with treated waste within MDWTP, the macroencapsulation units are also loaded within MDWTP.
- 4) The lid is screwed into place on the macroencapsulation unit.
- 5) Macroencapsulation approvals will specify “special burial” in the licensed hazardous waste cell. The special burial designation will ensure that the macroencapsulation units are carefully placed in the cell to ensure that they are not ruptured during placement or after placement. For macroencapsulated debris shipped to other permitted TSDF, guidance will be provided, to extent needed so that the macroencapsulation unit can be unloaded without rupturing.

3.9.3 Macro-encapsulation Capacity

Macro-encapsulation treatment capacity is a function of available tank space. Macro-encapsulation of hazardous debris will be counted against the permitted treatment capacity of the MDWTP on a daily basis as are all other hazardous wastes treated in the tanks. All permitted tank treatment methods, including micro- and macro-encapsulation, are performed within the state license and federal permit capacity limitations as stipulated in Section A-1 of this application.

4.0 WASTE ANALYSIS PARAMETERS

4.1 Criteria for Parameter Selection and Rationale – MDWTP/WDI

The parameters selected for analysis of wastes managed by the facility and the rationale for their selection is based on the physical/chemical characteristics of the waste, the regulatory and operating license requirements for treatment and/or storage of the waste at MDWTP or disposal at WDI, the information and analytical data supplied to the facility by the waste generator and the process control data necessary to manage the waste by the MDWTP's treatment and/or storage operations or disposal at WDI. The waste analysis used by the facility to manage wastes for treatment and/or storage include the following:

4.1.1 Fingerprint Analyses – MDWTP/WDI

These analyses may be performed on generator samples for pre-approval of the waste for management at the facility and are also performed on samples of each waste load prior to load acceptance, except for those listed in section 3.1.2. These analyses may also be performed if the generator or the facility determines that there is a change in the process generating the waste. The fingerprint analyses include screening procedures to provide data regarding the general physical and chemical characteristics of the waste. Table 3 indicates which tests will be used and under which conditions.

4.1.2 Supplemental Analyses (indicated with a "O" in Table 3) – MDWTP/WDI

These analyses are generally waste-specific based on the physical/chemical characteristics of the waste, the USEPA or Michigan hazardous waste number (determined by the generator), the process

generating the waste, treatment, storage, or disposal process control requirements, and regulatory treatment requirements (such as the LDR or facility operating license conditions).

These analyses may be performed to supplement the generator-supplied information regarding the waste and the fingerprint analyses and include standard analytical USEPA and/or American Society for Testing and Materials (ASTM) methods.

Waste characterization data is provided by the generator using the GWCR, as described in Section 3.1.1. The generator data and analyses provide the facility with the information needed to properly manage a waste and ensure that the waste shipment received matches the identity and characteristics of the waste approved and designated on the accompanying Hazardous Waste Manifest (manifest) or shipping papers.

4.2 Analytical Parameter Descriptions – MDWTP/WDI (Pre-Approval/Re-Approval, Pre-Acceptance & Post-Treatment)

The analytical parameters used to manage wastes for treatment, storage and disposal include the fingerprint analyses or supplemental analyses (if necessary) are described below. Table 3 indicates which tests will be used and under which conditions.

Color	This procedure evaluates the color of waste samples/information presented for pre-approval and compares the color of incoming loads of waste.
Consistency	A comparison of the incoming wastes consistency of originally approved material. Consistency descriptors are as follows: Dust, Solid, Semi-Solid, Sludge, Liquid and debris.
Compatibility Test	The procedures will be followed as outlined in the current version of the Work Plan for the Lab Compatibility Test that is maintained on-site.
Cyanide	A determination that the waste does not meet the criteria set forth in 40 CFR 261.23(a)(5). The test method to be used is the Total and Amenable Cyanide Method 9010, found in SW-846 or Method 7.3.3.2 for Reactive CN. Untreated waste containing more than 250 ppm of reactive or releasable CN is not accepted for treatment but may be stored in containers and transshipped.

<p>Flashpoint / Ignitability</p>	<p>Used to determine the flash point of a liquid to verify approval under limits of acceptable only above 90°F flashpoint.</p> <p>Test Methods for Liquids:</p> <ol style="list-style-type: none"> a. <u>Setaflash Closed Cup Tester</u> - American Society for Testing and Materials (ASTM) Standard D-3278-78 b. <u>Pensky-Martin Closed Cup Tester</u> - ASTM D-93-79 or D-93-80 <p>Test Methods for Sludges / Solids:</p> <p>5 plus or minus (±) 1 grams of waste is placed in a small container. Ignition is attempted with a match for 5 seconds. If ignition occurs and the waste burns vigorously and persistently, the waste is not acceptable for treatment but may be stored prior to transshipment.</p>
<p>Hexavalent Chromium</p>	<p>The waste is screened using either a Hach® type chromate test kit or equivalent, or USEPA Method 7196. This method is used to screen for the presence or absence of hexavalent chromium (Cr⁺⁶).</p>
<p>Hydrogen Sulfide</p>	<p>A test to determine if the specific rate of release of hydrogen sulfide in waste is above 500 ppm upon contact with an aqueous acid. (SW-846, Section 7.3.4.2).</p>
<p>Odor (Incidental)</p>	<p>Potentially problematic odors detected in the routine laboratory handling of a sample may result in rejection of the load unless the waste can be managed in such a way as to minimize odor emissions.</p>
<p>Oxidizer</p>	<p>No method for the oxidizer screen was provided in USEPA SW-846. The procedure used is as follows: Potassium iodide starch (KI) indicator paper is used to determine the presence of organic peroxides or other oxygen donors in aqueous wastes. A sample is considered an oxidizer if a reaction occurs when the addition of concentrated sulfuric acid produces orange gas (NOX). A SOP called “Screening of Possible Oxidizers (as defined by 40 CFR 173.151)” is used by the facility laboratory in performing this test. The current version of this SOP is maintained on-site.</p>
<p>Paint Filter Test</p>	<p>This method (USEPA 9095) may be used to determine if free liquid is present in a waste, if this is not apparent by visual inspection.</p>
<p>PCBs</p>	<p>This method (SW-846 8082) is used to detect Polychlorinated Biphenyls (PCBs). PCB analysis will be conducted on all wastes that contain oily residue, or are suspected of containing PCBs. Oily residue is defined as waste streams containing over 50 percent oil, no matter the origin.</p>
<p>pH</p>	<p>A comparison of the pH of the incoming waste with the pH range of the originally approved material is performed. pH methods used include SW-846 9040B, 9041A, 9045C.</p>

Radiation Screen	A sample is passed near the detector window of a geiger counter, and the reading of the meter is noted and compared to the background reading. (See Section 3.1.3 Special Wastes; Section 3.1.3.1 Source Material, NORM or TENORM)
Reactivity - Water	A determination that the waste does not react violently with water during processing. In the course of this test water reactivity is addressed. The test method is as follows: Approximately ten milliliters (mls) or equal volume of waste is mixed rapidly with approximately ten mls of water solution in a beaker, the waste is compatible with the process if no incompatible waste reaction occurs as defined in 40 Code of Federal Regulations (CFR) 264, Appendix B, paragraph 1. The testing materials are identified water reactivity.
Reactivity – Acid	Standard Method 2310 (current Edition) is used to measure the acid content in waste in either mg/L (for aqueous samples) or mg/kg (for solid samples). Acidity is determined by potentiometric titration.
Suspended Solids	Is used to determine suspended solid content of aqueous wastes or sludge for the purpose of determining wastewater or non-wastewater categories under 40 CFR Part 268. This is performed using generator-provided information / analysis or from data obtained from the preparation of TCLP extracts (Method 1311).
TCLP	A Toxicity Characteristic Leachate Procedure (TCLP) test is used to determine if a solid waste meets or exceeds the maximum concentrations extractable of contaminants listed in 40 CFR 261.24, Table I. The test methods to be used are described in 40 CFR Part 261, Appendix II, Method 1311. Equivalent methods must be approved by the Director. (See Section 3.0)
Total Metals	A test to determine the total metal (i.e., constituent concentration in waste) content of wastes (USEPA SW-846 Methods 6000, 7000).
VOCs	This SW-846 (USEPA) analytical method (8260, 8021B or 8015BA) is used to determine the total concentration of volatile organic compounds (VOCs) in waste matrices. Only the constituents identified for a particular waste stream are analyzed.

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The hazardous constituents for which a waste is listed. The Appendix VII constituents are presumed to be present by facility personnel, and the waste handled accordingly. Specific information on a particular waste stream is normally supplied by the generator, based either on analysis or from the 40 CFR 261 background documents, which describe the basis of listing in accordance with 264.13(a)(2). If analysis is performed by the facility (on-site or by contract laboratory), one of the methods listed below is used, depending on the constituent of interest. These methods are provided in US EPA's "Test Methods for Evaluating Solid Waste," SW-846 (current Update).

- Total Semi Volatiles (8100, 8060, 8270)
- Total Volatiles (8260, 8021, 8015)
- Total Metals (6000,6010,7000 series)
- Total Herbicides (8151A)
- Total Pesticides (8081)

4.3 Receiving - MDWTP/WDI

The analytical parameters used for pre-acceptance may include fingerprint and/or supplemental analyses for each incoming shipment of wastes arriving at the facility are indicated in Table 3.

Supplemental analyses performed, is a function of the designated USEPA or Michigan hazardous waste numbers and waste characteristics. The analytical parameters performed for receiving incoming shipments of waste -are indicated in Table 3 except as noted in Section 3.1.2.

4.4 Post-Treatment - MDWTP

The analytical parameters that are used for post-treatment may include fingerprint and/or supplemental analyses. These parameters are defined by the waste codes and UHC associated with the waste in process and are summarized in Tables 2 and 3. Post treatment testing will not be performed on micro or macro-encapsulated debris.

5.0 ANALYTICAL TEST METHODOLOGIES

5.1 Fingerprint Parameters and Methods – MDWTP/WDI

The "fingerprint" parameters include screening procedures and test methods that have been developed within the waste management industry to provide a general identification of specific physical and chemical characteristics of wastes handled. These parameters are presented in Table 3 and are described above in Section 4.2.

5.2 Supplemental Parameters and Methods (indicated with a "O" in Table 3) – MDWTP/WDI

The additional parameters include commonly accepted standard analytical methods developed by the USEPA, ASTM, or as a standard waste management industry procedure. These parameters, presented in Table 3 and described above in Section 4, are used, as necessary, for additional characterization of the waste and determination of specific properties and/or constituents to ensure proper treatment, and/or storage in accordance with current regulations and the operating license.

Fingerprint analysis and additional analyses (if necessary) are used to ensure that restricted wastes are not accepted by the facility and that incompatible wastes are not commingled. Specific analyses may be used for various waste matrices.

5.3 Laboratory Capabilities – MDWTP/WDI

An analytical laboratory is maintained on-site for the purpose of conducting the analytical procedures associated with this WAP to evaluate, approve, and monitor the characteristics of waste received from their customers and managed by the facility. The laboratory utilizes modern analytical equipment and facilities in the analysis of waste samples. In addition, trained chemists are employed (individuals that possess educational and/or work experience qualifications necessary to be proficient in performing waste analysis) who utilize standardized procedures for maintaining quality assurance (QA) and quality control (QC) requirements associated with the analytical procedures.

The laboratory is currently capable of performing the fingerprint analyses, as described in this WAP, as well as standard USEPA and ASTM methodologies for analyses of a variety of parameters in the following general categories:

- 1) Water quality parameters/inorganics, non-metallics;
- 2) RCRA hazardous waste characteristics;
- 3) Organic Constituents:
 - (a) VOCs;
 - (b) Semi-VOCs;
 - (c) Pesticides, herbicides; and
 - (d) PCBs.
- 4) Metals.

The Laboratory's capabilities may be subject to change as necessitated by regulations, operating requirements, or advances in analytical methodologies and equipment.

5.4 Quality Control/Quality Assurance – MDWTP/WDI

The Laboratories maintain a Laboratory Quality Assurance Program (LQAP) to insure the accuracy, precision, and reliability of the laboratory results produced for our customers, or at the request of regulatory or accrediting bodies. Management, administrative, statistical, investigative, preventive, and corrective techniques are employed to maximize the reliability of the analytical data.

This LQAP establishes the policies and procedures regarding:

- ◆ Glassware preparation;
- ◆ Reagents, solvents, gases, and standards;
- ◆ Samples and sampling;
- ◆ Instrument calibration procedures;
- ◆ Analytical procedures;
- ◆ QC checks;
- ◆ Data handling and reporting;
- ◆ Preventative maintenance;
- ◆ Corrective actions;
- ◆ Orientation and training;
- ◆ Performance and system audits; and
- ◆ Subcontracted laboratories.

The Laboratory uses standard analytical procedures developed by the USEPA and ASTM. The Laboratory equipment maintained on-site is calibrated within acceptable limits, according to USEPA and ASTM or the manufacturer specifications prior to use. The Laboratory instruments are periodically inspected, maintained, and serviced according to manufacturer specifications. Reference standards and QC samples (i.e., checks, spikes, laboratory blanks, duplicates, and splits) are used to determine the accuracy and precision of procedures, instruments, and operators. Quality assurance/quality control (QA/QC) data is recorded with the test results. Records of all pertinent laboratory calibration, analytical, and QC activities and data are maintained by the laboratory.

The laboratory QA/QC procedures used by the facility assist in assuring that the data obtained are precise, accurate, and representative of the waste stream analyzed.

The analytical QA/QC procedures follow the method-specific requirements specified in "Test Methods for Evaluating Solid Waste: Physical Chemical Methods," SW-846, where applicable.

6.0 SAMPLING METHODOLOGIES

6.1 General Methodologies

Each incoming shipment of non-hazardous and hazardous waste is inspected and sampled, except those listed in section 3.1.2, to ensure that the waste received for matches the waste reviewed during the pre-approval process. The sampling techniques described herein are performed in accordance with the techniques outlined in USEPA's SW-846.

6.2 Sampling Program and Equipment

USEPA SW-846 will be followed, whenever possible, when choosing sampling equipment and methodologies. If a method is not provided in USEPA SW-846, then a different method will be used as outlined in Section 4.2. The person sampling is trained in the selection and use of the sampling device and is thoroughly familiar with the sampling requirements.

Sampling equipment is constructed of non-reactive materials such as glass, polyvinyl chloride (PVC) plastic, aluminum, or stainless steel. Care is taken in the selection of the sampler to prevent cross-contamination of the sample and to ensure compatibility of materials.

Sampling is performed for each waste in a manner that ensures the samples are as representative as possible under the conditions of the sampling event. All bulk and containerized hazardous waste loads will be sampled prior to acceptance, except for waste specified in Section 3.1.2. All samples must be appropriately labeled. The following information is included on the label:

Type of Sample	Label Requirements:
Bulk Loads	Transporter Name Truck #
Container Loads	Waste Code Manifest # Approval # Drum # and/or barcode
Treatment Tanks	Batch ID # Date Time Sampler

Observations or unusual conditions during sampling are noted as comments on the label. No chain-of-custody (COC) form is used with samples on-site, since the samples are relinquished directly to the on-site Laboratory. A COC will accompany any sample being sent to an off-site Laboratory.

6.3 Specific Sampling Procedures

6.3.1 Containerized Waste – MDWTP/WDI

Each incoming stream of waste in containers (non-hazardous/hazardous) will be sampled, except those listed in section 3.1.2, and the parameters according to Table 3 performed on each sample.

The containers are labeled with an EQ identification label, which numbers each container per manifest line item. Alternately, the numbers will be spray painted on each container. Once numbered, the containers to be sampled will be determined using www.random.org or an equivalent method listed in SW-846. Each hazardous waste stream will be sampled at 10-percent of the total number of containers.

The separate samples collected will be composited by waste stream in the facility laboratory to form a single sample for analysis. Individual samples that are visually dissimilar will not be composited.

Samples will be collected from containers by utilizing the sampling equipment recommended by the USEPA in USEPA, SW-846 and Section 6.2. Facility personnel will usually utilize container thieves or coliwassas to sample aqueous waste (MWTP only) and trier or scoops to sample granular or solid, sludge matrices (MDWTP/WDI).

6.3.2 Bulk Waste – MDWTP/WDI

Each incoming stream of waste received at the facility in a bulk form, except those listed in Section 3.1.2 will have a sample collected and analyzed for the fingerprint parameters in Table 3. Samples will be collected from each vehicle. A clean carbon steel, stainless steel auger or disposable PVC trier will be utilized to collect solid samples. Bulk aqueous tankers will be grab sampled utilizing a thief or coliwasa-type sampler to collect the sample from varying depths for analysis.

6.3.3 Treatment/Storage Tanks - MDWTP

Treated, stabilized waste will be sampled from the MDWTP treatment tanks in order to verify that the waste meets the LDRs prior to land disposal with the exception of microencapsulated and macroencapsulated debris. Samples of treated, stabilized waste will be collected from random vertical and horizontal locations.

A grab sample will be collected from a random vertical and horizontal location using a backhoe to reach the selected sampling point, collecting the sample from the backhoe bucket with a disposable scoop or cup. The sample is then taken to the laboratory for analysis. The location from which the random grab sample is taken will be marked in a grid in the Batch packet.

6.3.4 Transshipped Wastes - MDWTP

Any waste to be transshipped off-site to other permitted TSDF's will be received under a valid MDWTP approval and management will comply with this WAP.

6.3.5 Waste Materials Utilized as Treatment Reagents - MDWTP

MDWTP will obtain a chemical assay of waste materials such as lime or cement kiln dust (CKD) from the material source/vendor for evaluation prior to approval for use at MDWTP.

6.4 Equipment Decontamination

All equipment used in the collection of waste samples will either be disposable (e.g., scoops or container thieves) or sufficiently cleaned to remove observable contamination prior to sampling.

6.5 Sample Preservation and Storage

- ◆ Hazardous waste samples are generally not amenable to preservation;
- ◆ Samples for volatile organics are refrigerated at 4-degrees Celsius (°C) until analyzed and must be analyzed within seven days;
- ◆ Samples for semi-volatiles, if necessary, must be extracted within seven days and analyzed within 40 days;
- ◆ Aqueous samples for total organic carbon (TOC) analyses are refrigerated at 4°C until analysis and aliquots for metals analysis are preserved by the addition of HNO₃ to pH <2; and
- ◆ Samples are stored in the laboratory refrigeration unit.

6.6 Quality Control/Quality Assurance

Sampling QA/QC policies are found in the QA/QC manual, which is maintained by the Laboratory.

6.7 Health and Safety Protocols

During sampling and laboratory-related activities, personnel will utilize precaution to reduce the potential for incidents, injuries, or accidents. The facility has established a Hazardous Waste Operations (HAZWOPER) Facility Health and Safety Plan (HSP) in accordance with Michigan Occupational Safety and Health Administration (MIOSHA) Act 154 and R325.52129 for operations at TSDFs.

Facility personnel are HAZWOPER trained in accordance with the provisions of R325.52129(8) and follow health and safety (H&S) requirements, including PPE requirements specified in the facilities' standard operating procedures (SOPs).

REFERENCES

American Society for Testing and Materials, "Annual Book of ASTM Standards."

United States Environmental Protection Agency, "Test Methods for Evaluating Solid Waste: Physical Chemical Methods." SW-846, Third Edition, September 1986 as amended by Update I, (July, 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (June, 1997)

United States Environmental Protection Agency, Office of Solid Waste and Emergency Response, April 1994, "Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Waste;" A Guidance Manual.

Standard Methods for the Evaluation of Water and Waste Water, 18th Edition

Note: For Industry Standards see the QA/QC Program Manual.

TABLE 1 - SEGREGATION AND SEPARATION CHART OF HAZARDOUS MATERIALS

CLASS OR DIVISION	2.1	2.2	3	4.1	4.3	5.1	5.2	6.1*	8A	8B	9
Non-Flammable Gases	2.1	C	C	C	C	C	C	C	C	C	C
Non-Toxic, Non-Flammable Gases	2.2	C	C	C	C	C	C	C	C	C	C
Flammable Liquids	3	C	C	C	C	X	C	C	C	C	C
Flammable Solids	4.1	C	C	C	C	C	C	C	X	X	C
Dangerous when wet materials	4.3	C	C	C	C	C	C	C	X	X	C
Oxidizers	5.1	C	C	X	C	C	C	C	X	X	C
Organic Peroxides	5.2	C	C	C	C	C	C	C	X	X	C
Poisonous Liquids (NOT PG I, Zone A materials)	6.1*	C	C	C	C	C	C	C	C	C	C
Corrosive Liquids-Acids	8A	C	C	C	X	X	X	C	C	X	C
Corrosive Liquids-Bases	8B	C	C	C	X	X	X	C	X	C	C
Other Regulated Materials and Non-Hazardous Wastes	9	C	C	C	C	C	C	C	C	C	C

Notes:

✓ This chart is from the USDOT Segregation and Separation Chart of Hazardous Materials, 49 CFR Subpart C (177.848) & additionally segregates the corrosive wastes into acids and bases.

✓ Acids have a pH ≤ 2.0 and bases have a pH ≥ 12.5.

* = Other than Poisonous Liquids PG I, Zone A will not receive wastes with Class 1, or Division 2.3, 4.2, 6.1 PG I, Zone A Hazardous Material classifications.

C = Compatible

X = Non-Compatible

TABLE 2 – PROCESS LOGIC

TARGET CONSTITUENTS	TYPICAL WASTE CODES	TREATMENT TRAIN	POST- TREATMENT PARAMETERS
Arsenic	D004	STABL	TCLP Metals
Barium	D005	STABL	TCLP Metals
Cadmium	D006	STABL	TCLP Metals
Chromium (Hexavalent)	D007 (Cr+6)	CHRED fb STABL	TCLP Metals
Lead	D008	STABL	TCLP Metals
Mercury	D009	STABL	TCLP Metals
Selenium	D010	CHRED fb STABL	TCLP Metals
Silver	D011	STABL	TCLP Metals
Nickel	F006-F009, F011, F012	STABL	TCLP Metals
Low [CN-] with Metals and Cr+6	F006, F007 F008, F009 F011, F012 F019	CHOXD fb CHRED fb STABL	T-CN A-CN TCLP Metals
Low [CN-] No Metals/ Organics	F010	CHOXD	T-CN A-CN TCLP Metals
Metals, Zinc	K061	STABL	TCLP Metals
Ignitable Low TOC Subcategory <10% TOX	D001	DEACT/CHOXD fb STABL	Ignitability
Ignitable High TOC Compressed Gases Strong Oxidizers Ignitable Solids	D001	Transshipment	NA
Oxidizers (No Strong Oxidizers Except for Transshipment)	D001	DEACT/CHRED fb STABL	Ignitability
Corrosives With Metals, Organics	D002/ICR	DEACT/NEUT fb CHOXD fb CHRED fb STABL	PH* TCLP Metals Total Organics
Low [] Organics	F001 – F005	CHOXD fb STABL	Total Organics
Low [] Organics	D018 – D043	CHOXD fb STABL	Total Organics
Hazardous Waste Debris	All Codes & Contaminants Subject to Treatment	MICRO	NA
Hazardous Waste Debris	All Codes & Contaminants Subject to Treatment	MACRO	NA
Non- Hazardous Waste	-	STABL for Free Liquids	Visual Inspection

NOTES:

- ✓ Verify treatment process conditions, sequence, reagents and dosage rates with Trained MDWTP Personnel prior to processing any wastes (Refer to batch sheet.)
- ✓ All hazardous wastes must meet LDRs prior to disposal.
- ✓ The post-treatment analyses will also include a visual observation, to ensure no free liquid is present.

