



Volume I - General

Hazardous Waste Management Facility Operating License Renewal Application

***Petro-Chem Processing Group of Nortru, LLC (Petro-Chem)
MID 980 615 298; Waste Data Systems Number 399102
421 Lyncaste Street, Detroit, Michigan***

Prepared for
Petro-Chem Processing Group of Nortru, LLC (Petro-Chem)

June 2022

Proj. No. 22821113.05

Hazardous Waste Management Facility Operating License Renewal Application

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MID 980 615 298; Waste Data Systems Number 399102
421 Lycaste Street, Detroit, Michigan*

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Section 1

Part A Application (A0)



June 20, 2022

Mr. Daniel Dailey
Environmental Engineer Specialist
Michigan Department of Environment, Great Lakes, and Energy Hazardous Waste Section,
Materials Management Division
Constitution Hall, 4th Floor South
525 West Allegan Street, P.O Box 30241
Lansing, Michigan 48909-7741

Also submitted via e-mail to dailey@michigan.gov

Re: Hazardous Waste Permit Renewal Application, MND 980 615 298
Petro-Chem Processing Group of Nortru, LLC., Detroit, Michigan 48214-3473

Dear Mr. Dailey:

Please find enclosed the 2022 Hazardous Waste Facility Permit Renewal Application for Petro-Chem Processing Group of Nortru, LLC. (Petro-Chem) located at 421 Lycaste Street, Detroit, Michigan, Facility Permit MND 980 615 298.

In this permit application, Petro-Chem is proposing several changes to the current permit to increase worker safety, update the ambient air monitoring plan to reflect data and site conditions and improve the waste management processing at the facility. Changes are discussed in the appropriate sections of the application. None of the proposed changes increase or change the overall permitted capacity of the facility and the proposed new permitted space does not exceed 50 percent of the existing permitted space. A summary of the proposed changes include:

1. Construct a second container management building (CMB2) so that all waste management activities are located under cover and to control emissions from container commingling and consolidation operations with an activated carbon control system,
2. Reinstate Dock 2 as a hazardous waste storage area,
3. Build an enclosure/building over the QAQC area,
4. Change the 72 hour storage limits to normal RCRA storage for the transfer pad areas and QAQC area,
5. Adjust the permitted capacity of the 72 hour truck trailer parking area to reflect the designed capacity for this area.

As agreed, we are submitting four (4) hard copies of this application and have provided a SharePoint site with an electronic version of the application which can be downloaded and



printed or reviewed electronically. We have also uploaded to the permit SharePoint site copies of reports referenced in the permit application and previously provided to EGLE staff easy access and to reduce the printing and including these rather large reports with the permit application.

Subpart BB Air Compliance: This letter also serves as the facility's signed and dated owner/operator certification documenting the equipment is in compliance with the facility's air permit PTI 6-19 and the applicable regulations under 40 CFR Part 60, Part 61 and Part 63. A copy of the air permit has been provided in Volume IV, Section 1, Appendix B4.3. The facility has prepared an LDAR monitoring and Benzene Monitoring program compliant with the air permit PTI 6-19.

Please do not hesitate to contact me at (313) 316-1623 if you have any questions or need additional information regarding this application.

Sincerely,

CLEAN EARTH ENVIRONMENTAL SOLUTIONS INC.

A handwritten signature in blue ink that reads "Melanie Frohriep".

Melanie Frohriep
Facility Manager

C: E. Burk, Clean Earth
G. Patten, Barr

Enclosures

VOLUME I

- Section 1 – Part A Application
- Section 2 – Chemical & Physical Analyses
- Section 3 – Waste Analysis Plan
- Section 4 – Inspection Plan
- Section 5 – Preparedness & Contingency Plan
- Section 6 – Personnel Training
- Section 7 – Closure Plan
- Section 8 – Closure Cost Estimate

VOLUME II

- Section 1 – Photos
- Section 2 – Engineering Drawings

VOLUME III

- Section 1 – Hydrogeological Report

VOLUME IV

Section 1 – Environmental Assessment

Section 2 – Environmental Monitoring

VOLUME V

Section 1 – Use and Management of Containers

Section 2 – Tank Systems

Section 3 – Subpart BB Air Emissions

Section 4 – Subpart CC Air Emissions



June 21, 2022

Michigan Department of Environment, Great Lakes, and Energy
Cashier's Office
P.O. Box 30657,
Lansing, Michigan 48909-8157

**Re: RCRA Permit Application Fee
Hazardous Waste Permit Renewal Application, MND 980 615 298
Petro-Chem Processing Group of Nortru, LLC.
Detroit, Michigan 48214-3473**

To Cashier's Office,

Please finding enclosed a check for \$500 for the Petro-Chem Processing Group of Nortru, LLC. RCRA permit application 500 fee (Form 5111).

Please do not hesitate to contact me at (952) 688-7600 or Mr. Edward Burk, Petro-Chem Compliance Manger, at (313) 316-1623 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Patten".

Mr. Greg Patten

Barr, Engineering Co.

BARR ENGINEERING COMPANY
ANN ARBOR PETTY CASH-ACCOUNT
3005 BOARDWALK STREET, SUITE 100
ANN ARBOR, MI 48108

2647

75-1041/960

DATE 6/21/22

PAY TO THE
ORDER OF

State of Michigan

\$500.⁰⁰

five hundred⁰⁰/100

DOLLARS

Security Features
Include:
Data in on Back.

BremerBank

1-800-908-BANK (2265)
Bremer.com

22821113.05

HWOL

FOR

Petro-Chem

100 100

Edward L. Harris

MP

⑈002647⑈



Michigan Department of Environment, Great Lakes, and Energy
Materials Management Division

**OPERATING LICENSE 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 PA 451, as amended. Failure to submit this information may result in civil or criminal penalties.

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

I. FACILITY SITE ID NUMBER		MID 980 615 298							
II. FACILITY'S LEGAL OWNER									
A. Name		Petro-Chem Processing Group of Nortru, LLC.							
B. Street or P.O. Box		421 Lycaste							
C. City/State/ZIP		Detroit							
D. Telephone Number (area code included)		313-824-5840							
E. Owner Type	P	F. Ownership Change?		Y	N	X	N/A	Date	04/01/2008
III. FACILITY OPERATOR									
A. Name		Petro-Chem Processing Group of Nortru, LLC.							
B. Street or P.O. Box		421 Lycaste							
C. City/State/ZIP		Detroit							
D. Telephone Number (area code included)		313-824-5840							
E. Operator Type	P	F. Operator Change?		Y	N	X	N/A	Date	04/01/2008
IV. TITLEHOLDER OF LAND									
A. Name		Same as Legal Owner in Section II							
B. Street or P.O. Box									
C. City/State/ZIP									
D. Telephone Number (area coded included)									
V. OPERATING LICENSE APPLICATION									
Place an "X" in the appropriate box under either A or B (select only one box)									
A. Operating License Application									
<input type="checkbox"/>	First Application for *Existing Facility	Place an "X" here if application is for a facility that has not been previously licensed in Michigan to treat, store, or dispose of hazardous waste and has interim status pursuant to 40 CFR §270.70.							
<input checked="" type="checkbox"/>	Renewal Application for *Existing Facility	Place an "X" here if renewal application for a facility that was previously licensed in Michigan to treat, store, or dispose hazardous waste and whose hazardous waste operations have not had any new construction or been altered, enlarged, or expanded.							
<input type="checkbox"/>	Application for Modification of License	Place an "X" here if application is for a license modification.							
<input type="checkbox"/>	First Application for Research, Development, and Demonstration (RDD) License	Place an "X" here if application for a temporary license for RDD.							
<input type="checkbox"/>	Renewal Application for RDD License	Place an "X" here if application for the renewal of a temporary license for RDD.							
B. Operating License Application for New, Altered, Enlarged, or Expanded Facility									
<input type="checkbox"/>	First Application	Place an "X" here if application is for a new facility or a facility that wishes to alter, enlarge, or expand its hazardous waste operations.							
For existing facilities, provide date operation began.									
							Date	04/01/2008	
For RDD activities, provide the date RDD began or expected to begin.									
							Date		
For new, altered, enlarged, or expanded facilities, provide date expected construction to begin.									
							Date		
*Existing Facility means a hazardous waste treatment, storage, or disposal facility (TSDF) that either received all necessary state-issued environmental permits or licenses before January 1, 1980, or for which approval of construction was received from the Air Pollution Control Commission before November 19, 1980, or before promulgation of new federal rules that caused the facility to become subject to regulation as a TSDF. Existing facilities also include TSDFs that were operating before January 1, 1980, under existing authority, or before promulgation of new federal rules that caused the facility to become subject to regulation as a TSDF and that did not require state-issued environmental permits or licenses.									

VI. OPERATING LICENSE APPLICATION FEES		
<input checked="" type="checkbox"/>	A. Operating License Application Fixed Fee	\$ 500
<input type="checkbox"/>	B. Additional License Application Fees for New, Altered, Enlarged, or Expanded Facility	\$ 25,000
Check Type of Facility		
<input type="checkbox"/>	Land Disposal (\$9,000)	\$ _____
<input type="checkbox"/>	Incineration or Other Treatment (\$7,200)	\$ _____
<input type="checkbox"/>	Storage (\$500)	\$ _____
Total Operating License Fee		\$ 500

Note: Checks shall be made payable to the "State of Michigan" and the state accounting code "HWOL" written in the memo portion. Checks shall be mailed to EGLE, Cashier's Office, P.O. Box 30657, Lansing, Michigan 48909-8157, with a copy of payment included with application that is mailed to the EGLE, MMD, P.O. Box 30241, Lansing, Michigan 48909-7741.

VII. EXISTING ENVIRONMENTAL PERMITS (attach copies of each as proof of issuance)	
<input checked="" type="checkbox"/>	A. NPDES (Discharges to Surface Water) Permit Number GLWA (POTW) SD3-94065
<input type="checkbox"/>	B. UIC (Underground Injection of Fluids) Permit Number
<input checked="" type="checkbox"/>	C. RCRA (Hazardous Waste) Permit Number MID 980-615-298
<input type="checkbox"/>	D. PSD (Air Emissions From Proposed Sources) Permit Number
<input checked="" type="checkbox"/>	E. Other (Specify below) Permit Number Air PTI No. 6-19; MI-DCH# 5306003101; MI-CSL 5315058127; MI MW0046407

VIII. NATURE OF BUSINESS (Provide a brief description)
Petro-Chem Processing Group of Nortru, LLC provides storage, trans-shipment, fuel blending and consolidation services for hazardous wastes, nonhazardous wastes, used oil wastes and Michigan used oil wastes

IX. MAP
Attach to this application a topographic map of the area extending at least one mile beyond the property boundaries. The map must show the legal boundaries 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, including the location of all processes listed in Items XII and XIII identified by process code; and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area, plus all drinking water wells within a quarter mile of the facility that are identified in the public record or otherwise known to you. (see instructions for specific requirements)

X. FACILITY DRAWING
All existing facilities must include a scale drawing of the facility showing the property boundaries of the facility; the areas occupied by treatment, storage, or disposal operations that will be used during interim status; the name of each operation (drum storage area, etc.); areas of past TSD operations; areas of future TSD; and the approximate dimensions of the property boundaries and all TSD areas. Where applicable, use the process codes listed in Items XII and XIII to indicate the location of all TSD. This drawing should fit on an 8.5 by 11 inch sheet of paper.

XI. PHOTOGRAPHS
All existing facilities must include photographs that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. Use the process codes and descriptions in Items XII and XIII to indicate the location of all TSD areas. Indicate the date of the photograph on the back of each photograph. Photographs may be in color or black and white, aerial or ground-level.

XII. 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. Quantity	B.2. Unit of Measure	For Official Use Only			B.1. Quantity	B.2. Unit of Measure	For Official Use Only
1.	S01	432,355	G		6.				
2.	S02	600,000	G		7.				
3.	T01	155,000	U		8.				
4.					9.				
5.					10.				

C. Additional Process Codes or Description of Nonlisted Processes (Codes "S99" and "T04").

XIII. DESCRIPTION OF HAZARDOUS WASTES

Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
01	D001	1,000,000	T	S01	S02	T01	
02	D002	500,000	T	S01	S02	T01	
03	D003	52	T	S01	S02	T01	
04	D004	100,000	T	S01	S02	T01	
05	D005	100,000	T	S01	S02	T01	
06	D006	100,000	T	S01	S02	T01	
07	D007	100,000	T	S01	S02	T01	
08	D008	100,000	T	S01	S02	T01	
09	D009	100,000	T	S01	S02	T01	
10	D010	100,000	T	S01	S02	T01	
11	D011	100,000	T	S01	S02	T01	
12	D012	100,000	T	S01	S02	T01	
13	D013	100,000	T	S01	S02	T01	
14	D014	100,000	T	S01	S02	T01	
15	D015	52	T	S01	S02	T01	
16	D016	100,000	T	S01	S02	T01	
17	D017	100,000	T	S01	S02	T01	
18	D018	100,000	T	S01	S02	T01	
19	D019	100,000	T	S01	S02	T01	
20	D020	100,000	T	S01	S02	T01	
21	D021	100,000	T	S01	S02	T01	
22	D022	100,000	T	S01	S02	T01	
23	D023	100,000	T	S01	S02	T01	
24	D024	100,000	T	S01	S02	T01	
25	D025	100,000	T	S01	S02	T01	
26	D026	100,000	T	S01	S02	T01	
27	D027	100,000	T	S01	S02	T01	
28	D028	100,000	T	S01	S02	T01	
29	D029	100,000	T	S01	S02	T01	
30	D030	100,000	T	S01	S02	T01	
31	D031	100,000	T	S01	S02	T01	
32	D032	100,000	T	S01	S02	T01	
33	D033	100,000	T	S01	S02	T01	
34	D034	100,000	T	S01	S02	T01	
35	D035	100,000	T	S01	S02	T01	
36	D036	100,000	T	S01	S02	T01	
37	D037	500	T	S01	S02	T01	
38	D038	100,000	T	S01	S02	T01	
39	D039	100,000	T	S01	S02	T01	
40	D040	100,000	T	S01	S02	T01	
41	D041	100,000	T	S01	S02	T01	
42	D042	100,000	T	S01	S02	T01	
43	D043	100,000	T	S01	S02	T01	
44	F001	100,000	T	S01	S02	T01	
45	F002	500,000	T	S01	S02	T01	
46	F003	100,000	T	S01	S02	T01	
47	F004	100,000	T	S01	S02	T01	
48	F005	52	T	S01	S02	T01	
49	F006	52	T	S01	S02	T01	

XIII.DESCRPTION OF HAZARDOUS WASTES								
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes				D.2 Process Description (if no code entered in D.1)
				D.1 Process Codes (enter code)				
50	F007	52	T	S01	S02	T01		
51	F008	52	T	S01	S02	T01		
52	F009	52	T	S01	S02	T01		
53	F010	52	T	S01	S02	T01		
54	F011	52	T	S01	S02	T01		
55	F012	52	T	S01	S02	T01		
56	F019	52	T	S01	S02	T01		
57	F024	50,000	T	S01	S02	T01		
58	F025	52	T	S01	S02	T01		
59	F032	50,000	T	S01	S02	T01		
60	F034	50,000	T	S01	S02	T01		
61	F035	50,000	T	S01	S02	T01		
62	F037	500,000	T	S01	S02	T01		
63	F038	500,000	T	S01	S02	T01		
64	F039	52	T	S01	S02	T01		
65	K001	50,000	T	S01	S02	T01		
66	K002	50,000	T	S01	S02	T01		
67	K003	50,000	T	S01	S02	T01		
68	K004	50,000	T	S01	S02	T01		
69	K005	50,000	T	S01	S02	T01		
70	K006	50,000	T	S01	S02	T01		
71	K007	50,000	T	S01	S02	T01		
72	K008	50,000	T	S01	S02	T01		
73	K009	50,000	T	S01	S02	T01		
74	K010	50,000	T	S01	S02	T01		
75	K011	52	T	S01	S02	T01		
76	K013	52	T	S01	S02	T01		
77	K014	52	T	S01	S02	T01		
78	K015	50,000	T	S01	S02	T01		
79	K016	50,000	T	S01	S02	T01		
80	K017	52	T	S01	S02	T01		
81	K018	50,000	T	S01	S02	T01		
82	K019	50,000	T	S01	S02	T01		
83	K020	50,000	T	S01	S02	T01		
84	K021	52	T	S01	S02	T01		
85	K022	100,000	T	S01	S02	T01		
86	K023	50,000	T	S01	S02	T01		
87	K024	50,000	T	S01	S02	T01		
88	K025	50,000	T	S01	S02	T01		
89	K026	52	T	S01	S02	T01		
90	K027	52	T	S01	S02	T01		
91	K028	52	T	S01	S02	T01		
92	K029	50,000	T	S01	S02	T01		
93	K030	50,000	T	S01	S02	T01		
94	K031	52	T	S01	S02	T01		
95	K032	50,000	T	S01	S02	T01		
96	K033	50,000	T	S01	S02	T01		
97	K034	50,000	T	S01	S02	T01		
98	K035	50,000	T	S01	S02	T01		
99	K036	50,000	T	S01	S02	T01		
100	K037	50,000	T	S01	S02	T01		
101	K038	52	T	S01	S02	T01		
102	K039	52	T	S01	S02	T01		

XIII.DESCRPTION OF HAZARDOUS WASTES							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
103	K040	52	T	S01	S02	T01	
104	K041	52	T	S01	S02	T01	
105	K042	50,000	T	S01	S02	T01	
106	K043	50,000	T	S01	S02	T01	
107	K046	52	T	S01	S02	T01	
108	K048	500,000	T	S01	S02	T01	
109	K049	500,000	T	S01	S02	T01	
110	K050	500,000	T	S01	S02	T01	
111	K051	500,000	T	S01	S02	T01	
112	K052	500,000	T	S01	S02	T01	
113	K060	52	T	S01	S02	T01	
114	K061	500,000	T	S01	S02	T01	
115	K062	52	T	S01	S02	T01	
116	K069	52	T	S01	S02	T01	
117	K071	52	T	S01	S02	T01	
118	K073	500,000	T	S01	S02	T01	
119	K083	500,000	T	S01	S02	T01	
120	K084	52	T	S01	S02	T01	
121	K085	500,000	T	S01	S02	T01	
122	K086	500,000	T	S01	S02	T01	
123	K087	500,000	T	S01	S02	T01	
124	K093	50,000	T	S01	S02	T01	
125	K094	50,000	T	S01	S02	T01	
126	K095	50,000	T	S01	S02	T01	
127	K096	50,000	T	S01	S02	T01	
128	K097	50,000	T	S01	S02	T01	
129	K098	52	T	S01	S02	T01	
130	K099	52	T	S01	S02	T01	
131	K100	52	T	S01	S02	T01	
132	K101	52	T	S01	S02	T01	
133	K102	52	T	S01	S02	T01	
134	K103	52	T	S01	S02	T01	
135	K104	52	T	S01	S02	T01	
136	K105	52	T	S01	S02	T01	
137	K106	52	T	S01	S02	T01	
138	K111	52	T	S01	S02	T01	
139	K112	52	T	S01	S02	T01	
140	K113	52	T	S01	S02	T01	
141	K114	52	T	S01	S02	T01	
142	K115	52	T	S01	S02	T01	
143	K116	52	T	S01	S02	T01	
144	K117	52	T	S01	S02	T01	
145	K118	52	T	S01	S02	T01	
146	K123	52	T	S01	S02	T01	
147	K124	52	T	S01	S02	T01	
148	K125	52	T	S01	S02	T01	
149	K126	52	T	S01	S02	T01	
150	K136	52	T	S01	S02	T01	
151	K141	100,000	T	S01	S02	T01	
152	K142	52	T	S01	S02	T01	
153	K143	52	T	S01	S02	T01	
154	K144	52	T	S01	S02	T01	
155	K145	52	T	S01	S02	T01	

XIII.DESCRPTION OF HAZARDOUS WASTES

Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes				D.2 Process Description (if no code entered in D.1)
				D.1 Process Codes (enter code)				
156	K147	52	T	S01	S02	T01		
157	K148	52	T	S01	S02	T01		
158	K149	52	T	S01	S02	T01		
159	K150	52	T	S01	S02	T01		
160	K151	52	T	S01	S02	T01		
161	K156	52	T	S01	S02	T01		
162	K157	52	T	S01	S02	T01		
163	K158	52	T	S01	S02	T01		
164	K159	50	T	S01	S02	T01		
165	K161	50	T	S01	S02	T01		
166	K169	50	T	S01	S02	T01		
167	K170	50	T	S01	S02	T01		
168	K171	50	T	S01	S02	T01		
169	K172	50	T	S01	S02	T01		
170	P001	50,000	T	S01	S02	T01		
171	P002	50	T	S01	S02	T01		
172	P003	50	T	S01	S02	T01		
173	P004	52	T	S01	S02	T01		
174	P005	52	T	S01	S02	T01		
175	P006	52	T	S01	S02	T01		
176	P007	52	T	S01	S02	T01		
177	P008	52	T	S01	S02	T01		
178	P009	52	T	S01	S02	T01		
179	P010	52	T	S01	S02	T01		
180	P011	52	T	S01	S02	T01		
181	P012	52	T	S01	S02	T01		
182	P013	52	T	S01	S02	T01		
183	P014	52	T	S01	S02	T01		
184	P016	52	T	S01	S02	T01		
185	P017	52	T	S01	S02	T01		
186	P018	52	T	S01	S02	T01		
187	P020	52	T	S01	S02	T01		
188	P021	52	T	S01	S02	T01		
189	P022	52	T	S01	S02	T01		
190	P023	52	T	S01	S02	T01		
191	P024	52	T	S01	S02	T01		
192	P026	52	T	S01	S02	T01		
193	P027	52	T	S01	S02	T01		
194	P028	52	T	S01	S02	T01		
195	P029	52	T	S01	S02	T01		
196	P030	52	T	S01	S02	T01		
197	P033	52	T	S01	S02	T01		
198	P034	52	T	S01	S02	T01		
199	P036	52	T	S01	S02	T01		
200	P037	52	T	S01	S02	T01		
201	P038	52	T	S01	S02	T01		
202	P039	52	T	S01	S02	T01		
203	P040	52	T	S01	S02	T01		
204	P041	52	T	S01	S02	T01		
205	P042	52	T	S01	S02	T01		
206	P043	52	T	S01	S02	T01		
207	P044	52	T	S01	S02	T01		
208	P045	52	T	S01	S02	T01		

XIII. DESCRIPTION OF HAZARDOUS WASTES								
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes				D.2 Process Description (if no code entered in D.1)
				D.1 Process Codes (enter code)				
209	P046	52	T	S01	S02	T01		
210	P047	52	T	S01	S02	T01		
211	P048	52	T	S01	S02	T01		
212	P049	52	T	S01	S02	T01		
213	P050	52	T	S01	S02	T01		
214	P051	52	T	S01	S02	T01		
215	P054	52	T	S01	S02	T01		
216	P057	52	T	S01	S02	T01		
217	P058	52	T	S01	S02	T01		
218	P059	52	T	S01	S02	T01		
219	P060	52	T	S01	S02	T01		
220	P062	52	T	S01	S02	T01		
221	P064	52	T	S01	S02	T01		
222	P065	52	T	S01	S02	T01		
223	P066	52	T	S01	S02	T01		
224	P067	52	T	S01	S02	T01		
225	P068	52	T	S01	S02	T01		
226	P069	52	T	S01	S02	T01		
227	P070	52	T	S01	S02	T01		
228	P071	52	T	S01	S02	T01		
229	P072	52	T	S01	S02	T01		
230	P073	52	T	S01	S02	T01		
231	P074	52	T	S01	S02	T01		
232	P075	52	T	S01	S02	T01		
233	P077	52	T	S01	S02	T01		
234	P082	52	T	S01	S02	T01		
235	P084	52	T	S01	S02	T01		
236	P085	52	T	S01	S02	T01		
237	P087	52	T	S01	S02	T01		
238	P088	52	T	S01	S02	T01		
239	P089	52	T	S01	S02	T01		
240	P092	52	T	S01	S02	T01		
241	P093	52	T	S01	S02	T01		
242	P094	52	T	S01	S02	T01		
243	P095	52	T	S01	S02	T01		
244	P097	52	T	S01	S02	T01		
245	P098	52	T	S01	S02	T01		
246	P099	52	T	S01	S02	T01		
247	P101	52	T	S01	S02	T01		
248	P102	52	T	S01	S02	T01		
249	P103	52	T	S01	S02	T01		
250	P104	52	T	S01	S02	T01		
251	P105	52	T	S01	S02	T01		
252	P106	52	T	S01	S02	T01		
253	P108	52	T	S01	S02	T01		
254	P109	52	T	S01	S02	T01		
255	P110	52	T	S01	S02	T01		
256	P111	52	T	S01	S02	T01		
257	P112	52	T	S01	S02	T01		
258	P113	52	T	S01	S02	T01		
259	P114	52	T	S01	S02	T01		
260	P115	52	T	S01	S02	T01		
261	P116	52	T	S01	S02	T01		

XIII.DESCRPTION OF HAZARDOUS WASTES							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
262	P118	52	T	S01	S02	T01	
263	P119	52	T	S01	S02	T01	
264	P120	52	T	S01	S02	T01	
265	P121	52	T	S01	S02	T01	
266	P122	52	T	S01	S02	T01	
267	P123	52	T	S01	S02	T01	
268	P127	52	T	S01	S02	T01	
269	P128	52	T	S01	S02	T01	
270	P185	52	T	S01	S02	T01	
271	P188	52	T	S01	S02	T01	
272	P189	52	T	S01	S02	T01	
273	P190	52	T	S01	S02	T01	
274	P191	52	T	S01	S02	T01	
275	P192	52	T	S01	S02	T01	
276	P194	52	T	S01	S02	T01	
277	P196	52	T	S01	S02	T01	
278	P197	52	T	S01	S02	T01	
279	P198	52	T	S01	S02	T01	
280	P199	52	T	S01	S02	T01	
281	P201	52	T	S01	S02	T01	
282	P202	52	T	S01	S02	T01	
283	P203	52	T	S01	S02	T01	
284	P204	52	T	S01	S02	T01	
285	P205	52	T	S01	S02	T01	
286	U001	52	T	S01	S02	T01	
287	U002	52	T	S01	S02	T01	
288	U003	52	T	S01	S02	T01	
289	U004	52	T	S01	S02	T01	
290	U005	52	T	S01	S02	T01	
291	U006	52	T	S01	S02	T01	
292	U007	52	T	S01	S02	T01	
293	U008	52	T	S01	S02	T01	
294	U009	52	T	S01	S02	T01	
295	U010	52	T	S01	S02	T01	
296	U011	52	T	S01	S02	T01	
297	U012	52	T	S01	S02	T01	
298	U014	52	T	S01	S02	T01	
299	U015	52	T	S01	S02	T01	
300	U016	52	T	S01	S02	T01	
301	U017	52	T	S01	S02	T01	
302	U018	52	T	S01	S02	T01	
303	U019	52	T	S01	S02	T01	
304	U020	52	T	S01	S02	T01	
305	U021	52	T	S01	S02	T01	
306	U022	52	T	S01	S02	T01	
307	U023	52	T	S01	S02	T01	
308	U024	52	T	S01	S02	T01	
309	U025	52	T	S01	S02	T01	
310	U026	52	T	S01	S02	T01	
311	U027	52	T	S01	S02	T01	
312	U028	52	T	S01	S02	T01	
313	U029	52	T	S01	S02	T01	
314	U030	52	T	S01	S02	T01	

XIII.DESCRPTION OF HAZARDOUS WASTES

Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
315	U031	52	T	S01	S02	T01	
316	U032	52	T	S01	S02	T01	
317	U033	52	T	S01	S02	T01	
318	U034	52	T	S01	S02	T01	
319	U035	52	T	S01	S02	T01	
320	U036	52	T	S01	S02	T01	
321	U037	52	T	S01	S02	T01	
322	U038	52	T	S01	S02	T01	
323	U039	52	T	S01	S02	T01	
324	U041	52	T	S01	S02	T01	
325	U042	52	T	S01	S02	T01	
326	U043	52	T	S01	S02	T01	
327	U044	52	T	S01	S02	T01	
328	U045	52	T	S01	S02	T01	
329	U046	52	T	S01	S02	T01	
330	U047	52	T	S01	S02	T01	
331	U048	52	T	S01	S02	T01	
332	U049	52	T	S01	S02	T01	
333	U050	52	T	S01	S02	T01	
334	U051	52	T	S01	S02	T01	
335	U052	52	T	S01	S02	T01	
336	U053	52	T	S01	S02	T01	
337	U055	52	T	S01	S02	T01	
338	U056	52	T	S01	S02	T01	
339	U057	52	T	S01	S02	T01	
340	U058	52	T	S01	S02	T01	
241	U059	52	T	S01	S02	T01	
342	U060	52	T	S01	S02	T01	
343	U061	52	T	S01	S02	T01	
344	U062	52	T	S01	S02	T01	
345	U063	52	T	S01	S02	T01	
346	U064	52	T	S01	S02	T01	
347	U066	52	T	S01	S02	T01	
348	U067	52	T	S01	S02	T01	
349	U068	52	T	S01	S02	T01	
350	U069	52	T	S01	S02	T01	
351	U070	52	T	S01	S02	T01	
352	U071	52	T	S01	S02	T01	
353	U072	52	T	S01	S02	T01	
354	U073	52	T	S01	S02	T01	
355	U074	52	T	S01	S02	T01	
356	U075	52	T	S01	S02	T01	
357	U076	52	T	S01	S02	T01	
358	U077	52	T	S01	S02	T01	
359	U078	52	T	S01	S02	T01	
360	U079	52	T	S01	S02	T01	
361	U080	52	T	S01	S02	T01	
362	U081	52	T	S01	S02	T01	
363	U082	52	T	S01	S02	T01	
364	U083	52	T	S01	S02	T01	
365	U084	52	T	S01	S02	T01	
366	U085	52	T	S01	S02	T01	
367	U086	52	T	S01	S02	T01	

XIII.DESCRPTION OF HAZARDOUS WASTES							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
368	U087	52	T	S01	S02	T01	
369	U088	52	T	S01	S02	T01	
370	U089	52	T	S01	S02	T01	
371	U090	52	T	S01	S02	T01	
372	U091	52	T	S01	S02	T01	
373	U092	52	T	S01	S02	T01	
374	U093	52	T	S01	S02	T01	
375	U094	52	T	S01	S02	T01	
376	U095	52	T	S01	S02	T01	
377	U096	52	T	S01	S02	T01	
378	U097	52	T	S01	S02	T01	
379	U098	52	T	S01	S02	T01	
380	U099	52	T	S01	S02	T01	
381	U101	52	T	S01	S02	T01	
382	U102	52	T	S01	S02	T01	
383	U103	52	T	S01	S02	T01	
384	U105	52	T	S01	S02	T01	
385	U106	52	T	S01	S02	T01	
386	U107	52	T	S01	S02	T01	
387	U108	52	T	S01	S02	T01	
388	U109	52	T	S01	S02	T01	
389	U110	52	T	S01	S02	T01	
390	U111	52	T	S01	S02	T01	
391	U112	52	T	S01	S02	T01	
392	U113	52	T	S01	S02	T01	
393	U114	52	T	S01	S02	T01	
394	U115	52	T	S01	S02	T01	
395	U116	52	T	S01	S02	T01	
396	U117	52	T	S01	S02	T01	
397	U118	52	T	S01	S02	T01	
398	U119	52	T	S01	S02	T01	
399	U120	52	T	S01	S02	T01	
400	U121	52	T	S01	S02	T01	
401	U122	52	T	S01	S02	T01	
402	U123	52	T	S01	S02	T01	
403	U124	52	T	S01	S02	T01	
404	U125	52	T	S01	S02	T01	
405	U126	52	T	S01	S02	T01	
406	U127	52	T	S01	S02	T01	
407	U128	52	T	S01	S02	T01	
408	U129	52	T	S01	S02	T01	
409	U130	52	T	S01	S02	T01	
410	U131	52	T	S01	S02	T01	
411	U132	52	T	S01	S02	T01	
412	U133	52	T	S01	S02	T01	
413	U134	52	T	S01	S02	T01	
414	U135	52	T	S01	S02	T01	
415	U136	52	T	S01	S02	T01	
416	U137	52	T	S01	S02	T01	
417	U138	52	T	S01	S02	T01	
418	U140	52	T	S01	S02	T01	
419	U141	52	T	S01	S02	T01	
420	U142	52	T	S01	S02	T01	

XIII. DESCRIPTION OF HAZARDOUS WASTES

Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
421	U143	52	T	S01	S02	T01	
422	U144	52	T	S01	S02	T01	
423	U145	52	T	S01	S02	T01	
424	U146	52	T	S01	S02	T01	
425	U147	52	T	S01	S02	T01	
426	U148	52	T	S01	S02	T01	
427	U149	52	T	S01	S02	T01	
428	U150	52	T	S01	S02	T01	
429	U151	52	T	S01	S02	T01	
430	U152	52	T	S01	S02	T01	
431	U153	52	T	S01	S02	T01	
432	U154	52	T	S01	S02	T01	
433	U155	52	T	S01	S02	T01	
434	U156	52	T	S01	S02	T01	
435	U157	52	T	S01	S02	T01	
436	U158	52	T	S01	S02	T01	
437	U159	52	T	S01	S02	T01	
438	U160	52	T	S01	S02	T01	
439	U161	52	T	S01	S02	T01	
440	U162	52	T	S01	S02	T01	
441	U163	52	T	S01	S02	T01	
442	U164	52	T	S01	S02	T01	
443	U165	52	T	S01	S02	T01	
444	U166	52	T	S01	S02	T01	
445	U167	52	T	S01	S02	T01	
446	U168	52	T	S01	S02	T01	
447	U169	52	T	S01	S02	T01	
448	U170	52	T	S01	S02	T01	
449	U171	52	T	S01	S02	T01	
450	U172	52	T	S01	S02	T01	
451	U173	52	T	S01	S02	T01	
452	U174	52	T	S01	S02	T01	
453	U176	52	T	S01	S02	T01	
454	U177	52	T	S01	S02	T01	
455	U178	52	T	S01	S02	T01	
456	U179	52	T	S01	S02	T01	
457	U180	52	T	S01	S02	T01	
458	U181	52	T	S01	S02	T01	
459	U182	52	T	S01	S02	T01	
460	U183	52	T	S01	S02	T01	
461	U184	52	T	S01	S02	T01	
462	U185	52	T	S01	S02	T01	
463	U186	52	T	S01	S02	T01	
464	U187	52	T	S01	S02	T01	
465	U188	52	T	S01	S02	T01	
466	U189	52	T	S01	S02	T01	
467	U190	52	T	S01	S02	T01	
468	U191	52	T	S01	S02	T01	
469	U192	52	T	S01	S02	T01	
470	U193	52	T	S01	S02	T01	
471	U194	52	T	S01	S02	T01	
472	U196	52	T	S01	S02	T01	
473	U197	52	T	S01	S02	T01	

XIII. DESCRIPTION OF HAZARDOUS WASTES

Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
474	U200	52	T	S01	S02	T01	
475	U201	52	T	S01	S02	T01	
476	U202	52	T	S01	S02	T01	
477	U203	52	T	S01	S02	T01	
478	U204	52	T	S01	S02	T01	
479	U205	52	T	S01	S02	T01	
480	U206	52	T	S01	S02	T01	
481	U207	52	T	S01	S02	T01	
482	U208	52	T	S01	S02	T01	
483	U209	52	T	S01	S02	T01	
484	U210	52	T	S01	S02	T01	
485	U211	52	T	S01	S02	T01	
486	U213	52	T	S01	S02	T01	
487	U214	52	T	S01	S02	T01	
488	U215	52	T	S01	S02	T01	
489	U216	52	T	S01	S02	T01	
490	U217	52	T	S01	S02	T01	
491	U218	52	T	S01	S02	T01	
492	U219	52	T	S01	S02	T01	
493	U220	52	T	S01	S02	T01	
494	U221	52	T	S01	S02	T01	
495	U222	52	T	S01	S02	T01	
496	U223	52	T	S01	S02	T01	
497	U225	52	T	S01	S02	T01	
498	U226	52	T	S01	S02	T01	
499	U227	52	T	S01	S02	T01	
500	U228	52	T	S01	S02	T01	
501	U234	52	T	S01	S02	T01	
502	U235	52	T	S01	S02	T01	
503	U236	52	T	S01	S02	T01	
504	U237	52	T	S01	S02	T01	
505	U238	52	T	S01	S02	T01	
506	U239	52	T	S01	S02	T01	
507	U240	52	T	S01	S02	T01	
508	U243	52	T	S01	S02	T01	
509	U244	52	T	S01	S02	T01	
510	U246	52	T	S01	S02	T01	
511	U247	52	T	S01	S02	T01	
512	U248	52	T	S01	S02	T01	
513	U249	52	T	S01	S02	T01	
514	U271	52	T	S01	S02	T01	
515	U277	52	T	S01	S02	T01	
516	U278	52	T	S01	S02	T01	
517	U279	52	T	S01	S02	T01	
518	U280	52	T	S01	S02	T01	
519	U328	52	T	S01	S02	T01	
520	U353	52	T	S01	S02	T01	
521	U359	52	T	S01	S02	T01	
522	U364	52	T	S01	S02	T01	
523	U367	52	T	S01	S02	T01	
524	U372	52	T	S01	S02	T01	
525	U373	52	T	S01	S02	T01	
526	U387	52	T	S01	S02	T01	

XIII. DESCRIPTION OF HAZARDOUS WASTES

Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes (enter code)			D.2 Process Description (if no code entered in D.1)
527	U389	52	T	S01	S02	T01	
528	U394	52	T	S01	S02	T01	
539	U395	52	T	S01	S02	T01	
530	U404	52	T	S01	S02	T01	
531	U409	52	T	S01	S02	T01	
532	U410	52	T	S01	S02	T01	
533	U411	52	T	S01	S02	T01	
534	001K	52	T	S01	S02	T01	
535	002K	52	T	S01	S02	T01	
536	001U	52	T	S01	S02	T01	
537	033U	52	T	S01	S02	T01	
538	070U	52	T	S01	S02	T01	
539	074U	52	T	S01	S02	T01	
540	124U	52	T	S01	S02	T01	
541	131U	52	T	S01	S02	T01	
542	139U	52	T	S01	S02	T01	
543	150U	52	T	S01	S02	T01	

XIV. OTHER REQUIRED ATTACHMENTS

A. General Information (each item should be a separate attachment to the application)		
1. General facility description	6. Preparedness/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 application		

B. Supplemental Information (each item, if needed, should be a separate attachment to the application)	
1. Status of compliance with other federal laws	6. Engineering plans
2. Corrective action information*	7. Proof of issuance of other permits or licenses
3. Hydrogeological Report*	8. Capability certification/compliance schedule
4. Environmental Assessment*	9. Restrictive covenant (landfills only)
5. Environmental monitoring Programs*	10. Construction certification (new, altered, enlarged, or expanded)
* Use template provided to complete application	

- 4. Environmental Assessment*
- 5. Environmental monitoring Programs*
- 9. Restrictive covenant (landfills only)
- 10. Construction certification (new, altered, enlarged, or expanded)

* Use template provided to complete application

C. Facility Specific Information (each item, if needed, should be a separate attachment to the application)

- 1. Containers*
- 2. Tanks*
- 3. Incineration or thermal treatment
- 4. Treatment
- 5. Surface impoundments
- 6. Waste piles
- 7. Landfills
- 8. Land treatment
- 9. Miscellaneous units
- 10. Underground mines or caves
- 11. Drip pads
- 12. Boilers and industrial furnaces
- 13. Air emissions from process vents, equipment leaks, tanks, containers, and surface impoundments**

* Use template provided to complete application

** Use templates C.11-AA, C.11-BB, and C.11-CC provided to complete application

XV. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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 fine and imprisonment for knowing violations.

Clean Earth Environmental Solutions, Inc.	<i>Melanie Fustrip</i>	06/20/2022
OWNER NAME (type or print)	SIGNATURE	DATE SIGNED
Petro-Chem Processing Group of Nortru, LLC.	<i>Melanie Fustrip</i>	06/20/2022
OPERATOR NAME (type or print)	SIGNATURE	DATE SIGNED
Petro-Chem Processing Group of Nortru, LLC.	<i>Melanie Fustrip</i>	06/20/2022
TITLEHOLDER OF LAND NAME (type or print)	SIGNATURE	DATE SIGNED



MICHIGAN DEPARTMENT OF
 ENVIRONMENT, GREAT LAKES, AND ENERGY
 MATERIALS MANAGEMENT DIVISION
SITE IDENTIFICATION FORM

You must save this file to your computer before completing the form
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

1. Reason for Submittal (Select only one)

<input type="checkbox"/>	Obtaining an initial United States Environmental Protection Agency (EPA) Identification (ID) number, as a new site or new owner , for an on-going regulated activity that will continue for a period of time. FEES DO NOT APPLY TO LIB ONLY SITES. 1. Pay the \$50 fee on-line using MasterCard, VISA, or Discover Card at https://www.thepayplace.com/mi/deq/siteid . 2. E-mail the form , with a copy of the fee receipt, to EGLE-MMD-Site-ID-Reporting@Michigan.gov ; or, Mail the form with check payable to the State of Michigan to: Michigan Department of Environment, Great Lakes and Energy (EGLE), Cashier's Office—HWUC, P.O. Box 30657, Lansing, Michigan 48909-7741.
<input type="checkbox"/>	Submitting a subsequent notification to change, update, or verify site information for an existing owner of a site with a previously issued Site ID number. E-mail to EGLE-MMD-Site-ID-Reporting@Michigan.gov
<input type="checkbox"/>	* NOTIFYING that SITE IS STILL IN BUSINESS AND NO LONGER GENERATING WASTE (end date required) _____ Authorized Signature _____ Date _____ * E-mail completed pages 1-2 to EGLE-MMD-Site-ID-Reporting@Michigan.gov
<input type="checkbox"/>	*NOTIFYING that SITE IS OUT OF BUSINESS AND NO LONGER GENERATING WASTE (end date required) _____ Authorized Signature _____ Date _____ *E-mail completed pages 1-2 to EGLE-MMD-Site-ID-Reporting@Michigan.gov
<input type="checkbox"/>	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities.
<input checked="" type="checkbox"/>	Submitting a new or revised Part A Form.
<input type="checkbox"/>	Submitting as component of the Hazardous Waste Biennial Report for _____(Reporting Year)
<input type="checkbox"/>	Former TSD facility, reverse distributor, and/or generator of less than 1,000 kilograms(kg) hazardous waste, less than 1 kg acute hazardous waste, or 100 kg acute hazardous waste spill cleanup in one or more months of the reporting year.

2. Site EPA ID Number

M	I	D	9	8	0	6	1	5	2	9	8
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3. Site Legal Name

Petro-Chem Processing Group of Nortru, LLC

4. Site Specific Name

Petro-Chem Processing Group of Nortru, LLC.

5. Site Location Address

Street Address 421 Lycaste Street		
Street Address (room/suite/mail code)		
City, Town, or Village Detroit		County Wayne
State Michigan	Country USA	Zip Code 48214-3434

6. Site Mailing Address

Same as Location Address

Street Address 515 Lycaste Street		
Street Address (room/suite/mail code)		
City, Town, or Village Detroit		County Wayne
State Michigan	Country USA	Zip Code 48214-3473

7. Federal Tax ID # (required)

26-2033525

8. Site Land Type (check one)

Private <input checked="" type="checkbox"/>	County <input type="checkbox"/>	District <input type="checkbox"/>	Federal <input type="checkbox"/>	Tribal <input type="checkbox"/>	Municipal <input type="checkbox"/>	State <input type="checkbox"/>	Other <input type="checkbox"/>
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9. North American Industry Classification System (NAICS) at least one 6-digit code REQUIRED

A 562211	B	C	D
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10. Site Contact Information

Same as Location Address

First Name Melanie	MI M	Last Name Fronhriep
Street Address 515 Lycaste Street		
City, Town, or Village Detroit		
State Michigan	Country USA	Zip Code 48214-3473
Email mfrohricp@harsco.com		
Phone 313-824-5848	Ext	Fax 313-557-1594

11. Name of Site's Legal Owner (Company or Individual)

Change in Ownership

Approximate date became owner 04/01/2008

Same as Site Mailing Address

Full Name Clean Earth Environmental Solutions, Inc.		
Street Address 933 First Ave. Suite 200		
City, Town, or Village King of Prussia		
State Pennsylvania	Country USA	Zip Code 19406
Email		
Phone 866-303-7344	Ext	Fax

11(b) Name of Site's Legal Operator (Company or Individual) **Change in Operator**
Approximate date became operator 04/01/2008 **Same as Site Specific Name/Address**

Full Name Same as Site Specific Name: Petro-Chem Processing Group of Nortru, LLC.		
Street Address		
City, Town, or Village		
State	Country	Zip Code
Email		
Phone	Ext	Fax

Hazardous Waste Activities (Please complete all questions)

12. Type of Regulated Waste Activity Date Activity Began 04/01/2008

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Generator of Hazardous Waste – If “Yes”, mark only one of the following:	
<input checked="" type="checkbox"/>	Large Quantity Generator (LQG)	-Generates, in any calendar month (includes quantities imported by importer site), 1,000 kg per month (mo) (2,200 pounds (lb)/mo) or more of non-acute hazardous waste; or -Generates, in any calendar month or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or -Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material
<input type="checkbox"/>	Small Quantity Generator (SQG)	100 to 1,000 kg/mo (220 to 2,200 lb/mo) of non-acute hazardous waste, and no more than 1 kg (2.2 lb) of acute hazardous waste, and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material
<input type="checkbox"/>	Very Small Quantity Generator (VSQG)	Less than, or equal to, 100 kg/mo (220 lb/mo) of non-acute hazardous waste
Please answer all questions		
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Short Term Generator (generates from a short-term or one-time event and not from on-going processes). If “Yes” provide an explanation in the Comments Section.	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	3. Treater, Stores or Disposer of Hazardous Waste – Hazardous waste Part B permit is required for these activities	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	4. Receives Hazardous Waste from Off-site	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5. Recycler of Hazardous Waste	
	<input type="checkbox"/> who stores prior to recycling <input type="checkbox"/> who does not store prior to recycling	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	6. Exempt Boiler and/or Industrial Furnace – If “Yes”, mark all that apply.	
	<input type="checkbox"/> Small Quantity On-site Burner Exemption	
	<input type="checkbox"/> Smelting, Melting, and Refining Furnace Exemption	

Waste Codes for Federally Regulated Hazardous Waste. Please list the waste codes of the Federal Hazardous Wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D002, F007, U112). Use an additional page if more spaces are needed.

See Attached						
	See Attached 8700-12 Item 10. B for a list of Waste Codes					

Waste Codes for State Regulated (non-Federal) Hazardous Waste. Please list the waste codes of the State Hazardous Wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

See Attached						
	See Attached 8700-12 Item 10. C for a list of Waste Codes					

13. Additional Regulated Waste Activities

Other Waste Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Transporter of Hazardous Waste – If “Yes”, mark all that apply. (May require permits or registration)
	<input type="checkbox"/> Transporter
	<input type="checkbox"/> Transfer Facility (at your site)
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Commingle Waste
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Off Loads During Transportation
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Underground Injection Control
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	United States Importer of Hazardous Waste
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Recognized Trader – If “Yes”, mark all that apply
	<input type="checkbox"/> Importer
	<input type="checkbox"/> Exporter
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Importer/Exporter of Spent Lead-Acid Batteries (SLABs under R 299.9804) – If “Yes”, mark all that apply.
	<input type="checkbox"/> Importer
	<input type="checkbox"/> Exporter

Universal Waste Activities

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) – If “Yes”, mark all that apply. Note: Refer to state regulations to determine what is regulated.
	<input checked="" type="checkbox"/> Batteries
	<input checked="" type="checkbox"/> Pesticides
	<input checked="" type="checkbox"/> Thermostats
	<input checked="" type="checkbox"/> Mercury Switches
	<input checked="" type="checkbox"/> Mercury Thermometers
	<input checked="" type="checkbox"/> Devices containing elemental mercury
	<input checked="" type="checkbox"/> Electric Lamps
	<input checked="" type="checkbox"/> Pharmaceuticals
	<input checked="" type="checkbox"/> Consumer Electronics
	<input checked="" type="checkbox"/> Antifreeze as defined in R 299.9101
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Destination Facility of Universal Waste (a hazardous waste permit may be required for this activity)

Used Oil Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Used Oil Transporter – If “Yes”, mark all that apply.
	<input type="checkbox"/> Transporter
	<input type="checkbox"/> Transfer Facility (at your site)
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Used Oil Processor and/or Re-refiner – If “Yes,” mark all that apply.
	<input checked="" type="checkbox"/> Processor Date Activity Began:
	<input type="checkbox"/> Re-refiner Date Activity Began:
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Off-Specification Used Oil Burner Date Activity Began:
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Used Oil Fuel Marketer – If “Yes”, mark all that apply.
	<input type="checkbox"/> Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner Date Activity Began:
	<input type="checkbox"/> Marketer Who First Claims the Used Oil Meets the Specifications Date Activity Began:
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Used Oil Collection or Aggregation Point
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Collection Center or Aggregation Point that accepts DIY Used Oil

Liquid Industrial By-Product Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Liquid Industrial By-Product Transporter – If “Yes”, mark all that apply. (requires Permit & Registration)
	<input type="checkbox"/> Transporter Date Activity Began:
	<input type="checkbox"/> Transfer Facility (at your site) Date Activity Began:
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Transports Own Waste. Date Activity Began:
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Liquid Industrial Waste By-Product Generator. Date Activity Began: 04/01/2008
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Liquid Industrial By-Product Designated Facility. Date Activity Began: 04/01/2008

14. Eligible Academic Entities with Laboratories - Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to R 299.9315.

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Opting into, or currently operating under, R 299.9315, for the management of hazardous wastes in laboratories. If "Yes", mark all that apply. NOTE: See the item-by-item instructions for definitions of types of eligible academic entities.
	<input type="checkbox"/> College or University
	<input type="checkbox"/> Teaching Hospital that is owned by, or has a formal written affiliation with, a college or university
	<input type="checkbox"/> Non-profit Institute that is owned by, or has a formal written affiliation with, a college or university
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Withdrawing from R 299.9315, for the management of hazardous wastes in laboratories.