ABBREVIATIONS & SYMBOLS

A-CN = Amenable Cyanide
CHOXD = Chemical Oxidation
CHRED = Chemical Reduction
DEACT = Deactivation
fb = followed by
MICRO = Microencapsulation
MACRO = Macroencapsulation
NEUT = Neutralization
STABL = Stabilization
TCLP = Toxicity Characteristic Leaching Procedure
T-CN = Total Cyanide
< = Less than
> = Greater than
[] = Concentration

TABLE 3 – ANALYTICAL PARAMETERS & TESTING METHODS

PARAMETER	ANALYTICAL METHOD (1)	PRE-APPROVAL	PRE-ACCEPTANCE	POST-TREATMENT
Color	See Section 4.2	R	R	
Consistency	See Section 4.2	R	R	
Ignitability	See Section 4.2	R	R	
pH	See Section 4.2	R	R	
Radiation Screen	See Section 4.2	R	R	
Reactivity – Water	See Section 4.2	R	R	
Cyanide (Spot Test)	See Section 4.2	R	O	
Odor	See Section 4.2	R	O	
Sulfide (Spot Test)	See Section 4.2	R	O	
Compatibility Test	See compatibility work plan	O	R	
Cyanide (Reactive)	See Section 4.2	O	O	
Flash Point	See Section 4.2	O	O	
Hexavalent Chromium	See Section 4.2	O	O	
Oxidizer	See Section 4.2	O	O	
PCBs	See Section 4.2	O	O	
Reactivity – Acid	See Section 4.2	O	O	
Hydrogen Sulfide (Reactive)	See Section 4.2	O	O	
Total Organic Carbon - TOX	See Section 4.2	O	O	
Paint Filter Test (1)	See Section 4.2	O	O	M
Cyanide (Total)	See Section 4.2	O	O	M
Cyanide (Amenable)	See Section 4.2	O	O	M
TCLP	See Section 4.2	O	O	M
40 CFR 261 Appendix VII Constituents:	See Section 4.2	O	O	M
- Total Semi-Volatiles	See Section 4.2	O	O	M
- Total Volatiles	See Section 4.2	O	O	M
- Total Metals	See Section 4.2	O	O	M
- Total Herbicides	See Section 4.2	O	O	M
- Total Pesticides	See Section 4.2	O	O	M
NOTES:				
(1) =	Visual inspection to ensure no free liquids are present prior to disposal is performed on each load. Paint filter tests are performed on selected loads if deemed necessary by visual inspection.			
PCBs =	Polychlorinated Biphenyls			
TCLP =	Toxicity Characteristic Leaching Procedure			
R =	Required analysis			
M =	Mandated to meet treatment standards			
O =	Optional (or if no designation indicates the analysis is optional)			

FIGURE 1

<p style="text-align: center;"><u>TECHNOLOGY NAME</u> Deactivation (DEACT)</p>	
<p style="text-align: center;"><u>APPLICABLE WASTE TYPES</u> Wastes exhibiting the characteristics of Ignitability, Corrosivity, or Reactivity such as D001, D002, and D003 hazardous waste numbers.</p>	
<p style="text-align: center;"><u>PRE-TREATMENT REQUIREMENTS</u> Waste Specific</p>	
<p style="text-align: center;"><u>CRITICAL DESIGN PARAMETERS</u> - Dependent on which characteristic is exhibited. - Deactivation technologies include those recommended in 40CFR Part 268 Appendix VI.</p>	
<p style="text-align: center;"><u>WASTE CHARACTERISTICS AFFECTING PERFORMANCE</u> - STATE - solid, liquid, or sludge ALKALINITY, ACIDITY, AND pH FLASH POINT - CONCENTRATION OF OTHER CONSTITUENTS PRESENT. - DEACTIVATION BY-PRODUCTS. NOTE: MDWTP DOES NOT ACCEPT REACTIVE WASTES</p>	
<p style="text-align: center;"><u>UNDERLYING PRINCIPLE OF OPERATION</u> The treatment standard for many subcategories of characteristic hazardous D001, D002, and D003 wastes remove the characteristic of Ignitability, Corrosivity, or Reactivity. EPA has determined that many technologies such as those listed below, when used alone or in combination can achieve the treatment standard. Example deactivation technologies include:</p> <p style="text-align: center;">Stabilization Neutralization</p>	<p style="text-align: right;">(STABL) (NEUTR)</p>

FIGURE 2

<p><u>TECHNOLOGY NAME</u> Chemical Oxidation (CHOXD)</p>
<p><u>APPLICABLE WASTE TYPES</u></p> <p>Wastes containing organics, organo-metallics, cyanides, or sulfides. Oxidize arsenic to insoluble form in waste waters or inorganic sludges from metal plating/finishing. Typical hazardous waste numbers include F006, F007, F008, F009, F011, F012, F010, F019, F001-F005, D018-D043.</p>
<p><u>PRE-TREATMENT REQUIREMENTS</u></p> <p>Frequently requires raising pH to alkaline range.</p>
<p><u>CRITICAL DESIGN PARAMETERS</u></p> <ul style="list-style-type: none"> - Oxidation/reduction potential. - Residence time. - Amount and type of oxidizing agent - add excess and monitor ORP. - Degree of mixing. - pH - optimize (moderately alkaline ~10-11.5). - Oxidation temperature. - Amount and type of any catalyst. - TOC may be used as surrogate parameter for organics.
<p><u>WASTE CHARACTERISTICS AFFECTING PERFORMANCE</u></p> <ul style="list-style-type: none"> - CONCENTRATION OF OTHER OXIDIZABLE COMPOUNDS. Increases demand in reagent; high sulfide may require additional reagent. - CONCENTRATION OF METAL SALTS (especially Pb and Ag) Can cause excess consumption of reagent. Metal-cyanide complexes are more difficult to oxidize.
<p><u>UNDERLYING PRINCIPLE OF OPERATION</u></p> <p>The basic principle of chemical oxidation is that inorganic cyanides, selected dissolved organic compounds and sulfides can be chemically oxidized to yield carbon dioxide, nitrogen, water, salts, simple organic acids and in the case of sulfides, sulfates. Typical oxidants and reactions using sodium hypochlorite are:</p>
<p><u>Cyanide</u> $CN^- + NaOCl \rightarrow OCN^- + NaCl$ $2OCN^- + 3NaOCl \rightarrow CO_3^{2-} + CO_2 + N_2 + 3NaCl$</p> <p><u>Phenol</u> $C_6H_5OH + 14NaOCl \rightarrow 6CO_2 + 3H_2O + 14NaCl$</p> <p><u>Sulfide</u> $S^{2-} + 4NaOCl \rightarrow SO_4^{2-} + 4NaCl$</p>

FIGURE 3

<p><u>TECHNOLOGY NAME</u> Chemical Reduction (CHRED)</p>
<p><u>APPLICABLE WASTE TYPES</u> Reduce hexavalent chromium and selenate ions. Treat oxidizing wastes containing reducible organics, inorganic oxidizers from plating, metal finishing, chromium pigments, mining, ore processing, or chemical manufacturing. Typical hazardous waste numbers include D007, D010, F006-F009, F011, F012, and F019.</p>
<p><u>PRE-TREATMENT REQUIREMENTS</u> Frequently requires lowering pH to acidic range.</p>
<p><u>CRITICAL DESIGN PARAMETERS</u> <ul style="list-style-type: none"> - Oxidation/reduction potential. - Residence time. - Amount and type of reducing agent - add excess and monitor ORP. - Degree of mixing - pH - usually at lower pH; <4. - Reduction temperature. </p>
<p><u>WASTE CHARACTERISTICS AFFECTING PERFORMANCE</u> <ul style="list-style-type: none"> - CONCENTRATION OF OTHER REDUCIBLE COMPOUNDS. Increases demand in reagent. If TOC or inorganic oxidizer concentration is high, may not be applicable technology. - CONCENTRATION OF OIL AND GREASE. Causes monitoring problems/fouling. If high, may not be applicable technology. </p>
<p><u>UNDERLYING PRINCIPLE OF OPERATION</u> <p>The basic principle of chemical reduction is to reduce the valence of oxidizers and other constituents such as metals through oxidation-reduction reactions. Reducing agents such as ferrous sulfate or sodium sulfite are used to reduce specific constituents such as hexavalent chromium:</p> $H_2(Cr^{+6})_2O_7 + 3Na_2SO_3 + 3H_2SO_4 \rightarrow (Cr^{+3})_2(SO_4)_3 + 3Na_2SO_4 + 4H_2O$ </p>

FIGURE 4

<p><u>TECHNOLOGY NAME</u> Stabilization (STABL) / Microencapsulation (MICRO)</p>
<p><u>APPLICABLE WASTE TYPES</u> Wastes and hazardous debris containing leachable metals, high filterable solids content, low total organic content, and low oil and grease content. These include residuals from treatment of electroplating waste waters, characteristic and listed metal wastes. Typical hazardous waste numbers include D004-D011, F006-F009, F011, F012, F019, K061, F001-F005, and D018-D043.</p>
<p><u>PRE-TREATMENT REQUIREMENTS</u> - May require reducing or oxidizing metals to lower solubility states. - May require reducing oil and grease or organic content.</p>
<p><u>CRITICAL DESIGN PARAMETERS</u> - Amount and type of stabilizing agent and additives. - Degree of mixing. - Residence time. - Temperature and humidity - Form of metals - Oxidation state. - Solubility.</p>
<p><u>WASTE CHARACTERISTICS AFFECTING PERFORMANCE</u> - CONCENTRATION OF FINE PARTICLES. Very FINE particles (<No. 200 mesh) may weaken chemical bonds and increase leachability. - CONCENTRATION OF OIL AND GREASE. High OIL AND grease content coat particles, weaken chemical bonding, and increase leachability. - CONCENTRATION OF ORGANIC COMPOUNDS. High ORGANIC content (TOC) and organic compounds can inhibit curing and increase leachability. - CONCENTRATION OF SULFATE AND CHLORIDE COMPOUNDS. High sulfate or chloride content may interfere with chemical reactions, weaken bond strength, affect cure time, strength, and increase leachability. - SOLUBILITY OF METAL COMPOUNDS. Metals should be present in most insoluble form.</p>
<p><u>UNDERLYING PRINCIPLE OF OPERATION</u> The basic principle of operation for stabilization is that leachable metals and low levels of selected organics are immobilized by the addition of stabilization reagents. The leachability is reduced by the formation of a lattice structure and/or chemical bonds that bind the contaminants into a solid matrix thereby limiting the concentrations of contaminants that can be leached when water contacts the waste material. Stabilization of metals is most effective when the metal is in its least soluble state. Typical stabilization reagents include Portland cement, lime and cement kiln dust. Micro encapsulation involves stabilization of hazardous debris such that the leachability of hazardous contaminants are reduced.</p>

APPENDIX A

MDWTP - MID 000724831

Waste Types Acceptable for Storage, Treatment &/or Transshipment

Special Notes Regarding Permitted Waste Types (see Section 3.7)

The following Waste Code List includes all United States Environmental Protection Agency (USEPA) and Michigan Department of Environmental Quality (MDEQ) hazardous waste codes, with the following exceptions:

Ignitability –

Waste accepted for Treatment - Flash point of all wastes shall be > (greater than) = 90 °F.

Waste accepted for Storage and Transshipment - Flash point of all wastes shall be > (greater than), < (less than), or = 90 °F. Containers accepted at MDWTP for transshipment are uniquely marked so that they can easily visually identified as a transship waste stream.

Reactive wastes - (D003, K027, K044, K047, K161, and K045)

D003 (deactivated) waste may be accepted for storage, treatment and/or transshipment. These D003 deactivated waste (that may retain the code) will only be received as certified treatment residues, contaminated soil, contaminated debris, or spill residues that do not exhibit the characteristic of reactivity.

Reactive wastes identified in R299.9212 (3)(b-e) may be received for storage in the NCSA will be uniquely marked and subsequently transshipped. Reactive wastes identified in R299.9212 (3)(a, f, g, h) are prohibited.

Dioxin-containing wastes - (F020-F023, F026-F028, K043, and K099)

Dioxin-containing wastes shall not be accepted.

LDR –

Any waste codes that have a Land Disposal Restriction (LDR) technology-based treatment standard, other than Deactivation (DEACT), Chemical Reduction (CHRED), Chemical Oxidation (CHOXD), or Stabilization (STABL) cannot currently be treated by the facility, except as certified treatment residues. Hazardous waste debris may be treated as a waste stream or by micro-encapsulation or macro-encapsulation.

Section 13. General Inspection Schedule

GENERAL INSPECTION SCHEDULE

40 CFR 264.15b

AND

NREPA 451, Part 111 R504(1)c

WAYNE DISPOSAL SITE #2 LANDFILL

GENERAL INSPECTION SCHEDULE

40 CFR 270.14(b)(5) and MI Act 64 R504(1)c

Purpose:

The employees designated by the Owner or Operator as the Inspector(s) will inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing -- or may lead to -- (1) release of hazardous waste constituents to the environment or (2) a threat to human health. The Inspector conducts these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

Inspection Categories:

The Operator has developed and the Inspector follows a written schedule for inspecting:

- 1) Monitoring equipment;
- 2) Safety and emergency equipment;
- 3) Security devices; and
- 4) Operating and structural equipment important to preventing, detecting, or responding to environmental or human health hazards.

The inspection schedule is kept at the facility. The inspections are to be conducted at the times indicated below:

1. Annual - May of each year.
2. Quarterly - May, August, November, February.
3. Weekly - Monday or Tuesday of each week.
4. Daily - Each day the facility is handling hazardous waste.
5. After Storm - Within 24 hours following 0.5" precipitation.

Inspection Frequency:

The frequency of inspection is based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, or malfunction, or any operator error goes undetected between inspections.

Inspection Requirements for Waste Handling Areas:

As applicable to the facility, the inspection schedule meets the following requirements:

Areas subject to spills: (40 CFR 264.15) Areas subject to spills, such as loading and unloading areas, are inspected daily when in use.

Inspection Requirements for Landfills:

As applicable to the facility, the inspection schedule meets the following requirements for all landfill units storing hazardous wastes:

In accordance with 40 CFR 264.303(b), while a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

- (1) Deterioration, malfunctions or improper operation of run-on and run-off control systems. These systems are designed to control the volume of water from a 24-hour, 100 year storm. Associated collection and holding facilities must be emptied after storms to maintain design capacity of the system;
- (2) Proper functioning of wind dispersal control systems;
- (3) The presence of leachate in and proper functioning of leachate collection and removal systems. The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed. Ensure that leachate depth over the liner does not exceed 30 cm. (one foot).

In accordance with 40 CFR 264.303(c), a landfill with a leak detection system must:

- (1) Record the amount of liquids removed from each leak detection system sump at least once a week during the active life and closure period.
- (2) After the final cover is installed, the amount of liquids removed from each leak detection sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the

sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semiannually. If at any time during the post-closure operating period the pump operating level is exceeded at units on quarterly or semiannual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the level again stays below the pump operating level for two consecutive months.

Inspection Records:

The Inspector records inspections in an Inspection Log or Summary by compiling all completed Inspection Report forms into a binder kept on-site. These records are kept for at least three years from the date of inspection. These records, at a minimum, include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

The following Inspection Report Forms are currently in use at the facility:

- 1) Daily Inspection Report (Form LOM-FM-002-BEL)
- 2) Weekly / After Storm Inspection Report (Form LOM-FM-003-BEL)
- 3) Quarterly / Annual Post-Closure Inspection Report (Form LOM-FM-008-BEL)
- 4) Quarterly/Annual Inspection Report (Form LOM-FM-006-BEL)
- 5) Storm Water SOP Inspection Form (Form LOM-FM-009-BEL)
- 6) Weekly Inspection Checklist for Leachate Collection System (Form QES-FM-005-BEL)

7) Waste Transfer Tank Inspection Report (LOM-FM-XXX-BEL)

These Inspection Report forms list and describe items to be examined at a specific frequency. On the notes on each form (bottom or reverse side of the form), the inspection items and acceptable or unacceptable conditions for each inspection item are identified. Some parts of each report form may not be applicable during the course of an inspection. For example, the weekly report includes a number of specific items that must be evaluated only in the event of a storm. If no storm has occurred the status of that item would be not applicable (N/A).

In addition to the inspection forms, the following SOPs are in place that include operating, inspection and training requirements:

- 1) Standard Operating Procedure for Storm Water Management (LOM-OP-011-BEL)
- 2) Standard Operating Procedure for Track-out Management (LOM-OP-012-BEL)
- 3) Standard Operating Procedure for Fugitive Dust Management (LOM-OP-009-BEL)
- 4) Standard Operating Procedure for Wind Speed Monitoring (LOM-OP-013-BEL)
- 5) Earthwork Clearance Permit (ECP) Procedure (LOM-OP-003-BEL)
- 6) LDCRS Riser Maintenance Procedure (LOM-OP-010-BEL)

These SOPs in some cases have associated forms and instructions for record keeping. The SOPs may also refer to the stand alone forms listed above.

Groundwater monitoring equipment will be inspected during sampling events, which may not coincide with this schedule. When this occurs the information is recorded on the Quarterly / Annual Inspection Report form closest in time to the actual inspection.

A revised or improved version of any Inspection Report form may be implemented upon proper administrative change notification to Michigan Department of Environmental Quality, Waste & Hazardous Materials Division.

Inspection Response and Corrective Action:

The Operator remedies any deterioration or malfunction of equipment or structures, which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action is taken immediately.

If an unacceptable condition is detected, the Inspector reports it to the facility manager in charge at that time. The facility manager assigns responsibility for corrective action and a deadline by which corrective action has to be taken on the condition.

On subsequent daily inspections, the Inspector monitors the condition until the situation is completely rectified. Once it is rectified, the Inspector notes the date and time that the correction was made on all previous Reports mentioning the defect.

Training and Amendment of Inspection Checklists and SOPs:

All of the inspection checklists included in this section cannot be revised without the revisions being submitted to and approved by the MDEQ. This also holds for many of the SOPs listed in this document. Each SOP will contain a requirement for regulatory approval if necessary. The checklists and SOPs need to be reviewed to determine if modification is warranted any time there a new disposal area is constructed or any major change is made to the site infrastructure that are subject to inspection. When modifications to any checklist or SOP are made and approved, training of relevant personnel must be conducted before implementation

**WAYNE DISPOSAL, INC. SITE #2
ACTIVE HAZARDOUS WASTE LANDFILL OPERATIONS
DAILY INSPECTION REPORT**

Item	Description	Yes	No*	If "No" is checked, state required corrective action	Completed
1	Daily cover properly applied to new waste at end of work day and to previously covered areas where re-cover necessary due to weathering? Integrity of daily cover acceptable in all areas? ¹				
2	Perimeter fence, gates and locks intact and secure? ²				
3	No spilled or tracked waste in area around transfer station? ³				
4	After-Hours Waste Transfer Log is up to date?				
5	Wind speed monitoring equipment is on and properly functioning?				
6	Wind Speed Monitoring Equipment Downtime Log is up to date?				
7	Wind speed sensor is no more than 10 ft below the elevation at which waste is currently being placed in the landfill, is located on the southwest slope of Master Cell VI, and is approximately vertical?				
8	Is each Radio / Telephone operational: Security, Receiving, Lab, MDWTP Spotter's Shack & WDI Spotter's Shack				
9	Is the Wheel Wash Operational?				
10	Is the Wash Building equipped for decontamination of material?				
11	Is the Landfill Fire Extinguisher present and charged?				
12	Is the Sweeper or Water Truck operational?				
13	Is the South Sedimentation Basin gate valve operational?				
14	Is there sufficient silt fencing equipment available on site?				
15	Is there sufficient spill absorbent materials available on site (1 pallet minimum)				

Signature of operator responsible for Item 1: _____

Operating date: _____

Date and time cover application completed for specified operating date: _____

Signature of Inspector for items 2-7 (Landfill Manager or designated alternate): _____

Date of inspection for items 2-7: _____

Time of inspection for items 2-7: _____

¹Daily cover is ConCover or 6 inches of soil. ConCover application in accordance with manufacturer's specification and of sufficient thickness and coverage to control dust emissions. New waste covered at end of each day. Previously covered waste that is becoming exposed due to weathering of cover material must be re-covered to required specification.

²Inspect for vandalism, deterioration, or damage that could result in unauthorized entry to the active disposal area. Verify gates are locked.

³Inspect for proper housekeeping around the truck transfer area (sweeping and shoveling of any waste material that may have fallen from truck bed onto the ground surface). Site personnel shall also follow the Track-out Management SOP (LOM-OP-012-BEL) and the Bulk Waste Unloading SOP (LOM-OP-001-BEL) to minimize or eliminate spillage/track-out.

WAYNE DISPOSAL, INC. SITE #2
ACTIVE HAZARDOUS WASTE LANDFILL OPERATIONS
WEEKLY AND AFTER-STORM INSPECTION REPORT

Description	Yes	No	If "No", Explain. State Corrective Action.
Is this a WEEKLY inspection?			If yes, complete ENTIRE FORM
Is this an AFTER-STORM inspection?			If yes, complete ONLY Sections C & D
A. Leachate and Contact Water Collection Systems			Section A Inspected By: _____ Date: _____
Leachate collection sump riser covers present and properly seated (if applicable)?			
Condition of leachate collection sump risers acceptable?			
Leachate depths in each collection sump in compliance?			
Pumps functioning properly?			
Condition of flow meters acceptable?			
Secondary containment monitoring sumps for leachate and contact water force mains free of liquid?			
B. Leak Detection, Collection, and Removal System			Section B Inspected By: _____ Date: _____
Sump riser caps present and properly seated?			
Condition of sump risers acceptable?			
No evidence of tampering?			
Is the top of the riser and sample port protected from direct contact with waste?			
Motor controller condition acceptable? Protected from weathering?			
C. Storm Water Structural Controls			Section C Inspected By: _____ Date: _____
Contact water pumps and pump controls are properly functioning?			
Contact water high level alarms are functional?			
Contact water loss of power alarms are functional?			
Backup batteries for contact water alarm systems have proper voltage?			
Contact water is contained in the cell by separator berms and condition of berms is acceptable?			
D. Dike and Interim Cover Systems			Section D Inspected By: _____ Date: _____
Interim cover free of signs of erosion which could leave waste exposed?			
Condition of perimeter dike acceptable? Able to prevent run-on into cell and runoff out of cell?			
Is the perimeter free of signs of waste outside of the active cell?			
Is the visual boundary around the active cell in tact?			

Specify Type of Inspection

Check yes for the appropriate type of inspection (i.e. a weekly or an after-storm inspection).

For weekly inspections, complete all sections.

If it is an after-storm inspection, complete Sections C & D only.

A. Leachate and Contact Water Collection Systems

Top cover is required only if riser rim is low enough to be a fall hazard. If present, verify that cover is properly seated.

Inspect aboveground exterior and visible interior portions of risers for damage, stress (buckling) and deterioration.

Measure depth to leachate in each collection sump. If leachate head is non-compliant, immediately notify the Landfill Manager (or designee).

Inspect flow meters for damage or malfunction. Report meter readings to Landfill Manager (or designee).

Check for liquid in the secondary containment monitoring sumps for both the leachate and contact water force mains. If liquid is present, determine whether it is condensate, groundwater or leachate/contact water. If condensate, no action required. If groundwater, there is a leak in the secondary pipe. If leachate or contact water, there is a leak in the primary pipe. Any leaks must be reported to the Landfill Manager immediately and repaired.

B. Leak Detection, Collection, and Removal System

Caps required at all times to prevent contaminants from entering the sumps. Check that caps are present and properly seated.

Inspect aboveground exterior of sump risers for damage, buckling and deterioration.

Note if there is any evidence of tampering that could introduce contamination into the sump.

Waste must not be in contact with the sample port or in the vicinity of the riser opening.

If present, the pump control box must be closed and protected from weathering. If not in use the controller should be moved indoors.

C. Storm Water Structural Controls

Inspect containment berms for damage and wear that could result in failure to contain runoff either due to leakage, permeation, spillage over, or slope failure. Immediately report to the Landfill Manager (or designee) erosion, soil displacement, equipment-induced damage, cracks, wet soil during dry weather, etc.

D. Dike and Interim Cover Systems

Inspect interim cover soil for erosion which could lead to waste exposure.

Inspect the perimeter dike for erosion and vehicle/equipment damage that could weaken the dike and/or allow runoff into the cell or runoff out of the cell. Report any exposed geosynthetics. Report tire rutting which may have damaged underlying geosynthetics.

Inspect the perimeter of the active cell for debris that has blown outside of containment. Collect immediately and return to landfill.

Verify visual boundary around the active cell is intact.

**WAYNE DISPOSAL, INC. SITE #2 CELLS V, VII, AND IX
QUARTERLY/ANNUAL POST-CLOSURE INSPECTION CHECKLIST**

Month (Feb, May, Aug, or Nov) and Year: _____
Names of Inspectors: _____

Inspection Dates	Inspection Item	TRUE	FALSE***
Security System			
Feb/May/Aug/Nov (Quarterly)	Gates and Perimeter fence secure and intact		
Feb/May/Aug/Nov (Quarterly)	All warning signs present and legible		
Clay Dike and Perimeter Dewatering Tile System			
Feb/May/Aug/Nov (Quarterly)	No surface evidence of damage / deterioration		
Feb/May/Aug/Nov (Quarterly)	Free-flowing conditions exist at both discharge outlets		
May Only (Annual)	No damage / deterioration or evidence of tile blockage in manholes. Water levels and flow conditions in manholes acceptable.		
Final Cover System			
Feb/May/Aug/Nov (Quarterly)	No significant erosion		
Feb/May/Aug/Nov (Quarterly)	No settling or water ponding		
Feb/May/Aug/Nov (Quarterly)	Cover properly vegetated		
Feb/May/Aug/Nov (Quarterly)	No rodent holes		
Feb/May/Aug/Nov (Quarterly)	Cover drain pipes intact, no flow obstructions		
Feb/May/Aug/Nov (Quarterly)	No evidence of leachate seeps (if seeps observed, immediate corrective action required)		
Leachate Collection System			
Feb/May/Aug/Nov (Quarterly)	Standpipes/manholes/covers present, secure, and undamaged		
Feb/May/Aug/Nov (Quarterly)	Water column in each subcell collection sump acceptable		
Feb/May/Aug/Nov (Quarterly)	Pump systems (electrical, meters, pumps, piping) operational and undamaged		
Feb/May/Aug/Nov (Quarterly)	No surface evidence of damage to leachate discharge lines		
Feb/May/Aug/Nov (Quarterly)	No liquid in leachate force main secondary containment monitoring sumps		
Monitoring Wells			
May and Nov Only (Semi-annual)	Well security devices present and undamaged		
May and Nov Only (Semi-annual)	Aboveground portion of well casings intact, properly seated, and undamaged.		
May and Nov Only (Semi-annual)	Grout seal and concrete pad a base of wells intact, no evidence of water infiltration		
May and Nov Only (Semi-annual)	No ponded water around well heads		
May and Nov Only (Semi-annual)	Conditions of lysimeters acceptable (MC V and VII only)		
Gas Venting System (Cells V and VII only)			
Feb/May/Aug/Nov (Quarterly)	Vent pipes undamaged and properly seated in cell covers		
Feb/May/Aug/Nov (Quarterly)	Positive pressure exists at vent outlets.		
Benchmarks			
May Only (Annual)	Monuments undisturbed. Manholes centered over monuments.		

*** If "false" is entered for any inspection item, list the required corrective action in the Maintenance Log.

WAYNE DISPOSAL SITE #2 LANDFILL		Quarterly <input type="checkbox"/>		Date/Time: _____		
QUARTERLY / ANNUAL INSPECTION REPORT		Annual <input type="checkbox"/>		Inspector: _____		
INTERVAL	DESCRIPTION	LOCATION	ACCEPTABLE?		CORRECTIVE ACTION (Who, What)	COMPLETED (When)
			Yes	No		
	I. Monitoring Equipment					
	Groundwater					
Quarterly	Monitor Well -- Security					
Quarterly	Monitor Well -- Integrity					
Quarterly	Pump System -- Integrity					
	II. Structures/Appurtenances					
	Perimeter Edge Drain					
Annually	Manhole Covers -- Security					
Annually	Manhole Covers -- Integrity					
Annually	Manhole Sections -- Integrity					
Annually	Sumps -- Integrity					

INSPECTION CRITERIA

I. Monitoring Equipment

Groundwater

Inspect individual well security devices (caps, covers, locks) for malfunctions, deterioration, vandalism, or damage.

Inspect observable portion of well casing for deterioration or damage such as cracks, casing alignment (damage from vehicle contact), insect, or animal infestation.

Check grout at base of casing for proper seal to prevent surface water infiltration down on the side of the casing.

Inspect/operate pump and pump control unit for damage deterioration and malfunction.

Perimeter Edge Drain

Verify manhole covers are in-place and are not damaged or have deteriorated to a point that would allow for accidental entry.

Inspect above ground portion and interior for evidence of damage or deterioration such as cracking or spalling that would lead to sediment infiltration.

Inspect sump for excessive sediment build-up that could result in flow blockage. Inspect for line blockage, i.e., water accumulating above pipe elevation.

**WEEKLY INSPECTION CHECKLIST FOR LEACHATE COLLECTION SYSTEM
WAYNE DISPOSAL, INC. SITE #2 HAZARDOUS WASTE LANDFILL MASTER CELLS**

Inspector: _____

Date: _____

Cell	Meter Reading	Meter Advance?		Compliance Depth to Leachate (ft)	Actual Depth to Leachate (ft)	Level in Compliance?		Pump Functioning?		Meter Functioning?	
		Y	N			Y	N	Y	N	Y	N
V-A				68.8							
V-B				62.5							
V-C				55.9							
V-E				61.2							
VI-AS				127.0							
VI-AN				128.3							
VI-B				135.2							
VI-C				102.1							
VI-D				130.9							
VI-ENE											
VI-ENW				80.0							
VI-ESW				26.0							
VI-ESE				37.0							
VI-CONTACT											
VII-A				37.5							
VII-BN				49.3							
VII-BS				51.8							
VII-C				46.2							

Comments/Action Taken _____

Note: Report items needing immediate attention to the Site Manager
Inspection sheet current as of 9/18/08 change to compliance levels DTL (MC-VI)

The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.

WAYNE DISPOSAL, INC. STORM WATER MANAGEMENT SYSTEM INSPECTION FORM

Inspection Frequency	Inspection Item ¹	Acceptable?		Date Inspected	Signature of Inspector
		Yes	No ³		
FIGURE 1					
Annually	L1 - Catch Basin				
Annually	L2 - Catch Basin				
Annually	L3 - Catch Basin				
Annually	L4 - Catch Basin				
Annually	L5 - Catch Basin				
Annually	L6 - Catch Basin				
Annually	L7 - Catch Basin				
Annually	L8 - Catch Basin				
Annually	L9 - Catch Basin				
Annually	L9.5 - Manhole				
Annually	L10 - Catch Basin				
Annually	L11 - Catch Basin				
Annually	L12 - Catch Basin				
Annually	L13 - Catch Basin				
Annually	L14 - Manhole				
Annually	L15 - Catch Basin				
Annually	L16 - Catch Basin				
Annually	L17 - Catch Basin				
Annually	L18 - Catch Basin				
Annually	L19 - Catch Basin				
Annually	L20 - Catch Basin				
Annually	L21 - Catch Basin				
Annually	L22 - Catch Basin				
Annually	L23 - Catch Basin				
Annually	L24 - Catch Basin				
Annually	L25 - Catch Basin				
Annually	L26 - Catch Basin				
Annually	L27 - Manhole				
Annually	L28 - Catch Basin				
Annually	L29 - Catch Basin				
Annually	L30 - Catch Basin				
Annually	L31 - Catch Basin				
Annually	L32 - Catch Basin				
Annually	L33 - Catch Basin				
Annually	L34 - Catch Basin				
Annually	L35 - Manhole				
Annually	L36 - Manhole				
Annually	L37 - Manhole				
Annually	L38 - Manhole				
Annually	L39 - Manhole				
Annually	L40 - Manhole				
Annually	L41 - Manhole				

WAYNE DISPOSAL, INC. STORM WATER MANAGEMENT SYSTEM INSPECTION FORM

Inspection Frequency	Inspection Item ¹	Acceptable?		Date Inspected	Signature of Inspector
		Yes	No ³		
Annually	L42 - Outlet to Lined Pond				
Semiannually	S1 - Culvert Inlet				
Annually	S2 - Manhole				
Annually	S3 - Catch Basin				
Annually	S4 - Manhole				
Annually	S5 - Manhole				
Annually	S6 - Manhole				
Annually	S7 - Catch Basin				
Annually	S8 - Catch Basin				
Annually	S9 - Catch Basin				
Annually	S10 - Catch Basin				
Annually	S11 - Catch Basin				
Annually	S12 - Buried Structure				
Annually	S13 - Manhole ⁴				
Annually	S14 - Catch Basin				
Annually	S15 - Catch Basin				
Annually	S16 - Catch Basin				
Annually	S17 - Catch Basin				
Annually	S18 - Catch Basin				
Annually	S19 - Catch Basin				
Semiannually	S20 - Outlet				
FIGURE 2					
Quarterly	S21 - West MC IV Ditch ⁴				
Quarterly	S22 - North MC IV Ditch ⁴				
Semiannually	S23 - 18 inch culvert				
Quarterly	S24 - East MC IV Ditch ⁴				
Semiannually	S25 - 24 inch culvert				
Quarterly	S26 - East MC I/ Woodlot Ditch ⁴				
Semiannually	S27 - 18 inch culvert				
Quarterly	S28 - MC I Diversion Berm ⁴				
Quarterly	S29 - MC I Highpoint ⁴				
Quarterly	S30 - Woodlot ⁴				
Quarterly	S31 - North MC V Ditch ⁴				
FIGURE 3					
Quarterly	S31 - East MC V Ditch ⁴				
Semiannually	S33 - 16 inch culvert				
Quarterly	S34 - MC VII/ XI Ditch ⁴				
Semiannually	S35 - 24 inch culvert				
Semiannually	S36 - 18 inch culvert				
Annually	S37 - Manhole				
Semiannually	S38 - (3) 12 inch culverts				
Quarterly	S39 - East MC VI Ditch ⁴				
Semiannually	S40 - 60 inch culvert				

WAYNE DISPOSAL, INC. STORM WATER MANAGEMENT SYSTEM INSPECTION FORM

Inspection Frequency	Inspection Item ¹	Acceptable?		Date Inspected	Signature of Inspector
		Yes	No ³		
Quarterly	N1 - MC XI Diversion Berm ⁴				
Quarterly	N2 - MC X/ XI Ditch ⁴				
Semiannually	N3 - 48 inch culvert				
Quarterly	N4 - MC VII/ XI Ditch ⁴				
Semiannually	N5 - 24 inch culvert				
Quarterly	N6 - MC VII/ IX Ditch ⁴				
Semiannually	N7 - (3) 24 inch culverts				
Quarterly	N8 - North MC VII Ditch ⁴				
Semiannually	N9 - 36 inch culvert				
Semiannually	N10 - 48 inch culvert				
Quarterly	N11 - North MC IX Ditch ⁴				
Quarterly	N12 - Northeast MC IX Ditch ⁴				
Semiannually	N13 - 54 inch culvert				
Quarterly	N14 - East MC IX Ditch ⁴				
Quarterly	N15 - North Sed. Basin Discharge				
Quarterly	N16 - East MC X Ditch ⁴				
Quarterly	N17 - South MC X Ditch ⁴				
Quarterly	N18 - East MC X Ditch ⁴				
Semiannually	N19 - 30 inch culvert				
Annually	N20 - 15 inch culvert				
Quarterly	N21 - Manhole				
Quarterly	N22 - MC X Diversion Berm ⁴				
FIGURE 4					
Annually	Critical Curbing, overflow containment ⁴				
Annually	Critical Curbing, other				
NORTH SEDIMENTATION BASIN					
Quarterly	Maximum Target Elevation Markings				
Even Years	Maximum Target Elevation Markings				
Quarterly	Sidewalls				
June ²	Sediment levels				
SOUTH SEDIMENTATION BASIN					
Quarterly	Maximum Target Elevation Markings				
Even Years	Maximum Target Elevation Markings				
Quarterly	Sidewalls				
June ²	Sediment levels				
LINED POND					
Quarterly	Maximum Target Elevation Markings				
Even Years	Maximum Target Elevation Markings				
Quarterly	Membrane Integrity				
June ²	Sediment Levels				

WAYNE DISPOSAL, INC. STORM WATER MANAGEMENT SYSTEM INSPECTION FORM

Inspection Frequency	Inspection Item ¹	Acceptable?		Date Inspected	Signature of Inspector
		Yes	No ³		

Instructions for Inspection Form

- 1 - See Storm Water Management System Figures 1, 2, 3 and 4 of the Standard Operating Procedure for Storm Water Management to locate each structure to be inspected.
- 2 - If not possible in the month specified due to water level, then as soon thereafter as practicable.
- 3 - If "No" is checked (i.e., inspected item is not acceptable), attach a corrective action report with location and description of the unacceptable condition, summary of corrective actions performed and date by which actions were completed. The corrective action report must be signed by the Landfill Manager or designee.
- 4 - Table 1 must be completed for this structure once per year.

Inspection Instructions

- 1) To locate the structures required to be inspected by this form, refer to Figures 1, 2, 3 and 4 of the Standard Operating Procedure for Storm Water Management.
- 2) At the frequencies shown above, compare each structure against the Definitions of Unacceptable Conditions listed below.
- 3) Structures marked with footnote 4 must be surveyed annually at the checkpoints listed in Table 1 and shown in Figures 1, 2, 3 and 4; the elevations/heights entered to Table 1 to determine whether the structures have materially changed (i.e., are unable to transmit at least a 25-year, 24-hour storm); and the completed Table 1 attached to the completed inspection form.
- 4) When inspecting ditches and diversion berms other than for the annual Table 1 survey, it is not required to survey elevations of the Table 1 checkpoints; but ditches and berms must be inspected over their entire lengths and evaluated against the Definitions of Unacceptable Conditions listed below.
- 5) Signing that a structure is acceptable means the inspector certifies the structure does NOT meet any of the Definitions of Unacceptable Conditions listed below. However, if "No" is checked (i.e., inspected item is not acceptable), attach a corrective action report with location and description of the unacceptable condition, summary of corrective actions performed and date by which actions were completed. The corrective action report must be signed by the Landfill Manager or designee. Copies of Figures 1, 2, 3 and 4 may be marked and attached to show the location(s) of unacceptable conditions.

Definitions of Unacceptable Conditions

Diversion Berms: Unacceptable means any condition that could cause reduced carrying capacity or bypass anywhere along the berm (e.g., excessive sediment build-up, blockages or erosion); or the heights at any of the inspection checkpoints are materially less than the required heights in Table 1. If possible during or shortly after a rain event, observe whether water is overtopping or bypassing the berms anywhere along their length.

Ditches: Unacceptable means any condition that could cause reduced carrying capacity or bypass anywhere along the ditch (e.g. excessive sediment build-up, blockages or erosion); or the elevations at any of the inspection checkpoints are materially higher than the required elevations in Table 1. If possible during or shortly after a rain event, look for water levels that are abnormally high as a possible indication of the need for maintenance.

Culverts: Unacceptable means any condition that could cause reduced carrying capacity or bypass (e.g., excessive sediment build-up, blockages, collapsed or misaligned pipe sections based on visual inspection from end of pipe). If possible during or shortly after a rain event, look for water levels that are abnormally high as a possible indication of the need for maintenance.

Catch Basins (flow-through lids): Unacceptable means the lid or structure are damaged or sediment or debris are blocking flow through the catch basin. If possible during or shortly after a rain event, look for water levels that are abnormally high as a possible indication of the need for maintenance.

Manholes (solid lids): Unacceptable means the lid or structure are damaged; the cover gasket is missing or damaged; or sediment or debris are blocking flow through the manhole. If possible during or shortly after a rain event, look for water levels that are abnormally high as a possible indication of the need for maintenance. At the conclusion of the inspection reseal the gasket and securely tighten bolts to ensure a leak-tight seal.

Critical Curbing, overflow containment: Only Critical Curbing as defined in the Standard Operating Procedure for Storm Water Management must be inspected. Unacceptable means any condition that could compromise the ability of the curbing to contain runoff anywhere along its length (e.g., broken, severely cracked); or the elevations at any of the inspection checkpoints are materially less than the required elevations in Table 1.

Critical Curbing, other: Only Critical Curbing as defined in the Standard Operating Procedure for Storm Water Management must be inspected. Unacceptable means any condition that could compromise the ability of the curbing to direct flow anywhere along its length (e.g., broken, severely cracked).

Maximum Target Elevation markings, quarterly inspection: Unacceptable means MTE markers are damaged, missing or not visible.

Maximum Target Elevation markings, even year inspection: Unacceptable means the MTE markings are not at the correct elevations stated in the procedure.

Sidewalls (sedimentation basins only): Unacceptable means excessive soil erosion (deep rills) or inadequate vegetation to inhibit erosion.

Membrane integrity (lined pond only): Unacceptable means there are defects (e.g., holes, cracking or other damage) in the visible portion of the membrane.

Sediment levels: Unacceptable means the elevation of the top of the sediment is less than two feet below the MTE at the monitoring points specified in the Standard Operating Procedure for Storm Water Management.