15. Episodic Generation

<input type="checkbox"/> Y <input type="checkbox"/> N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category? If "Yes", you must fill out the Addendum for Episodic Generator.
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16. LQG Consolidation of VSQG Hazardous Waste

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an LQG notifying of consolidating VSQG hazardous waste under the control of the same person pursuant to R 299.9307(6)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQGs hazardous waste.
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17. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (Required)

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility
	<input type="checkbox"/> Central Accumulation Area (CAA)
	<input type="checkbox"/> Entire Facility
	Expected Closure date:
	Requesting new closure date:
	Date Closed:
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	In compliance with the closure performance standards R 299.9307(1)(k)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Not in compliance with the closure performance standards R 299.9307(1)(k)

18. Notification of Hazardous Secondary Material (HSM) Activity

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you notifying under R 299.9204(1) that you will begin managing, are managing, or will stop managing HSM under R 299.9204(1), R 299.9204(1)(aa – dd)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.
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19. Electronic Manifest Broker

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?
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20. Comments (include item number for each comment)

21. 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 imprisonment for knowing violations.

Note: For the RCRA Hazardous Waste Part A Permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or authorized representative	Date (mm/dd/yyyy)
<i>Melanie M Frohriep</i>	<i>06/20/2022</i>
Printed Name (First, Middle Initial, Last)	Title
<i>Melanie M. Frohriep</i>	<i>Facility Manager</i>
Email	
<i>mfrohriep@harsco.com</i>	

Signature of legal owner, operator, or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial, Last)	Title
Email	

**ADDENDUM TO THE SITE IDENTIFICATION FORM
NOTIFICATION OF HAZARDOUS SECONDARY MATERIAL ACTIVITY**

ONLY FILL OUT THIS FORM IF:

You are located in a State that allows you to manage excluded hazardous secondary material (HSM) under rule R 299.9204 (1)(aa - dd) of Part 111;

AND

- a. You are or will be managing excluded HSM in compliance with rules R 299.9202 (6)(a – f), or R 299.9204 (1)(aa – dd) (or federal equivalent) or have stopped managing excluded HSM in compliance with the exclusion(s) and do not expect to manage any amount of excluded HSM under the exclusion(s) for at least one year. Do not include any information regarding your hazardous waste activities in this section. Note: if your facility was granted a solid waste variance under rules R 299.9202 (6)(a – f) prior to July 13, 2015, your management of HSM under rules R 299.9202 (6)(a – f) is grandfathered under the previous regulations and you are not required to notify for the HWM management activity excluded under rules R 299.9202 (6)(a – f).

Reason for Notification (include dates where requested)

Facility will begin managing excluded HSM as of _____

Facility is still managing excluded HSM/re-notifying, as required, by March 1 of each even-numbered year.

Facility has stopped managing excluded HSM as of _____ and is notifying as required.

Description of Excluded HSM Activity: Please list the appropriate codes (see Code List section of the instructions) and quantities, in short tons, to describe your excluded HSM activity ONLY (do not include any information regarding your hazardous wastes). Use additional pages if more space is needed.

Facility Code	HSM Waste Codes	Est. Short Tons of Excluded HSM Managed Annually	Actual Short Tons of Excluded HSM Managed During the Most Recent Odd-numbered Year	Land-based Unit Code

**ADDENDUM TO THE SITE IDENTIFICATION FORM
EPISODIC GENERATOR**

ONLY fill out this form if:

You are an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves the generator to a higher generator category pursuant to R 299.9316. Note: Only one planned and one unplanned episodic event are allowed within one year. Otherwise, you must follow the requirements of the higher generator category. Use additional pages if more space is needed.

Type of Episodic Event

<p>Planned (requires 30 day prior notification)</p> <input type="checkbox"/> Excess chemical inventory removal <input type="checkbox"/> Tank Cleanouts <input type="checkbox"/> Short-term construction or demolition <input type="checkbox"/> Equipment maintenance during plant shutdowns <input type="checkbox"/> Other _____	<p>Unplanned (requires notification within 72 hours)</p> <input type="checkbox"/> Accidental Spills <input type="checkbox"/> Production process upsets <input type="checkbox"/> Product recalls <input type="checkbox"/> "Acts of nature" (Tornado, hurricane, flood, etc.) <input type="checkbox"/> Other _____
Emergency Contact Phone	Emergency Contact Name
Beginning Date	End Date

Waste 1

Waste Description	Estimated Quantity (in pounds)
Federal and/or State Hazardous Waste Codes	

Waste 2

Waste Description	Estimated Quantity (in pounds)
Federal and/or State Hazardous Waste Codes	

Waste 3

Waste Description	Estimated Quantity (in pounds)
Federal and/or State Hazardous Waste Codes	

**ADDENDUM TO THE SITE IDENTIFICATION FORM
LQG CONSOLIDATION OF VSQG HAZARDOUS WASTE**

ONLY fill out this form if:

You are an LQG receiving hazardous waste from VSQGs under the control of the same person. Use additional pages if more space is needed.

VSQG 1

Site ID Number (if assigned)	Name	
Street Address		
City, Town, or Village	State	Zip Code
Contact Phone Number	Contact Name	
Email		

VSQG 2

Site ID Number (if assigned)	Name	
Street Address		
City, Town, or Village	State	Zip Code
Contact Phone Number	Contact Name	
Email		

VSQG 3

Site ID Number (if assigned)	Name	
Street Address		
City, Town, or Village	State	Zip Code
Contact Phone Number	Contact Name	
Email		

United States Environmental Protection Agency RCRA SUBTITLE C SITE IDENTIFICATION FORM	
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1. Reason for Submittal (Select only one.)

<input type="checkbox"/>	Obtaining or updating an EPA ID number for on-going regulated activities (Items 10-17 below) that will continue for a period of time.
<input type="checkbox"/>	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
<input type="checkbox"/>	Site was a TSD facility, a reverse distributor, and/or generator of $\geq 1,000$ kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in one or more months of the reporting year (or State equivalent LQG regulations)
<input type="checkbox"/>	Notifying that regulated activity is no longer occurring at this Site
<input type="checkbox"/>	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
<input checked="" type="checkbox"/>	Submitting a new or revised Part A (permit) Form

2. Site EPA ID Number

M	I	D	9	8	0	6	1	5	2	9	8
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3. Site Name

Petro-Chem Processing Group of Nortru, LLC

4. Site Location Address

Street Address 421 Lycaste Street		
City, Town, or Village Detroit		County Wayne
State Michigan	Country USA	Zip Code 48214-3434
Latitude	Longitude	<input type="checkbox"/> Use Lat/Long as Primary Address

5. Site Mailing Address

Same as Location Street Address

Street Address 515 Lycaste Street		
City, Town, or Village Detroit		
State Michigan	Country Wayne	Zip Code 48214-3473

6. Site Land Type

<input checked="" type="checkbox"/> Private	<input type="checkbox"/> County	<input type="checkbox"/> District	<input type="checkbox"/> Federal	<input type="checkbox"/> Tribal	<input type="checkbox"/> Municipal	<input type="checkbox"/> State	<input type="checkbox"/> Other
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7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary) 562211	C.
B.	D.

8. Site Contact Information

 Same as Location Address

First Name	Melanie	MI	M	Last Name	Frohriep
Title	Environmental Specialist				
Street Address	515 Lycaste Street				
City, Town, or Village	Detroit				
State	Michigan	Country	Wayne	Zip Code	48214-3434
Email	mfrohricp@harsco.com				
Phone	313-824-5848	Ext		Fax	313-557-3473

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

 Same as Location Address

Full Name	Clean Earth Environmental Solutions, Inc.	Date Became Owner (mm/dd/yyyy)	4/1/2008
Owner Type	<input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
Street Address	933 First Ave. Suite 200		
City, Town, or Village	King of Prussia		
State	Pennsylvania	Country	USA
		Zip Code	19406
Email			
Phone	866-303-7344	Ext	
		Fax	
Comments			

B. Name of Site's Legal Operator

 Same as Location Address

Full Name	Petro-Chem Processing Group of Nortru, LLC.	Date Became Operator (mm/dd/yyyy)	4/1/2008
Operator Type	<input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
Street Address			
City, Town, or Village			
State		Country	
		Zip Code	
Email			
Phone		Ext	
		Fax	
Comments			

10. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
<input checked="" type="checkbox"/>	a. LQG	-Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
<input type="checkbox"/>	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
<input type="checkbox"/>	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. <i>Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.</i>	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	4. Receives Hazardous Waste from Off-site	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5 Recycler of Hazardous Waste	
<input checked="" type="checkbox"/>	a. Recycler who stores prior to recycling	
<input type="checkbox"/>	b. Recycler who does not store prior to recycling	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
<input type="checkbox"/>	a. Small Quantity On-site Burner Exemption	
<input type="checkbox"/>	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

See attached.	See Attached 8700-12 Item 10. B for a list of waste codes.				

C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

See attached.	See Attached 8700-12 Item 10. C for a list of waste codes.				

11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)**A. Other Waste Activities**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Transporter of Hazardous Waste—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Transporter
<input type="checkbox"/>	b. Transfer Facility (at your site)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Underground Injection Control
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. United States Importer of Hazardous Waste
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Recognized Trader—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter

B. Universal Waste Activities

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If “Yes” mark all that apply. Note: Refer to your State regulations to determine what is regulated.
<input checked="" type="checkbox"/>	a. Batteries
<input checked="" type="checkbox"/>	b. Pesticides
<input checked="" type="checkbox"/>	c. Mercury containing equipment
<input checked="" type="checkbox"/>	d. Lamps
<input checked="" type="checkbox"/>	e. Aerosol Cans
<input checked="" type="checkbox"/>	f. Other (specify) <u>Pharmaceuticals, consumer electronics, antifreeze as defined in MI R 299.9101</u>
<input checked="" type="checkbox"/>	g. Other (specify) <u>Antifreeze</u>
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Used Oil Transporter—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Transporter
<input type="checkbox"/>	b. Transfer Facility (at your site)
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	2. Used Oil Processor and/or Re-refiner—If “Yes”, mark all that apply.
<input checked="" type="checkbox"/>	a. Processor
<input type="checkbox"/>	b. Re-refiner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. Off-Specification Used Oil Burner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Used Oil Fuel Marketer—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
<input type="checkbox"/>	b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Pharmaceutical Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals—if “Yes”, mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
<input type="checkbox"/>	a. Healthcare Facility
<input type="checkbox"/>	b. Reverse Distributor
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Withdrawing from operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is a VSQG for all of your hazardous waste, including hazardous waste pharmaceuticals.

12. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262, Subpart K.

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	A. Opting into or currently operating under 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories— If “Yes”, mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
<input type="checkbox"/>	1. College or University
<input type="checkbox"/>	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
<input type="checkbox"/>	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	B. Withdrawing from 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories.

13. Episodic Generation

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If “Yes”, you must fill out the Addendum for Episodic Generator.
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14. LQG Consolidation of VSQG Hazardous Waste

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If “Yes”, you must fill out the Addendum for LQG Consolidation of VSQG hazardous waste.
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15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
A. <input type="checkbox"/> Central Accumulation Area (CAA) or <input type="checkbox"/> Entire Facility	
B. Expected closure date: _____ mm/dd/yyyy	
C. Requesting new closure date: _____ mm/dd/yyyy	
D. Date closed : _____ mm/dd/yyyy	
<input type="checkbox"/>	1. In compliance with the closure performance standards 40 CFR 262.17(a)(8)
<input type="checkbox"/>	2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

16. Notification of Hazardous Secondary Material (HSM) Activity

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.
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17. Electronic Manifest Broker

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?
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18. Comments (include item number for each comment)

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19. 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 imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner, operator or authorized representative <i>Melanie M. Frohriep</i>	Date (mm/dd/yyyy) <i>06/20/2022</i>
Printed Name (First, Middle Initial Last) <i>Melanie M. Frohriep</i>	Title <i>Facility Manager</i>
Email <i>mfrhriep@harsco.com</i>	
Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial Last)	Title
Email	

**ADDENDUM TO THE SITE IDENTIFICATION FORM:
EPISODIC GENERATOR**



ONLY fill out this form if: This Form is Not Applicable

- You are an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves the generator to a higher generator category pursuant to 40 CFR 262 Subpart L. Note: Only one planned and one unplanned episodic event are allowed within one year; otherwise, you must follow the requirements of the higher generator category. Use additional pages if more space is needed.

Episodic Event	
1. Planned <input type="checkbox"/> Excess chemical inventory removal <input type="checkbox"/> Tank cleanouts <input type="checkbox"/> Short-term construction or demolition <input type="checkbox"/> Equipment maintenance during plant shutdowns <input type="checkbox"/> Other _____	2. Unplanned <input type="checkbox"/> Accidental spills <input type="checkbox"/> Production process upsets <input type="checkbox"/> Product recalls <input type="checkbox"/> "Acts of nature" (Tornado, hurricane, flood, etc.) <input type="checkbox"/> Other _____
3. Emergency Contact Phone	4. Emergency Contact Name
5. Beginning Date _____ (mm/dd/yyyy)	6. End Date _____ (mm/dd/yyyy)

Waste 1

7. Waste Description	8. Estimated Quantity (in pounds)
9. Federal and/or State Hazardous Waste Codes	

Waste 2

7. Waste Description	8. Estimated Quantity (in pounds)
9. Federal and/or State Hazardous Waste Codes	

Waste 3

7. Waste Description	8. Estimated Quantity (in pounds)
9. Federal and/or State Hazardous Waste Codes	

ADDENDUM TO THE SITE IDENTIFICATION FORM:
LQG CONSOLIDATION OF VSQG HAZARDOUS WASTE



ONLY fill out this form if: This Form is Not Applicable

- You are an LQG receiving hazardous waste from VSQGs under the control of the same person. Use additional pages if more space is needed.

VSQG 1		
1. EPA ID Number (if assigned)	2. Name	
3. Street Address		
4. City, Town, or Village	5. State	6. Zip Code
7. Contact Phone Number	8. Contact Name	
9. Email		

VSQG 2		
1. EPA ID Number (if assigned)	2. Name	
3. Street Address		
4. City, Town, or Village	5. State	6. Zip Code
7. Contact Phone Number	8. Contact Name	
9. Email		

VSQG 3		
1. EPA ID Number (if assigned)	2. Name	
3. Street Address		
4. City, Town, or Village	5. State	6. Zip Code
7. Contact Phone Number	8. Contact Name	
9. Email		

United States Environmental Protection Agency
 HAZARDOUS WASTE REPORT _____ (reporting cycle)
 WASTE GENERATION AND MANAGEMENT (GM) FORM



This Form is Not Applicable

1. Waste Characteristics

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						
D. Source Code	Management Method (G25)		Country Code (G62)			
E. Form Code	F. Waste Minimization Code		G. Radioactive Mixed <input type="checkbox"/> Y <input type="checkbox"/> N			
H. Quantity	UOM	Density		<input type="checkbox"/> lbs/gal <input type="checkbox"/> sg		

2. On-site Generation and Management of Hazardous Waste

<input type="checkbox"/> Y <input type="checkbox"/> N	Was any of this waste that was generated at this facility treated, disposed, and/or recycled on-site? If yes, continue to On-site Process System 1.	
Process System 1	Management Method Code	Quantity
Process System 2	Management Method Code	Quantity

3. Off-site Shipment of Hazardous Waste

<input type="checkbox"/> Y <input type="checkbox"/> N	A. Was any of this waste that was generated at this facility shipped off-site for treatment, disposal, or recycling? If yes, continue to Site 1.	
Site 1		
B. EPA ID of facility to which waste was shipped	C. Management Method Code	D. Total Quantity Shipped
Site 2		
B. EPA ID of facility to which waste was shipped	C. Management Method Code	D. Total Quantity Shipped
Site 3		
B. EPA ID of facility to which waste was shipped	C. Management Method Code	D. Total Quantity Shipped

4. Comments

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United States Environmental Protection Agency HAZARDOUS WASTE REPORT _____ (reporting year) WASTE RECEIVED FROM OFF-SITE (WR) FORM	
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This Form is Not Applicable

1. Waste 1

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						
D. EPA ID Number			E. Form Code		F. Management Code	
G. Quantity	UOM	Density			<input type="checkbox"/> lbs/gal	<input type="checkbox"/> sg

2. Waste 2

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						
D. EPA ID Number			E. Form Code		F. Management Code	
G. Quantity	UOM	Density			<input type="checkbox"/> lbs/gal	<input type="checkbox"/> sg

3. Waste 3

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						
D. EPA ID Number			E. Form Code		F. Management Code	
G. Quantity	UOM	Density			<input type="checkbox"/> lbs/gal	<input type="checkbox"/> sg

4. Comments

United States Environmental Protection Agency

HAZARDOUS WASTE REPORT

OFF-SITE IDENTIFICATION (OI) FORM



1. Site 1

This Form is Not Applicable

A. EPA ID Number of Off-site Installation or Transporter

B. Name of Off-site Installation or Transporter

C. Handler Type (mark all that apply) Generator Transporter Receiving Facility

D. Address of Off-site Installation

Street Address

City, Town, or Village

State

Zip Code

Country

2. Site 2

A. EPA ID Number of Off-site Installation or Transporter

B. Name of Off-site Installation or Transporter

C. Handler Type (mark all that apply) Generator Transporter Receiving Facility

D. Address of Off-site Installation

Street Address

City, Town, or Village

State

Zip Code

Country

3. Site 3

A. EPA ID Number of Off-site Installation or Transporter

B. Name of Off-site Installation or Transporter

C. Handler Type (mark all that apply) Generator Transporter Receiving Facility

D. Address of Off-site Installation

Street Address

City, Town, or Village

State

Zip Code

Country

4. Comments

United States Environmental Protection Agency
HAZARDOUS WASTE PERMIT PART A FORM



1. Facility Permit Contact

First Name	Melanie	MI	M	Last Name	Frohriep
Title	Environmental Specialist				
Email	mfrohriep@harsco.com				
Phone	313-824-5840	Ext	148	Fax	

2. Facility Permit Contact Mailing Address

Street Address	515 Lycaste Street				
City, Town, or Village	Detroit				
State	Michigan	Country	Wayne	Zip Code	48214-3473

3. Facility Existence Date (mm/dd/yyyy)

4/1/1982

4. Other Environmental Permits

A. Permit Type	B. Permit Number											C. Description	
R	M	I	D	9	8	0	6	1	5	2	9	8	RCRA Part B Licesns
E	P	T	I	6	-	1	9						Air permit to install
N	S	D	3	-	9	4	0	6	5				Detroit POTW "GLWA"
E	5	3	0	6	0	0	3	1	0	1			Michigan DCH Wholesaler License
E	5	3	1	5	0	5	8	1	2	7			Controlled Substance License
E	M	W	0	0	4	6	4	0	7				Medical Waste Licese

5. Nature of Business

Petro-Chem Processing Group of Nortru, LLC provides storage, trans-shipment, fuel blending and consolidation services for hazardous wastes, nonhazardous wastes, used oil wastes and Michigan used oil wastes.

10.B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

1	D001	D002	D003	D004	D005	D006	D007
2	D008	D009	D010	D011	D012	D013	D014
3	D015	D016	D017	D018	D019	D020	D021
4	D022	D023	D024	D025	D026	D027	D028
5	D029	D030	D031	D032	D033	D034	D035
6	D036	D037	D038	D039	D040	D041	D042
7	D043	F001	F002	F003	F004	F005	F006
8	F007	F008	F009	F010	F011	F012	F019
9	F024	F025	F032	F034	F035	F037	F038
10	F039	K001	K002	K003	K004	K005	K006
11	K007	K008	K009	K010	K011	K013	K014
12	K015	K016	K017	K018	K019	K020	K021
13	K022	K023	K024	K025	K026	K027	K028
14	K029	K030	K031	K032	K033	K034	K035
15	K036	K037	K038	K039	K040	K041	K042
16	K043	K046	K048	K049	K050	K051	K052
17	K060	K061	K062	K069	K071	K073	K083
18	K084	K085	K086	K087	K093	K094	K095
19	K096	K097	K098	K099	K100	K101	K102
20	K103	K104	K105	K106	K111	K112	K113
21	K114	K115	K116	K117	K118	K123	K124
22	K125	K126	K136	K141	K142	K143	K144
23	K145	K147	K148	K149	K150	K151	K156
24	K157	K158	K159	K161	K169	K170	K171
25	K172	P001	P002	P003	P004	P005	P006
26	P007	P008	P009	P010	P011	P012	P013
27	P014	P016	P017	P018	P020	P021	P022
28	P023	P024	P026	P027	P028	P029	P030
29	P033	P034	P036	P037	P038	P039	P040
30	P041	P042	P043	P044	P045	P046	P047
31	P048	P049	P050	P051	P054	P057	P058
32	P059	P060	P062	P064	P065	P066	P067
33	P068	P069	P070	P071	P072	P071	P074
34	P075	P077	P082	P084	P085	P087	P088
35	P089	P092	P093	P094	P095	P097	P098
36	P099	P101	P102	P103	P104	P105	P106
37	P108	P109	P110	P111	P112	P113	P114

38	P115	P116	P118	P119	P120	P121	P122
39	P123	P127	P128	P185	P188	P189	P190
40	P191	P192	P194	P196	P197	P198	P199
41	P201	P202	P203	P204	P205	U001	U002
42	U003	U004	U005	U006	U007	U008	U009
43	U010	U011	U012	U014	U015	U016	U017
44	U018	U019	U020	U021	U022	U023	U024
45	U025	U026	U027	U028	U029	U030	U031
46	U032	U033	U034	U035	U036	U037	U038
47	U039	U041	U042	U043	U044	U045	U046
48	U047	U048	U049	U050	U051	U052	U053
49	U055	U056	U057	U058	U059	U060	U061
50	U062	U063	U064	U066	U067	U068	U069
51	U070	U071	U072	U073	U074	U075	U076
52	U077	U078	U079	U080	U081	U082	U083
53	U084	U085	U086	U087	U088	U089	U090
54	U091	U092	U093	U094	U095	U096	U097
55	U098	U099	U101	U102	U103	U105	U106
56	U107	U108	U109	U110	U111	U112	U113
57	U114	U115	U116	U117	U118	U119	U120
58	U121	U122	U123	U124	U125	U126	U127
59	U128	U129	U130	U131	U132	U133	U134
60	U135	U136	U137	U138	U140	U141	U142
61	U143	U144	U145	U146	U147	U148	U149
62	U150	U151	U152	U153	U154	U155	U156
63	U157	U158	U159	U160	U161	U162	U163
64	U164	U165	U166	U167	U168	U169	U170
65	U171	U172	U173	U174	U176	U177	U178
66	U179	U180	U181	U182	U183	U184	U185
67	U186	U187	U188	U189	U190	U191	U192
68	U193	U194	U196	U197	U200	U201	U202
69	U203	U204	U205	U206	U207	U208	U209
70	U210	U211	U213	U214	U215	U216	U217
71	U218	U219	U220	U221	U222	U223	U225
72	U226	U227	U228	U234	U235	U236	U237
73	U238	U239	U240	U243	U244	U246	U247
74	U248	U249	U271	U277	U278	U279	U280
75	U328	U353	U359	U364	U367	U372	U373
76	U387	U389	U394	U395	U404	U409	U410
77	U411						