TABLE 1
WAYNE DISPOSAL, INC. STORM WATER MANAGEMENT SYSTEM INSPECTION FORM

Structure	Checkpoint	Description	Location		Original Elevation	Existing Elevation	Original Height	Existing Height
			Northing	Easting				
S21	S21.1	West MC IV Ditch	8452.6	3693.2	709.7		NA	NA
	S21.2		8768.2	3709.4	707.9		NA	NA
S22	S22.1	North MC IV Ditch	8794.5	3747.9	707.5		NA	NA
	S22.2		8807.7	4390.4	705.7		NA	NA
	S22.3		8826.7	5059.6	704.7		NA	NA
S24	S24.1	East MC IV Ditch	8785.1	5102.0	707.6		NA	NA
	S24.2		8175.4	5052.1	712.1		NA	NA
	S24.3		7784.4	5031.7	706.8		NA	NA
S26	S26.1	East MC I/ Woodlot Ditch	7680.8	4991.4	704.6		NA	NA
	S26.2		6960.5	4979.9	702.3		NA	NA
	S26.3		6260.5	4983.2	700.6		NA	NA
S28	S28.1	MC I Diversion Berm	5589.3	4834.8	717.8		NA	NA
	S28.2		5478.5	3986.3	719.1		NA	NA
S29	S29.1	MC I	6093.2	3942.9	737.2		NA	NA
	S29.2		6021.6	3978.7	731.4		NA	NA
	S29.3		6148.2	3974.7	736.7		NA	NA
S30	S30.1	Woodlot	7380.7	3732.4	704.8		NA	NA
S31	S31.1	North MC V Ditch	8826.5	5114.1	705.4		NA	NA
	S31.2		8845.4	5768.0	703.8		NA	NA
	S31.3		8843.5	6420.4	703.1		NA	NA
S32	S32.1	East MC V Ditch	8350.3	6465.7	702.4		NA	NA
S34	S34.1	MC VII/ XI Ditch (West)	7558.3	6668.4	706.1		NA	NA
	S34.2		7563.3	6886.4	706.3		NA	NA
S39	S39.1	East MC VI Ditch	6836.9	6444.6	703.7		NA	NA
	S39.2		6354.9	6447.5	700.0		NA	NA
N1	N1.1	Toe MC XI Diversion Berm	6162.4	7032.5	719.5		0.7	
	N1.2	Top MC XI Diversion Berm	6159.4	7038.6	720.2			
	N1.3	Toe MC XI Diversion Berm	6450.3	7148.1	711.6			
	N1.4	Top MC XI Diversion Berm	6443.8	7152.4	712.0		0.4	
	N1.5	Toe MC XI Diversion Berm	6605.3	7547.7	706.7			
	N1.6	Top MC XI Diversion Berm	6598.9	7559.7	707.1			
N2	N2.1	MC X/ XI Ditch	6636.2	7649.2	699.0		NA	NA
	N2.2		6894.5	7646.9	698.7		NA	NA
	N2.3		7272.2	7628.4	699.3		NA	NA
N4	N4.1	MC VII/ XI Ditch (East)	7563.9	7021.9	705.8		NA	NA
	N4.2		7580.4	7518.6	700.0		NA	NA
N6	N6.1	MC VII/ IX Ditch	7403.6	7627.6	699.2		NA	NA
	N6.2		8122.5	7607.4	698.0		NA	NA
	N6.3		8814.0	7597.0	697.4		NA	NA
N8	N8.1	North MC VII Ditch	8865.6	6509.7	701.2		NA	NA
	N8.2		8873.1	7044.8	698.3		NA	NA
	N8.3		8878.8	7461.8	697.5		NA	NA
N11	N11.1	North MC IX Ditch	8882.0	7720.0	696.0		NA	NA
	N11.2		8904.5	8484.3	696.1		NA	NA
N12	N12.1	Northeast MC IX Ditch	8502.0	8858.8	694.9		NA	NA
	N12.2		7944.8	8946.3	693.9		NA	NA
N14	N14.1	East MC IX Ditch	7311.0	8930.1	698.0		NA	NA
	N14.2		7855.6	8943.2	694.0		NA	NA
N16	N16.1	East MC X Ditch	7097.8	8945.7	697.7		NA	NA
	N16.2		6547.9	8951.4	695.6		NA	NA
	N16.3		5844.5	8955.1	694.0		NA	NA
N17	N17.1	South MC X Ditch	5616.5	8712.5	694.0		NA	NA
	N17.2		5599.7	8328.0	691.4		NA	NA
	N17.3		5638.0	7898.8	692.0		NA	NA

TABLE 1
WAYNE DISPOSAL, INC. STORM WATER MANAGEMENT SYSTEM INSPECTION FORM

Structure	Checkpoint	Description	Location		Original Elevation	Existing Elevation	Original Height	Existing Height
			Northing	Easting				
N18	N18.1	West MC X Ditch	5753.7	7806.5	689.9		NA	NA
	N18.2		6420.1	7794.0	688.2		NA	NA
N22	N22.1	Toe MC X Diversion Berm	6531.1	7823.6	710.9		1.3	
	N22.2	Top MC X Diversion Berm	6525.7	7819.8	712.2			
	N22.3	Toe MC X Diversion Berm	5875.0	7950.6	715.8		1.5	
	N22.4	Top MC X Diversion Berm	5872.4	7942.7	717.3			
	N22.5	Toe MC X Diversion Berm	5722.3	8494.5	723.6		1.1	
	N22.6	Top MC X Diversion Berm	5714.7	8494.9	724.7			
	N22.7	Toe MC X Diversion Berm	6442.6	8846.7	714.8		1.1	
	N22.8	Top MC X Diversion Berm	6442.2	8855.0	715.9			
	N22.9	Toe MC X Diversion Berm	7178.3	8898.6	706.5		1.0	
	N22.10	Top MC X Diversion Berm	7178.2	8906.6	707.5			
Critical Curbing	C1	Critical Curbing	6170.5	5451.2	701.5		NA	NA
	C2	Critical Curbing	6083.2	5344.9	701.5		NA	NA
	C3	Critical Curbing	6005.2	5347.5	701.5		NA	NA
	C4	Critical Curbing	6180.3	5048.2	701.5		NA	NA
	C5	Critical Curbing	6273.0	5044.8	701.5		NA	NA

WAYNE DISPOSAL SITE #2 LANDFILL WASTE TRANSFER TANK INSPECTION REPORT		Daily <input type="checkbox"/>	Weekly <input type="checkbox"/>	Annual <input type="checkbox"/>	Date: _____
		ACCEPTABLE?			Time: _____
					Inspector: _____
INTERVAL	DESCRIPTION	Yes	No	CORRECTIVE ACTION (Who, What)	
		COMPLETED (When)			
Daily	Cement Floor				
	Steel Walls				
	Sump				
Weekly	Leak Detection Observation Well				
	Run-on Control				
	Retaining Wall				
	Integrity of Contact Water Piping				
Annually	Cement Thickness				
	Steel Thickness				

INSPECTION CRITERIA

Daily

- Cement Floor - Check for cracks, gaps, or damage to integrity of concrete surface.
- Steel Walls - Check for damage to steel, loose bolts, and displacement along seams.
- Sump - Check for water in sump. If water present, pump to contact water pond.

Weekly

- Leak Detection Observation Well - Check for presence of water in leak detection well with electronic sounding device.
- Run-on Control - Check curbs, gutters, speed bumps, and asphalt surface for damage or obstructions.
- Retaining Wall - Check for erosion of earth or displacement of seams.
- Integrity of Contact Water Piping - Check for water discharge within the contact water sump at the transition of the double-contained HDPE conveyance piping to the primary pump discharge pipe.

Annual

- Cement Floor Thickness - Survey floor to determine how much wear has occurred, at 4-inches of wear the surface should be repaired.
- Steel Thickness - Measure thickness to determine degree of degradation. Replace if less than two-thirds of the original plate thickness.

Section 14. Personnel Training Program

**FORM EQP 5111 ATTACHMENT TEMPLATE A10
PERSONNEL TRAINING**

This document is an attachment to the Michigan Department of Natural Resources and Environment's *Instructions for Completing Form EQP 5111, Hazardous Waste Treatment, Storage, and Disposal Facilities Construction Permit and Operating License Application Form*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of the Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9501, R 299.9605 and Title 40 Code of Federal Regulations (CFR) §§264.16 and 270.14(b)(12), establish requirements for personnel training programs at hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template addresses requirements for a personnel training program at the hazardous waste management facility for the Wayne Disposal, Inc. in Belleville, Michigan. This template includes personnel training requirements for construction permits and operating license applications. The information included in the template demonstrates how the facility meets the personnel training requirements for hazardous waste management facilities.

(Check as appropriate)

Operating License Applicant:

Construction Permit Applicant:

R 299.9605 Personnel Training Program

R 299.9605 Personnel Training Program

This template is organized as follows:

- A10.A CONTENT OF INTRODUCTORY AND CONTINUING EDUCATION PROGRAMS
 - A10.A.1 Outline for Introductory Training Program
 - A10.A.2 Outline for Continuing Education
- A10.B PERSONNEL SUBJECT TO TRAINING REQUIREMENTS
 - A10.B.1 Job Titles and Job Descriptions
 - A10.B.2 Description of How Training is Designed to Meet Actual Job Tasks
- A10.C FREQUENCY OF REQUIRED TRAINING
 - A10.C.1 Initial Training
 - A10.C.2 Continuing Education
- A10.D TRAINING DIRECTOR
- A10.E DOCUMENTATION AND RECORD KEEPING
 - A10.E.1 Documentation
 - A10.E.2 Record Keeping

A description of WDI's Personnel Training Program is included in Section 14 of the Operating License Application

A10.A CONTENT OF INTRODUCTORY AND CONTINUING EDUCATION TRAINING PROGRAMS

[R 299.9605 and 40 CFR §264.16(a)]

Wayne Disposal provides both introductory and ongoing training on a wide variety of health and safety, emergency and operational modules. Per the regulations, WDI provides training that includes the following:

- *Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment*
- *Key parameters for automatic waste feed cutoff systems*
- *Communications or alarm systems*
- *Response to fires or explosions*
- *Response to groundwater contamination incidents*
- *Shutdown of operations*

A10.A.1 Outline for Introductory Training Program

[R 299.9605 and 40 CFR §§264.16(a)(1) and 264.16(d)(3)]

Introductory training includes training that all employees receive, such as training on the Contingency Plan, SPCC Plan, HazComm/MSDS, site orientation, and emergency procedures. New personnel are trained on all health and safety issues, standard operating procedures and work instructions relevant to their position and location at the facility.

A10.A.2 Outline for Continuing Education

[R 299.9605 and 40 CFR §§264.16(a)(1) and 264.16(d)(3)]

Continued training and is conducted on a schedule administered by the site Health and Safety Manager. A training matrix is developed each year that identifies training requirements by position and by the individual in each position. In addition to annual HAZWOPER refresher training requirements, each employee is assigned additional training directly applicable to their job description. The level of training (awareness or operational) depends on the individuals job description. Examples of job specific training include (but are not limited to):

- *Confined space entry*
- *Lock-out/tag-out*
- *Excavation and trench safety*
- *Electrical safety*
- *Fall protection*
- *Machine guarding*
- *Respiratory fit testing*

A10.B PERSONNEL SUBJECT TO TRAINING REQUIREMENTS

[R 299.9605 and 40 CFR §§264.16(a),(d)]

All personnel working at the WDI facility are subject to training based on their job description.

A10.B.1 Job Titles and Job Descriptions

[R 299.9605 and 40 CFR §§264.16(d)(1),(2)]

Each position at WDI has a written job description that identifies job tasks, required physical capabilities, job location and required training and education.

A10.B.2 Description of How Training is Designed to Meet Actual Job Tasks

[R 299.9605 and 40 CFR §§264.16(a)(1) and (d)(3)]

Each job position is reviewed annually to determine what training is required or recommended for the year. A training matrix is prepared to ensure that training requirements for each position and each individual in that position are scheduled for training and documenting when the training is completed.

A10.C FREQUENCY OF REQUIRED TRAINING

[R 299.9605 and 40 CFR §§264.16(b), (c)]

A10.C.1 Initial Training

[R 299.9605 and 40 CFR §264.16(b)]

Personnel must complete introductory training within six months of their employment or assignment to a new position. Employees must not work in unsupervised positions until they have completed the training.

A10.C.2 Continuing Education

[R 299.9605 and 40 CFR §264.16(c)]

Personnel must take part in continuing education training annually per the training matrix.

A10.D TRAINING DIRECTOR

[R 299.9605 and 40 CFR §264.16(a)(2)]

Training is conducted by Managers, the Health & Safety Manager or by qualified contractors as warranted.

A10.E DOCUMENTATION AND RECORD KEEPING REQUIREMENTS

[R 299.9605 and 40 CFR §§264.16(d) and (e)]

A10.E.1 Documentation

[R 299.9605 and 40 CFR §264.16(d)]

Records for Job Titles and Names of Employees Filling Each Job, Written Job Descriptions, Written Description of Type and Amount of Training Given to Each Position, Documentation That Training Has Been Given to and Completed by Facility Personnel are maintained by the Site Health and Safety Manager

A10.E.2 Record Keeping

[R 299.9605 and 40 CFR §264.16(e)]

These train training records are kept for (1) current personnel until closure of the facility and (2) former personnel for at least three years.

SITE 2 (MDWTP/WDI) PERSONNEL TRAINING PROGRAM

PERSONNEL TRAINING FOR SAFE FACILITY OPERATION AND MAINTENANCE

40 CFR 270.14(b)(12), 40 CFR 264.16, and Part 111

CORPORATE OBJECTIVES TARGET SAFETY AND COMPLIANCE

EQ completes all required compliance training for associates in a timely manner. In order to accomplish this a comprehensive training plan is followed which encompasses safety, compliance with environmental standards, and job-specific training such as adherence to the waste analysis plan (WAP). One module found within this training plan is the training required under RCRA for persons who work at a hazardous waste facility. The requirements in 40 CFR 264.16 state that workers will be given a baseline awareness of potential hazards at the facility and how to respond to an incident involving the release of waste following the site Contingency Plan. This training program, the RCRA Contingency Plan and Emergency Response Procedures is described below.

THE RCRA CONTINGENCY PLAN AND EMERGENCY RESPONSE PROCEDURES

This section provides an outline of both introductory and continuing training programs provided by the facility owners and operators to prepare persons to operate or maintain the Hazardous Waste Management facility in a safe manner as required to demonstrate compliance with 40 CFR 264.16. The title of this training program is RCRA Contingency Plan and Emergency Response Procedures. This training is designed to meet actual job tasks in accordance with RCRA regulatory requirements in 40 CFR 264.16(a)(3).

GENERAL METHOD AND CONTENT OF TRAINING

Facility personnel shall successfully complete a program of classroom instruction and on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The curriculum includes all the elements to fulfill both introductory and continuing training that will be given to each person filling a position related to hazardous waste management at the facility. An associate who is trained in hazardous waste management procedures, normally the Regulatory or Health & Safety Representative, directs this training.

Each manager is responsible for identifying the initial and continuing training needs of his/her employees to ensure facility compliance with RCRA. This information is communicated to the Regulatory or Health & Safety Representative who registers the employee into training classes. The manager also provides instruction on job-related standard operating procedures and other on-the-job training. This program includes instruction, which teaches facility personnel hazardous waste management procedures, including contingency plan implementation relevant to the position in which they are employed.

A. TRAINING CURRICULUM:

The training program is designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, emergency systems including;

- (i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
- (ii) Communications or alarm systems;
- (iii) Responses to fires or explosions;
- (iv) Responses to spill incidents; and
- (v) Shutdown of operations

B. TRAINING TIMING AND FREQUENCY

Each affected person completes the program within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, which ever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of the RCRA Contingency Plan and Emergency Response Procedures.

C. ANNUAL REVIEW

All facility personnel take part in an annual RCRA Contingency Plan and Emergency Response Procedures review.

D. DOCUMENTATION AND RECORD KEEPING:

The owner or operator maintains the following documents and records at the facility:

(1) Job Title and Employee List:

The job title for each position at the facility related to waste management, and the name of each employee filling each job; - per 40 CFR 264.16(d)(1)

(2) Job Description:

A written job description is provided for each position is listed above. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, u must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position; - per 40 CFR 264.16(d)(2) –

(3) Training Requirements:

A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed; - per 40 CFR 266.16(d)(3)

(4) Records:

Records that document the RCRA Contingency Plan and Emergency Response Procedure training or job experience has to be given to, and completed by, facility personnel; - per 40 CFR 264.16(d)(4)

E. RECORD MANAGEMENT

Training records on current personnel are kept until closure of the facility. Training records on former employees are kept for at least three years from the date the employee last worked at the facility. Such records are maintained on-site.

Personnel training records may accompany personnel transferred within the same company to another facility.

Section 15. Contingency Plan & Emergency Procedures

**FORM EQP 5111 ATTACHMENT TEMPLATE A7
CONTINGENCY PLAN**

This document is an attachment to the Michigan Department of Natural Resources and Environment's *Instructions for Completing Form EQP 5111, Hazardous Waste Treatment, Storage, and Disposal Facilities Construction Permit and Operating License Application Form*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9501, R 299.9508(1)(b), R 299.9504(1)(c), R 299.9607 and Title 40 of the Code of Federal Regulations (CFR) §§264.50 through 264.56, and 270.14(b)(7), establish requirements for contingency plans at hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003. This license application template addresses requirements for a contingency plan at the hazardous waste management facility for the Wayne Disposal, Inc. in Belleville, Michigan.

(Check as appropriate)

- Operating License Applicant
- Construction Permit Applicant

This template is organized as follows:

INTRODUCTION

A7.A BACKGROUND INFORMATION

- A7.A.1 Purpose of the Contingency Plan
- A7.A.2 Description of Facility Operations
- A7.A.3 Identification of Potential Situations

A7.B EMERGENCY COORDINATORS

- A7.B.1 Identification of Primary and Alternate Emergency Coordinators
- A7.B.2 Qualifications of the Emergency Coordinators
- Table A7.B.1 Identification of Primary and alternate Emergency Coordinators
- A7.B.3 Authority to Commit Resources

A7.C IMPLEMENTATION OF THE CONTINGENCY PLAN

A7.D EMERGENCY PROCEDURES

- A7.D.1 Immediate Notification Procedures for Facility Personnel and State and Local Agencies with Designated Response Roles
- A7.D.2 Procedures to Be Used for Identification of Releases
- A7.D.3 Procedures to Be Used to Assess Potential Hazards to Human Health and the Environment
- A7.D.4 Procedures to Determine if Evacuation is Necessary and Immediate Notification of Michigan Pollution Emergency Alerting System and National Response Center
- A7.D.5 Procedures to Be Used to Ensure That Fires, Explosions, and Releases Do Not Occur, Reoccur, or Spread During the Emergency
- Table A7.D.1 Federal, State, and Local Response Contacts
- A7.D.6 Procedures to Be Used to Monitor Equipment Should Facility Operations Cease

- A7.D.7 Procedures to Provide Proper Treatment, Storage, and Disposal for Any Released Materials
- A7.D.8 Procedures for Cleanup and Decontamination
- A7.E NOTIFICATION AND RECORD KEEPING REQUIREMENTS
 - A7.E.1 Procedures to Be Used to Notify State and Federal Officials Prior to Commencement of Operations
 - A7.E.2 Record Keeping Requirements
 - A7.E.2(a) Operating Record
 - A7.E.2(b) Written Incident Report
- A7.F PROCEDURES FOR REVIEWING AND AMENDING THE CONTINGENCY PLAN

GUIDANCE/REFERENCES

Michigan Department of Natural Resources and Environment, Operational Memo 111-22: "Implementation of a Facility's Hazardous Waste Contingency Plan and Reporting Obligations", May 24, 2000.

INTRODUCTION

 *The contingency plan contained in this template serves two functions: (1) presenting required permit application information and demonstrating that the facility meets the performance standards in 40 CFR, Part 264; and (2) serving as the actual Contingency Plan to be used by the facility. All sections of this template must be completed with these functions in mind.*

The Contingency Plan in the application for the Operating License¹ and this EQP Form 5111 Attachment Template A7 were developed from the same state and federal rules. The Contingency Plan therefore answers all the substantive requirements of this Template and differs only in organization and form. Wayne Disposal, Inc. has reviewed this Template against the Contingency Plan. After each requirement in this Template below we have referenced the appropriate section of the Contingency Plan that addresses that requirement [blue text]. The Contingency Plan is designed specifically for the subject facility and is intended to stand on its own in the event of an emergency. It shall therefore take precedence over this Template and our responses below.

A7.A BACKGROUND INFORMATION

 *This section sets the stage for users of the contingency plan. The permit applicant must state the purpose of the contingency plan, and present an overview of facility operations. This information is necessary for an understanding of the actions to be taken in the event of contingency plan implementation. These actions will be described in A7.C. The applicant must also identify potential situations, based upon the facility's management practices that might result in the implementation of the plan.*

The introductory page titled "RCRA Contingency Plan Purpose" states the purpose of the Contingency Plan. Section A2 of the Contingency Plan presents an overview of facility operations. The introductory page titled "RCRA Contingency Plan Purpose" identifies potential

¹ Section 15. Contingency Plan & Emergency Response Procedures, Application for Renewal of Operating License, Wayne Disposal, Inc. Site No. 2, [provide date of the "new" application].

situations, based upon the facility's management practices that might result in implementation of the plan.

A7.A.1 Purpose of the Contingency Plan
[R 299.9607 and 40 CFR §§264.51 and 264.53]

This Contingency Plan has been prepared in accordance with the requirements of 40 CFR, Part 264, Subpart D, and R 299.9607. It is designed to establish the necessary planned procedures to be followed in the event of an emergency situation at the Wayne Disposal, Inc. in Belleville, Michigan, such as a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to the air, soil, or water.

The provisions of this plan will be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

Copies of the Contingency Plan have been provided to emergency response agencies in order to familiarize them with the facility layout, the properties of the material handled, locations of the working areas, access routes into and within the facility, possible evacuation routes from the facility, and types of injuries or illness that could result from releases of materials at the facility. This information has been submitted to:

 *Identify all emergency response agencies that have received this plan, including hospitals, fire departments, and police department.*

Section 264.52(c) and 264.53.2.b of the Contingency Plan identifies all emergency response agencies that have received this plan, including hospitals, fire departments and police department.

Attachment A7.1 includes documentation that each of these agencies has received a copy of the Contingency Plan. Whenever the Contingency Plan is modified, the facility will provide the agencies with a copy of the modified plan.

 *Include documentation as Attachment A7.1.*

Appendix A of the Contingency Plan contains letters of transmittal of the plan to each emergency response agency. Section 264.54 of the Contingency Plan requires distribution of the modified plan to the agencies whenever the plan is modified. When the license is issued, the contingency plan in the license will be transmitted and the letters of transmittal placed in Appendix A.

A7.A.2 Description of Facility Operations

 *Describe the general facility processes, routine operations, work areas, and waste management practices. Also identify the waste types handled at the facility, and their hazardous waste codes. Describe the waste management units, and include a figure identifying the locations of all waste management units.*

Section A2 of the Contingency Plan describes general facility processes, routine operations, work areas, waste management practices, and the waste management units. Section A2 also identifies the waste types handled and their hazardous waste codes. Figure 4 of the Contingency Plan identifies the locations of all waste management units.

A7.A.3 Identification of Potential Situations

 *The Contingency Plan cannot realistically predict all situations that will arise. However, the plan should identify in this section potential situations which could arise, based upon management practices. Actions to be taken in response to these potential situations will be addressed in Section A7.D below.*

The introductory page titled "RCRA Contingency Plan Purpose" and Section 264.52 of the Contingency Plan identify potential situations that could arise, based upon management practices.

A7.B EMERGENCY COORDINATORS [R 299.9607 and 40 CFR §§264.52 and 264.55]

A7.B.1 Identification of Primary and Alternate Emergency Coordinators [R 299.9607 and 40 CFR §§264.52 and 264.55]

At all times there is at least one employee, either on the facility premises or on call and within reasonable travel distance of the facility, with the responsibility for coordinating all emergency response measures. The list of employees designated as emergency coordinators is contained in Table A7.B.1. The coordinators are listed in the order in which they will assume responsibility.

 *Complete Table A7.B.1 to define emergency coordinators, their alternates, addresses, and all pertinent telephone numbers.*

Section 264.55 of the Contingency Plan requires at all times at least one employee, either on the facility premises or on call and within reasonable travel distance of the facility, with the responsibility for coordinating all emergency response measures.

Section 264.52(d) presents a list of emergency coordinators, their alternates, addresses, and all pertinent telephone numbers. The coordinators are listed in the order in which they will assume responsibility.

A7.B.2 Qualifications of the Emergency Coordinators [R 299.9607 and 40 CFR §264.55]

 *You must demonstrate in this section that the emergency coordinators are fully qualified to serve as emergency coordinators. They must be knowledgeable of the facility's operations and activities, and how these operations and activities are impacted by RCRA obligations.*

Section 264.55 of the Contingency Plan requires emergency coordinators to be fully qualified for this responsibility and to be knowledgeable of the facility's operations and activities, and how these operations and activities are impacted by RCRA obligations.