10.C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

1	001K	002K	001U	033U	070U	074U	124U
2	131U	139U	150U				

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
01	D001	1,000,000	T	S01	S02	T01	
02	D002	500,000	T	S01	S02	T01	
03	D003	52	T	S01	S02	T01	
04	D004	100,000	T	S01	S02	T01	
05	D005	100,000	T	S01	S02	T01	
06	D006	100,000	T	S01	S02	T01	
07	D007	100,000	T	S01	S02	T01	
08	D008	100,000	T	S01	S02	T01	
09	D009	100,000	T	S01	S02	T01	
10	D010	100,000	T	S01	S02	T01	
11	D011	100,000	T	S01	S02	T01	
12	D012	100,000	T	S01	S02	T01	
13	D013	100,000	T	S01	S02	T01	
14	D014	100,000	T	S01	S02	T01	
15	D015	52	T	S01	S02	T01	
16	D016	100,000	T	S01	S02	T01	
17	D017	100,000	T	S01	S02	T01	
18	D018	100,000	T	S01	S02	T01	
19	D019	100,000	T	S01	S02	T01	
20	D020	100,000	T	S01	S02	T01	
21	D021	100,000	T	S01	S02	T01	
22	D022	100,000	T	S01	S02	T01	
23	D023	100,000	T	S01	S02	T01	
24	D024	100,000	T	S01	S02	T01	
25	D025	100,000	T	S01	S02	T01	
26	D026	100,000	T	S01	S02	T01	
27	D027	100,000	T	S01	S02	T01	
28	D028	100,000	T	S01	S02	T01	
29	D029	100,000	T	S01	S02	T01	
30	D030	100,000	T	S01	S02	T01	
31	D031	100,000	T	S01	S02	T01	
32	D032	100,000	T	S01	S02	T01	
33	D033	100,000	T	S01	S02	T01	
34	D034	100,000	T	S01	S02	T01	
35	D035	100,000	T	S01	S02	T01	
36	D036	100,000	T	S01	S02	T01	
37	D037	500	T	S01	S02	T01	
38	D038	100,000	T	S01	S02	T01	
39	D039	100,000	T	S01	S02	T01	
40	D040	100,000	T	S01	S02	T01	
41	D041	100,000	T	S01	S02	T01	
42	D042	100,000	T	S01	S02	T01	
43	D043	100,000	T	S01	S02	T01	
44	F001	100,000	T	S01	S02	T01	
45	F002	500,000	T	S01	S02	T01	
46	F003	100,000	T	S01	S02	T01	
47	F004	100,000	T	S01	S02	T01	
48	F005	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
49	F006	52	T	S01	S02	T01	
50	F007	52	T	S01	S02	T01	
51	F008	52	T	S01	S02	T01	
52	F009	52	T	S01	S02	T01	
53	F010	52	T	S01	S02	T01	
54	F011	52	T	S01	S02	T01	
55	F012	52	T	S01	S02	T01	
56	F019	52	T	S01	S02	T01	
57	F024	50,000	T	S01	S02	T01	
58	F025	52	T	S01	S02	T01	
59	F032	50,000	T	S01	S02	T01	
60	F034	50,000	T	S01	S02	T01	
61	F035	50,000	T	S01	S02	T01	
62	F037	500,000	T	S01	S02	T01	
63	F038	500,000	T	S01	S02	T01	
64	F039	52	T	S01	S02	T01	
65	K001	50,000	T	S01	S02	T01	
66	K002	50,000	T	S01	S02	T01	
67	K003	50,000	T	S01	S02	T01	
68	K004	50,000	T	S01	S02	T01	
69	K005	50,000	T	S01	S02	T01	
70	K006	50,000	T	S01	S02	T01	
71	K007	50,000	T	S01	S02	T01	
72	K008	50,000	T	S01	S02	T01	
73	K009	50,000	T	S01	S02	T01	
74	K010	50,000	T	S01	S02	T01	
75	K011	52	T	S01	S02	T01	
76	K013	52	T	S01	S02	T01	
77	K014	52	T	S01	S02	T01	
78	K015	50,000	T	S01	S02	T01	
79	K016	50,000	T	S01	S02	T01	
80	K017	52	T	S01	S02	T01	
81	K018	50,000	T	S01	S02	T01	
82	K019	50,000	T	S01	S02	T01	
83	K020	50,000	T	S01	S02	T01	
84	K021	52	T	S01	S02	T01	
85	K022	100,000	T	S01	S02	T01	
86	K023	50,000	T	S01	S02	T01	
87	K024	50,000	T	S01	S02	T01	
88	K025	50,000	T	S01	S02	T01	
89	K026	52	T	S01	S02	T01	
90	K027	52	T	S01	S02	T01	
91	K028	52	T	S01	S02	T01	
92	K029	50,000	T	S01	S02	T01	
93	K030	50,000	T	S01	S02	T01	
94	K031	52	T	S01	S02	T01	
95	K032	50,000	T	S01	S02	T01	
96	K033	50,000	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
97	K034	50,000	T	S01	S02	T01	
98	K035	50,000	T	S01	S02	T01	
99	K036	50,000	T	S01	S02	T01	
100	K037	50,000	T	S01	S02	T01	
101	K038	52	T	S01	S02	T01	
102	K039	52	T	S01	S02	T01	
103	K040	52	T	S01	S02	T01	
104	K041	52	T	S01	S02	T01	
105	K042	50,000	T	S01	S02	T01	
106	K043	50,000	T	S01	S02	T01	
107	K046	52	T	S01	S02	T01	
108	K048	500,000	T	S01	S02	T01	
109	K049	500,000	T	S01	S02	T01	
110	K050	500,000	T	S01	S02	T01	
111	K051	500,000	T	S01	S02	T01	
112	K052	500,000	T	S01	S02	T01	
113	K060	52	T	S01	S02	T01	
114	K061	500,000	T	S01	S02	T01	
115	K062	52	T	S01	S02	T01	
116	K069	52	T	S01	S02	T01	
117	K071	52	T	S01	S02	T01	
118	K073	500,000	T	S01	S02	T01	
119	K083	500,000	T	S01	S02	T01	
120	K084	52	T	S01	S02	T01	
121	K085	500,000	T	S01	S02	T01	
122	K086	500,000	T	S01	S02	T01	
123	K087	500,000	T	S01	S02	T01	
124	K093	50,000	T	S01	S02	T01	
125	K094	50,000	T	S01	S02	T01	
126	K095	50,000	T	S01	S02	T01	
127	K096	50,000	T	S01	S02	T01	
128	K097	50,000	T	S01	S02	T01	
129	K098	52	T	S01	S02	T01	
130	K099	52	T	S01	S02	T01	
131	K100	52	T	S01	S02	T01	
132	K101	52	T	S01	S02	T01	
133	K102	52	T	S01	S02	T01	
134	K103	52	T	S01	S02	T01	
135	K104	52	T	S01	S02	T01	
136	K105	52	T	S01	S02	T01	
137	K106	52	T	S01	S02	T01	
138	K111	52	T	S01	S02	T01	
139	K112	52	T	S01	S02	T01	
140	K113	52	T	S01	S02	T01	
141	K114	52	T	S01	S02	T01	
142	K115	52	T	S01	S02	T01	
143	K116	52	T	S01	S02	T01	
144	K117	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
145	K118	52	T	S01	S02	T01	
146	K123	52	T	S01	S02	T01	
147	K124	52	T	S01	S02	T01	
148	K125	52	T	S01	S02	T01	
149	K126	52	T	S01	S02	T01	
150	K136	52	T	S01	S02	T01	
151	K141	100,000	T	S01	S02	T01	
152	K142	52	T	S01	S02	T01	
153	K143	52	T	S01	S02	T01	
154	K144	52	T	S01	S02	T01	
155	K145	52	T	S01	S02	T01	
156	K147	52	T	S01	S02	T01	
157	K148	52	T	S01	S02	T01	
158	K149	52	T	S01	S02	T01	
159	K150	52	T	S01	S02	T01	
160	K151	52	T	S01	S02	T01	
161	K156	52	T	S01	S02	T01	
162	K157	52	T	S01	S02	T01	
163	K158	52	T	S01	S02	T01	
164	K159	50	T	S01	S02	T01	
165	K161	50	T	S01	S02	T01	
166	K169	50	T	S01	S02	T01	
167	K170	50	T	S01	S02	T01	
168	K171	50	T	S01	S02	T01	
169	K172	50	T	S01	S02	T01	
170	P001	50,000	T	S01	S02	T01	
171	P002	50	T	S01	S02	T01	
172	P003	50	T	S01	S02	T01	
173	P004	52	T	S01	S02	T01	
174	P005	52	T	S01	S02	T01	
175	P006	52	T	S01	S02	T01	
176	P007	52	T	S01	S02	T01	
177	P008	52	T	S01	S02	T01	
178	P009	52	T	S01	S02	T01	
179	P010	52	T	S01	S02	T01	
180	P011	52	T	S01	S02	T01	
181	P012	52	T	S01	S02	T01	
182	P013	52	T	S01	S02	T01	
183	P014	52	T	S01	S02	T01	
184	P016	52	T	S01	S02	T01	
185	P017	52	T	S01	S02	T01	
186	P018	52	T	S01	S02	T01	
187	P020	52	T	S01	S02	T01	
188	P021	52	T	S01	S02	T01	
189	P022	52	T	S01	S02	T01	
190	P023	52	T	S01	S02	T01	
191	P024	52	T	S01	S02	T01	
192	P026	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
193	P027	52	T	S01	S02	T01	
194	P028	52	T	S01	S02	T01	
195	P029	52	T	S01	S02	T01	
196	P030	52	T	S01	S02	T01	
197	P033	52	T	S01	S02	T01	
198	P034	52	T	S01	S02	T01	
199	P036	52	T	S01	S02	T01	
200	P037	52	T	S01	S02	T01	
201	P038	52	T	S01	S02	T01	
202	P039	52	T	S01	S02	T01	
203	P040	52	T	S01	S02	T01	
204	P041	52	T	S01	S02	T01	
205	P042	52	T	S01	S02	T01	
206	P043	52	T	S01	S02	T01	
207	P044	52	T	S01	S02	T01	
208	P045	52	T	S01	S02	T01	
209	P046	52	T	S01	S02	T01	
210	P047	52	T	S01	S02	T01	
211	P048	52	T	S01	S02	T01	
212	P049	52	T	S01	S02	T01	
213	P050	52	T	S01	S02	T01	
214	P051	52	T	S01	S02	T01	
215	P054	52	T	S01	S02	T01	
216	P057	52	T	S01	S02	T01	
217	P058	52	T	S01	S02	T01	
218	P059	52	T	S01	S02	T01	
219	P060	52	T	S01	S02	T01	
220	P062	52	T	S01	S02	T01	
221	P064	52	T	S01	S02	T01	
222	P065	52	T	S01	S02	T01	
223	P066	52	T	S01	S02	T01	
224	P067	52	T	S01	S02	T01	
225	P068	52	T	S01	S02	T01	
226	P069	52	T	S01	S02	T01	
227	P070	52	T	S01	S02	T01	
228	P071	52	T	S01	S02	T01	
229	P072	52	T	S01	S02	T01	
230	P073	52	T	S01	S02	T01	
231	P074	52	T	S01	S02	T01	
232	P075	52	T	S01	S02	T01	
233	P077	52	T	S01	S02	T01	
234	P082	52	T	S01	S02	T01	
235	P084	52	T	S01	S02	T01	
236	P085	52	T	S01	S02	T01	
237	P087	52	T	S01	S02	T01	
238	P088	52	T	S01	S02	T01	
239	P089	52	T	S01	S02	T01	
240	P092	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
241	P093	52	T	S01	S02	T01	
242	P094	52	T	S01	S02	T01	
243	P095	52	T	S01	S02	T01	
244	P097	52	T	S01	S02	T01	
245	P098	52	T	S01	S02	T01	
246	P099	52	T	S01	S02	T01	
247	P101	52	T	S01	S02	T01	
248	P102	52	T	S01	S02	T01	
249	P103	52	T	S01	S02	T01	
250	P104	52	T	S01	S02	T01	
251	P105	52	T	S01	S02	T01	
252	P106	52	T	S01	S02	T01	
253	P108	52	T	S01	S02	T01	
254	P109	52	T	S01	S02	T01	
255	P110	52	T	S01	S02	T01	
256	P111	52	T	S01	S02	T01	
257	P112	52	T	S01	S02	T01	
258	P113	52	T	S01	S02	T01	
259	P114	52	T	S01	S02	T01	
260	P115	52	T	S01	S02	T01	
261	P116	52	T	S01	S02	T01	
262	P118	52	T	S01	S02	T01	
263	P119	52	T	S01	S02	T01	
264	P120	52	T	S01	S02	T01	
265	P121	52	T	S01	S02	T01	
266	P122	52	T	S01	S02	T01	
267	P123	52	T	S01	S02	T01	
268	P127	52	T	S01	S02	T01	
269	P128	52	T	S01	S02	T01	
270	P185	52	T	S01	S02	T01	
271	P188	52	T	S01	S02	T01	
272	P189	52	T	S01	S02	T01	
273	P190	52	T	S01	S02	T01	
274	P191	52	T	S01	S02	T01	
275	P192	52	T	S01	S02	T01	
276	P194	52	T	S01	S02	T01	
277	P196	52	T	S01	S02	T01	
278	P197	52	T	S01	S02	T01	
279	P198	52	T	S01	S02	T01	
280	P199	52	T	S01	S02	T01	
281	P201	52	T	S01	S02	T01	
282	P202	52	T	S01	S02	T01	
283	P203	52	T	S01	S02	T01	
284	P204	52	T	S01	S02	T01	
285	P205	52	T	S01	S02	T01	
286	U001	52	T	S01	S02	T01	
287	U002	52	T	S01	S02	T01	
288	U003	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
289	U004	52	T	S01	S02	T01	
290	U005	52	T	S01	S02	T01	
291	U006	52	T	S01	S02	T01	
292	U007	52	T	S01	S02	T01	
293	U008	52	T	S01	S02	T01	
294	U009	52	T	S01	S02	T01	
295	U010	52	T	S01	S02	T01	
296	U011	52	T	S01	S02	T01	
297	U012	52	T	S01	S02	T01	
298	U014	52	T	S01	S02	T01	
299	U015	52	T	S01	S02	T01	
300	U016	52	T	S01	S02	T01	
301	U017	52	T	S01	S02	T01	
302	U018	52	T	S01	S02	T01	
303	U019	52	T	S01	S02	T01	
304	U020	52	T	S01	S02	T01	
305	U021	52	T	S01	S02	T01	
306	U022	52	T	S01	S02	T01	
307	U023	52	T	S01	S02	T01	
308	U024	52	T	S01	S02	T01	
309	U025	52	T	S01	S02	T01	
310	U026	52	T	S01	S02	T01	
311	U027	52	T	S01	S02	T01	
312	U028	52	T	S01	S02	T01	
313	U029	52	T	S01	S02	T01	
314	U030	52	T	S01	S02	T01	
315	U031	52	T	S01	S02	T01	
316	U032	52	T	S01	S02	T01	
317	U033	52	T	S01	S02	T01	
318	U034	52	T	S01	S02	T01	
319	U035	52	T	S01	S02	T01	
320	U036	52	T	S01	S02	T01	
321	U037	52	T	S01	S02	T01	
322	U038	52	T	S01	S02	T01	
323	U039	52	T	S01	S02	T01	
324	U041	52	T	S01	S02	T01	
325	U042	52	T	S01	S02	T01	
326	U043	52	T	S01	S02	T01	
327	U044	52	T	S01	S02	T01	
328	U045	52	T	S01	S02	T01	
329	U046	52	T	S01	S02	T01	
330	U047	52	T	S01	S02	T01	
331	U048	52	T	S01	S02	T01	
332	U049	52	T	S01	S02	T01	
333	U050	52	T	S01	S02	T01	
334	U051	52	T	S01	S02	T01	
335	U052	52	T	S01	S02	T01	
336	U053	52	T	S01	S02	T01	

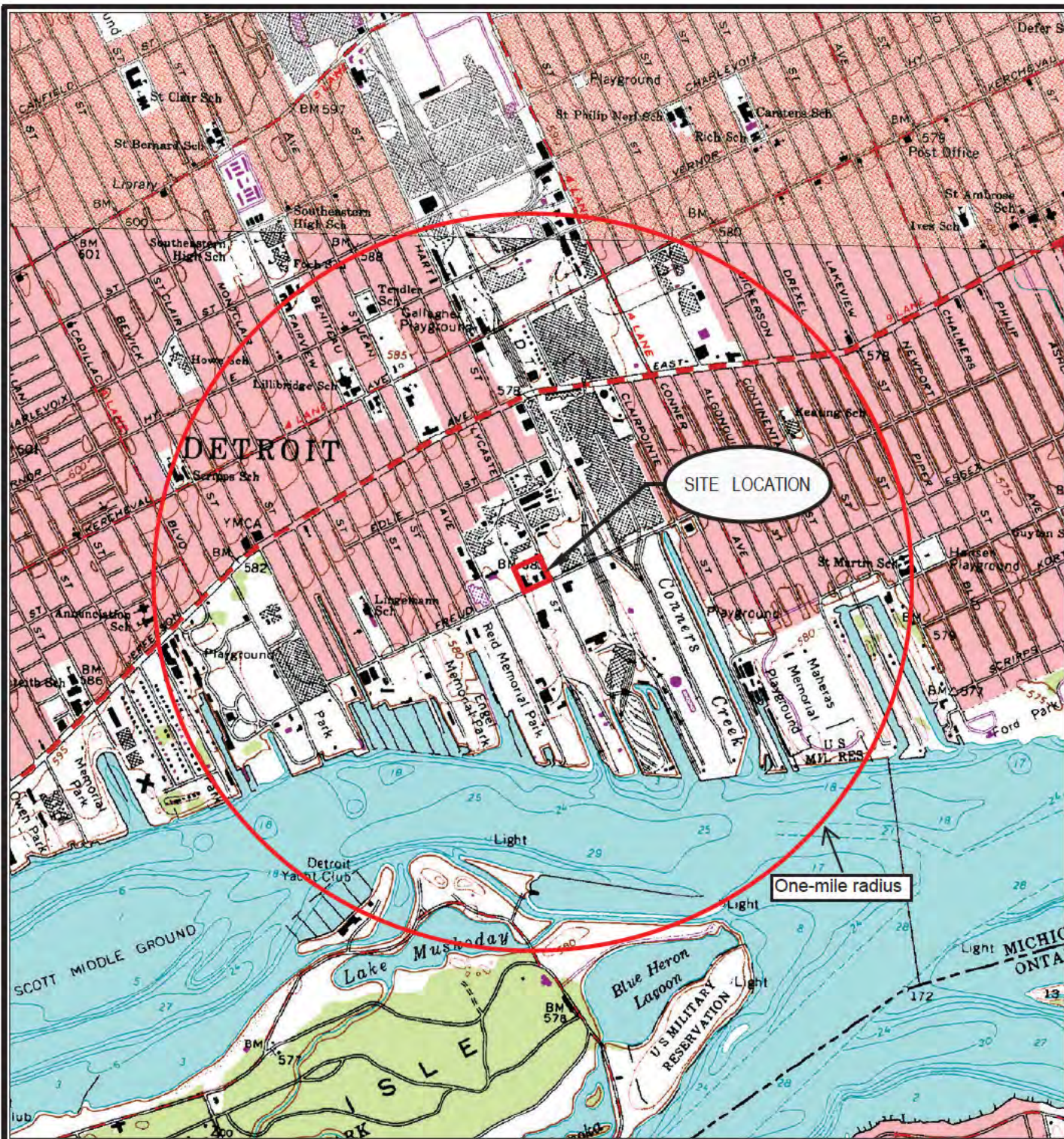
7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
337	U055	52	T	S01	S02	T01	
338	U056	52	T	S01	S02	T01	
339	U057	52	T	S01	S02	T01	
340	U058	52	T	S01	S02	T01	
241	U059	52	T	S01	S02	T01	
342	U060	52	T	S01	S02	T01	
343	U061	52	T	S01	S02	T01	
344	U062	52	T	S01	S02	T01	
345	U063	52	T	S01	S02	T01	
346	U064	52	T	S01	S02	T01	
347	U066	52	T	S01	S02	T01	
348	U067	52	T	S01	S02	T01	
349	U068	52	T	S01	S02	T01	
350	U069	52	T	S01	S02	T01	
351	U070	52	T	S01	S02	T01	
352	U071	52	T	S01	S02	T01	
353	U072	52	T	S01	S02	T01	
354	U073	52	T	S01	S02	T01	
355	U074	52	T	S01	S02	T01	
356	U075	52	T	S01	S02	T01	
357	U076	52	T	S01	S02	T01	
358	U077	52	T	S01	S02	T01	
359	U078	52	T	S01	S02	T01	
360	U079	52	T	S01	S02	T01	
361	U080	52	T	S01	S02	T01	
362	U081	52	T	S01	S02	T01	
363	U082	52	T	S01	S02	T01	
364	U083	52	T	S01	S02	T01	
365	U084	52	T	S01	S02	T01	
366	U085	52	T	S01	S02	T01	
367	U086	52	T	S01	S02	T01	
368	U087	52	T	S01	S02	T01	
369	U088	52	T	S01	S02	T01	
370	U089	52	T	S01	S02	T01	
371	U090	52	T	S01	S02	T01	
372	U091	52	T	S01	S02	T01	
373	U092	52	T	S01	S02	T01	
374	U093	52	T	S01	S02	T01	
375	U094	52	T	S01	S02	T01	
376	U095	52	T	S01	S02	T01	
377	U096	52	T	S01	S02	T01	
378	U097	52	T	S01	S02	T01	
379	U098	52	T	S01	S02	T01	
380	U099	52	T	S01	S02	T01	
381	U101	52	T	S01	S02	T01	
382	U102	52	T	S01	S02	T01	
383	U103	52	T	S01	S02	T01	
384	U105	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
385	U106	52	T	S01	S02	T01	
386	U107	52	T	S01	S02	T01	
387	U108	52	T	S01	S02	T01	
388	U109	52	T	S01	S02	T01	
389	U110	52	T	S01	S02	T01	
390	U111	52	T	S01	S02	T01	
391	U112	52	T	S01	S02	T01	
392	U113	52	T	S01	S02	T01	
393	U114	52	T	S01	S02	T01	
394	U115	52	T	S01	S02	T01	
395	U116	52	T	S01	S02	T01	
396	U117	52	T	S01	S02	T01	
397	U118	52	T	S01	S02	T01	
398	U119	52	T	S01	S02	T01	
399	U120	52	T	S01	S02	T01	
400	U121	52	T	S01	S02	T01	
401	U122	52	T	S01	S02	T01	
402	U123	52	T	S01	S02	T01	
403	U124	52	T	S01	S02	T01	
404	U125	52	T	S01	S02	T01	
405	U126	52	T	S01	S02	T01	
406	U127	52	T	S01	S02	T01	
407	U128	52	T	S01	S02	T01	
408	U129	52	T	S01	S02	T01	
409	U130	52	T	S01	S02	T01	
410	U131	52	T	S01	S02	T01	
411	U132	52	T	S01	S02	T01	
412	U133	52	T	S01	S02	T01	
413	U134	52	T	S01	S02	T01	
414	U135	52	T	S01	S02	T01	
415	U136	52	T	S01	S02	T01	
416	U137	52	T	S01	S02	T01	
417	U138	52	T	S01	S02	T01	
418	U140	52	T	S01	S02	T01	
419	U141	52	T	S01	S02	T01	
420	U142	52	T	S01	S02	T01	
421	U143	52	T	S01	S02	T01	
422	U144	52	T	S01	S02	T01	
423	U145	52	T	S01	S02	T01	
424	U146	52	T	S01	S02	T01	
425	U147	52	T	S01	S02	T01	
426	U148	52	T	S01	S02	T01	
427	U149	52	T	S01	S02	T01	
428	U150	52	T	S01	S02	T01	
429	U151	52	T	S01	S02	T01	
430	U152	52	T	S01	S02	T01	
431	U153	52	T	S01	S02	T01	
432	U154	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
433	U155	52	T	S01	S02	T01	
434	U156	52	T	S01	S02	T01	
435	U157	52	T	S01	S02	T01	
436	U158	52	T	S01	S02	T01	
437	U159	52	T	S01	S02	T01	
438	U160	52	T	S01	S02	T01	
439	U161	52	T	S01	S02	T01	
440	U162	52	T	S01	S02	T01	
441	U163	52	T	S01	S02	T01	
442	U164	52	T	S01	S02	T01	
443	U165	52	T	S01	S02	T01	
444	U166	52	T	S01	S02	T01	
445	U167	52	T	S01	S02	T01	
446	U168	52	T	S01	S02	T01	
447	U169	52	T	S01	S02	T01	
448	U170	52	T	S01	S02	T01	
449	U171	52	T	S01	S02	T01	
450	U172	52	T	S01	S02	T01	
451	U173	52	T	S01	S02	T01	
452	U174	52	T	S01	S02	T01	
453	U176	52	T	S01	S02	T01	
454	U177	52	T	S01	S02	T01	
455	U178	52	T	S01	S02	T01	
456	U179	52	T	S01	S02	T01	
457	U180	52	T	S01	S02	T01	
458	U181	52	T	S01	S02	T01	
459	U182	52	T	S01	S02	T01	
460	U183	52	T	S01	S02	T01	
461	U184	52	T	S01	S02	T01	
462	U185	52	T	S01	S02	T01	
463	U186	52	T	S01	S02	T01	
464	U187	52	T	S01	S02	T01	
465	U188	52	T	S01	S02	T01	
466	U189	52	T	S01	S02	T01	
467	U190	52	T	S01	S02	T01	
468	U191	52	T	S01	S02	T01	
469	U192	52	T	S01	S02	T01	
470	U193	52	T	S01	S02	T01	
471	U194	52	T	S01	S02	T01	
472	U196	52	T	S01	S02	T01	
473	U197	52	T	S01	S02	T01	
474	U200	52	T	S01	S02	T01	
475	U201	52	T	S01	S02	T01	
476	U202	52	T	S01	S02	T01	
477	U203	52	T	S01	S02	T01	
478	U204	52	T	S01	S02	T01	
479	U205	52	T	S01	S02	T01	
480	U206	52	T	S01	S02	T01	

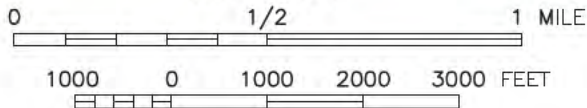
7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
481	U207	52	T	S01	S02	T01	
482	U208	52	T	S01	S02	T01	
483	U209	52	T	S01	S02	T01	
484	U210	52	T	S01	S02	T01	
485	U211	52	T	S01	S02	T01	
486	U213	52	T	S01	S02	T01	
487	U214	52	T	S01	S02	T01	
488	U215	52	T	S01	S02	T01	
489	U216	52	T	S01	S02	T01	
490	U217	52	T	S01	S02	T01	
491	U218	52	T	S01	S02	T01	
492	U219	52	T	S01	S02	T01	
493	U220	52	T	S01	S02	T01	
494	U221	52	T	S01	S02	T01	
495	U222	52	T	S01	S02	T01	
496	U223	52	T	S01	S02	T01	
497	U225	52	T	S01	S02	T01	
498	U226	52	T	S01	S02	T01	
499	U227	52	T	S01	S02	T01	
500	U228	52	T	S01	S02	T01	
501	U234	52	T	S01	S02	T01	
502	U235	52	T	S01	S02	T01	
503	U236	52	T	S01	S02	T01	
504	U237	52	T	S01	S02	T01	
505	U238	52	T	S01	S02	T01	
506	U239	52	T	S01	S02	T01	
507	U240	52	T	S01	S02	T01	
508	U243	52	T	S01	S02	T01	
509	U244	52	T	S01	S02	T01	
510	U246	52	T	S01	S02	T01	
511	U247	52	T	S01	S02	T01	
512	U248	52	T	S01	S02	T01	
513	U249	52	T	S01	S02	T01	
514	U271	52	T	S01	S02	T01	
515	U277	52	T	S01	S02	T01	
516	U278	52	T	S01	S02	T01	
517	U279	52	T	S01	S02	T01	
518	U280	52	T	S01	S02	T01	
519	U328	52	T	S01	S02	T01	
520	U353	52	T	S01	S02	T01	
521	U359	52	T	S01	S02	T01	
522	U364	52	T	S01	S02	T01	
523	U367	52	T	S01	S02	T01	
524	U372	52	T	S01	S02	T01	
525	U373	52	T	S01	S02	T01	
526	U387	52	T	S01	S02	T01	
527	U389	52	T	S01	S02	T01	
528	U394	52	T	S01	S02	T01	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))							
Line Number	A. Hazardous Waste Number (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes			
				D.1 Process Codes			D.2 Process Description (if code is not entered in 7.D.1)
539	U395	52	T	S01	S02	T01	
530	U404	52	T	S01	S02	T01	
531	U409	52	T	S01	S02	T01	
532	U410	52	T	S01	S02	T01	
533	U411	52	T	S01	S02	T01	
534	001K	52	T	S01	S02	T01	
535	002K	52	T	S01	S02	T01	
536	001U	52	T	S01	S02	T01	
537	033U	52	T	S01	S02	T01	
538	070U	52	T	S01	S02	T01	
539	074U	52	T	S01	S02	T01	
540	124U	52	T	S01	S02	T01	
541	131U	52	T	S01	S02	T01	
542	139U	52	T	S01	S02	T01	
543	150U	52	T	S01	S02	T01	



QUADRANGLE LOCATION

Scale 1:24000



(SOURCE OF MAP IS USGS 7.5 MINUTE QUADRANGLE MAP, BELLE ISLE(1980), MICHIGAN)



CHECK BY	KLW
DRAWN BY	JL
DATE	3/25/2010
SCALE	AS SHOWN
CAD NO.	109200.02_A
PRJ NO.	11009-109200.02

SITE LOCATION MAP

PETRO-CHEM PROCESSING GROUP
421 LYCASTE STREET
DETROIT, MICHIGAN



FIGURE

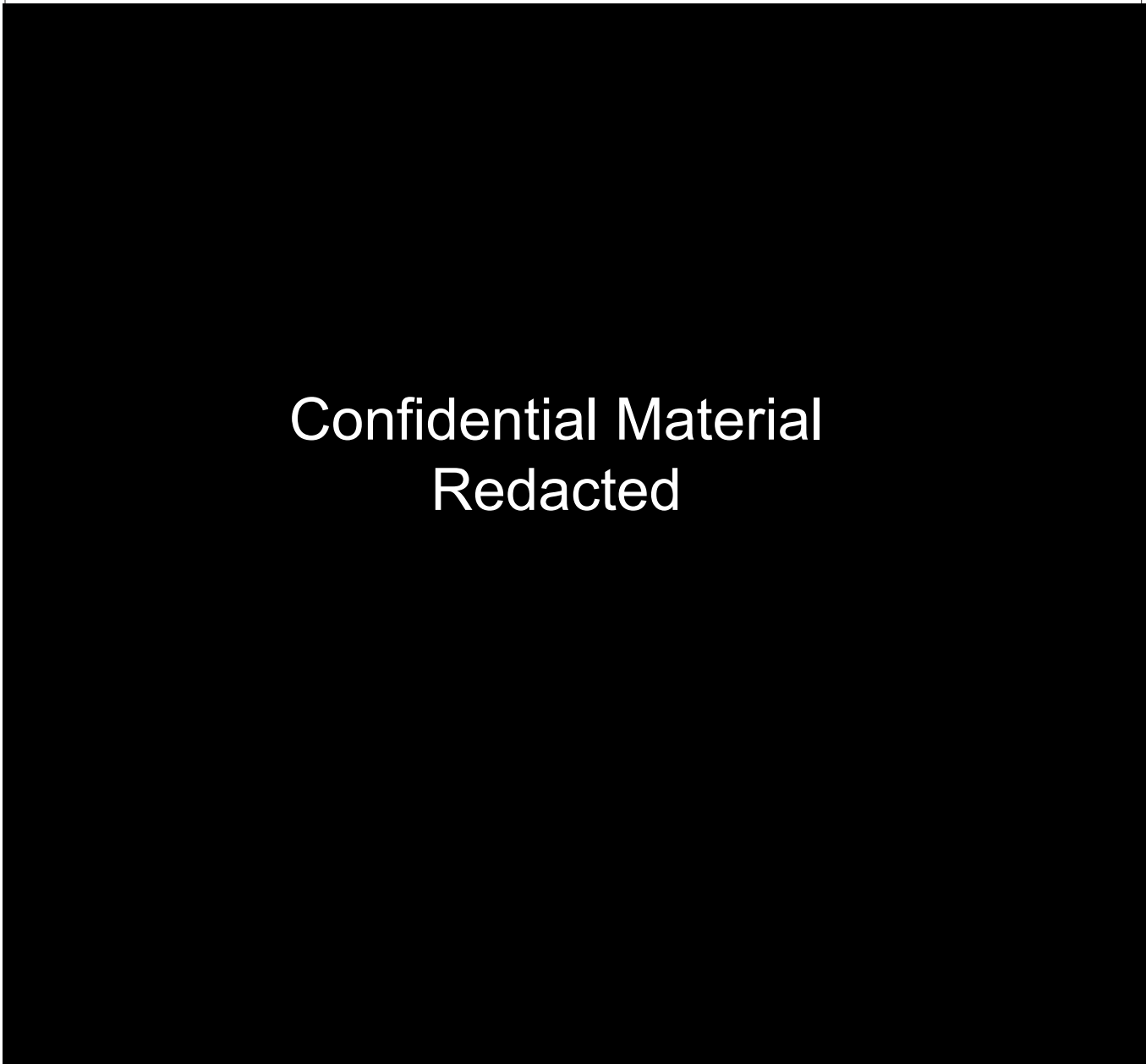
B4.1

W ND ROSE PLOT:

CleanEarth_01/01/2021-12/31/2021
DET_2021

DISPLAY:

Wind Speed
Direction (blowing from)

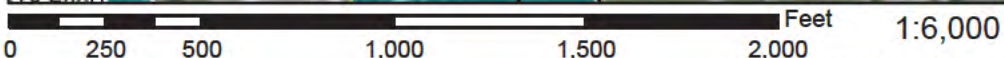


COMMENTS: Privileged & Confidential Attorney-Client Communication Attorney Work Product Prepared in Anticipation of Litigation	DATA PERIOD: Start Date: 1/1/2021 - 00:00 End Date: 12/31/2021 - 23:59	COMPANY NAME: Barr Engineering Co.	
	CALM W NDS: 0.59%	MODELER: 	
	AVG. W ND SPEED: 3.77 m/s	TOTAL COUNT: 17516 hrs.	DATE: 6/1/2022
		PROJECT NO.:	

National Flood Hazard Layer FIRMMette



82°58'16"W 42°21'56"N



82°57'39"W 42°21'30"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

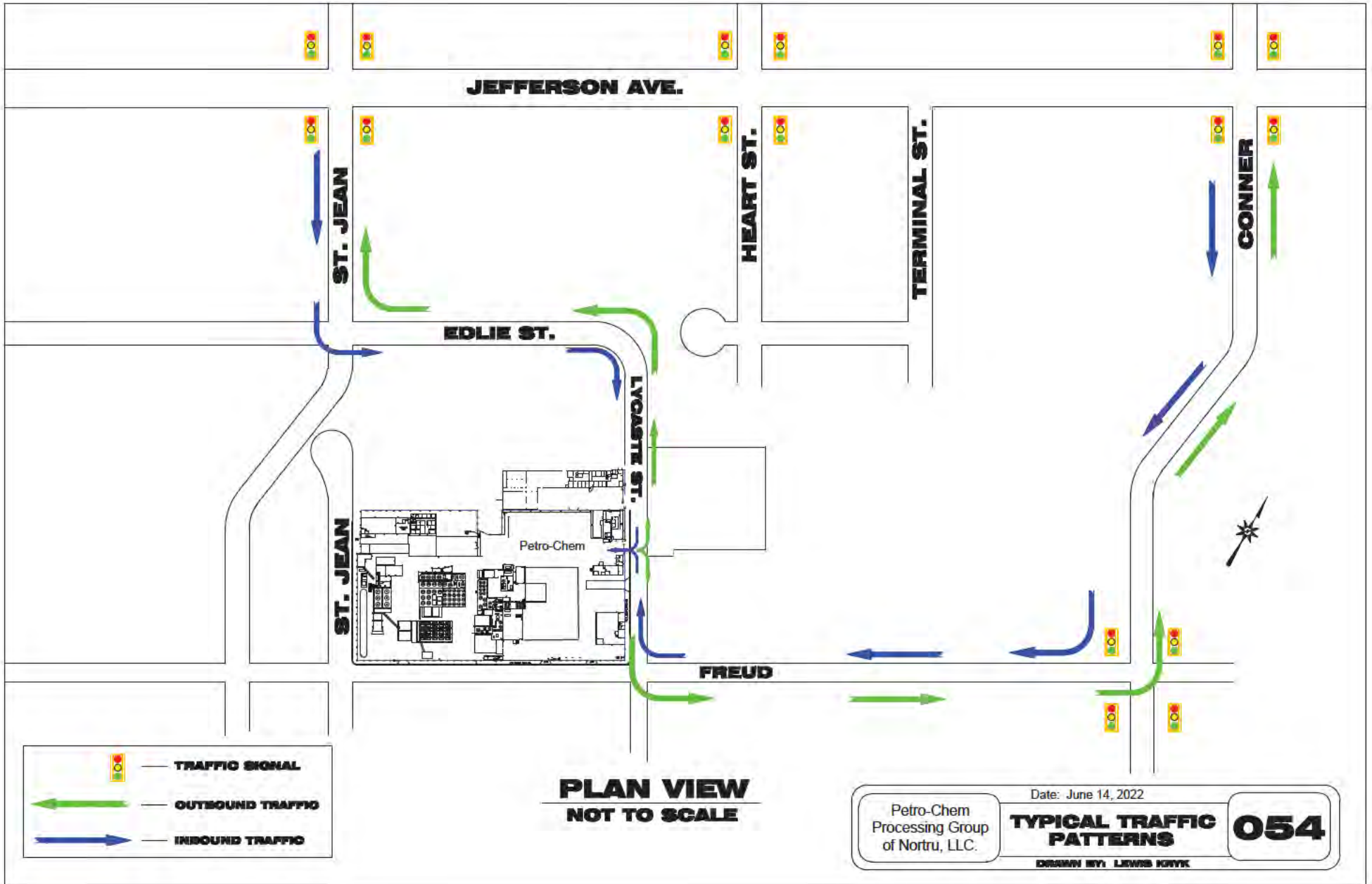
- | | | |
|-----------------------------|--|---|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
Zone A, V, A99 |
| | | With BFE or Depth Zone AE, AO, AH, VE, AR |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
| | | Future Conditions 1% Annual Chance Flood Hazard Zone X |
| | | Area with Reduced Flood Risk due to Levee. See Notes. Zone X |
| | | Area with Flood Risk due to Levee Zone D |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard Zone X |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard Zone D |
| | | Channel, Culvert, or Storm Sewer |
| OTHER FEATURES | | Levee, Dike, or Floodwall |
| | | 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation |
| MAP PANELS | | 17.5 Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |
| | | The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location. |



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/1/2022 at 10:46 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Section 2

Chemical & Physical Analyses (A2)

TEMPLATE A2 - CHEMICAL AND PHYSICAL ANALYSES

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 Petro-Chem Processing Group of Nortru, LLC. (Petro-Chem) in Detroit, 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:

- Applicant for Operating License for Existing Facility
- Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

Type of Facility:

- 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:

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

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.A WASTE DESCRIPTION

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

All samples collected for the purposes of waste characterization are collected, transported, analyzed, stored, and disposed by trained and qualified individuals in accordance with the Quality Assurance/Quality Control (QA/QC) Plan. The QA/QC Plan includes, or references written procedures outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. Environmental Protection Agency (EPA) Publication SW-846, Third Edition, Chapter 1 (November 1986), and its updates. A copy of the QA/QC Manual is in Volume I, Section 2, Appendix I.

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

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

Table A2.A.1 at the bottom of this document addresses waste generated on-site. A table of waste codes accepted from off-site generators and potentially generated at the facility, is provided in Appendix III. Appendix II contains examples of waste profiling documents including the waste description with hazard characteristics, the basis for hazard designation, and example laboratory reports detailing the chemical and physical analyses performed with analyzing representative samples of each waste stream. Documentation for each waste stream is maintained in the facility's records.

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

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

Table A2A.2 at the bottom of this document addresses waste received from off-site generators. A table of waste codes accepted from off-site generators is provided in Appendix III. Appendix II contains examples of waste profiling documents including the waste description with hazard characteristics, the basis for hazard designation, and example laboratory reports detailing the chemical and physical analyses performed with analyzing representative samples of each waste stream. Documentation for each waste stream is maintained in the facility's records.

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

The following procedures will be used to assure the representativeness of samples of bulk and containerized shipments, the transfer of the control of the samples to the Petro-Chem laboratory, and the integrity of the shipment after sampling and prior to receipt at the Petro-Chem Site. Samples will be accepted for verification of prequalification information and approval of the acceptance of loads of waste materials without requiring additional sampling or analysis on receipt at the Petro-Chem facility. Discrepancy procedures for materials not matching the information contained in the Waste Characterization Report shall be the responsibility of the Technical Department. Any rejection or partial rejection of a load shall be conducted by Petro-Chem.

I Shipment and Sample Identification

Each shipment container accompanied by a manifest specifying Petro-Chem as either the primary or alternate designated facility, shall be marked with a unique identification number upon receipt at the Facility. This number will typically be the uniform hazardous

waste manifest number and a sequential number assigned by manifest line, but may be a unique number assigned to the container at the transferring site that may be required by that site's or Petro-Chem's tracking procedures. This identification number will be documented on the container. Samples and documents describing individual containers shall reference these numbers.

II. Sampling, Sample Transfer and Analysis Procedures

Procedures used to obtain samples offsite for shipment acceptance will follow the same standards used at the Petro-Chem Site:

For bulk liquid loads: Bulk liquid loads are sampled using a coliwasa or equivalent SW-846 method. Samples are typically obtained by an Operator. Once taken, the sample is labeled immediately with the generator and/or transporter name and then taken to the laboratory for further evaluation. The laboratory personnel additionally label the sample with the unique tracking number associated with the manifest for the load.

For bulk solid loads: Bulk solid loads are sampled by obtaining random samples throughout the load to make a representative composite sample. Samples are typically obtained by an Operator. Where appropriate, sampling procedures will follow guidelines established in SW-846. Once obtained, the sample is labeled immediately with the generator and/or transporter name and then taken to the laboratory. The laboratory personnel additionally label the sample with the unique tracking number associated with the manifest for the load.

For container loads: Containers which have not already been tested may be sampled once they have been moved to the appropriate staging area. A minimum 10% composite of each generator's waste stream(s) may be taken with a coliwasa or equivalent SW-846 method. Once samples are taken and labeled, they are brought to the laboratory for analysis.

The following waste types will not be sampled:

- 1) Universal wastes
- 2) Consumer commodities (unadulterated)
- 3) Reactive wastes, DOT 1.4s or DOT 1.4g wastes (D003)
- 4) Pharmaceutical wastes
- 5) Lab Packs
- 6) Loose Packs
- 7) Aerosols or other DOT hazard class 2 wastes

These packages will be visually inspected for container integrity, labeling and in some cases visual confirmation of the contents if it can be completed safely. Once approved for receipt, these wastes will be stored in an appropriate container storage area for shipment off-site for further management. Compromised containers will be repackaged prior to storage.

An inspection will be conducted of each bulk load or container to assure that it matches the physical descriptions supplied by the Generator or his representative. A sample of the material will be analyzed as deemed necessary by management. Refer to Template A3 – Waste Analysis Plan, Table A3. A1 for specific test methods utilized. Samples

taken of the waste material will be placed in pre-cleaned containers that are compatible with the waste constituents. Each sample container shall be labeled with a container identification number and date information.

Samples obtained off-site, or that must be transferred by the person performing the sampling prior to receipt at the Petro-Chem site must be sealed using a tamper indicating device and accompanied by a standard Chain of Custody form indicating the number, size and type of samples, the unique Identification Numbers of the originating containers, and the name, title, and company of all persons in control of the samples, with dates and times that the control was transferred. Samples received by the Petro-Chem laboratory that are not properly identified, are compromised by container breakage or opening, or where the seal has been tampered, shall be rejected and either a new sample must be obtained from the offsite location, or the entire shipment must be received for sampling and acceptance at the Petro-Chem Site.

The Petro-Chem operations shall inspect and perform analysis of the samples received offsite, and process discrepancies using the same procedures described in the Template A3 - Waste Analysis Plan (WAP). Discrepancies that modify the DOT Shipping Description on the manifest will be made by Petro-Chem, with the authorization of the Generator or his representative, prior to transfer of the shipment to Petro-Chem. Shipments, or parts of shipments, that are rejected and returned to the Generator or shipped to an alternate designated facility, will be received by Petro-Chem, and transferred on to its final destination. Manifests will be modified as described in the Petro-Chem WAP.

IV. Shipment Security and Transfer

Shipments of waste materials sampled for approval at Petro-Chem shall be maintained at secured locations to prevent tampering with the containers or their contents after sampling. This security may include the fencing of the facility and/or the placement of locks on the tank valves or truck box doors; holding at locations with secured entry and/or manned continuously; or monitored by video or other means of detecting unauthorized entry. Each shipment received as accepted at Petro-Chem shall be inspected, and, if signs of tampering or discrepancies from the security precautions are found may be re-inspected, sampled and analyzed as described in the WAP, or may be rejected and returned to the generator or an alternate designated facility at the discretion of Petro-Chem.

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

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

Example laboratory reports detailing the chemical and physical analysis of representative samples have been provided in Volume I, Section 2, Appendix II.

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

Once the waste characterization is completed, the corrosivity, reactivity and compatibility of the waste can be determined, and the appropriate container can be used for placement and/or storage of the waste material. The residue from containers that previously held waste must also be analyzed for reactivity and compatibility to ensure that new waste can be safely placed in the container. Petro-Chem places/stores hazardous liquids and solids according to 49 CFR Part 173, Subpart E - Non-Bulk Packaging for Hazardous Materials Other Than Class 1 and Class 7. Inbound wastes that do not conform to these standards will be repackaged prior to storage.

A2.B.2 Containers without Secondary Containment System

Petro-Chem does not store containers 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

The wastes handled in the tank systems are organic, flammable, liquids (DOT hazard classes 3, 6, 9). All tanks used for blending and storage are constructed of carbon steel or stainless steel. See template C2, A2 and B2 tank descriptions for existing and new tank systems respectively. All tanks are grounded to prevent accumulation of static electricity generated during material transfers and carbon steel tanks are painted to reduce the potential for corrosion. The pH of the materials to be placed into each tank is determined and controlled as necessary to prevent corrosion. Materials used for construction of the tank systems are compatible with the materials accepted at the Petro-Chem site. Tanks are placarded to comply with the Michigan FL/CL rules R 29.5101 to 5501.

A2.C.2 Tanks without Secondary Containment System

Petro-Chem does not maintain tanks without a secondary containment system.