A7.B.3 Authority to Commit Resources

[R 299.9607 and 40 CFR §264.55]

You must demonstrate in this section that the emergency coordinators are authorized to commit any necessary resources of the company that may be needed to carry out the Contingency Plan.

Section 264.55 of the Contingency Plan authorizes emergency coordinators to commit any necessary resources of the company that may be needed to carry out the Contingency Plan.

A7.C IMPLEMENTATION OF THE CONTINGENCY PLAN

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The emergency coordinator must be contacted immediately in the occurrence of any situation that may result in potential or actual threats to human health or the environment. The emergency coordinator must implement this plan whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

The following situations are provided as guidance to facility personnel as the conditions or circumstances under which the plan must be implemented:

Identify the conditions or circumstances under which you believe that your facility might need to implement this Contingency Plan, based upon management practices. Include fires, explosions, and any sudden or nonsudden circumstances that may result in the release of hazardous wastes or hazardous waste constituents.

Include a description of methods to be used by the facility to notify the emergency coordinator in the case of a potential situation that may require implementation of the Contingency Plan.

Section 264.52(a) and 265.55 of the Contingency Plan require immediate contact of the emergency coordinator upon the occurrence of any situation that may result in potential or actual threats to human health or the environment. Section 264.55 requires the emergency coordinator to implement the Contingency Plan whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

The introductory page titled "RCRA Contingency Plan Purpose" and Section 264.52 of the Contingency Plan identify conditions or circumstances under which the facility might need to implement the plan, based upon management practices. Included are fires, explosions, and any sudden or non-sudden circumstances that may result in the release of hazardous wastes or hazardous waste constituents.

Section 264.52(a) #4 includes a description of methods to be used by the facility to notify the emergency coordinator in the case of a potential situation that may require implementation of

the Contingency Plan.

A7.D EMERGENCY PROCEDURES

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The following general procedures have been established for implementation by facility personnel and the emergency coordinator in order to efficiently respond to the release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

 *The contingency plan must describe the actions that the emergency coordinator and other facility personnel must take to comply with 40 CFR §264.56, in response to fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. "Best guess" potential situations have been identified in Section A7.C above. The procedures that will be conducted to complete these actions must include the following elements:*

Sections 264.52(a), 264.52(f), 264.55 and 264.56 describe the actions that the emergency coordinator and other facility personnel must take to comply with 40 CFR 364.56, in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or haste constituents to air, soil or surface water.

A7.D.1 Immediate Notification Procedures for Facility Personnel and State and Local Agencies with Designated Response Roles

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The list of emergency contacts in Table A7.D.1 identifies local emergency response agencies, and state and federal authorities that must be notified in the event of an imminent or actual emergency situation requiring response.

The emergency coordinator will be responsible for ensuring that all appropriate authorities are notified as necessary.

 *You must complete Table A7.D.1*

Section 264.52(c) of the Contingency Plan identifies local emergency response agencies, and state and federal authorities that must be notified in the event on an imminent or actual emergency situation requiring response.

Section 264.56(a)(2) of the Contingency Plan requires the Emergency Coordinator to notify all appropriate authorities as necessary.

 *You must also outline how the emergency coordinator will notify facility personnel of an imminent or actual emergency situation.*

Section 264.56(a)(1) of the Contingency Plan outlines how the Emergency Coordinator will notify facility personnel of an imminent or actual emergency situation.

A7.D.2 Procedures to Be Used for Identification of Releases

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

 Identify the procedures that will be used by the emergency coordinator to identify the location, type, source, amount, and extent of releases.

Section 264.56(b) identifies procedures that will be used by the emergency coordinator to identify the location, type, source, amount and extent of releases.

A7.D.3 Procedures to Be Used to Assess Potential Hazards to Human Health and the Environment

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The emergency coordinator will assess possible hazards, both direct and indirect, to human health or the environment that may result from the release, fire, or explosion.

 You must describe how the emergency coordinator will conduct the hazards assessment. Also, modify the following hazards assessment as appropriate:

The assessment will consider the effects of any gases that may be generated, surface runoff from water or chemical reagents used to control fires, and any chemical or physical reactions with equipment or structures.

Section 264.5(c) of the Contingency Plan requires the Emergency Coordinator to assess possible hazards to human health and the environment that may result from the release, fire, or explosion. The assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g. the effects of any toxic, irritation, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions). Section 264.5(c) also describes how the emergency coordinator will conduct the hazards assessment.

A7.D.4 Procedures to Determine if Evacuation Is Necessary and Immediate Notification of Michigan Pollution Emergency Alerting System, and the National Response Center

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

You must identify the procedures that the emergency coordinator will use to determine whether evacuation is necessary and how appropriate agencies will be notified.

Section 264.56(d) of the Contingency Plan identifies the procedures that the Emergency Coordinator will use to determine whether evacuation is necessary and how appropriate agencies will be notified.

If the emergency coordinator's assessment indicates that evacuation of facility areas may be advisable, he will implement the evacuation plan for the facility. If the emergency coordinator's assessment indicates that evacuation of the surrounding local areas is also advisable, the appropriate local authorities will be immediately notified (see Table A7.D.1). The National Response Center will also be notified (see Table A7.D.1), and the following information will be provided:

1. Name and telephone number of the reporting individual
2. Name and address of the facility
3. Time and type of incident
4. Type and quantity of materials involved
5. Possible hazards to human health or the environment
6. Extent of injuries, if applicable

The facility's evacuation plan is included in this Contingency Plan as Attachment A7.2.

 *Include a written evacuation plan, and evacuation map, as Attachment A7.2.*

Section 264.52(f) of the Contingency Plan presents the evacuation plan for facility personnel. Figure 3 presents the evacuation map.

A7.D.5 Procedures to Be Used to Ensure that Fires, Explosions, and Releases Do Not Occur, Reoccur, or Spread During the Emergency
[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(e), 264.227, and 264.200]

Whenever there is an imminent or actual emergency situation where the potential or actual release of hazardous waste or hazardous waste constituents may threaten human health or the environment, the facility will implement the following procedures:

 *Identify the control procedures that will be used for potential situations at the facility. Include cross references to application templates that address performance standards and operation procedures for tanks, containers, surface impoundments, containment buildings, and drip pads. For surface impoundments, specify the procedures to be used for complying with 40 CFR §264.227(b) for removing the unit from service for emergency repairs.*

Section 265.56(e) and (f) identify control procedures that will be used for potential situations at the facility.

During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, or releases do not recur or spread to other areas of the facility, or off site. Actions that may be employed include:

 *Identify control procedures that may be taken to prevent recurrence or spread of fires, explosions, or releases. Where applicable, these procedures must include stopping processes and operations.*

Section 265.56(e) and (f) identify control procedures that may be taken to prevent recurrence or spread of fires, explosions, or releases. These procedures include stopping processes and operations.

Table A7.D.1 Federal, State, and Local Response Contacts

Local:

Phone:

State:

Phone:

National Response Center:

Phone:

Federal Agencies:

Phone:

Other Agencies:

Phone:

Attachment A7.3 is a detailed description of the type, amount, and location of all emergency equipment at the *(Facility Name)* facility.

 *Include a detailed description of type, amount, and location of all emergency equipment, as Attachment A7.3.*

Section 264.52 of the Contingency Plan includes a detailed description of type, amount, and location of all emergency equipment. Figure 2 and 3 show locations of all emergency equipment

A7.D.6 Procedures to Be Used to Monitor Equipment Should Facility Operations Cease
[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(f)]

 *Identify procedures that will be used to monitor equipment for leaks, pressure buildup, gas generating or ruptures in valves, pipes, or other equipment, should the facility operations cease.*

Section 2654.56(f) of the Contingency Plan requires the Emergency Coordinator to monitor equipment for leaks, pressure buildup, gas generating or ruptures in valves, pipes, or other equipment, should facility operations cease.

A7.D.7 Procedures to Provide Proper Treatment, Storage, and Disposal for Any Released Materials
[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(g)]

 *Identify general procedures that the facility will use to ensure that any released materials will be properly managed, in accordance with licensed activities at the facility. A brief summary of the types of wastes, and management practices must be included.*

Section 364.56(g) of the Contingency plan identifies general procedures that the facility will use to ensure that any released materials will be properly managed, in accordance with licensed activities at the facility.

A7.D.8 Procedures for Cleanup and Decontamination
[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(h)]

 *Include general procedures to be used for post-emergency maintenance, cleanup, and decontamination of equipment used during the emergency. Procedures must address facility-specific potential situations, as well as generic situations.*

Sections 264.56(g) and 264.56(h) identify general procedures to be used for post-emergency maintenance, cleanup, and decontamination of equipment used during the emergency. These procedures address facility-specific situations as well as general situations.

A7.E NOTIFICATION AND RECORD KEEPING REQUIREMENTS
[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(l) and (j)]

The following subsections identify procedures that must be followed to meet the notification and record keeping requirements.

A7.E.1 Procedures to Be Used to Notify State and Federal Officials Prior to Commencement of Operations

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

Before operations are resumed, an inspection of all emergency equipment will be conducted. The emergency coordinator must notify the EPA, DNRE, and local authorities that post-emergency equipment maintenance has been performed and operations at the facility will be resumed.

 Identify appropriate local, state, and federal authorities that will be notified, either through a reference to existing information in another section of the Contingency Plan such as Table A7D.1, or by including a list of appropriate authorities here.

Section 264.56(h) requires inspection of all emergency equipment before operations are resumed.

Section 264.56(i) requires notification of to the EPA, state and local authorities that post-emergency equipment maintenance has been performed before operations are resumed.

Section 264.52(c) identifies emergency agency and regulatory contacts that will

A7.E.2 Record Keeping Requirements

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(j)]

A7.E.2(a) Operating Record

In the event of an emergency situation that requires implementation of the Contingency Plan, the emergency coordinator will record in the facility's operating record the time, date, and description of the event. The operating record is maintained by Wayne Disposal, Inc. and can be found at the following location: 49350 N. I-94 Service Drive, Belleville, MI 48111

Section 264.56(j) of the Contingency Plan requires the Emergency Coordinator to record in the facility Operating Record the time, date, and description of the event. This section also states that the Operating Record is maintained at the Wayne Disposal, Inc. Site No. 2 facility in Belleville, Michigan.

A7.E(2)(b) Written Incident Report

Within 15 days of an incident requiring implementation of the Contingency Plan, WDI will submit a written incident report to the EPA Regional Administrator and the Director of the DNRE.

The report will contain the following information:

1. Name, address, telephone number, and site identification number of the facility, and the owner/operator.
2. Date, time, and type of incident.
3. Type and quantity of materials involved.

4. Assessment of actual or potential hazards to human health and the environment.
5. Extent of injuries, if applicable.
6. Estimated quantity and disposition of recovered materials that resulted from the incident.

Section 264.56(j) requires the facility to submit a written incident report to the EPA Regional Administrator and the Director of the DEQ, within 15 days of an incident requiring implementation of the Contingency Plan.

A7.F PROCEDURES FOR REVIEWING AND AMENDING THE CONTINGENCY PLAN
[R 299.9607 and 40 CFR §264.54]

 Describe how the facility intends to evaluate the effectiveness of the Contingency Plan after each implementation and to revise the Contingency Plan to improve effectiveness. State that the Contingency Plan will be revised in response to changes at the facility that impact information in the plan, such as changes in emergency personnel, emergency equipment, or circumstances that materially increase the potential for fire or explosion, pursuant to 40 CFR §264.54(c).

Section 264.54 of the Contingency Plan requires that the Contingency Plan will be revised in response to changes at the facility that impact information in the plan, such as changes in emergency personnel, emergency equipment, or circumstances that materially increase the potential for fire or explosion.

EQ -- THE ENVIRONMENTAL QUALITY COMPANY

PRESENTS

RCRA CONTINGENCY PLAN

AND

EMERGENCY PROCEDURES

FOR

MICHIGAN DISPOSAL WASTE TREATMENT PLANT

&

WAYNE DISPOSAL, INC. SITE #2

AT

BELLEVILLE, MICHIGAN

**As revised February 2011
(Discard all previous versions)**

The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.

RCRA CONTINGENCY PLAN PURPOSE

"Contingency Plan" means document that sets out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment." (R299.9102(p), 40 CFR 260.10)

The contingency plan has been designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

The provisions of the plan are to be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment(40 CFR 264.51(b))

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A1. Description of Operations - Michigan Disposal Waste Treatment Plant (MDWTP)

The MDWTP operations include receiving, storage, and treatment of hazardous wastes permitted by the MDEQ under the facility operating license and the USEPA under a Resource Conservation and Recovery Act (RCRA) permit (MID 000 724 831).

The specific routine operations and work areas for MDWTP include:

- Waste receiving & quality control(QC)
- Waste loading/unloading
- Reagent unloading & tank storage
- Waste storage in tanks
- Waste treatment in tanks
- Container staging & storage and
- Shipment of waste off-site to permitted treatment, storage, and disposal facilities (TSDFs)

The requirements for operations in these areas are defined in and regulated by the facility operating license.

Waste Identification and Classification - MDWTP

The waste types acceptable for treatment and storage at the facility are defined in Part 111 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451 (Act 451) and 40 CFR regulations at part 261. The wastes acceptable for treatment listed in Appendix A of MDWTP's WAP.

Description of Waste Management Units - MDWTP

The MDWTP facility is a liquid and solid hazardous & non-hazardous waste storage and treatment facility. Containerized wastes may be stored on-site before and after treatment in one of five hazardous waste storage areas: the North Container Storage Area (NCSA), the East Container

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Storage Area (ECSA), the Southeast Container Storage Area (SECSA) and the East and West Treatment Building Bays. The facility is equipped with pollution control systems for particulate, odor, and emission control.

Liquid hazardous wastes to be treated in the pozzolanic stabilization process may be stored in four, 20,000 gallon and vertical storage tanks (T-16 through T-19). Liquid reagents are stored in two, 15,000 gallon vertical tanks (T-25 and T-27).

Hazardous Waste dust may be stored in three 100 cubic yard (cy) silos of the plant. Lime kiln flue dust, cement kiln flue dust, and lime are also used for stabilization and may be used in all six silos (T-1 through T-6). The dusts are fed from the silos to the closest pugmill and treatment tank at a controlled rate to effect treatment of liquid and solid wastes. Other reagents, such as ferrous sulfate, may be added directly to the tanks in bag or bulk quantities.

Listed and characteristic hazardous wastes are stored and treated in sludge receiving tanks, sludge storage tanks, and pugmills on the west side of the plant and similarly stored and treated on the east side of the plant. In both cases, treatment consists of blending the waste in sludge feed tanks prior to treatment in the pugmills or mixing and treatment directly in the sludge storage/treatment tanks. Other chemical reagents may be selectively added in drum or bulk quantities.

Containerized hazardous waste and non-hazardous wastes are staged and stored on concrete pads at the NCSA, ECSA, SECSA and the East and West Treatment Building Bays. Drainage trenches constructed within the containment areas contain and control liquid runoff. Drums are transported from the pad into the plant using a barrel forklift. Then they are opened by carefully removing the tops or bungs and immediately emptying the contents with a vacuum truck or pouring contents directly into the sludge boxes or treatment tanks using the barrel forklift. The empty drums are placed into a roll-off box or other similar container for subsequent disposal.

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The disposal operations are supported and directed from the office/lab and waste receiving site located near the entrance to the facility. These support operations assist to control and evaluate shipments received for conformance with pre-approval information regarding the specific properties, treatment, and documentation requirements. The facility waste characterization and analysis records are maintained on-site.

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A2. Description of Operations - Wayne Disposal, Inc. Site #2 (WDI)

The WDI operations include the landfill disposal of hazardous and non-hazardous wastes permitted by the MDEQ under the facility operating license USEPA under a Resource Conservation and Recovery Act (RCRA) permit (MID 048 090 633).

The specific routine operations and work areas for WDI include:

- Waste receiving and quality control
- Waste unloading
- Hazardous waste landfill and related appurtenances (piping, pumps, operation and maintenance, truck wheel wash buildings located within the area bounded by North Interstate 94 (I-94) Service Drive and Willow Run Airport)

Work areas are shown in Figure 4.

The landfill is currently permitted with a design capacity of 11,000,000 cubic yards (cy) of in-place waste. The requirements for operations in these areas are defined in and regulated by the Hazardous Waste Treatment, Storage and Disposal Facility operating license. Non-hazardous wastes are managed in accordance with the facility's Part 115 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451 (Act 451). The WDI landfill is located at the same site as the MDWTP treatment and storage facility (MID 000 724 831). The WDI landfill disposal operations are supported by the MDWTP office/lab and waste receiving, storage, and treatment operations located near the entrance of the facility. These operations assist to control and evaluate shipments received for conformance with pre-approval information regarding the specific properties, treatment, and documentation requirements. The WDI facility waste analysis records are maintained on-site. **Waste**

Identification and Classification - WDI

The waste types acceptable for treatment and storage at the facility are defined in Parts 111 and 115 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451 (Act 451) and 40

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CFR Regulations at Part 261. Acceptable hazardous waste codes are identified in Section 8 of the Hazardous Waste Treatment, Storage and Disposal Facility Operating License.

The facility (WDI) license has specific restrictions regarding the following waste types

NOT ACCEPTABLE for disposal:

- Ignitable wastes as described in Michigan Act 451 rule R 299.9212
- Reactive wastes as described in Michigan Act 451 rule R 299.9212
- Bulk or noncontainerized liquid waste or waste containing free liquids
- Containers holding free liquids, including laboratory packs
- Wastes which are banned from landfilling by regulations promulgated under 40 Code of Federal Regulations (CFR) Part 268 unless the wastes meet the applicable Land Disposal Restriction (LDR) treatment standards or a variance has been obtained from the USEPA
- Waste which will:
 - (1) Adversely affect the permeability of the clay liner.
 - (2) Produce a leachate that is incompatible with the clay liner, leachate collection system piping, or the off-site sewer system.
 - (3) Generate gases that will adversely affect the permeability of the clay cap or create a violation of the air pollution control requirements of Part 55 of Act 451.

Description of Waste Management Units - WDI

The WDI facility includes a permitted hazardous waste landfill with primary and secondary liner systems, a leachate collection and removal system, and a leak detection, collection and removal system. The landfill operations also include run-on, run-off, and contaminant control systems including a vehicle wash facility and other landfill-related appurtenances and support buildings. When placed in the landfill, containers are at least 90% full or crushed, shredded, or similarly reduced in volume before burial in the landfill. The waste management units are identified in Figure 4.

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PLAN SCOPE (264.52)

264.52(a). Emergency Response Actions--All Personnel

All MDWTP and WDI personnel are instructed to respond, in case of emergency, as follows:

1. Alert the shift supervisor or the emergency coordinator of the hazard(s).
2. If any persons in the immediate area are potentially endangered, advise them to leave immediately.
3. If any person has been seriously injured call 911 for EMT support.
4. Contact the Emergency Coordinator(s) in person, as necessary, by radio or phone (See Section 264.52(d), page 15 for the list of Emergency Coordinators).
5. Indicate nature of emergency and stand by to receive instructions from Emergency Coordinator or evacuate.
6. Shut down, as necessary, all processing and ancillary equipment per manufacturers instructions, associated with the incident.

The Emergency Coordinator will direct actions of all facility personnel to:

1. Identify hazards and assess extent of potential harm to human health or the environment.
2. Notify, as necessary, the appropriate Emergency Response Contacts listed in this Plan.
3. Respond in cooperation with outside agencies to minimize hazards.
4. Follow up response actions with required reports (verbal and written). This includes internal incident reports and providing information to regulatory staff to prepare the incident report(s).

If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or a spill that reached surface water or ground water, then immediately notify the DEQ's pollution emergency alerting system (PEAS) - telephone number

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800-292-4706 if after hours, and the DEQ directly if between 8-5. The notification shall include all of the following information:

- (a) The name and telephone number of the person who is reporting the incident.
- (b) The name, address, telephone number, and EPA Identification No. of the facility.
- (c) The name, address, and telephone number of the owner or operator.
- (d) The date, time, and type of incident.
- (e) The name and quantity of the material or materials involved and released.
- (f) The extent of injuries, if any.
- (g) The estimated quantity and disposition of recovered material that resulted from the incident.
- (h) An assessment of actual or potential hazards to human health or the environment.
- (i) The immediate response action taken.

264.52(b). Emergency Response Planning

This RCRA Contingency Plan is a part of the overall effort at the facility to predict, prevent, and properly respond to incidents. The RCRA Contingency Plan satisfies RCRA requirements for responses to emergencies involving hazardous waste.

264.52(c). Arrangements with Emergency Response Agencies

(a) The following are arrangements agreed to by local fire departments, police, hospitals, contractors, state and local emergency response teams to coordinate emergency services.

- 1) Local police, fire departments, and emergency response teams are made familiar with the layout of the facility (by independent review of copy of this contingency plan and upon response by ER contact and tours of the facility), properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes.

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2) The Primary emergency authority of the local police and fire department is set forth by state and local law or ordinance. The Van Buren Fire Department is deemed the primary emergency contact for situations related to this site's operations. The Van Buren Fire Department will make other emergency team contacts at their discretion, usually asking for the assistance of the Van Buren Police Department/Michigan State Police. This, of course does not preclude MDWTP and WDI personnel from exercising the option of contacting additional emergency units depending on the circumstances (A list of Emergency Response Contacts is provided in this section). Any others providing support to the primary emergency authority will follow the direction of the local police and fire departments.

3) All necessary support by emergency response teams, emergency response contractors, and equipment suppliers has been documented in this Plan.

4) Information to familiarize hospital staff with the properties of wastes involved in an injuries, incident, or illness resulting from fires, explosions, or releases will be provided at the time of response to an incident.

5) EQ is continuing to work with the Van Buren Township (VBT) Fire Department to further develop and maintain emergency response activities (i.e. joint training, periodic drills and evacuation planning with local emergency response agencies) and better communication.

(b) No state and local authorities have declined to enter into such arrangements; if such refusal occurs it would be documented.