TABLE A2.A.1 HAZARDOUS WASTE GENERATED AT THE FACILITY

Hazardous Waste Code	Waste Description	Hazardous Waste Characteristics	Basis for Hazardous Designation	Hazardous Waste Management Unit
All possible waste codes permitted for receipt at Petro-Chem that may be found in fuel type wastes	Flammable sludge with debris	Ignitable, toxic, toxicity characteristic, acute hazardous	Commingling of various solids and debris from screening activities at the tank systems unloading activities	Container
All possible waste codes permitted for receipt at Petro-Chem that may be found in fuel type wastes	Spill clean-up waste	Toxic, corrosive, ignitable, reactive, toxicity characteristic, acute hazardous	Consolidation of spill cleanup wastes due to spills occurring during tank system transfer activities and container handling activities	Container
All possible waste codes permitted for receipt at Petro-Chem that may be found in non-fuel type wastes	Spill clean-up wastes	Toxic, corrosive, reactive, toxicity characteristic, acute hazardous	Consolidation of spill cleanup wastes due to spills occurring from container handling activities.	Container
All possible waste codes permitted for receipt at Petro-Chem	Lab samples	Toxic, corrosive, ignitable, reactive, toxicity characteristic, acute hazardous	Sampling of wastes from off-site sources for trans-shipment or commingling and outbound waste verification	Non-bulk container

TABLE A2.A.2 HAZARDOUS WASTES ACCEPTED AT THE FACILITY

A listing of all waste codes and description acceptable for receipt at the Petro-Chem facility has been provided in Volume I, Section 2, Appendix III. All waste types except PCB wastes, radioactive, bio-hazardous and dioxins & furans are acceptable for receipt. The hazardous designation is based on the information provided by the generator and confirmatory testing that may be performed upon load arrival. Inbound materials that meet the fuel characteristics and are compatible with the tank systems will be commingled through Tank System 1 (16 – 30), Tank System 2 (35 – 40) and/or CMB Tank System (1 – 2). Reactive/Incompatible wastes will be stored in segregated areas of the Facility, primarily in the storage closet located in the 1st Floor Operations.

Appendix I
QA QC Manual

PETRO-CHEM PROCESSING GROUP OF NORTRU, LLC

PETRO-CHEM

PROCESS CONTROL LABORATORY

QUALITY ASSURANCE MANUAL

June 26, 2010

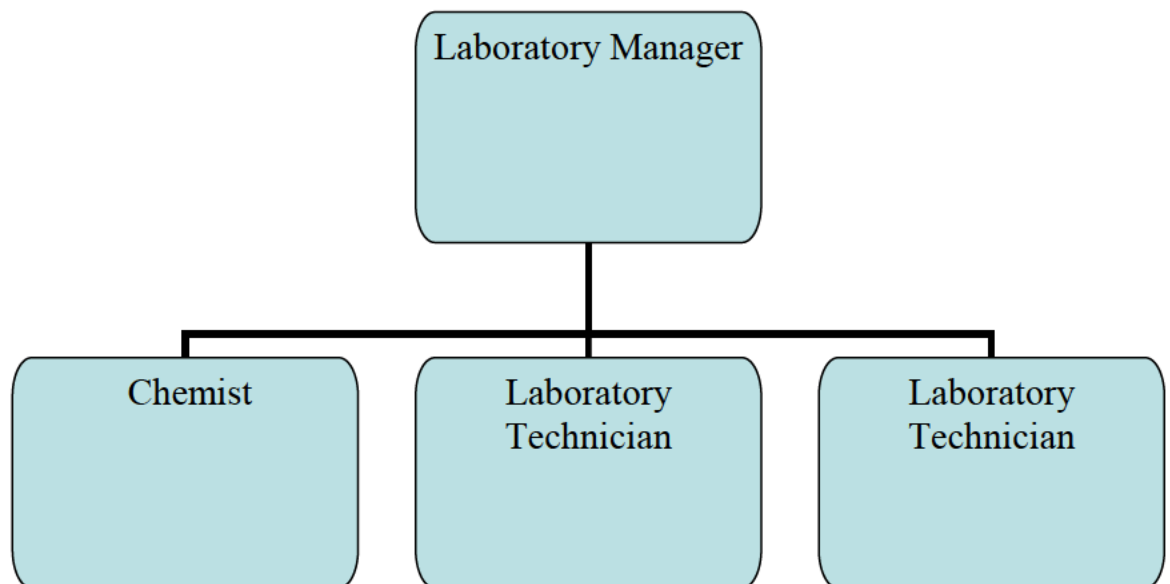
May 31, 2022

S. T. Sanders , Laboratory Manager

1.0 ORGANIZATION/RESPONSIBILITIES

1.1 The Petro-Chem Processing Group of Nortru, LLC (Petro-Chem) lab is operated by a laboratory manager, one chemist, and two laboratory technicians. The laboratory manager is responsible for establishing quality assurance and quality control (QA/QC) policies. All laboratory personnel are responsible for ensuring those policies are followed as well as performing PCB, Pesticides, benzene, and metals analyses pH, bulk density, compatibilities and authorizing results. The Fuel Technicians perform heat of combustion, percent halogen, percent water, specific gravity, pH. The chemists and technicians perform the initial QC review on each other data.

1.2 Organizational Chart



2.0 POLICY FOR QUALITY ASSURANCE/QUALITY CONTROL

2.1 The principal objective for operating the Petro-Chem laboratory is to produce analytical data which accurately represent the waste stream from which a sample is taken.

2.2 All analytical procedures will be completed according to approved methods and will include all QA/QC measures required by those methods. The initial data quality objective (DQO) for each method is to achieve accurate, and reproducible results which provides guidance for waste acceptance, process knowledge and to meet the performance specifications established by our customers.

- 2.3 No sample data will be recorded without including results for any analyses of QC samples associated with the data. Data will be entered in indelible ink on printed bench sheets or sample data summary sheets. All data is reviewed and validated prior to release of the data from the Petro-Chem laboratory, indicated by another analyst's initials on the bench sheets. Data is maintained on file in the customer service. The data will be transferred to the archives and kept for at least three years.
- 2.4 Located in the lab are copies of the Petro-Chem Waste Analysis and Acceptance Plan, Standard Operating Procedures, applicable EPA and ASTM reference methods, Quality Assurance Manual, Chemical Hygiene Plan, and, in a readily available binder, materials safety data sheets (MSDS) for all potentially hazardous chemicals used in the lab.

3.0 SAMPLE MANAGEMENT AND SAMPLE TESTING PROTOCOLS

- 3.1 Samples are be taken by facility operations personnel and delivered to the lab by these personnel. The lab has no direct control over sampling.
- 3.2 Samples for the month are retained for three months.
 - 3.2.1 Tank samples, Inbound tankers and Outbound tankers.
 - 3.2.2 Drums samples are kept in numerical order grouped by month.
 - 3.2.3 Pre-Qualification samples for new waste profiles.
- 3.3 The lab personnel, as sample custodian, assure that:
 - 3.3.1 samples are stored properly and handled by a minimum number of people;
 - 3.3.2 samples are logged on permanent lab record, and;
 - 3.3.3 a laboratory tech is designated to analyze the sample.

4.0 SAMPLE TESTING PROTOCOLS

- 4.2 Tank: Heat of Combustion, Percent Halogen as Chloride, Percent water, pH, specific gravity, PCB's, and metals.

- 4.3 Drum: Heat of Combustion, Percent Halogen as Chloride, Percent water, pH, specific gravity, PCB's, percent solids and compatibility.
- 4.4 Inbound Bulk: Heat of Combustion, Percent Halogen as Chloride, Percent water, pH, specific gravity, PCB's, percent solids and compatibility.
- 4.4 Outbound Bulk: Heat of Combustion, Percent Halogen as Chloride, Percent water, pH, specific gravity, and any other customer specification required analysis.
- 4.5 Pre-Qualification Samples: As requested by the materials coordinator.

5.0 METHODS

- 5.1 Methods used in the Petro-Chem lab are based upon those in EPA SW-846, ASTM, and the various analytical equipment manufacturers' operating manuals. The laboratory takes a performance-based approach to data quality.
 - 5.1.1 pH: EPA SW-846 methods 9040C and 9045D.
 - 5.1.2 Heat of Combustion: ASTM standards D 240, D5468, and EPA SW-846 method 5050.
 - 5.1.3 Percent Halogen as Chloride: EPA SW-846 method 9253, Standard Methods 4500-CL-B.
 - 5.1.4 Percent Water, Karl Fisher Analysis: ASTM D4377 and D5530.
 - 5.1.5 Polychlorinated biphenyls: EPA SW-846 method 8082A.
 - 5.1.6 Pesticides: EPA SW-846 method 8081B.
 - 5.1.7 Metals: EPA SW-846 methods 3050B and 6010C.
 - 5.1.8 Specific Gravity: ASTM D287.
 - 5.1.9 Flashpoint: EPA SW-846 method 1010A.
 - 5.1.10 Compatibility: ASTM D5058 and D5232.
 - 5.1.11 Benzene: EPA SW-846 8015C.
 - 5.1.12 Water and Sediment in Fuel Oils: ASTM 1796.

6.0 CALIBRATION AND QUALITY CONTROL PROCEDURES

- 6.1 Lab Facility: The lab is kept clean and orderly at all times. Specific facility issues are addressed in the checklist at Appendix C.
- 6.2 Instrument Calibration: Instruments are calibrated (or calibration is verified) at least on a per-shift basis and just before use. Those requiring calibration are the calorimeters, pH meters, Karl Fischer water titrator, ICP, and GCs. Records of

calibration are maintained on log sheets for each piece of equipment. Equipment calibration requirements are indicated in Table 1.

- 6.3 Preparation of Calibration Curves: Calibration curves are required for AA and ICP metals, polychlorinated biphenyls, pesticides and Benzene.
- 6.4 Equipment Maintenance: All lab equipment is maintained so as to keep it in proper working order at all times. Simple repairs may be made by lab personnel; qualified service representatives will perform more extensive repairs. Breakdowns and repair procedures are noted in the maintenance and repair log on each piece of equipment. The analytical balances are checked at least daily using standard (Class S) weights and serviced by professional service representatives, at a minimum, annually. Records of all routine maintenance and repairs are kept in equipment logs.
- 6.5 Analytical Reagents: Only analytical grade reagents are used. Labels on all chemical reagents are marked with date received, date opened, and, when known, date of expiration. Expiration date will be assumed to be one year from opening if no manufacturer expiration date is given. Chemicals are stored out of direct sunlight. Those requiring cold storage are kept under refrigeration, between 1° and 4.4° C, separate from sample storage. Acids and bases are stored separately in specially designated storage cabinets. Care is taken to prevent cross contamination of reagents and samples. Contaminated reagents and outdated chemical solutions are disposed of in accordance with the Chemical Hygiene Plan and the Waste Analysis and Acceptance Plan. For reagents mixed in the lab, shelf life recommendations provided in the referenced analytical method are followed and bottles are marked with date prepared and the initials of the analyst. Standard solutions are stored separately away from temperature extremes and direct sunlight and safeguarded to preclude inadvertent contamination.
- 6.6 De-ionized water: D.I. water is produced in the lab using a multi-cartridge de-ionization and filtration system which produces ASTM Type II water. Quantities of de-ionized water are stored in a HPDE carboy for general laboratory use. Care is taken not to contaminate de-ionized water, and water suspected of being contaminated is discarded.
- 6.7 Glassware Cleaning: After each use, glassware is washed with phosphate-free detergent, and rinsed with tap water and triple rinsed with D.I. water. Glassware used for metals analysis are washed with phosphate-free detergent and rinsed with tap water, triple rinsed with 1:1 Nitric Acid solution and triple rinsed with D.I. water.
- 6.8 Quality Control Analyses. Quality control measurements are made for all analyses. Routine analyses of method blanks, laboratory control samples, matrix

duplicates, and matrix spikes are performed according to the frequency shown in Table 1. Results of blank analyses are treated in the manner specified by the SOP. Records of analyses of laboratory control samples (e.g., polychlorinated biphenyls, metals, KF % water) are kept on daily bench sheets (See Appendix B for format). They are also recorded on the facility sample bench sheets.

6.9 Specific Quality Control Parameters.

6.9.1 Heat of combustion.

6.9.1.1 The manufacturer's instructions are followed for operation and calibration of the calorimeters.

6.9.1.2 Benzoic acid pellets are used to standardize each bomb calorimeter once per shift.

6.9.1.3 Laboratory Control Sample: A standard is analyzed once per bomb per week. Results should be 80 – 120% of the theoretical concentration.

6.9.1.4 Matrix Duplicate: a randomly selected sample is analyzed in duplicate once per month. The RPD for the duplicates should be within 20%.

6.9.2 Karl Fischer Percent water.

6.9.2.1 The manufacturer's instructions are followed for operation and calibration of the Karl Fischer titrators.

6.9.2.2 Determine the Titer value each time the titrant bottle is changed.

6.9.2.3 A Method Blank is analyzed once per shift frequency. A sample of neat methanol is run. The result should be less than 0.1% H₂O.

6.9.2.4 Laboratory Control Sample: A water check standard is run for each titrator once per shift or twenty samples. An acceptable recovery is 80 – 120% of the theoretical value.

6.9.2.5 Matrix Duplicate: A randomly selected sample is analyzed in duplicate. The RPD for the duplicates should be within 20%.

6.9.3 Chloride.

- 6.9.3.1 The manufacturer's instructions are followed for the operation and calibration of the digital burettes.
 - 6.9.3.2 A blank, using deionized water, is run once per shift. The results should be less than the method detection limit.
 - 6.9.3.3 Laboratory Control Sample: A chloride solution is run once per week. Results should be 80 – 120% of the theoretical concentration.
 - 6.9.3.4 Matrix Duplicate: A randomly selected sample is analyzed in duplicate for each titrator once per week. The RPD for the duplicates should be within 20%.
- 6.9.4 pH.
- 6.9.4.1 The manufacturer's instructions are followed for operation and calibration of the pH meter.
 - 6.9.4.2 Just prior to use at the beginning of a shift, five buffer solutions are used to calibrate the meter.
 - 6.9.4.3 Laboratory Control Sample: A check standard with a pH between 2.0 and 12.0, but other than 2.0, 4.0, 7.0, 10.0, or 12.0 should be analyzed daily. The source of this check standard should be different from the calibration buffer solutions. This buffer should recover within ± 0.1 s.u. of the theoretical pH.
 - 6.8.4.4 Matrix Duplicate: A randomly selected sample is analyzed in duplicate for each titrator once per shift or twenty samples which ever results in a greater frequency. The RPD for the duplicates should be within 0.5 s.u..
- 6.9.5 Specific Gravity
- 6.9.5.1 The manufacturer's instructions are followed for operation and calibration for use of the hydrometers.
 - 6.9.5.2 A randomly selected sample is analyzed in duplicate with every shift. The sample should be re-poured. The RPD for duplicates should be within 20%.
- 6.9.6 Polychlorinated biphenyls.

- 6.9.6.1 The manufacturer's instructions are followed for operation and calibration for use of the GCs, electron capture detectors, and autosamplers. Because of the sensitivity of the electron capture detector, the injection port and column should always be cleaned prior to performing the initial calibration.
- 6.9.6.2 A blank consisting of surrogate-spiked hexane is analyzed once per shift per column. The surrogates must recover within 70 – 130% recovery of the theoretical value. The PCBs must be below the report detection limit.
- 6.9.6.3 A Matrix Spike (MS) is extracted once a month. The MS is a sample which has been spiked with the same concentration of standard as the LCS. The acceptance window is 70-130% recovery.
- 6.9.11.1 Matrix Duplicate: A randomly selected sample is run in duplicate. The RPD for the duplicate should be within 20%.

6.9.7 Metals.

- 6.9.7.1 The manufacturer's instructions are followed for operation and calibration for use of the ICP.
- 6.9.7.2 The instrument is calibrated using a mixed-element standard, prepared fresh once per shift.
- 6.9.7.3 A calibration blank is run with the calibration standards. The calibration blank is considered a calibration standard. It is also run at the beginning of the analytical run as the ICB and after 10 samples and after the last sample as the CCB. The result must be below the report detection limit.
- 6.9.7.4 An Initial Calibration Verification (ICV) is prepared for all elements of analytical interest with standard material different from that used to prepare the calibration standards. It is run at the beginning of the analytical run before any samples are analyzed. The CCV is run once every 20 samples and at the end of the analytical run, before a calibration blank. The acceptable recovery is 80 – 120% of the theoretical concentration.
- 6.9.7.5 A Method Blank is analyzed as a sample once every 20 samples, using D.I. water. It is carried through the entire sample

preparation process and contains the same acid concentration in the final solution as the sample solution used for analysis. The results must be less than the report detection limit for all elements of interest.

6.9.7.8 Matrix Duplicate: A duplicate analysis is run once per shift on a randomly selected sample. The RPD for the duplicate should be within 20%.

6.9.8 Benzene.

6.9.9.1 The manufacturer's instructions are followed for operation and calibration of the GCs, flame ionization detectors, and autosamplers.

6.9.9.2 A five-point initial calibration is run on each GC column.

6.9.9.5 After initial calibration, Continuing Calibration Verification (CCV) is assured using a mid range standard prepared from a source different from the calibration material once per shift. The CCV must be within 80 – 120% of the theoretical value.

6.9.9.3 A blank containing surrogate-spiked methanol is analyzed once per shift per column. The result must be below the report detection limit for benzene and the surrogate must recover within 80 - 120% of the theoretical concentration.

6.9.9.4 After initial calibration, and once per shift thereafter, a laboratory control sample (LCS) is run. The LCS is methanol which has been spiked with a mid range standard. The acceptable recovery is 80 – 120% of the theoretical value.

6.9.9.5 A Matrix Spike (MS) is extracted with each set of 20 samples or once a day which ever is more frequent. The MS is a sample which has been spiked with the same concentration of standard as the LCS. The acceptance window is 70-130% recovery.

6.9.9.6 Matrix Duplicate: A duplicate is run once per shift on a randomly selected sample. The RPD for the duplicate should be within 20%.

6.10 Method Detection Limits (MDL) studies are conducted annually for the major laboratory instrumentation. MDLs are used to ensure that instrument sensitivities

meet or exceed all regulatory, process or customer specifications. Refer to appendix E for an example of a typical MDL report.

7.0 DATA MANAGEMENT

- 7.1. All records mentioned in this QA manual are retained at the Petro-Chem facility for a period of at least three years. Before any result is reported, all raw data, calculations, and screen prints of sample data entry are reviewed for accuracy and signed by another fuels technician or clean room chemist. If data contained on any record is transcribed to facilitate brevity or neatness, the original record is also kept. All data is recorded in indelible ink. Corrections are made by a single strike-out line and initialed. A list of initials identifying the person to whom they belong is maintained as a permanent lab record.
- 7.2 In order to maintain consistency in the reporting of analytical data the following rules of rounding and significant figures will be applied to the instrumental or manually calculated results.
 - 7.2.1 When an instrument report or manual calculation reports a result which exceeds the appropriate level of significance the result must be rounded to the nearest significant number. If the non-significant number is less than 5 the number is rounded down. If the non-significant number is greater than 5 the number is rounded up. If the non-significant number is 5 then the number is rounded down if the significant number to the immediate left is an even number. If the significant number to the immediate left is an odd number round up.
 - 7.2.2 For analyses which involve the direct reading of an instrument report two or three significant figures depending on the scale. For thermometric readings report to the nearest whole degree either in °F or °C. For bulk density report two significant figures for those values less than 1.00, and three significant figures for those values greater than or equal to 1.00.
 - 7.2.3 For analyses which involve either instrumental or manual calculations
 - 7.2.3.1 Do not report any figures past the last decimal place of the detection limit for the given analysis.
 - 7.2.3.2 No more than two or three significant figures should be reported. For example, the detection limit for Heat of combustion is 100btu/lb, if the analytical result is 17,856btu/lb as reported by the instrument, the reported result would be 17,900btu/lb.

7.2.3.3 In general for values that are less than ten times the detection limit, report the result to the nearest non-zero figure. For example, the detection limit for chloride is 0.1%, if the result is less than 1.0% report the result to the nearest 0.1%.

7.2.3.4 In general for values that are greater than ten times the detection limit, report the result to two significant figures. If the result is greater than 100 times the detection limit, report the result to three significant figures.

7.2.3.5 Refer to the table in Appendix D for a list of analytical detection limits.

8.0 AUDITS

8.1 A system audit is used to assess personnel, equipment, facilities, and analytical procedures. The system audit is conducted periodically by an out-of-lab auditor and at least every annually by the laboratory manager.

APPENDICES:

A - Glossary of Common QA Terms

B - Laboratory Quality Assurance Checklist

C – Method Detection Limits

D – Laboratory Diagram

QA Summary Table

Parameter	Calibration	Blanks	Laboratory Control Sample	Duplicates	Matrix Spike
KF % Water	None	Once per 20 samples per shift: neat methanol Result below 0.1% detection limit.	Once per samples per shift: Diethylene glycol methyl ether. 80 - 120% recovery.	Once per per shift: randomly selected sample. <20% RPD.	N/A
pH	Once per shift: buffers at 2, 4, 7, 10, and 12	None	Once per shift: Non-calibration buffer solution. +0.1s.u. recovery.	Once per samples per shift: randomly selected sample. 0.5 s.u. RPD.	N/A
Heat of Combustion	Once per bomb per shift: Benzoic acid tablet.	None	Once per bomb per week: 2,2,4-trimethylpentane. 80 - 120% recovery.	Once per samples per month: randomly selected sample. <20% RPD.	N/A
Chloride	None	Once per shift: deionized water	Once per week: 2% Sodium Chloride. 80 - 120% recovery.	Once per month: randomly selected sample. <20% RPD.	N/A
Bulk density	None	None	None	Once per month: randomly selected sample. <20% RPD.	N/A

QA Summary Table

Parameter	Calibration	Blanks	Laboratory Control Sample	Duplicates	Matrix Spike
Metals	Daily: mixed element standard at two concentrations. CCV every 20 samples & at end of analytical run.	With calibration, every 20 samples & at end of analytical run after CCV: calibration blank	Once per day or 20 samples: LCS 80 -120 % recovery.	Once per 20 samples or daily minimum: randomly selected sample. <20% RPD.	Once per 20 samples: randomly selected sample. 70 - 130% recovery.
PCB	Once annually: 5-point calibration 0.5 to 50 ppm of Aroclors 1254 and 1260, Midpoint for Aroclors 1232, 1242, 1248, 1254, 1260.	Once per shift per column: hexane spiked with 1ppm TCMX/DCB. Aroclor results below 5mg/kg.	Once per shift per column: LCS 80-120% recovery.	Once per 20 samples: randomly selected sample. <20% RPD.	Once per 20 samples: randomly selected sample. 70 - 130% recovery.
Pesticides	Twice annually: 5-point calibration. Every 12 hours CCV. 80-120% recovery.	Once per shift per column: hexane spiked with 1ppm TCMX/DCB. Pesticide results below 5mg/kg.	Once per shift per column: LCS 80-120% recovery.	Once per month: randomly selected sample. <20% RPD.	Once per month: randomly selected sample. 70 - 130% recovery.
Benzene	Twice annually: 5-point calibration. Every 12 hours CCV. 80-120% recovery.	Once per shift per column: Methanol spiked with surrogate. Benzene result below 10ppm.	Once per shift per column: LCS 80-120% recovery.	Once per 20 samples: randomly selected sample. <20% RPD.	Once per 20 samples: randomly selected sample. 70 - 130% recovery.

APPENDIX A

GLOSSARY OF QUALITY ASSURANCE/QUALITY CONTROL TERMS

Accuracy A measurement of the nearness of a result to the true or theoretical value. Accuracy is measured by calculating the Percent Recovery (P) as follows:

$$P = \frac{\text{Observed Result}}{\text{True Value}} \times 100$$

Bias That part of inaccuracy of analytical results caused by systematic error.

Blank A sample that has not been exposed to the analyzed sample stream in order to monitor contamination during sampling, storage, transport, or analysis. The blank is subjected to the usual analytical and measurement process to establish a zero baseline or background value and is sometimes used to adjust or correct routine analytical results.

Comparability Describes the effectiveness with which one set of data can be compared to another. Comparability is ensured through the use of standardized analytical methods, procedures, and reporting.

Data Quality Objectives (DQOs) Qualitative and quantitative statements of the quality of data needed to support specific decisions or regulatory actions. Qualitative statements address accuracy, completeness, representativeness, and defensibility as a minimum, and quantitative statements should address bias and precision.

Instrument Blank: a clean sample (e.g. hexane) processed through the instrumental steps of the measurement process; used to determine instrument contamination

Laboratory Control Sample Used for assessing the accuracy of a method (including any preparation steps) in a control matrix. They are applicable to any analytical method in which the analyte(s) of interest can be fortified into the control matrix. A laboratory control sample meeting recovery criteria provides evidence that the method, exclusive of sample matrix considerations, is in control.

Method Blank a sample of a matrix similar to the batch of associated samples (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences are present at concentrations that impact the analytical results for sample analyses

Method Duplicate Used to assess the precision of an analytical method or sampling procedure. They are applicable to any analysis. Duplicate samples may originate in the laboratory or the field.

Matrix Spike Used to assess the impact of sample matrix on the accuracy of a method. They are applicable to any analytical method in which the analyte(s) of interest can be fortified into the sample matrix. A matrix spike meeting recovery criteria provides evidence that the method, as applied to the sample matrix, is in control.

Performance Based Method The EPA requires a laboratory to validate the procedure by which analytical results are generated when the procedure deviates from the reference method. These deviations or modifications do not need to be approved by the EPA prior implementation. The method must demonstrate that results generated using the modification meet acceptable recovery criteria for precision and accuracy.

Precision A measurement of the agreement between a set of replicate measurements without assumption or knowledge of the true value. Precision is measured by calculating the RPD of duplicate analytical results as follows:

$$RPD = \frac{|C_1 - C_2|}{\text{mean}} \times 100$$

where C_1 and C_2 are the concentrations of the duplicate result.

Quality Assurance (QA) An integrated system of activities involving planning, quality control, quality assessment, reporting and quality improvement to ensure that the analytical results meet defined standards of quality with a stated level of confidence.

Quality Control (QC) The overall system of technical activities whose purpose is to measure and control the quality of the data so that it meets the needs of the user.

Random Errors Errors occurring when repeated analyses of identical portions of a homogeneous sample do not give a series of identical results. The results differ among themselves and are more or less scattered about some value. They are termed random because the sign and magnitude of the error of any particular result vary at random, and cannot be predicted exactly.

Relative Percent Difference (RPD) The difference between duplicate results for analyses of a sample, relative to the mean (average) value of those results, and expressed as a percent.

$$\text{RPD} = \frac{100(R_1 - R_2)}{\dots}$$

$$= \frac{200(R_1 - R_2)}{\dots}$$

where “ R_1 ” is the result of the first analysis, and “ R_2 ” the second.

Representativeness The extent to which one set of data can be compared to another. Representativeness is ensured through the use of appropriate sampling and standardized analytical procedures. Efforts are made to ensure that analyses are performed on samples that are representative of the original source.

Standard A solution of known concentration, either a calibration standard that is used to prepare a calibration curve or to prepare laboratory control samples or matrix spikes or a standard prepared from a non-calibration source to verify calibration.

Standard Operating Procedure (SOP) A detailed written description of a procedure designed to systematize performance of the procedure.

Surrogate Compounds which are similar to target analytes in terms of chemical composition, extraction efficiency, and/or method of analysis but which are not normally found in environmental samples; neither are they target analytes. They are added to all samples, blanks, and QC samples prior to sample extraction. The use of surrogates is applicable only to organic analysis.

Systematic Errors Errors that are indicated by a tendency of results to consistently be greater or smaller than the true value. Usually, bias can be considered to be equivalent to systematic error.

APPENDIX B

PETRO-CHEM LABORATORY QUALITY ASSURANCE CHECKLIST

General

1. Is Quality Assurance Manual up-to-date, and available to all lab personnel?

Yes_____ No_____ Comments _____

Laboratory Procedures

1. Are ASTM or EPA-approved methods (e.g. SW-846) used and readily available to and used by all lab personnel?

Yes_____ No_____ Comments _____

2. Are calibration and maintenance of instruments/equipment satisfactory?

Yes_____ No_____ Comments _____

3. Does a written schedule for required equipment maintenance exist?

Yes_____ No_____ Comments _____

4. Are QC procedures in the QA Manual used consistently?

Yes_____ No_____ Comments _____

5. Are QC records adequate to determine if lab is in control?

Yes_____ No_____ Comments _____

Laboratory Facilities and Equipment

1. Is distilled or de-ionized water available (as required by the method)?

Yes_____ No_____ Comments _____

2. Is dry, uncontaminated, compressed air available (if needed)?

Yes_____ No_____ Comments _____

3. Is the fume hood air-flow measured periodically and is it adequate?

Yes_____ No_____ Comments _____

4. Is the laboratory sufficiently lighted?

Yes_____ No_____ Comments _____

5. Are adequate electrical sources available in the lab?

Yes_____ No_____ Comments _____

6. Are instruments appropriate for the method and in good condition?

Yes_____ No_____ Comments _____

7. Are trouble shooting procedures and written requirements for daily operation of instruments available to each instrument operator?

Yes_____ No_____ Comments _____

8. Are standards available to perform required QC checks?

Yes_____ No_____ Comments _____

9. Is proper volumetric glassware used?

Yes_____ No_____ Comments _____

10. Is glassware cleaned?

Yes_____ No_____ Comments _____

11. Are solvents and standard reagents properly stored?

Yes_____ No_____ Comments _____

12. Are calibration and check standards frequently cross-checked?

Yes_____ No_____ Comments _____

13. Are standards discarded after recommended shelf-life has expired?

Yes_____ No_____ Comments _____

14. Are reagent bottles marked with date received, opened, and, when known, with expiration date?

Yes_____ No_____ Comments _____

15. Are blanks run each day for appropriate analyses (e.g., metals, PCBs)?

Yes_____ No_____ Comments _____

16. Are sufficient SOPs on hand for lab operations (e.g., cleanup, hazard response)?

Yes_____ No_____ Comments _____

17. Are gas cylinders (if used) replaced at 100-200 psi?

Yes_____ No_____ Comments _____

18. Are the thermometers used traceable to a NIST-certified thermometer?

Yes_____ No_____ Comments _____

Laboratory's Precision, Accuracy, and Control Procedures

1. Are duplicates analyzed for all analyses and are the results recorded?

Yes_____ No_____ Comments _____

2. Are control samples required by the QA Manual introduced into the train of actual samples to ensure valid data are being generated?

Yes_____ No_____ Comments _____

4. Is the lab within control (i.e., is precision good)?

Yes_____ No_____ Comments _____

Data Handling and Reporting

1. Are round-off rules documented and uniformly applied?

Yes_____ No_____ Comments _____

2. Are significant figures established for each analytical procedure?

Yes_____ No_____ Comments _____

3. Are results checked by at least on person other than the analyst?

Yes_____ No_____ Comments _____

4. Are correct formulas used to calculate final results?

Yes_____ No_____ Comments _____

5. Do report forms exist to provide complete data documentation and permanent records and to facilitate data processing?

Yes_____ No_____ Comments _____

6. Are data reported in proper form and units?

Yes_____ No_____ Comments _____

7. Are lab records maintained for three years?

Yes_____ No_____ Comments _____

8. Is all data recorded in indelible ink with corrections initialed?

Yes_____ No_____ Comments _____

9. Is a list of initials identifying to whom they belong filed in the lab?

Yes_____ No_____ Comments _____

10. Are lab notebooks and pre-printed data forms bound permanently to provide good and defensible documentation?

Yes_____ No_____ Comments _____

11. Does an efficient filing system exist?

Yes_____ No_____ Comments _____

Laboratory Personnel

1. Are enough analysts present to perform necessary analyses?

Yes_____ No_____ Comments _____

2. Do analysts have on-hand necessary references for procedures being used?

Yes_____ No_____ Comments _____

3. Are analysts trained in procedures performed?

Yes_____ No_____ Comments _____

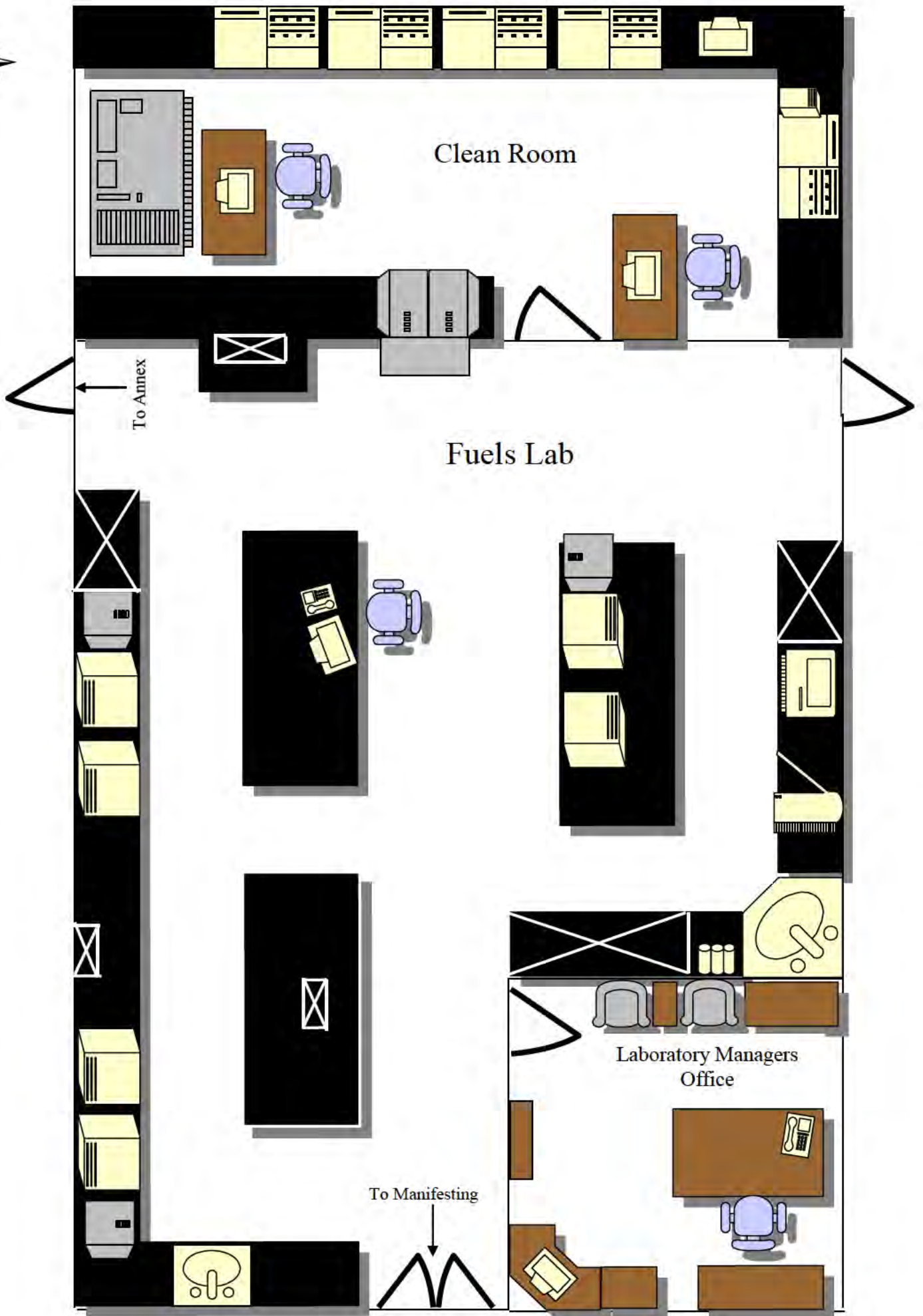
Appendix C

Method Detection Limits for Laboratory Parameters

<u>Parameter</u>	<u>Method Detection Limit</u>
Heat of Combustion	100 BTU/lb.
Percent Ash	0.1%
Percent Halogen as Chloride	0.1%
Percent Water	0.1%
Specific Gravity	0.70 – 1.40 s.u.
pH	0.0 – 14.0 s.u.
Flashpoint	73 – 200°F
Water and Sediment	0.1%
Total PCB	1.0mg/kg
Benzene	10mg/kg



Appendix D - Petro-Chem Laboratory Floor Plan



Appendix II

Reports

Analytical Sheet

Date: _____
 Manifest#: _____
 Trailer#: _____
 Waste Receipt#: _____
 Page/Line#: _____
 Container#: _____
 Process Code: _____

Drop Time: _____
 Canadian Manifest: _____
 To/From Tank: _____
 Generator: _____
 Sampler: _____
 Work Order#: _____
 Off Spec Code: _____

Analysis Required: (Please Check)

Inbound	Outbound	Tank	Prequal	Other: _____
---------	----------	------	---------	--------------

RCRA Metals	SLC Metals	PCB's	Compatibility	Other: _____
-------------	------------	-------	---------------	--------------

Appearance: _____
 Odor: _____

Parameter	Mass/Volume	Result	Repeat Mass/Vol	Repeat Result	Initials
BTU/lb					
Spike					
% Chloride					
Chloride Calculation = $3.55 * \text{dil} * [\text{Vol AgNO}_3 \text{ (mL)} - \text{Blank (mL)}] * 0.1 / \text{sample wt.}$					
%Water:					
pH:					
Bulk Density (g/mL)		Wt/Gallon	Density * 8.33		
Compatibility:					
Layers:					
PCB'S (ppm):					
%Solids:					
Flash Point (F):					
% Benzene:					
% Acid:					

Comments: _____

Lab Verification Analysis 19318001

Printed 11 MAY 2009

Reported 08 MAY 2009

Analyst VN

Location Detroit

TsdSigned 08 MAY 2009

Wst Receipt DET-19318

Manifest 64239-09

Line # 1

Profile 139013-00

GENERATOR (114145) SITE INFORMATION

BELMARK INC.
633 HERITAGE RD
DE PERE, WI 54115

EPA WIR000104802
SIC 9999 N

Contact JESSE MYHANS
Phone (920) 336-2840

GENERAL INFORMATION Compatibility Testing Yes Water/Mix Testing Yes Pcb Testing Required Yes

Waste Name WASTE INK WITH SOLVENT

Phys Appear BLACK LIQUID

State L-Liquid Layers Single Phased

Color BLACK

Odor NONE

EPA Codes D001

Profile ResultsFinger Print ResultsProfile ResultsFinger Print Results

Flash Point Not Tested

Chlor Solv

Not Tested

Lab Spec Grav 0.94

Cyanide

Not Tested

PH 5.38

Chrome-6

Not Tested

Combustible YES

Phenolics

Not Tested

Btu Range 12719

Sulfides

Not Tested

Oxidzer

Not Tested

METALS TESTING

Profile Test Method

Lab Test Method

	<u>Character</u>	<u>Profile Value</u>	<u>Finger Print</u>
Arsenic	5.00	<5	
Barium	100.00	<100	
Cadmium	1.00	<1	
Chromium	5.00	<5	
Lead	5.00	<5	
Merc Tcpl	0.20	<0.2	
Selenium	1.00	<1	
Silver	5.00	<5	

	<u>Profile Value</u>	<u>Finger Print</u>
Nickel		
Thallium		
Zinc		
Copper		
Vanadium		
Cobalt		
Iron		
Aluminum		

ADDITIONAL TESTS

Chlorine Titr	Amenable Cyan	NAOH Factor
NH3 Spot	Cyanide Recycle	Total Cyanide
NH3 Total	Total BTU 12719	Total Chromium
NOX Spot	Total Halogen 0.16	H2S04 Factor
TOC	Total Sulfides	
% Benzene	% Water 4.9	% Acid
PCB ND<1PPM	Fuel Comp. Y	Methanol Comp. Y

COMMENTS and RECOMMENDATIONS

Radiation Spot Comments	Inventory Status	Process	Reclass Category
			

Lab Verification Analysis 18743003

Printed 11 MAY 2009

Reported 24 APR 2009	Analyst VN	Location Detroit		
TsdSigned 24 APR 2009	Wst Receipt DET-18743	Manifest 57769-09	Line # 3	Profile 4D83733-00

GENERATOR (76965) SITE INFORMATION

INTIER AUTOMOTIVE	EPA	MID985584424	Contact	DAVE HOFFMAN
ATREUM DIVISION-HOWELL 3705 W GRAND RIVER	SIC	9999 N	Phone	(517) 548-0052
HOWELL, MI 48843				

GENERAL INFORMATION Compatibility Testing Yes Water/Mix Testing Yes Pcb Testing Required Yes

Waste Name	USED OIL				
Phys Appear	THICK BROWN OILY LIQUID				
State	L-Liquid	Layers	Single Phased	Color	BROWN
				Odor	NONE
EPA Codes					
State Codes	021L				
	<u>Profile Results</u>	<u>Finger Print Results</u>	<u>Profile Results</u>	<u>Finger Print Results</u>	
Flash Point		>180 F	Chlor Solv		Not Tested
Lab Spec Grav		0.87	Cyanide		Not Tested
PH		4.47	Chrome-6		Not Tested
Combustible		YES	Phenolics		Not Tested
Btu Range		19500	Sulfides		Not Tested
			Oxidzer		Not Tested

METALS TESTING

Profile Test Method

Lab Test Method

	<u>Character</u>	<u>Profile Value</u>	<u>Finger Print</u>		<u>Profile Value</u>	<u>Finger Print</u>
Arsenic	5.00	<5.0		Nickel	<134	
Barium	100.00	<100		Thallium	<130	
Cadmium	1.00	<1.0		Zinc	<500	
Chromium	5.00	<5.0		Copper	<100	
Lead	5.00	<5.0		Vanadium		
Merc Tcpl	0.20	<0.2		Cobalt		
Selenium	1.00	<1.0		Iron		
Silver	5.00	<5.0		Aluminum		

ADDITIONAL TESTS

Chlorine Titr		Amenable Cyan	NAOH Factor
NH3 Spot		Cyanide Recycle	Total Cyanide
NH3 Total		Total BTU	19509
NOX Spot		Total Halogen	0
TOC		Total Sulfides	
% Benzene		% Water	0
PCB	ND<1PPM	Fuel Comp.	Y
			H2S04 Factor
			% Acid
			Methanol Comp. Y

COMMENTS and RECOMMENDATIONS

Radiation Spot	Inventory Status	Process	Reclass Category
Comments			

Sharon [Signature]

Lab Verification Analysis 16773001

Printed 11 MAY 2009

Reported 19 MAR 2009 Analyst WW Location Detroit
 TsdSigned 20 MAR 2009 Wst Receipt DET-16773 Manifest 38716-09 Line # 6 Profile 4D86823-00

GENERATOR (77830) SITE INFORMATION

OHIO ARMY NATIONAL GUARD FMS17 EPA OHD981192834 Contact REBECCA CLARRIDGE
 1000 LAURENCE RD SIC 9999 N Phone (614) 336-7395
 PORT CLINTON, OH 43452

GENERAL INFORMATION Compatibility Testing N/A Water/Mix Testing N/A Pcb Testing Required No

Waste Name HCL DEGREASER/CLEANER
 Phys Appear BLACK LIQUID
 State L-Liquid Layers Single Phased Color BLACK Odor NONE
 EPA Codes D002

	<u>Profile Results</u>	<u>Finger Print Results</u>	<u>Profile Results</u>	<u>Finger Print Results</u>
Flash Point		Not Tested	Chlor Solv	Not Tested
Lab Spec Grav		Not Tested	Cyanide	Not Tested
PH	0.68		Chrome-6	Not Tested
Combustible		Not Tested	Phenolics	Not Tested
Btu Range		Not Tested	Sulfides	Not Tested
			Oxidzer	Not Tested

METALS TESTINGProfile Test MethodLab Test Method

	<u>Character</u>	<u>Profile Value</u>	<u>Finger Print</u>		<u>Profile Value</u>	<u>Finger Print</u>
Arsenic	5.00	<5.0		Nickel	<134	
Barium	100.00	<100		Thallium	<130	
Cadmium	1.00	<1.0		Zinc	<500	
Chromium	5.00	<5.0		Copper	<100	
Lead	5.00	<5.0		Vanadium		
Merc TcIp	0.20	<0.2		Cobalt		
Selenium	1.00	<1.0		Iron		
Silver	5.00	<5.0		Aluminum		

ADDITIONAL TESTS

Chlorine Titr	Amenable Cyan	NAOH Factor
NH3 Spot	Cyanide Recycle	Total Cyanide
NH3 Total	Total BTU	Total Chromium
NOX Spot	Total Halogen	H2S04 Factor
TOC	Total Sulfides	
% Benzene	% Water	% Acid 25
PCB	Fuel Comp. N	Methanol Comp. N

COMMENTS and RECOMMENDATIONS

Radiation Spot	Inventory Status	Process	Reclass Category
Comments			

Lab Verification Analysis 19593001

Printed	11 MAY 2009						
Reported	11 MAY 2009	Analyst	DJ	Location	Detroit		
TsdSigned		Wst Receipt	DET-19593	Manifest	62435-09	Line #	1
				Profile	4D83513-00		

GENERATOR (77190) SITE INFORMATION

ADVANCED BORING & TOOL	EPA	MIG000034259	Contact	SUE BIELAT
26950 23 MILE RD	SIC	9999	Phone	(586) 596-9300
CHESTERFIELD, MI 48051				

GENERAL INFORMATION Compatibility Testing N/A Water/Mix Testing N/A Pcb Testing Required No

Waste Name	ULTRA BLACK OXIDE		
Phys Appear	CLEAR LIQUID		
State	L-Liquid	Layers	Single Phased
EPA Codes	D002		
	<u>Profile Results</u>	<u>Finger Print Results</u>	
Flash Point	Not Tested		Chlor Solv
Lab Spec Grav	Not Tested		Cyanide
PH	13.60		Chrome-6
Combustible	Not Tested		Phenolics
Btu Range	Not Tested		Sulfides
			Oxidzer
			Odor
			NONE
			<u>Profile Results</u>
			<u>Finger Print Results</u>
			Not Tested
			Not Tested
			Not Tested
			Not Tested
			Not Tested
			Not Tested

METALS TESTING

Profile Test Method

Lab Test Method

	<u>Character</u>	<u>Profile Value</u>	<u>Finger Print</u>		<u>Profile Value</u>	<u>Finger Print</u>
Arsenic	5.00	<5.0		Nickel	<134	
Barium	100.00	<100		Thallium	<130	
Cadmium	1.00	<1.0		Zinc	<500	
Chromium	5.00	<5.0		Copper	<100	
Lead	5.00	<5.0		Vanadium		
Merc Tcpl	0.20	<0.2		Cobalt		
Selenium	1.00	<1.0		Iron		
Silver	5.00	<5.0		Aluminum		

ADDITIONAL TESTS

Chlorine Titr	Amenable Cyan	NAOH Factor
NH3 Spot	Cyanide Recycle	Total Cyanide
NH3 Total	Total BTU	Total Chromium
NOX Spot	Total Halogen	H2S04 Factor
TOC	Total Sulfides	
% Benzene	% Water	% Acid
PCB	Fuel Comp.	Methanol Comp.
	N	N

COMMENTS and RECOMMENDATIONS

Radiation Spot	Inventory Status	Process	Reclass Category
Comments			



Lab Verification Analysis 19378001

Printed 11 MAY 2009
 Reported 11 MAY 2009 Analyst WW Location Detroit
 TsdSigned 11 MAY 2009 Wst Receipt DET-19378 Manifest 64417-09 Line # 5 Profile 4D50679-00

GENERATOR (77036) SITE INFORMATION

DRUG & LABORATORY DISPOSAL EPA MID092947928 Contact PATRICIA W. TROOST
 331 BROAD ST SIC 9999 Phone (269) 685-9824
 PLAINWELL, MI 49080

GENERAL INFORMATION Compatibility Testing Yes Water/Mix Testing Yes Pcb Testing Required Yes

Waste Name MISCELLANEOUS BURNABLES
 Phys Appear BROWN DEBRIS BROWN DEBRIS
 State S-Solid Layers Single Phased Color BROWN Odor NONE
 EPA Codes D004 D005 D006 D007 D008 D009 D010 D011 F001 F002 F003 F005

	<u>Profile Results</u>	<u>Finger Print Results</u>	<u>Profile Results</u>	<u>Finger Print Results</u>
Flash Point		Not Tested	Chlor Solv	Not Tested
Lab Spec Grav		1.2	Cyanide	Not Tested
PH		8.82	Chrome-6	Not Tested
Combustible		Y	Phenolics	Not Tested
Btu Range		Not Tested	Sulfides	Not Tested
			Oxidzer	Not Tested

METALS TESTING

Profile Test Method

Lab Test Method

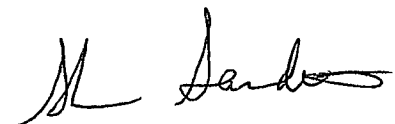
	<u>Character</u>	<u>Profile Value</u>	<u>Finger Print</u>		<u>Profile Value</u>	<u>Finger Print</u>
Arsenic	5.00	<5.0		Nickel	<134	
Barium	100.00	<100		Thallium	<130	
Cadmium	1.00	<1.0		Zinc	<500	
Chromium	5.00	<5.0		Copper	<100	
Lead	5.00	<5.0		Vanadium		
Merc Tcjp	0.20	<0.2		Cobalt		
Selenium	1.00	<1.0		Iron		
Silver	5.00	<5.0		Aluminum		