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264.52(c) Emergency Response Agency and Regulatory Contacts

<u>Agency</u>	<u>Contact #</u>	<u>Emerg. #</u>
<u>Ambulance Services</u>		
1. Huron Valley Ambulance Service, Inc. 2215 Hogback Road Ann Arbor, MI 48105 Contact: Mr. Dale Berry, Executive Director	(734) 971-4733	(734) 994-4111
<u>Emergency Medical Services</u>		
1. St. Joseph Mercy Hospital 5301 E. Huron River Drive Ann Arbor, MI 48106 Contact: Dr. John McCabe, MD - Emergency Room	(734) 712-3456	(734) 712-3000
2. Midwest Health Center, P.C. 9301 Middlebelt Road Romulus, MI 48174 Contact: Dr. R.T. Nolta, MD FACPM		(734) 941-1000
3. Concentra Medical Center 11700 Metro Airport Center Drive Romulus, MI 48174 Contact: Mr. Mark Weiner, MD, Medical Director		(734) 955-7000
<u>Poison Information</u>		
1. Poison Control Center Children's Hospital of Michigan Harper Professional Office Building 4160 John R, Suite #616 Detroit, MI 48201 Contact: Dr. Suzanne White, Medical Director	(313) 745-5335	(800) 222-1222

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<u>Agency</u>	<u>Contact #</u>	<u>Emerg. #</u>
<u>Fire Departments</u>		
1. Van Buren Township Fire Department 46425 Tyler Road Belleville, MI 48111	(734) 699-8930	911
2. Willow Run Airport Fire Department P.O. Box 801 Ypsilanti, MI 48198 Contact: Mr. Tim Hoeft, Fire Chief	(734) 485-6660	Metro Dispatch (734) 942-3600 Control Tower: (734) 480-9247
3. Ypsilanti Township Fire Department 222 South Ford Boulevard Ypsilanti, MI 48198	(734) 544-4225	(734) 544-4224

Police Departments

1. Van Buren Township Police Department 46425 Tyler Road Belleville, MI 48111 Contact: Mr. Gerald Champagne, Public Safety Director	(734) 699-8930	911
2. Taylor - State Police Post 12111 Telegraph Road Taylor, MI 48180 Contact: First Lieutenant Lynne Huggins	(734) 287-5000	911

State and Federal Emergency Reporting

1. State of Michigan: Pollution Hotline	(800) 292-4706
2. Federal: National Response Center	(800) 424-8802

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<u>Agency</u>	<u>Contact #</u>	<u>Emerg. #</u>
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Van Buren Township Government

- | | | | |
|----|--|----------------|-----|
| 1. | Van Buren Township
46425 Tyler Road
Belleville, MI 48111 | (734) 699-8900 | 911 |
|----|--|----------------|-----|

Special Agencies

- | | | | |
|----|--|----------------|----------------|
| 1. | Western Wayne County Hazardous
Incident Response Team (H.I.R.T)
14910 Farmington Rd
Livonia, MI 48154
Note: Hazmat Team may only be activated by an on-scene Fire Department Officer. | (734) 466-2431 | 911 |
| 2. | Sara Title III
Local Emergency Planning Committee
Wayne County Emergency Management
Office of Wayne County Executives
10250 Middlebelt Road
Detroit, MI 48242
Contact: Mr. Mark Sparks, Director of Emergency Management | (734) 942-5289 | (734) 942-3600 |

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264.52(d). On-Site Emergency Coordinator Contacts

The Emergency Coordinators are listed below in the order in which they will assume responsibility.

264.52(d). Emergency Coordinators for MDWTP & WDI Facilities

Emergency Coordinators

Site phone number: (734) 699-6201

Primary:

Kerry Durnen Director of Operations	Office: (734) 699-6265 Cellular: (734) 576-0189 Home: (734) 439-1690
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Tom Caswell Operations Mgr	Office: (734) 699-6213 Cellular: (734) 576-0420 Home: (248) 573-5113
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Alternates:

Tony Patrick Plant Supervisor	Office: (734) 699-6226 Cell: (734) 576-0382 Home: (734) 865-5983
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Paul Haratyk Plant Supervisor	Office: (734) 699-6214 Pager: (800) 250-4182 Cell: (734) 576-0142 Home: (734) 844-1128
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Michael L. Porath Operations Manager	Office: (734) 699-6239 Cell: (734) 576-0179 Home: (517) 423-6996
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Ken Weber WWTP Mgr	Office: (734) 699-6280 Cell: (734) 576-0153 Home: (734) 464-0310
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264.52(e). Emergency and Decontamination Equipment

The Health and Safety Manager ensures that the Emergency and Decontamination Equipment on-site is maintained. Locations of emergency and decontamination equipment are shown in Figures 1, 2 and 3. Some of this equipment may be serviced and/or monitored by an outside contractor. Routine training is provided to appropriate EQ Personnel on the operation and use of certain emergency equipment.

264.52(f). Evacuation Plan Clearing Immediate Area

If any employee in the active hazardous waste treatment area or waste reception area encounters an emergency situation which they believe to present an imminent threat to human health or the environment, the individual employee is authorized to leave the area immediately and tell others to leave the area immediately.

Any available route away from the hazard may be used either on foot or by vehicle. The employee should proceed out the main gate to the service drive or out Denton Road to the service drive and notify security to contact the Emergency Coordinator. If security has been disabled use radio or first available phone to contact the Emergency Coordinator.

Evacuation of Entire Facility

Evacuation Signal: If in the opinion of the Emergency Coordinator a general evacuation of the entire site is warranted, he will notify all persons on-site by radio and PA systems. All employees work under supervision of a supervisor in public address system range or direct radio contact with the Emergency Coordinators. Evacuation notice will be given verbally to these employees.

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Primary Evacuation Route:

Upon receiving the evacuation order by radio, all employees, including persons in the non-hazardous areas, must immediately proceed out Denton Road to the service drive and congregate at that point.

The security guards' list of persons on-site will be used for roll call.

Alternate Evacuation Route:

If wind direction and location of hazard blocks the Denton Road gate, the employees must exit the main gate to service drive and congregate east of the entrance. The security guards' list of persons on-site will be used for roll call.

Return to Site:

Employees should not return to the site until instructed to do so by the Emergency Coordinator, or until a general all clear signal is given over the radio/PA system.

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264.53. Plan Distribution

1. On-Site Copy Locations: Official Copies of the Contingency plan can be found in the following locations on-site:
 - a) MDWTP/WDI Spotter's Shed
 - b) Guard Office
 - c) Safety Office
 - d) Administrative Building
 - e) Receiving Building
 - f) Lunchroom/Training Center

2. Off-Site Copy Locations: Official Copies of the Contingency Plan have been sent to the following agencies off-site:
 - a) EQ Main Office (Wayne, MI)
 - b) Each of the Emergency Response Contacts with addresses listed in section 264.52(c) of this plan.

264.54. Plan Revision

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

- (a) The facility permit is revised;
- (b) The plan fails in an emergency;
- (c) The facility changes - in its design, construction, operation, maintenance, or other circumstances - in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
- (d) The list of Emergency Coordinators changes; or
- (e) The list of emergency equipment changes.

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The Emergency Coordinator(s) will coordinate with the Quality Environmental Health & Safety Department (QEHS) to initiate an update of the Contingency Plan whenever it becomes outdated.

Whenever the Contingency Plan is modified, the Emergency Coordinator(s) must provide the emergency response agencies with a copy of the modified plan. Send these copies with a letter of transmittal, by certified mail, with instructions to destroy all previous copies.

264.55. Responsibility, Qualifications and Authority of Emergency Coordinator

At all times there is at least one employee, either on the facility premises or on call and within reasonable travel distance of the facility, with the responsibility for coordinating all emergency response measures. These personnel are known as on-site Emergency Coordinator(s). They must be fully qualified for this responsibility and be knowledgeable of this Contingency Plan, the facility's operations and activities, and how these operations and activities are impacted by RCRA obligations." They must also be knowledgeable of the location and characteristics of waste handled, the location of all records within the facility, and the facility layout.

The Emergency Coordinator must be contacted immediately in the occurrence of any situation that may result in potential or actual threats to human health or the environment. The Emergency Coordinator must implement this plan whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment. The Emergency Coordinator is authorized to commit any necessary resources of the company that may be needed to carry out this Contingency Plan.

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264.56. Emergency Response Procedures by the Emergency Coordinator

264.56(a). At Time of Incident

Whenever there is an imminent or actual emergency situation, the Emergency Coordinator (or his designee) immediately:

- (1) Activates internal communication systems (Radio/ PA System) to notify all facility personnel; and
- (2) Notifies appropriate state or local agencies with designated response roles if their help is needed.

264.56(b). In the Event of Release, Fire or Explosion

The Emergency Coordinator must coordinate with QEHS to immediately identify the character, exact source, amount and extent of any released materials. They may do this by observation and/or review of the facility records or manifests, and if necessary, by chemical analysis.

264.56(c). Assessment of Possible Hazards

The Emergency Coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions). Should the release, fire or explosion present a significant **off-site** risk, SOP QES-OP-010-BEL (an MDNRE approved SOP) must be implemented to provide a timely assessment of off-site risk.

Sudden Release (Spill) Control, Containment, Cleanup, and Disposal

In the event of a spill or release which could threaten human health or the environment, the following steps should be taken:

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1. Contact the Emergency Coordinator for instructions.
2. The Emergency Coordinator shall give directions to:
 - a) Isolate the area of the spill to prevent contact with any personnel.
 - b) Determine whether the spilled material may enter or is entering the sedimentation basin, and if the potential exists, the discharge point from the sedimentation basin to the Quirk Drain must be closed.
 - c) Determine the characteristics of the spilled waste for any special handling requirements. If feasible and safe, stop the release at the source of the flow by overpacking or uprighting containers, using valves, shut off switches, patches, lids or other mechanical devices. Drains or sumps may be sealed using visqueen and a weight such as a bag of absorbent.
 - d) Vacuum any available spilled waste with the vacuum truck. Any remaining residue should be contained with absorbents and shoveled into containers in preparation for disposal. Solid wastes may be front-end loaded into containers or waste hauling vehicles.
 - e) If the spill occurred in a paved area, the pavement should be cleaned with water and detergent solution, under high pressure and then rinsed twice with clean water, being sure to collect all spent cleaning and rinsing solutions with the vacuum truck. After the spill has been cleaned up, the spill area will be inspected for cracks, fissures or any other imperfection that might allow the spilled material to reach the subsoil. In the event that any cracks or fissures are found, three one-inch holes will be drilled through the concrete. The holes will be along the cracks or fissures and spaced to represent the area. A thin wall tube will be pounded at least six inches into the soil. The soil collected in the tube will be analyzed for the spilled constituents. If hazardous levels of spill constituents are detected, the concrete in the area should be removed and the area remediated as though the spill had occurred in an unpaved area. When completed, the new replacement concrete should include water stop. If hazardous levels of spill constituents are not detected, the holes

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should be filled with Emanco T-430 or equivalent in accordance with manufacturer's instructions.

- f) In the event the spill occurs in an unpaved area, all visible contamination should be removed. At least six inches of "clean" soils surrounding the contaminated area should also be removed. Samples should then be taken for chemical analysis to confirm the absence of any contaminants from the spilled waste.
 - g) Containers of Hazardous Waste are properly labeled and marked and managed in generation accumulation areas. They are properly characterized and disposed of at a properly licensed waste management facility. A properly completed manifest is used if transport of liquids or hazardous waste to an off site destination is necessary.
3. The Emergency Coordinator shall assist QEHS in the preparation of the appropriate reports described below.

264.56(d). Notification of Regional Authorities If the Emergency Coordinator determines the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, he will report such findings and act as follows:

- 1. If the Emergency Coordinator suspects that the evacuation of surrounding local areas is advisable, he will inform Van Buren Fire Department, or Van Buren Police Department or MI State Police and assist the appropriate officials in deciding whether evacuation is necessary and, if so, assist in determining what areas should be evacuated. According to R 299.9607 and 40 CFR 264.56(d), the decision making authority to evacuate the local areas belongs to the appropriate local authorities (i.e. Van Buren Township) based on the EQ's assessment of the release.
- 2. In the event of fire, the Emergency Coordinator gives special consideration to potential impact of smoke or fumes on I-94 freeway traffic.

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3. If there is a fire, explosion, or other release of hazardous waste that could threaten human health or the environment, or a spill that reached surface water or ground water, the Emergency Coordinator will immediately notify the DEQ's pollution emergency alerting system (PEAS) - telephone number 800-292-4706. The notification shall include all of the following information:
 - (a) The name and telephone number of the person who is reporting the incident;
 - (b) The name, address, telephone number, and EPA Identification No. of the facility;
 - (c) The name, address, and telephone number of the owner or operator;
 - (d) The date, time, and type of incident;
 - (e) The name and quantity of the material or materials involved and released;
 - (f) The extent of injuries, if any;
 - (g) The estimated quantity and disposition of recovered material that resulted from the incident, if any;
 - (h) An assessment of actual or potential hazards to human health or the environment;
 - (i) The immediate response action taken.

If any threat to human health or to the environment extends off-site, the Emergency Coordinator will also contact the National Response Center (800-424-8802) and report the following:

1. Name and phone number of reporter;
2. Name and address of facility;
3. Time and type of incident;
4. Name and quantity of material involved, to the extent known;
5. The extent of injuries, if any;
6. Possible hazards to human health or the environment outside the facility.

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264.56(e). Preventing the Spread of Hazards

During an emergency, the Emergency Coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

264.56(f). Response to Fire, Explosion or Release

If the facility stops operations in response to a fire, explosion, or release, the Emergency Coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes or other equipment, whenever this is appropriate.

264.56(g). Provision for treatment, storage, and disposal of waste generated in emergencies

Immediately after an emergency, the Emergency Coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

[Comment: Unless the owner or operator can demonstrate, in accordance with Section 261.3(c) or (d) of 40 CFR, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 264 of 40 CFR.]

264.56(h). Prevention of and Preparation for future incidents

The Emergency Coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

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(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed in the affected area(s) of the facility.

(3) EQ is continuing to work with the Van Buren Township (VBT) Fire Department to further develop and maintain emergency response activities (i.e. joint training, periodic drills and evacuation planning with local emergency response agencies) and better communication.

264.56(i). Notification of Compliance with section 264.56(h)

Notification must be given to the Regional Administrator, and appropriate state and local authorities, that the facility has taken the necessary steps to prevent and prepare for future incidents (as described in 40 CFR 264.56(h)) before operations are resumed in the affected area(s) of the facility.

264.56(j). Post Emergency Documentation and Reporting

Documentation:

The Emergency Coordinator will note in the Operating Record the time, date, and details of any incident that requires implementing the Contingency Plan. The Operating Record is maintained at the Wayne Disposal, Inc. Site No. 2 facility in Belleville, Michigan.

Reporting:

Within **15 days** of any situation requiring implementation of the Contingency Plan, the Emergency Coordinator shall prepare a report to be submitted to the Regional Administrator (EPA) and DEQ District Supervisor, Waste Management Division, SE Michigan District (Warren). At a minimum, the report shall detail the following:

1. Name, address and phone number of the operator;
2. Name, address, and telephone number of the facility;
3. Date, time, and type of incident (e.g. fire, explosion);

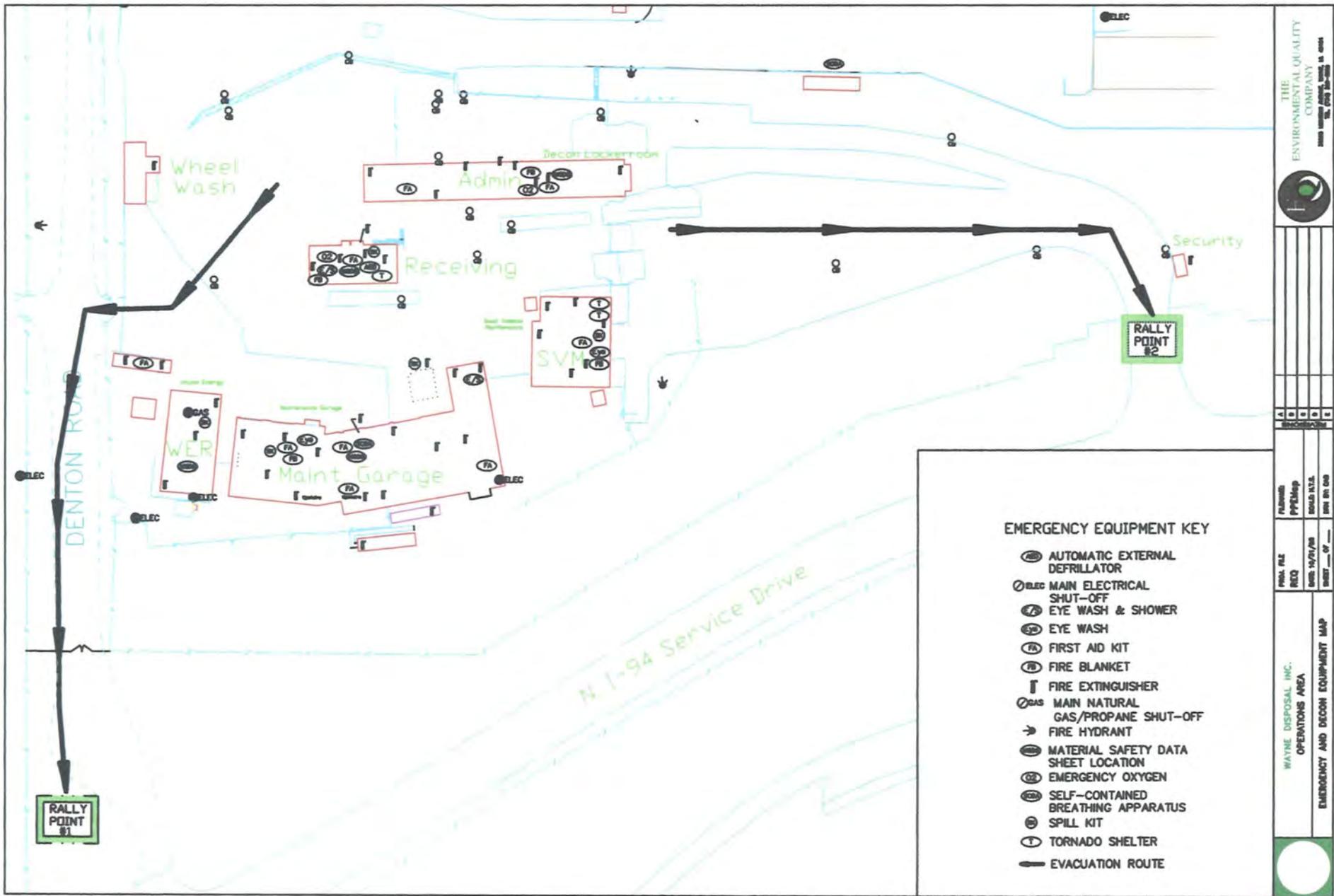
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4. Name and quantity of material(s) involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
7. Estimated quantity and disposition of recovered material that resulted from the incident.

The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.

Appendix A--Letters of Transmittal of Contingency Plan

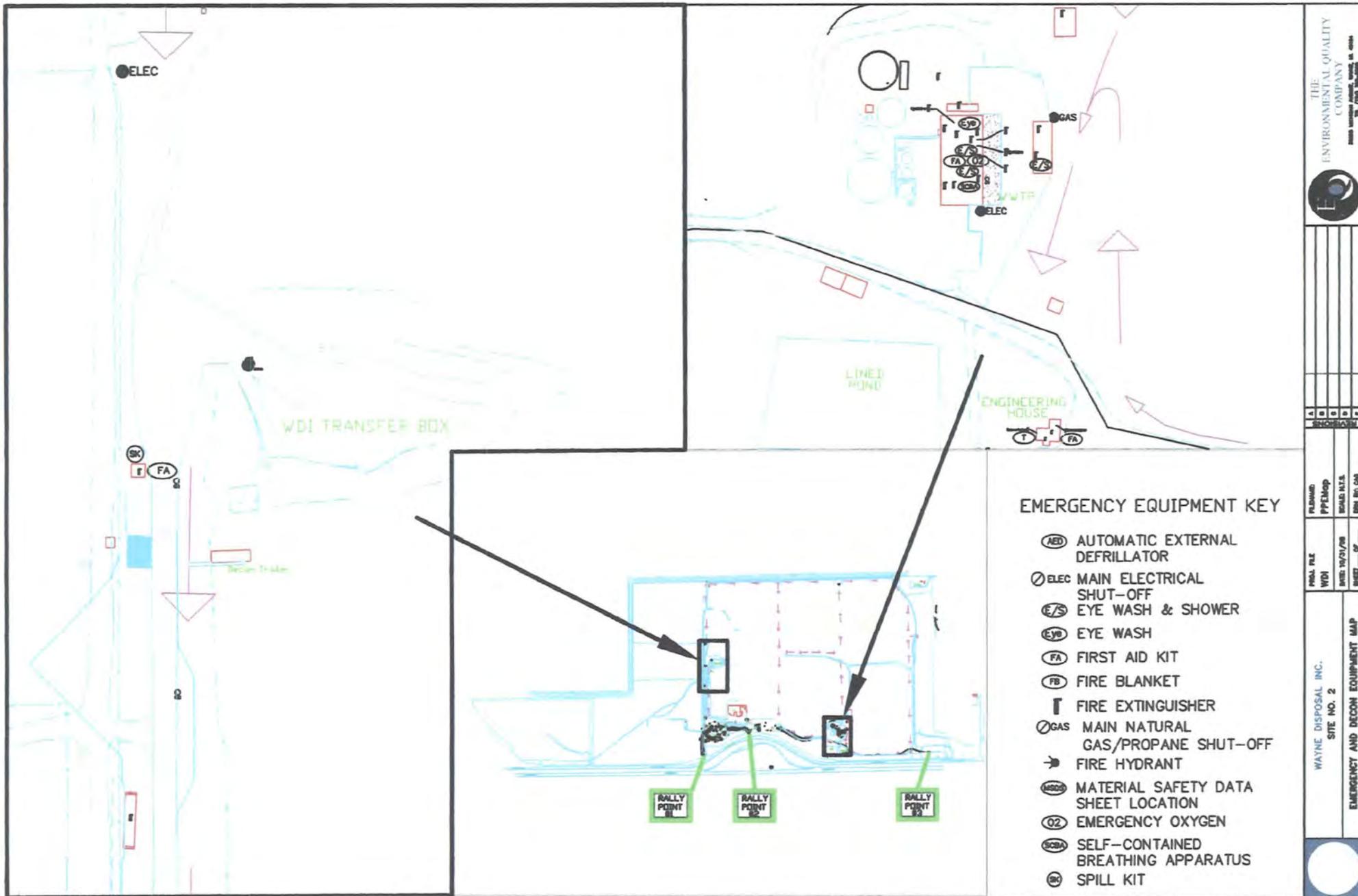
The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.



EMERGENCY EQUIPMENT KEY

- ⊖ AUTOMATIC EXTERNAL DEFRILLATOR
- ⊖ELEC MAIN ELECTRICAL SHUT-OFF
- ⊖EYE WASH & SHOWER
- ⊖EYE WASH
- ⊖FA FIRST AID KIT
- ⊖FB FIRE BLANKET
- ⊖FIRE EXTINGUISHER
- ⊖GAS MAIN NATURAL GAS/PROPANE SHUT-OFF
- FIRE HYDRANT
- ⊖ MATERIAL SAFETY DATA SHEET LOCATION
- ⊖EMERGENCY OXYGEN
- ⊖ SELF-CONTAINED BREATHING APPARATUS
- ⊖ SPILL KIT
- ⊖ TORNADO SHELTER
- EVACUATION ROUTE

WAYNE DISPOSAL INC.		OPERATIONS AREA		EMERGENCY AND DECON EQUIPMENT MAP	
PROJ. FILE	REVISED	DATE	BY	DATE	BY
REQ	PPZ/Map	10/27/08	PPZ	10/27/08	PPZ
NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS
1	1	1	1	1	1
THE ENVIRONMENTAL QUALITY COMPANY 1000 W. 10th Street, Suite 100 Oklahoma City, Oklahoma 73106					

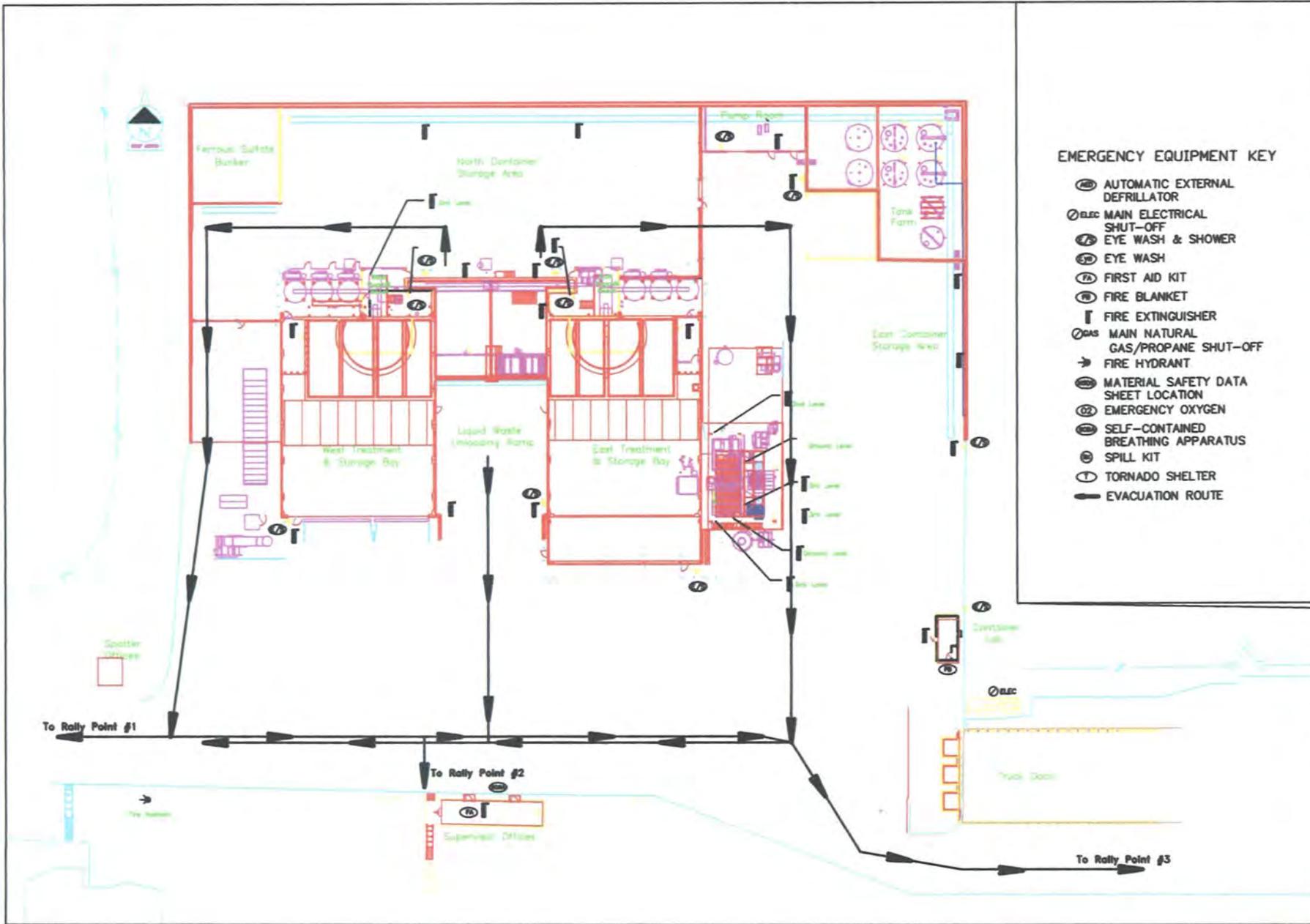


EMERGENCY EQUIPMENT KEY

- Ⓜ AED AUTOMATIC EXTERNAL DEFIBRILLATOR
- Ⓞ ELEC MAIN ELECTRICAL SHUT-OFF
- Ⓞ E/S EYE WASH & SHOWER
- Ⓞ E/W EYE WASH
- Ⓞ FA FIRST AID KIT
- Ⓞ FB FIRE BLANKET
- Ⓞ F FIRE EXTINGUISHER
- Ⓞ GAS MAIN NATURAL GAS/PROPANE SHUT-OFF
- ➔ FIRE HYDRANT
- Ⓞ MSDS MATERIAL SAFETY DATA SHEET LOCATION
- Ⓞ O2 EMERGENCY OXYGEN
- Ⓞ SCBA SELF-CONTAINED BREATHING APPARATUS
- Ⓞ SK SPILL KIT

THE ENVIRONMENTAL QUALITY COMPANY
1000 WASHINGTON AVENUE, SUITE 100, WASHINGTON, DC 20004
TEL: (703) 361-3333

REVISED	PPC/Map	SCALE	DATE	BY	CHK	APP	DATE	BY	CHK
PROJ. FILE	WDI	DATE: 10/01/98	SHEET	1	OF	1	DATE	BY	CHK
WAYNE DISPOSAL INC. SITE NO. 2									
EMERGENCY AND DECON EQUIPMENT MAP									



EMERGENCY EQUIPMENT KEY

- ⊕ AUTOMATIC EXTERNAL DEFRILLATOR
- ⊖ ELEC MAIN ELECTRICAL SHUT-OFF
- ⚡ EYE WASH & SHOWER
- ⦿ EYE WASH
- Ⓜ FIRST AID KIT
- Ⓢ FIRE BLANKET
- Ⓛ FIRE EXTINGUISHER
- ⊖ GAS MAIN NATURAL GAS/PROPANE SHUT-OFF
- ➔ FIRE HYDRANT
- Ⓜ MATERIAL SAFETY DATA SHEET LOCATION
- ⊕ EMERGENCY OXYGEN
- Ⓜ SELF-CONTAINED BREATHING APPARATUS
- Ⓜ SPILL KIT
- Ⓜ TORNADO SHELTER
- ➔ EVACUATION ROUTE

THE ENVIRONMENTAL QUALITY COMPANY
10000 W. 10th Street, Suite 100, Grand Rapids, MI 49508

				
<small>PLANNED</small> Contingency Plan				
<small>PROJ. FILE</small> MDI	<small>DATE</small> 1/2/76	<small>BY</small> MDI	<small>REVISED</small> 01	<small>OF</small> 01
MICHIGAN DISPOSAL WASTE TREATMENT PLANT MICHIGAN DISPOSAL INC	EMERGENCY AND DECON EQUIPMENT MAP			



WAYNE DISPOSAL, INC.

October 6, 2011

Dr. John McCabe
St. Joseph Mercy Hospital
5301 E. Huron River Drive
Ann Arbor, MI 48106

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Dr. McCabe:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

Please dispose of any earlier copies of this plan that you may possess and if you have any questions please contact me at (734) 699-6286.

Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Dr. Mark Weiner, MD
Concentra Medical Center
11700 Metro Airport Center Drive
Romulus, MI 48174

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Dr. Weiner:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

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Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Dr. R.T. Nolta, MD FACPM
Midwest Health Center, P.C.
9301 Middlebelt Road
Romulus, MI 48174

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Dr. Nolta:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

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Sincerely,

A handwritten signature in black ink that reads "Michael J. Takacs". The signature is written in a cursive, flowing style.

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Dr. Suzanne White
Poison Control Center
Children's Hospital of Michigan
Harper Professional Office Building
4160 John R, Suite #616
Detroit, MI 48201

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Dr. Weiner:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

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Sincerely,

Michael J. Takacs
Environmental Manager

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WAYNE DISPOSAL, INC.

October 6, 2011

Mr. Dale Berry, Executive Director
Huron Valley Ambulance Service, Inc.
2215 Hogback Road.
Ann Arbor, MI 48105

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Mr. Berry:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

Please dispose of any earlier copies of this plan that you may possess and if you have any questions please contact me at (734) 699-6286.

Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Public Safety Director
Van Buren Township Police Department
46425 Tyler Road
Belleville, MI 48111

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Director McClanahan:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

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Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Van Buren Township Fire Department
46425 Tyler Road
Belleville, MI 48111

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Chief Loyer:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

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Sincerely,

A handwritten signature in black ink that reads "Michael J. Takacs". The signature is written in a cursive style.

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Mr. Mark Sparks, Director of Emergency Management
Wayne County Emergency Management
Office of Wayne County Executives
10250 Middlebelt Road
Detroit, MI 48242

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Mr. Sparks:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

Please dispose of any earlier copies of this plan that you may possess and if you have any questions please contact me at (734) 699-6286.

Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Western Wayne County Hazardous
Incident Response Team
14910 Farmington Road
Livonia, MI 48154

Re: Contingency Plan
Wayne Disposal, Inc.

To Whom It May Concern:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

Please dispose of any earlier copies of this plan that you may possess and if you have any questions please contact me at (734) 699-6286.

Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

First Lieutenant Lynne Huggins
Taylor State Police Post
12111 Telegraph Road
Taylor, MI 48180

Re: Contingency Plan
Wayne Disposal, Inc.

Dear First Lieutenant Huggins:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

Please dispose of any earlier copies of this plan that you may possess and if you have any questions please contact me at (734) 699-6286.

Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Ypsilanti Township Fire Department
222 South Ford Boulevard
Ypsilanti, MI 48198

Re: Contingency Plan
Wayne Disposal, Inc.

To Whom it May Concern:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

Please dispose of any earlier copies of this plan that you may possess and if you have any questions please contact me at (734) 699-6286.

Sincerely,

Michael J. Takacs
Environmental Manager

enclosures



WAYNE DISPOSAL, INC.

October 6, 2011

Mr. Tim Hoeft, Fire Chief
Willow Run Airport Fire Department
PO Box 801
Ypsilanti, MI 48198

Re: Contingency Plan
Wayne Disposal, Inc.

Dear Hoeft:

As a listed member of an Emergency Response Agency enclosed please find an updated Contingency Plan for Wayne Disposal, Inc.'s Hazardous Waste Facility in Belleville, Michigan. The updated plan is being sent to all listed Emergency Response Agencies to ensure that up to date information is contained in all files.

Please dispose of any earlier copies of this plan that you may possess and if you have any questions please contact me at (734) 699-6286.

Sincerely,

A handwritten signature in black ink that reads "Michael J. Takacs". The signature is written in a cursive style.

Michael J. Takacs
Environmental Manager

enclosures

Section 16. Preparedness and Prevention

**FORM EQP 5111 ATTACHMENT TEMPLATE A6
PREPAREDNESS AND PREVENTION**

This document is an attachment to the Michigan Department of Natural Resources and Environment's *Instructions for Completing Form EQP 5111, Hazardous Waste Treatment, Storage, and Disposal Facilities Construction Permit and Operating License Application Form*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9504, R 299.9508, and R 299.9606 and Title 40 of the Code of Federal Regulations (CFR) §§264.30 through 264.37 establish requirements for preparedness for and prevention of releases of hazardous wastes or constituents at hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template addresses requirements for preparedness for and prevention of releases of hazardous wastes or constituents at the following hazardous waste management facility for Wayne Disposal, Inc. in Belleville, Michigan.

(Check as appropriate)

Operating License applicant:

- No waiver requested
- Waiver requested for one or more units for required equipment
- Waiver requested for one or more units for required aisle space

Construction Permit applicant:

- No waiver requested
- Waiver requested for one or more units for required equipment
- Waiver requested for one or more units for required aisle space

Please see Section 16 of the Operating License Application.

PREPAREDNESS AND PREVENTION

40 CFR 264 C

AND

NREPA 451, Part 111 R504(1)c

PREPAREDNESS AND PREVENTION

40 CFR 264 C and Part 111 R504(1)c

40 CFR 264.31 Design and operation of the facility

Michigan Disposal Waste Treatment Plant (MDWTP) and Wayne Disposal Inc. (WDI) have been designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of Hazardous Waste constituents to air, soil, or surface water which could threaten human health or the environment. For each area on-site where hazardous waste is managed, the potential hazards have been identified, then minimized or controlled as shown in Table 1. The actions to be taken in an emergency, regardless of cause (tornado, vehicle malfunction, airplane crash, etc.) are outlined in the Site 2 (MDWTP/WDI) facility Contingency Plan.

40 CFR 264.32 Required equipment

MDWTP and WDI have been equipped with the following:

- (a) An internal communications system (radio, phone) capable of providing immediate emergency instruction (voice) to facility personnel;
- (b) A telephone system capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;
- (c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using inert gas and basic extinguishing supplies such as sand), spill control equipment, and decontamination equipment; and
- (d) Water at adequate volume and pressure to supply water hose streams.

40 CFR 264.33 Testing and maintenance of equipment

Site 2 (MDWTP/WDI's) communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, are tested and maintained as necessary to assure its proper operation in time of emergency.

40 CFR 264.34 Access to communications

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation have immediate access to an emergency communication device, either through visual, voice contact, or radio with another employee.

(b) While the facility is operating, employees have immediate access to a telephone or a radio for summoning external emergency assistance or the Emergency Coordinator.

40 CFR 264.35 Required aisle space

Aisle space requirements are outlined in the "Container Storage" attachment.

40 CFR 264.37 Arrangements with local authorities

These arrangements are outlined in the Site 2 Contingency Plan.

Table 1: Minimization of Potential Hazards

<u>HW Activity/Area</u>	<u>Potential Hazards</u>	<u>Minimized by</u>
1. Transport receiving, sending, loading, off-loading, sampling, HW storage and accumulation	(a) Fire or Explosion (b) Sudden release of HW (c) Non-sudden release of HW	Wastes approved exclude flammables or explosives Work areas paved and level for vehicles Work areas slope to secondary containment sewers or sumps
2. HW Treatment Plant and Wastewater treatment plant	(a) Fire or Explosion (b) Sudden release of HW (c) Non-sudden release of HW	Construction materials low combustibility Work areas paved and level for vehicles Work areas slope to secondary containment sewers or sumps
3. HW disposal landfill or	(a) Fire or Explosion (b) Sudden release of HW (c) Non-sudden release of HW	Waste areas approved exclude flammables explosives Roadways for trucks are paved and level Landfill constructed with secondary containment
4. On-site support services - labs, equipment cleaning & environmental maintenance, environmental monitoring, leachate management	(a) Fire or Explosion (b) Sudden release of HW (c) Non-sudden release of HW	Low volumes of flammables, properly stored Low volumes of waste Leachate lines have secondary containment

Section 17. Procedures, Structures, Equipment Used at Facility

PROCEDURES, STRUCTURES, EQUIPMENT

USED AT FACILITY

40 CFR 207.14b

AND

NREPA 451, Part 111 R504(1)c

PREVENTIVE PROCEDURES

Prevention of Hazards in Unloading Operations:

Prevention of hazards in unloading operations are accomplished primarily by thorough screening of candidate waste streams and waste verification procedures. Following the Waste Analysis Plan (WAP) assures that ignitable, reactive and incompatible wastes are not received thereby eliminating the danger of explosions, formation of toxic gases or reactions.

Wayne Disposal Site #2 Landfill requires that persons in the off-loading area be attentive to the location of mobile equipment such as arriving and departing hauling vehicles and landfill operations equipment.

All vehicles are unloaded by either hydraulic dumping systems or by rolling containers off of the bed of the vehicle. The greatest dangers to persons in the off-loading area are from materials as they fall from the vehicles, tailgates swinging as the load is lifted and the movement of the other vehicles (both waste carriers and landfill operating equipment) in the area. Vehicle drivers are required to stay near their equipment while operating hydraulic dumping systems, to secure tailgates before leaving the area and to depart the off-loading area immediately after completing the off-loading operation. All personnel are strictly forbidden from salvaging any off-loaded articles.

Off-site waste hauling vehicles do not drive onto the active disposal areas. They are permitted to off-load at a waste transfer ramp area at the edge of the hazardous waste cell. Dedicated equipment transfers the waste to the active area within the landfill. This procedure eliminates track-out of hazardous wastes onto site roads and public roadways. The transfer ramp is also lighted for safety as deemed necessary.

Prevention of Run-off:

The facility run-off handling provisions are detailed in Section 22 (Landfill Design).

Protection of Groundwater and Surfacewater:

The primary consideration in design, construction and operation of the landfill is prevention of contamination of surfacewaters and groundwaters. The means used to accomplish this goal are presented in this application overall, but are best detailed in Section 22, Landfill Design, Section 27, Groundwater Monitoring and Section 32, Surface Water Monitoring .

Mitigating Effects of Power Outage or Equipment Failure:

Operation of the hazardous waste landfill is not highly dependent on availability of a public utility power supply. Practically all equipment is self-powered. An emergency situation could not develop at the site even by prolonged unavailability of purchased electrical power. All mechanical landfill operating equipment is backed-up by other equipment readily available on-site.

Personnel Protective Equipment (PPE)

Wayne Disposal Site #2 Landfill Employees:

Persons employed at the landfill are provided with personal protective equipment for routine use and have emergency equipment available on an as-needed basis. Section 14 covers the elements of the "Personnel Training Program".

All employees working in, visiting or for any other reason located within the active disposal area are required to wear protective clothing appropriate to the task they are performing and a respirator equipped with dual cartridges. All such equipment is supplied by, maintained and replaced as necessary by Wayne Disposal Site #2 Landfill. Wayne Disposal Site #2 Landfill employs a full-time safety officer to be certain that all employee personal protective equipment is available, appropriate and used. The safety officer determines what equipment is necessary for a particular task and ensures that the employee is supplied with the equipment and trained in its use prior beginning the job assignment. An inventory of safety equipment, repair parts and cleaning/decontamination supplies is maintained by the safety officer. Wayne Disposal Site #2 Landfill has a safety equipment building and safety officer's office, which is readily accessible by all employees.

The heavy equipment operators assigned to the active hazardous waste disposal cell are provided personal protection equipment. Wayne Disposal Site #2 Landfill uses closed-cab, air-conditioned crawler tractors, front-end loaders, and trucks for their use.

Hazardous Waste Transporter Personnel:

Wayne Disposal Site #2 Landfill requires the use of personal protective equipment by transporter personnel-usually truck drivers and assistants. Transporters are required to show their protective clothing and respirator to the receiving manifest agent and to wear the equipment while off-loading at the waste transfer ramp. Wayne Disposal Site #2 Landfill actively enforces this program.

Visitors:

Many visitors, including regulatory personnel, visit the Wayne Disposal Site #2 Landfill disposal site. If they must visit or view the active disposal area, the site manager and/or safety officer determines if personal protective equipment (PPE) is necessary. Typically, the visitor needs only to observe the active area, but does not need to enter the exclusion zone and will be confined to a closed vehicle where PPE is not required. If it is expected that the visitor will actually enter the exclusion zone, the visitor must provide training certifications and provide their own PPE. If a visitor must enter the active area he/she must use a dual cartridge respirator, and protective glasses and clothing.

Contractor Personnel:

The contractor's employees are required to demonstrate that appropriate training for the work to be performed has been attained and must be briefed on Site health and safety procedures before beginning the work. In general, contractor employees must have and use the same PPE as Wayne Disposal Site #2 Landfill employees.

Prevention of Releases to the Atmosphere:

Atmospheric releases, such as dust, are controlled in the following manner:

WDI continues to operate and maintain a waste transport vehicle wash facility that is utilized to wash waste delivery vehicle tires leaving the facility.

WDI continues to monitor wind speed on a continuous basis. WDI ceases to place waste into the landfill when a rolling average reaches or exceeds 20 mph or anytime the instantaneous wind speed reaches or exceeds 25 mph.

WDI continues to apply daily cover to the waste in the landfill to control dispersal of particulate matter. The cover used consists of ConCover-ProGuard IIB Plus, 15 cm of clean soil, or alternatives approved by the WHMD..

WDI continues to wet with water and sweep all paved access roads and parking lots at least once a day, weather permitting. WDI also wets the roads in the active landfill area during periods of dry weather.

WDI has approval to dispose of snow scraped from the roads and parking lots around the facility directly to the landfill.

WDI has installed windscreen material around the dumping area of the active landfill.

WDI continues to use portable windscreens that can be easily moved where needed to help reduce wind around the active work face of the active landfill.

All clay and other earthen construction materials are continuing to be screened for PCBs before being allowed to be brought on site.

All water from the ditch west of Denton Road has been routed to the South Sedimentation Basin.

WDI has cut-off the access to and from the west side of Master Cell I preventing vehicles from driving across Denton eliminating the potential for track-out onto Denton Road, unless these vehicles have gone through the site's wheel wash or the equipment has been decontaminated by the powerwash operators before crossing from the Site 2 pavement west across Denton Road.

**18: PRECAUTIONS TO PREVENT ACCIDENTAL
IGNITION OR REACTION OF IGNITABLE,
REACTIVE OR INCOMPATIBLE WASTES**

**Section 18. Precautions to Prevent Accidental Ignition or Reaction of Ignitable,
Reactive or Incompatible Wastes**

PRECAUTIONS TO PREVENT ACCIDENTAL IGNITION OR
REACTION OF IGNITABLE, REACTIVE, OR
INCOMPATIBLE WASTES

40 CFR 270.14(b)(9), 40 CFR 264.17,

AND

NREPA 451, Part 111 R504(1)c

PRECAUTIONS TO PREVENT IGNITION OR REACTION OF IGNITABLE,

REACTIVE, AND COMPATIBLE WASTES

40 CFR 270.14(b)(9), 40 CFR 264.17, and NREPA 451, Part 111 R504(1)c

Wayne Disposal Site #2 Landfill does not landfill wastes which meet the criteria for ignitability under 40 CFR 261.21 or reactivity under 40 CFR 261.23.

Wayne Disposal Site #2 Landfill does not accept shipments of waste for disposal which actually are ignitable or reactive but does receive wastes which may have been shipped under a hazardous waste code indicating previous ignitability or reactivity. See the Waste Analysis Plan (Section 12) for detailed methods utilized by Wayne Disposal Site #2 Landfill to ensure that waste shipments do not exhibit the ignitable or reactive characteristics as per 40 CFR 264.17. The active landfill is also designated as a non-smoking area of the facility. Incompatible waste or materials are not landfilled at the facility. See the Waste Analysis Plan (Section 12) for a detailed description.

19: WASTE DELIVERY PROCEDURES

Section 19. Waste Delivery Procedures

SITE 2 (MDWTP/WDI)

Waste Delivery Procedures

40 CFR 270.14b & PART 111, R504(1)c

TRAFFIC PATTERN

40 CFR 270.14b and Part 111, R 504(1)c

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3. Traffic Control and Traffic Signals.	6
4. Access Road Surfacing and Load Bearing Capacity	8
Flexible Pavement Structural Section Design Guide for California Cities & Counties Partial Document As Reference.....	10

1. Traffic Pattern

The internal road network, traffic pattern and control devices are shown in the engineering plans prepared by Midwestern Consulting, Inc. for the Wayne Disposal, Inc. Site #2 Landfill (WDI) (submitted in March 1995).

Inbound Traffic

Vehicles enter the Site 2 – Michigan Disposal Waste Treatment Plant (MDWTP)/ Wayne Disposal, Inc. (WDI) facility through the main entrance area located at 49350 N. I-94 Service Drive, Belleville, pass the security guard at the gate and approach the Receiving Building by a path up the middle of a large paved apron. Each bulk waste vehicle continues along this central corridor onto the vehicle scales for weigh-in. After weigh-in, the driver uncovers/untarps the load for sampling. The cover/tarp is then replaced to secure the load during the rest of the time that the bulk waste vehicle waits to be emptied.

Once inside Site 2, all vehicles must stop at the Receiving Building for processing of manifests, other shipping documents and for load inspection. Bulk loads are sampled at this point whereas drums and containers must be unloaded at the Michigan Disposal Waste Treatment Plant (MDWTP) for sampling.

After the fingerprint at the laboratory in the Receiving Building indicates that the shipment may be accepted, vehicles waiting to be offloaded may be staged on-site. If the

laboratory fingerprint indicates the load must be rejected, the vehicle circles the Receiving Building and then exits Site 2.

When operations are ready to unload the waste, the vehicle driver is instructed to proceed via the internal roadway system to the appropriate waste unloading area within Site 2.

Drivers are directed to offload their shipment to:

1. The MDWTP East Treatment Building or West Treatment Building;
2. The MDWTP Truck Dock; or
3. The WDI dump box for loads designated to WDI.

Outbound Traffic

All empty waste transporting vehicles will proceed through Site #2's wheel wash. Bulk waste vehicles then proceed to the outbound scales. The driver finalizes recordkeeping at the Receiving Building and then exits Site 2 through the main gate.

On-site transfer of hazardous solidified treatment residuals from MDWTP to WDI are routed north along the road immediately west of Master Cell VI (MC VI) to the unloading platform in the northwest corner of MC VI.

Access road surfacing, construction, and structural analysis

Load bearing capacity requirements were met by analyzing existing road conditions for adequacy of design. The results are as follows:

- A. The roads around the reception/office area, maintenance buildings and along the west side of Master Cell VI are built on native, in-situ soils. Broken concrete and gravel were used for road base and this entire area is surfaced with asphalt. Calculations show this road section to be nearly identical to design requirements and its condition bears this out as it is performing quite well without distress.

- B. The road leading to Master Cell VI is designed similar to the reception area roads (described in item A) and has adequate bearing capacity and strength.

2. Estimated Volume of Traffic

MDWTP - The estimated number and types of vehicles received daily by MDWTP is:

<u>Hazardous Waste Hauling Vehicles</u>	<u>Average Number Per Day</u>
A. dump trailers	15
B. Roll-offs containers	30
C. Van Trailers Holding Containers	10
D. Tankers	3
	Average = 58 per day

WDI - The estimated number and types of vehicles received daily by WDI is:

<u>Hazardous Waste Hauling Vehicles</u>	<u>Average Number Per Day</u>
A. 2 axle single dump trailers	2
B. 5 axle single dump trailers	5
C. 2 axle roll-off boxes	10
D. 2 axle Caterpillar articulated dump vehicles	10
E. 2 axle flat-bed trailers	2

Average = 29 per day

On occasion, when there is a remedial cleanup campaign received at the facility the volume of vehicles accepted at WDI can increase to 60+ vehicles per day.

3. Traffic Control and Traffic Signals

All waste transport companies which frequently use the facilities receive a written notification that:

- 1) Wastes shipped to the facility must be placed into closed containers or covered during transportation. The structural integrity of the waste containers must prevent leakage while in transit.
- 2) All vehicles transporting hazardous waste to or from the facility shall use Rawsonville Road to enter and exit the facility.
- 3) Vehicles transporting hazardous waste to or from the facility shall not park or stand on the I-94 Service Drive and
- 4) Following sampling at the facility, the trailer shall be closed/retarped; and shall remain closed while waiting to empty.

MDWTP processing facility is located in the southwest corner of its licensed property. MDWTP rests completely inside WDI, a hazardous waste landfill facility. Site 2 is completely surrounded by fences and warning signs are posting on the fence surrounding Site 2. (40 CFR Part 264.14(c))

The main entrance of Site 2 is clearly marked with an identification sign and there are signs, which instruct vehicle drivers how to proceed safely along the waste delivery corridor. Further verbal directions are provided to the driver at the Receiving Building when their paperwork is reviewed. A standard "Stop" sign is posted at the exit to the N. I-94 Service Drive.

A 24-hour security guard is stationed at the main entrance of Site 2 to monitor ingress and egress onto the site by employees, vendors, contractors and visitors. Any unauthorized person is excluded from the Site. Radio, cellular phones, and land phones are used for facility security communications.

4. Access Road Surfacing and Load Bearing Capacity

Existing road construction:

A. Near garages and check-in trailers and west side of MC VI

1. Approximately 6 inches Asphalt Concrete
2. Approximately 1 ft. of broken concrete and aggregate
3. Native Sand

Refer to the attached reference material about this design method. The following variables are estimated as follows:

Traffic index: 10

Design life: (Assumed in method) 10 years

Material "R" values:

Native sand = 30

Compacted clay = 15

Broken concrete/Coarse aggregate = 70

Broken Concrete/wood = 60

Analysis of adequacy of construction:

A. Roads near garages, check-in trailers and along west side of MC VI

TI=10

Subgrade R=30

Base R=70

Gravel Equivalent(GE) for surfacing= $0.0032(TI)(100-R)=0.0032(10)(100-70)=0.96$

Gravel Equivalent factor(G_f)= $2.5(5.14/TI)^{0.5}=1.79$

Thickness of asphalt concrete= $GE/G_f=0.96/1.79=0.54$ ft =6.5 inches

6 inches of Asphalt were used

GE required for road base= $0.0032(10)(100-30)=2.24$

GE provided by asphalt= $1.79 \times 0.5=0.9$

GE to be provided by road base= $2.24-0.9=1.34$

G_f for base(for R=70 material)=1.1

Thickness of base required= $1.34/1.10=1.2$ ft =14.6 inches

Approximately 12 inches of base used

Summary:

	<u>Design(In.)</u>	<u>Existing(In.)</u>
Asphalt	6.5	6
Broken Concrete and aggregate	14.5	~12

**FLEXIBLE PAVEMENT
STRUCTURAL SECTION DESIGN GUIDE
FOR
CALIFORNIA CITIES AND COUNTIES
PARTIAL DOCUMENT AS REFERENCE
(REVISED JANUARY 1973)**

Acknowledgment

This revised guide was prepared through the cooperative efforts of the County Engineers Association of California, the league of California Cities and the California Division of Highways. Much appreciation is expressed to the various members and personnel of the above organizations who were responsible for the original design guide which was published in July 1968.

This revised version was prepared by George Sherman, Robert Smith, Joseph Hannon, George Dick and Karl Baumeister of the Materials and Research Department of the California Division of Highways. Credit should also be shared with Paul Wagner and George Ebenhack of the Design Department, Jack Kassel, and Herman Woodruff of the City and County Liaison Department of the California Division of Highways. Credit should also be shared with Paul Wagner and George Ebenhack of the Design Department, Jack Kassel and Herman Woodruff of the City and County Liaison Department of the California Division of Highways, and W.R. Lovering of the Asphalt Institute, for their review and comment. Appreciation is also extended to the City and County Engineers who have reviewed the rough draft and contributed to this publication by their suggestions.

Foreword

This booklet is intended to provide a concise and useful tool to the designer of city streets and county roads.

The information in this guide has been updated since the last printing in July 1968, but the concepts and methods used herein are not new. However, a new section has been added which covers the design of full depth asphalt concrete pavements.

The guide is based on the results of extensive studies, tests and numerous reports by various agencies concerning the many factors affecting the structural design of roadway sections.

This guide should prove quite helpful to many cities and counties irrespective of the amount or lack of laboratory facilities and testing equipment.

Suggestions for improvements to this guide may be directed to either the County Engineers Association of California or the League of California Cities.

Estimation of T.I. according to the road type

In the absence of more detailed knowledge, traffic may be estimated by considering the type of facility to be designed. Estimates of traffic made in this manner tend to be inaccurate, and for this reason, should allow for a safety factor. The estimated Traffic Index should be justified by a description of the facility, the area it serves, and the normal types of traffic carried. The table below lists several road categories and the T.I. which might be expected to correspond with these categories. The last four categories in the table are difficult to estimate. Since roads in these categories are more critical with regard to repair, due to heavier traffic, the T.I. should be estimated using either the standard method or the chart shown in figure 1.

<u>Type of facility</u>	<u>T.I</u>
Minor residential streets and cul-de-sacs	4
Residential streets	4.5
Residential collectors and minor or secondary collectors	5
Major or primary collectors providing for traffic movement between minor collectors and major arterials	6
Farm-to-market roads providing for the movement of traffic through agricultural areas to major arterials	5-7
Commercial roads(arterials serving areas which are primarily commercial in nature)	7-9
Connector roads(highways and arterials connecting two areas of relatively high population density)	7-9
Major city streets and thoroughfares and county highways	7-9
Streets and highways carrying heavy vehicle traffic. This would include streets in heavily industrialized areas	9+

Estimation of R-value using soil classification

Rough estimates of R-value can be made using some simple soil classification tests in conjunction with sand equivalent (SE) test. Each soil type (e.g. sandy clay, etc.) roughly encompasses a certain R-value range. The R-value range for a soil type may be narrowed by knowing more about the soil's plasticity and by knowing its sand equivalent value (Test method no. Calif 217). Soil classification sheets and triangular chart (Figures 3 and 4) are included as aids. To classify soils on the triangular chart (Figure 4), a sieve analysis and hydrometer analysis are necessary (Test Method Nos. Calif. 201, 202, and 203).

When the soil classification has been determined from figure 4, the chart in figure 5 may be used to approximate the R-Value. In this chart, the curves representing the various soil types show a stylized approximate frequency distribution of R-values for this particular type soil.

For fine grained materials, the upper tail or high R-value portion of the curve represents lower plasticity, relative to the soil type, while the lower tail represents soils of the same type having higher plasticity. The sand equivalent values provide additional subdivisions within the chart.

For a particular SE value, chances are good that the R-value for the same material will be as high or higher than the R-value designated by the corresponding dashed line. The converse, however, is not true since it is possible for a material to have a high R-value with a relatively low SE.

The curves for coarse-grained materials are affected in the same manner, by the presence of clay, with the lower tail representing materials with little or no clay, the lower tail represents hard, smooth-surfaced and poorly graded(well sorted) material while the upper tail represents rough-surfaced and well graded material.

The use of this chart must be tempered with good judgment and it should always be borne in mind that R-values obtained in this manner are estimations only. The reasoning behind these estimations should be fully documented in the materials report to provide to reviewers with as much basic data as possible.

Section 20. Security Procedures and Equipment

SECURITY PROCEDURES AND EQUIPMENT

40 CFR 264.14

AND

NREPA 451, Part 111 R504(1)c

See the attached "Waste Delivery Procedures"

Section 21. Container Storage Information

**FORM EQP 5111 ATTACHMENT TEMPLATE C1
USE AND MANAGEMENT OF CONTAINERS**

This document is an attachment to the Michigan Department of Natural Resources and Environment's *Instructions for Completing Form EQP 5111, Hazardous Waste Treatment, Storage, and Disposal Facilities Construction Permit and Operating License Application Form*. See Form EQP 5111 for details on how to use this attachment.

R 299.9614 of the administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); R 29.4101 to R 29.4505 promulgated pursuant to the provisions of the Michigan Fire Protection Act, PA 207, as amended (Act 207); and Title 40 of the Code of Federal Regulations (CFR) §§270.14(d), 270.15, and Part 264, Subpart I, establish requirements for the use and management of containers. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template addresses requirements for the use and management of containers at the Wayne Disposal, Inc. facility in Belleville Michigan. This template addresses the condition of containers, compatibility of waste with containers, management of containers, inspections, containment, special requirements for ignitable or reactive waste, special requirements for incompatible wastes, and closure.

(Check as appropriate)

Operating License Applicant:

R 299.9614 use and management of containers

Construction Permit Applicant:

R 299.9614 use and management of containers

This template is organized as follows:

INTRODUCTION

C1.A DESCRIPTION OF CONTAINERS

C1.B CONDITION OF CONTAINERS

C1.C COMPATIBILITY OF WASTE WITH CONTAINERS

C1.D MANAGEMENT OF CONTAINERS

C1.E INSPECTIONS

C1.F CONTAINMENT

C1.F.1 Secondary Containment System Design and Operation for Containers with Free Liquids

C1.F.1(a) Requirement for Base or Liner

C1.F.1(b) Containment System Drainage

C1.F.1(c) Containment System Capacity

C1.F.1(d) Control of Run-on

C1.F.1(e) Removal of Liquids from Containment System

C1.F.2 Secondary Containment System Design and Operation for Containers with No Free Liquids

C1.F.2(a) Containment System Drainage

C1.F.2(b) Container Management

C1.G SPECIAL REQUIREMENTS OF IGNITABLE OR REACTIVE WASTE

C1.H SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

C1.I CLOSURE

INTRODUCTION

The container standards are performance standards for containers and container storage areas. Completion of this template should result in a demonstration of how your facility will meet these standards.

Please note that Template C11, Subpart CC, Air Emissions from Tanks, Containers, and Surface Impoundments, addresses air emissions for containers. Also note that while specific closure requirements for container storage areas are addressed in this template, you may reference information in Template A11, Closure and Postclosure Care Plans.

The application for renewal of the Operating License and this EQP Form 5111 Attachment Template C1 were developed from the same state and federal rules. The Application therefore answers all the substantive requirements of this Template and differs only in organization and form. Wayne Disposal, Inc. has reviewed this Template against the Application. After each requirement in this Template below we have referenced the appropriate section of the Application that addresses that requirement [blue text].

C1.A DESCRIPTION OF CONTAINERS

[R 299.9614 and 40 CFR §264.171]

The Facility may accept waste in bulk or containerized forms. Containers may include drums, carboys, totes, filter bags and other containers. The Facility accepts containers of wastes only for disposal into the landfill, not for storage. Therefore, most of the items in this template are not applicable to WDI. Generators are responsible for packaging the waste into containers in accordance federal and state requirements for packaging and transport. WDI inspects the containers before they are offloaded, to the staging area at the waste transfer box, and then transfers them to the landfill for disposal. The staging area and waste transfer box area have run-on/run-off control and secondary containment. WDI conducts these operations in accordance with Section 21 of the Application and standard operating procedures.

C1.B CONDITION OF CONTAINERS

[R 299.9614 and 40 CFR §264.171]

See Section C1.A, above.

C1.C COMPATIBILITY OF WASTE WITH CONTAINERS

[R 299.9614 and 40 CFR §264.172]

See Section C1.A, above.

C1.D MANAGEMENT OF CONTAINERS

[R 299.9614 and 40 CFR §264.173]

See Section C1.A, above.

C1.E INSPECTIONS

[R 299.9614 and 40 CFR §264.174]

See Section C1.A, above.

C1.F CONTAINMENT

[R 299.9614 and 40 CFR §§264.175 and 270.15]

N/a. The facility does not store containers. The facility only stages containers for a short time preparatory to inspection and transfer into the landfill for disposal.

C1.F.1 Secondary Containment System Design and Operation for Containers with Free Liquids

[R 299.9614 and 40 CFR §§264.175(a) and 270.15(a)]

The facility does not dispose of free liquids. Containers that may contain incidental free liquids are handled in the waste transfer tank as described in Section 41 of the application.

C1.F.1(a) Requirement for Base or Liner

[R 299.9614 and 40 CFR §§264.175(b)(1) and 270.15(a)(1)]

 *Demonstrate that the containment base is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.*

See Section 41 Tank System Plans and Specifications of the Application.

C1.F.1(b) Containment System Drainage

[R 299.9614 and 40 CFR §§264.175(b)(2) and 270.15(a)(2)]

See Section 41 Tank System Plans and Specifications of the Application.

C1.F.1(c) Containment System Capacity

[R 299.9614 and 40 CFR §§264.175(b)(3) and 270.15(a)(3)]

See Section 41 Tank System Plans and Specifications of the Application.

C1.F.1(d) Control of Run-on

[R 299.9614 and 40 CFR §§264.175(b)(4) and 270.15(a)(4)]

See Section 41 Tank System Plans and Specifications of the Application.

C1.F.1(e) Removal of Liquids from Containment System

[R 299.9614 and 40 CFR §§264.175(b)(5) and 270.15(a)(5)]

See Section 41 Tank System Plans and Specifications of the Application.

C1.F.2 Secondary Containment System Design and Operation for Containers with No Free Liquids
[R 299.9614 and 40 CFR §§264.175 and 270.15(b)(1)]

See Section 41 Tank System Plans and Specifications of the Application.

C1.F.2(a) Containment System Drainage
[R 299.9614 and 40 CFR §§264.175 and 270.15(b)(2)]

See Section 41 Tank System Plans and Specifications of the Application.

C1.F.2(b) Container Management
[R 299.9614 and 40 CFR §§264.175 and 270.15(b)(2)]

See Section 41 Tank System Plans and Specifications of the Application.

C1.G SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE
[R 299.9614 and 40 CFR §§264.176 and 270.15(b)(2)]

N/a. The facility does not accept ignitable or reactive waste.

C1.H SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES
[R 299.9614 and 40 CFR §§264.177(c) and 270.15(b)(2)]

N/a. The facility does not accept incompatible wastes.

C1.I CLOSURE
[R 299.9614 and 40 CFR §264.178]

Note: This template's closure information is meant to supplement the closure plan that is to be included in the application as Template A11, Closure and Postclosure Care Plans. Information in Template A11, Closure and Postclosure Care Plans, may be referenced in this section.

See Section 34 Closure Plan of the Application.

CONTAINER STORAGE

40 CFR 270.15

AND

NREPA 451, Part 111 R504(2)

CONTAINER STORAGE

1. STAGING AND ACCEPTANCE OF CONTAINERIZED WASTE

Trucks transporting containerized waste entering the facility are checked to ensure that they have arrived at the correct facility and that the waste represented on the manifest has an active pre-approval. The driver is then directed to the staging area which provides secondary containment in the event of a leak or spill. Containers are off loaded using fork-trucks or other container/drum handling equipment.

After containers are visually inspected to ensure that they are in good condition and not leaking, they are placed in rows within the staging area. The rows are maintained with aisle space sufficient to meet the requirements of 40 CFR 264.35. Containers less than 55 gallons that are attached to a pallet can be double stacked. Containers 55-gallon or greater may be double stacked.

Once the containers destined for receipt at the facility are removed from the trailer, the trailer is held and the Driver is asked to remain on-site while sampling and analysis is performed. The Sampler labels the samples and provides the samples and all shipping documents to the laboratory for review and pre-acceptance testing. The analysis required for acceptance of the waste is performed and the waste is either deemed acceptable or rejected in accordance with the procedures and criteria specified in the Waste Analysis Plan (WAP).

If the containers are acceptable, the laboratory assigns a treatment, storage, or disposal designation. After the truck has been unloaded, the driver is directed to the outbound scale. The driver returns the completed facility documents to the Manifest Agent. The manifest information is completed using the computer system. The manifest is signed, dated, disassembled, and the driver is given the "Transporter" copy.

Off-specification materials and rejected loads are managed following the procedures specified in the WAP. If some or all of the containers are rejected, it is noted on the manifest. Rejected containers are loaded back onto the waiting truck and the driver is provided with the appropriate documents and allowed to leave the facility.

For container storage, the facility management evaluates the compatibility of the waste with the storage unit materials of construction and with wastes already stored therein.

The evaluation is based upon vendor or engineering data, materials of construction, and a knowledge of the waste and its characteristics from the Generator Waste Characterization Report. Stored containerized wastes are segregated with respect to ignitability, corrosivity, reactivity, and compatibility. Based on the hazard assessment of the waste, the containerized waste is organized into segregated storage areas. The following lists typical hazard classes for wastes in storage:

- Corrosive, acids;
- Corrosive, alkali;
- Ignitable, (flammables);
- Ignitable, (oxidizers)
- Non-regulated / inerts; and
- Toxics (metals, chlorinated solvents, pesticides, etc.).

Section 22. Engineering Plans and Landfill Design

ENGINEERING PLANS & LANDFILL DESIGN

40 CFR 270.21

&

**NREPA 451, Part 111 R504(1)g; R504(8)a& b;
R505 and R619**

(See Volume III of Operating License Application, Basis of Design Report)

Section 23. Facility Location Information

FACILITY LOCATION INFORMATION

40 CFR 270.14b

AND

NREPA, Part 111 R603

See Volume V of Application, Environmental Assessment Report

Section 24. Hydrogeologic Report

HYDROGEOLOGICAL REPORT

Part 111 R504(1)d & R506

See Volume IV, Hydrogeologic Investigation Report

Section 25. Environmental Assessment

Section 25

ENVIRONMENTAL ASSESSMENT REPORT

NREPA, Part 111, R504(1)e

See Volume V of Operating License Application