ADDITIONAL TESTS

Chlorine Titr		Amenable Cyan		NAOH Factor	
NH3 Spot		Cyanide Recycle		Total Cyanide	
NH3 Total		Total BTU		Total Chromium	
NOX Spot		Total Halogen		H2S04 Factor	
TOC		Total Sulfides			
% Benzene		% Water	0	% Acid	
PCB	ND<1PPM	Fuel Comp.	Y	Methanol Comp.	Y

COMMENTS and RECOMMENDATIONS

Radiation Spot	Inventory Status	Process	Reclass Category
Comments			



Lab Verification Analysis 18743003

Printed 11 MAY 2009

Reported 24 APR 2009	Analyst VN	Location Detroit
TsdSigned 24 APR 2009	Wst Receipt DET-18743	Manifest 57769-09
	Line # 3	Profile 4D83733-00

GENERATOR (76965) SITE INFORMATION

INTIER AUTOMOTIVE	EPA	MID985584424	Contact	DAVE HOFFMAN
ATREUM DIVISION-HOWELL 3705 W GRAND RIVER	SIC	9999 N	Phone	(517) 548-0052
HOWELL, MI 48843				

GENERAL INFORMATION Compatibility Testing Yes Water/Mix Testing Yes Pcb Testing Required Yes

Waste Name USED OIL

Phys Appear THICK BROWN OILY LIQUID

State L-Liquid Layers Single Phased

EPA Codes

State Codes 021L

	<u>Profile Results</u>	<u>Finger Print Results</u>	<u>Profile Results</u>	<u>Finger Print Results</u>
Flash Point	>180 F		Chlor Solv	Not Tested
Lab Spec Grav	0.87		Cyanide	Not Tested
PH	4.47		Chrome-6	Not Tested
Combustible	YES		Phenolics	Not Tested
Btu Range	19500		Sulfides	Not Tested
			Oxidzer	Not Tested

METALS TESTING

Profile Test Method

Lab Test Method

	<u>Character</u>	<u>Profile Value</u>	<u>Finger Print</u>		<u>Profile Value</u>	<u>Finger Print</u>
Arsenic	5.00	<5.0		Nickel	<134	
Barium	100.00	<100		Thallium	<130	
Cadmium	1.00	<1.0		Zinc	<500	
Chromium	5.00	<5.0		Copper	<100	
Lead	5.00	<5.0		Vanadium		
Merc TcIp	0.20	<0.2		Cobalt		
Selenium	1.00	<1.0		Iron		
Silver	5.00	<5.0		Aluminum		

ADDITIONAL TESTS

Chlorine Titr		Amenable Cyan		NAOH Factor
NH3 Spot		Cyanide Recycle		Total Cyanide
NH3 Total		Total BTU	19509	Total Chromium
NOX Spot		Total Halogen	0	H2S04 Factor
TOC		Total Sulfides		
% Benzene		% Water	0	% Acid
PCB	ND<1PPM	Fuel Comp.	Y	Methanol Comp. Y

COMMENTS and RECOMMENDATIONS

Radiation Spot	Inventory Status	Process	Reclass Category
Comments			

Sharon [Signature]

		Concentration from Inbounds (wt%)							
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
1/6/10	1353	1071189	ND	ND	ND	ND	ND	ND	38
1/7/10	SUTTLES	1080818	ND	ND	ND	ND	ND	ND	38
1/7/10	761-210	1080807	ND	ND	ND	ND	ND	ND	38
1/13/10	Vac 101	1082335	0.24	ND	ND	ND	ND	ND	36
1/13/10	761-210	1083503	ND	ND	ND	ND	ND	ND	36
1/15/10	SUTTLES	1079177	ND	ND	ND	ND	ND	ND	38
1/15/10	Env. Recycling	VARIES	ND	ND	ND	ND	ND	ND	38
1/20/10	SUTTLES	1086185	ND	ND	ND	ND	ND	ND	36
1/20/10	761-251	1083087	ND	ND	ND	ND	ND	ND	36
1/19/10	761-242	1084342	ND	ND	ND	ND	ND	ND	39
1/25/10	Env. Recycling	1085065	ND	ND	ND	ND	ND	ND	37
1/25/10	PVS	1087052	ND	ND	ND	ND	ND	ND	37
1/26/10	761-111	1087212	ND	ND	ND	ND	ND	ND	36
1/26/10	1353	1085033	ND	ND	ND	ND	ND	ND	36
1/27/10	SUTTLES	1088787	ND	ND	ND	ND	ND	ND	36
1/28/10	ERG	1089167	ND	ND	ND	ND	ND	ND	36
1/28/10	1353	1083738	ND	ND	ND	ND	ND	ND	37
Total			0.24	ND	ND	ND	ND	ND	

		Concentration from Inbounds (wt%)							
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
2/1/10	761-210	1091252	ND	ND	ND	ND	ND	ND	36
2/1/10	1628	1091272	ND	ND	ND	ND	ND	ND	36
2/4/10	Inland Waters	1093361	ND	ND	ND	ND	ND	ND	37
2/4/10	SUTTLES	1092996	ND	ND	ND	ND	ND	ND	37
2/4/10	SUTTLES	1092998	ND	ND	ND	ND	ND	ND	39
2/4/10	761-210	1093665	ND	ND	ND	ND	ND	ND	39
2/5/10	1355	1090871	ND	ND	ND	ND	ND	ND	36
2/5/10	1617	1094442	ND	ND	ND	ND	ND	ND	36
2/5/10	COUSINS	1093163	ND	ND	ND	ND	ND	ND	39
2/5/10	1353	VARIES	ND	ND	ND	ND	ND	ND	39
2/5/10	761-210	1094422	ND	ND	ND	ND	ND	ND	36
2/5/10	SUTTLES	1093315	ND	ND	ND	ND	ND	ND	39
2/8/10	Young's	1094917	ND	ND	ND	ND	ND	ND	37
2/9/10	761-210	1095631	ND	ND	ND	ND	ND	ND	39
2/9/10	1628	1095777	ND	ND	ND	ND	ND	ND	36
2/9/10	SUTTLES	1095671	ND	ND	ND	ND	ND	ND	39
2/10/10	SQS	1095326	ND	ND	ND	ND	ND	ND	37
2/11/10	SUTTLES	1096898	ND	ND	ND	ND	ND	ND	36
2/11/10	1617	1096895	ND	ND	ND	ND	ND	ND	39
2/15/10	Env. Recycling	1097441	ND	ND	ND	ND	ND	ND	38
2/15/10	Young's	1098036	ND	ND	ND	ND	ND	ND	38
2/15/10	761-243	1096445	ND	ND	ND	ND	ND	ND	36
2/15/10	1628	1098671	ND	ND	ND	ND	ND	ND	36
2/15/10	761-111	1097054	ND	ND	ND	ND	ND	ND	38
2/22/10	761-210	11017707	ND	ND	ND	ND	ND	ND	37, 38
2/22/10	Inland	1101763	ND	ND	ND	ND	ND	ND	38
2/24/10	S & C	1103187	ND	ND	ND	ND	ND	ND	37
2/25/10	SUTTLES	1086034	ND	ND	ND	ND	ND	ND	38
2/25/10	761-251	1101517	ND	ND	ND	ND	ND	ND	36
Total			ND	ND	ND	ND	ND	ND	

		Concentration from Inbounds (wt%)							
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
3/1/10	761-111	1103588	ND	ND	ND	ND	ND	ND	36
3/1/10	Env. Recycling	1103993	ND	ND	ND	ND	ND	ND	36
3/1/10	S & C	1104436	ND	ND	ND	ND	ND	ND	36
3/1/10	Dana 1628	1105126	ND	ND	ND	ND	ND	ND	36
3/1/10	1355	1101705	ND	ND	ND	ND	ND	ND	36
3/2/10	PSC Avalon	1104438	ND	ND	ND	ND	ND	ND	28
3/2/10	Haz Mat	1103970	ND	ND	ND	ND	ND	ND	28
3/3/10	SUTTLES	1106407	ND	ND	ND	ND	ND	ND	36
3/3/10	1355	1102509	ND	ND	ND	ND	ND	ND	37
3/5/10	1353	1103565	ND	ND	ND	ND	ND	ND	37
3/5/10	S & C	1106811	ND	ND	ND	ND	ND	ND	37
3/9/10	1353	VARIES	ND	ND	ND	ND	ND	ND	37
3/9/10	761-210	1109157	ND	ND	ND	ND	ND	ND	37
3/10/10	S & C	1108792	ND	ND	ND	ND	ND	ND	38
3/10/10	PSC	1107714	ND	ND	ND	ND	ND	ND	37
3/11/10	S & C	1074055	ND	ND	ND	ND	ND	ND	36
3/12/10	Haz Mat	1109764	ND	ND	ND	ND	ND	ND	37
3/12/10	1353	1103563	0.002	ND	ND	ND	ND	ND	37
3/12/10	SUTTLES	1110946	ND	ND	ND	ND	ND	ND	36
3/12/10	761-111	1110309	ND	ND	ND	ND	ND	ND	36
3/15/10	Inland Waters	1111419	ND	ND	ND	ND	ND	ND	37
3/15/10	1353	1109064	ND	ND	ND	ND	ND	ND	37
3/16/10	PSC	1110899	ND	ND	ND	ND	ND	ND	37
3/16/10	1628	1112525	ND	ND	ND	ND	ND	ND	36
3/17/10	1353	1110025	ND	ND	ND	ND	ND	ND	36
3/18/10	761-111	1111901	ND	ND	ND	ND	ND	ND	36
3/18/10	S & C	1112864	ND	ND	ND	ND	ND	ND	38
3/18/10	761-111	1105163	ND	ND	ND	ND	ND	ND	38
3/22/10	SQS	1111732	ND	ND	ND	ND	ND	ND	38
3/19/10	761-251	1112326	ND	ND	ND	ND	ND	ND	38
3/22/10	S & C	1114609	ND	ND	ND	ND	ND	ND	37
3/23/10	SUTTLES	1115568	ND	ND	ND	ND	ND	ND	37
3/23/10	EMERALD	1113739	ND	ND	ND	ND	ND	ND	37

		Concentration from Inbounds (wt%)							
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
3/23/10	SUTTLES	1114619	ND	ND	ND	ND	ND	ND	36
3/24/10	S & C	1116526	ND	ND	ND	ND	ND	ND	36
3/24/10	SJ Trans	1112812	ND	ND	ND	ND	ND	ND	36
3/25/10	SUTTLES	1114620	ND	ND	ND	ND	ND	ND	38
3/26/10	SUTTLES	1117903	ND	ND	ND	ND	ND	ND	38
3/29/10	S & C	1118179	ND	ND	ND	ND	ND	ND	39
3/29/10	761-111	1117685	ND	ND	ND	ND	ND	ND	39
3/29/10	1628	1119146	ND	ND	ND	ND	ND	ND	36
3/30/10	PSC	1118281	ND	ND	ND	ND	ND	ND	36
3/30/10	S & C	1118439	ND	ND	ND	ND	ND	ND	39
3/30/10	SUTTLES	1119589	ND	ND	ND	ND	ND	ND	38
3/30/10	761-210	1119750	ND	ND	ND	ND	ND	ND	39
3/31/10	ERS	1113718	ND	ND	ND	ND	ND	ND	39
Total			0.002	ND	ND	ND	ND	ND	

		Concentration from Inbounds (wt%)							
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
4/1/10	S & C	1120554	ND	ND	ND	ND	ND	ND	35
4/1/10	SUTTLES	1120843	ND	ND	ND	ND	ND	ND	38
4/2/10	COUSINS	1121221	ND	ND	ND	ND	ND	ND	35
4/5/10	S&C	1121262	ND	ND	ND	ND	ND	ND	38
4/6/10	761-111	1114319	ND	ND	ND	ND	ND	ND	36
4/7/10	SUTTLES	1123671	ND	ND	ND	ND	ND	ND	38
4/8/10	Inland Waters	1124009	ND	ND	ND	ND	ND	ND	38
4/8/10	S & C	1121259	ND	ND	ND	ND	ND	ND	39
4/8/10	1628	1124377	ND	ND	ND	ND	ND	ND	37
4/12/10	761-210	1125409	ND	ND	ND	ND	ND	ND	38
4/12/10	1617	1125407	ND	ND	ND	ND	ND	ND	38
4/16/10	ERG	1127762	ND	ND	ND	ND	ND	ND	35
4/16/10	1355	VARIES	ND	ND	ND	ND	ND	ND	35
4/16/10	1628	1128227	ND	ND	ND	ND	ND	ND	35
4/21/10	SUTTLES	1130056	ND	ND	ND	ND	ND	ND	35
4/21/10	HM Environmt'l	1129291	ND	ND	ND	ND	ND	ND	39
4/22/10	761-210	1131247	ND	ND	ND	ND	ND	ND	37
4/23/10	761-210	1131519	ND	ND	ND	ND	ND	ND	36
4/26/10	SUTTLES	1131947	ND	ND	ND	ND	ND	ND	36
4/27/10	SUTTLES	1132451	ND	ND	ND	ND	ND	ND	38
4/27/10	SUTTLES	1132450	ND	ND	ND	ND	ND	ND	38
4/29/10	SUTTLES	1134324	ND	ND	ND	ND	ND	ND	36
Total			ND	ND	ND	ND	ND	ND	

Concentration from Inbounds (wt%)

FG-TS1 Blending Tanks 16-30

DATE	Trailer	Job #	Trichloroethylene	Methylene Chloride	Carbon Tetrachloride	Trichlorofluoromethane	Ethyl Ether	Carbon Disulfide	Pyridine	Acetaldehyde	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethylene	Tank
6/1/10	VAC 101		0.22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/1/10	VAC 101		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/1/10	Haz Mat	1147174	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/4/10	SUTTLES	1151706	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/9/10	1353	1150344	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27
6/14/10	PVS	1155678	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/14/10	1353	VARIES	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
6/14/10	761-251	1151769	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
6/14/10	761-210	1156423	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
6/15/10	KUHNLE	1151853	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/15/10	VAC 101	1147866	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/18/10	1353	VARIES	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/18/10	EMERALD	1159004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
6/21/10	S & C	1155825	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21
6/22/10	Inland Waters	1158056	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17
6/22/10	SUTTLES	1160692	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
6/22/10	SUTTLES	1160913	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17
6/23/10	S & C	1161296	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/24/10	DTC Env.	1162115	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26
6/24/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	6.43	ND	25
6/24/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/24/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/24/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
0625/10	S & C	1159748	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/25/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/25/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/25/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/25/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/25/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/25/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/25/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/26/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/26/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22
6/28/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
6/28/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
6/28/10	Young's	1162326	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
6/29/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/29/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/29/10	SUTTLES	1164048	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
6/30/10	Inland Waters		ND	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	25
6/30/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
6/30/10	Inland Waters		ND	ND	ND	ND	ND	ND	0.004	ND	ND	ND	ND	25
6/30/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25,30
6/30/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
6/30/10	Inland Waters		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
Total			0.22	5.00	ND	ND	ND	ND	0.004	ND	ND	6.43	ND	

		Concentration from Inbounds (wt%)							
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
6/1/10	761-210	1149703	ND	ND	ND	ND	ND	ND	39
6/1/10	Env. Recycling	1145184	0.025	ND	ND	ND	ND	ND	36
6/3/10	STAT	1149037	ND	ND	ND	ND	ND	ND	38
6/3/10	Inland Waters	1151031	ND	ND	ND	ND	ND	ND	39
6/4/10	Haz Mat	1150442	ND	ND	ND	ND	ND	ND	38
6/4/10	1353	1147396	ND	ND	ND	ND	ND	ND	39
6/7/10	Haz Mat	1149048	ND	ND	ND	ND	ND	ND	39
6/8/10	1628	1153586	ND	ND	ND	ND	ND	ND	37
6/10/10	KUHNLE	1154624	ND	ND	ND	ND	ND	ND	36
6/11/10	KUHNLE	1155297	ND	ND	ND	ND	ND	ND	37
6/14/10	1353	1154439	ND	ND	ND	ND	ND	ND	37
6/16/10	Inland Waters	1157743	ND	ND	ND	ND	ND	ND	38
6/14/10	1355	1155001	ND	ND	ND	ND	ND	ND	38
6/16/10	SUTTLES	1157964	ND	ND	ND	ND	ND	ND	38
6/17/10	KUHNLE	1158381	ND	ND	ND	ND	ND	ND	38
6/18/10	761-210	1159237	ND	ND	ND	ND	ND	ND	36
6/22/10	761-210	1161330	ND	ND	ND	ND	ND	ND	37
6/24/10	1353	1159194	ND	ND	ND	ND	ND	ND	36
6/28/10	1628	1163525	ND	ND	ND	ND	ND	ND	36
6/28/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
6/28/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
6/28/10	761-111	1162919	ND	ND	ND	ND	ND	ND	37
6/29/10	Inland Waters		ND	ND	ND	ND	ND	ND	38
6/29/10	Inland Waters		ND	ND	ND	ND	ND	ND	38
6/29/10	Inland Waters		ND	ND	ND	ND	ND	ND	36
6/29/10	Inland Waters		ND	ND	ND	ND	ND	ND	36
6/29/10	Inland Waters		ND	ND	ND	ND	ND	ND	36
6/30/10	1617	1164945	ND	ND	ND	ND	ND	ND	36
6/30/10	761-210	1164915	0.012	ND	ND	ND	ND	ND	37
Total			0.037	ND	ND	ND	ND	ND	

		Concentration from Inbounds (wt%)							
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
7/1/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
7/2/10	SUTTLES		ND	ND	ND	ND	ND	ND	38
7/2/10	Inland Waters		ND	ND	ND	ND	ND	ND	38
7/6/10	761-111		ND	ND	ND	ND	ND	ND	37
7/7/10	761-210		ND	ND	ND	ND	ND	ND	37
7/8/10	SUTTLES		ND	ND	ND	ND	ND	ND	37
7/8/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
7/8/10	761-111		ND	ND	ND	ND	ND	ND	37
7/9/10	SUTTLES		ND	ND	ND	ND	ND	ND	38
7/10/10	761-210		0.04	ND	ND	ND	ND	ND	37
7/13/10	761-111		ND	ND	ND	ND	ND	ND	37
7/13/10	Haz Mat		ND	ND	ND	ND	ND	ND	37
7/13/10	VAC101		ND	ND	ND	ND	ND	ND	37
7/14/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
7/14/10	Inland Waters		0.15	ND	ND	ND	ND	ND	37
7/14/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
7/14/10	Inland Waters		0.3	ND	ND	ND	ND	ND	37
7/14/10	VAC101		0.15	ND	ND	ND	ND	ND	37
7/14/10	1353		ND	ND	ND	ND	ND	ND	37
7/15/10	761-251		ND	ND	ND	ND	ND	ND	38
7/15/10	761-111		ND	ND	ND	ND	ND	ND	37
7/15/10	1353		ND	ND	ND	ND	ND	ND	36
7/16/10	SUTTLES		ND	ND	ND	ND	ND	ND	38
7/16/10	1355		ND	ND	ND	ND	ND	ND	38
7/16/10	Inland Waters		ND	ND	ND	ND	ND	ND	38
7/16/10	Inland Waters		ND	ND	ND	ND	ND	ND	38
7/19/10	VAC101		ND	ND	ND	ND	ND	ND	36
7/19/10	DANA/1617		ND	ND	ND	ND	ND	ND	36
7/16/10	761-210		ND	ND	ND	ND	ND	ND	36
7/16/10	761-111		ND	ND	ND	ND	ND	ND	36
7/21/10	EMERALD		ND	ND	ND	ND	ND	ND	38
7/21/10	761-210		ND	ND	ND	ND	ND	ND	37
7/22/10	DANA/1617		ND	ND	ND	ND	ND	ND	38
7/22/10	S&C		ND	ND	ND	ND	ND	ND	38
7/22/10	Haz Mat		ND	ND	ND	ND	ND	ND	35, 39
7/23/10	1617		ND	ND	ND	ND	ND	ND	38
7/23/10	Inland Waters		ND	ND	ND	ND	ND	ND	38
7/23/10	Inland Waters		ND	ND	ND	ND	ND	ND	38
7/23/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
7/23/10	Inland Waters		ND	ND	ND	ND	ND	ND	37
7/27/10	1355		ND	ND	ND	ND	ND	ND	38
7/28/10	761-210		ND	ND	ND	ND	ND	ND	37
7/28/10	1617		ND	ND	ND	ND	ND	ND	38
7/29/10	761-210		ND	ND	ND	ND	ND	ND	36
7/30/10	761-14		ND	ND	ND	ND	ND	ND	36
Total			0.64	ND	ND	ND	ND	ND	

Concentration from Inbounds (wt%)									
FG-TS2 Blending Tanks 35-40									
DATE	Trailer	Job #	Benzene	Formaldehyde	1,1,2,2-Tetrachloroethane	Methyl Chloride	Carbon Tetrachloride	Chlorodibromomethane	Tank
8/2/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	37
8/2/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	37
8/2/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	37
8/3/10	DOW CORNING	1181128	ND	ND	ND	ND	ND	ND	37, 38
8/3/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	37
8/3/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	37
8/4/10	MPM SILICONES	1181584	ND	ND	ND	ND	ND	ND	38
8/4/10	MPM SILICONES	1181587	ND	ND	ND	ND	ND	ND	38
8/4/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	38
8/4/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	38
8/5/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	38
8/5/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	38
8/5/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	36
8/5/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	36
8/5/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	36
8/5/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	36
8/5/10	DOW CORNING	1182184	ND	ND	ND	ND	ND	ND	36

8/6/10	Dow Corning	1183491	ND	ND	ND	ND	ND	ND	36
8/6/10	BASF - Wyandotte	1182713	ND	ND	ND	ND	ND	ND	37
8/10/10	Environmental Recycling	1184485	ND	ND	ND	ND	ND	ND	37
8/10/10	DOW CORNING	1185281	ND	ND	ND	ND	ND	ND	38
8/11/10	BASF - Wyandotte	1183568	ND	ND	ND	ND	ND	ND	36
8/11/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	36
8/11/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	36
8/12/10	DOW CORNING	1186665	ND	ND	ND	ND	ND	ND	38
8/13/10	Dow Corning	1186921	ND	ND	ND	ND	ND	ND	38
8/16/10	DOW CORNING	1187854	ND	ND	ND	ND	ND	ND	36
8/17/10	DOW CORNING	1188607	ND	ND	ND	ND	ND	ND	37
8/17/10	Dynecol	1185542	ND	ND	ND	ND	ND	ND	37
8/17/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	37
8/17/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	37
8/18/10	MAGELLAN	1188875	ND	ND	ND	ND	ND	ND	39
8/18/10	MAGELLAN	1188885	ND	ND	ND	ND	ND	ND	39
8/18/10	MPM SILICONES	1189068	ND	ND	ND	ND	ND	ND	38
8/18/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	30,38
8/18/10	ON SITE DRUMS		ND	ND	ND	ND	ND	ND	30,38
8/19/10	MPM SILICONES	1189731	ND	ND	ND	ND	ND	ND	38
8/18/10	Ford Dearborn Truck	1188120	ND	ND	ND	ND	ND	ND	38
8/18/10	Dow Corning	1189311	ND	ND	ND	ND	ND	ND	30,36
8/25/10	Dow Corning	1193200	ND	ND	ND	ND	ND	ND	36
8/26/10	MAGNA STEYR	1189738	ND	ND	ND	ND	ND	ND	37
8/26/10	Dow Corning	1193569	ND	ND	ND	ND	ND	ND	37
8/27/10	Chemical Pollution	1192861	ND	ND	ND	ND	ND	ND	38
Total			ND	ND	ND	ND	ND	ND	

Appendix III

Waste Codes & Descriptions

Petro-Chem Wastes Received from Off-Site Source

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures and blends used in degreasing containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane and 1,1,2-trichloroethane; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F003	The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures and blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures or blends, containing before use, one or more of the above nonhalogenated solvents, and a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005 and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I)
F004	The following spent nonhalogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F005	The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002 and F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I,T)

Petro-Chem Wastes Received from Off-Site Source

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating used on a segregated basis on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process	(R,T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat-treating operations	(R,T)
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process, of tri- or tetrachlorophenol or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol or of intermediates used to produce its derivatives	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)

Petro-Chem Wastes Received from Off-Site Source

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F024	Process wastes, including, but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from 1 to 5, with varying amounts and positions of chlorine substitutions. This listing does not include wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in R 299.9213(1)(a) or R 299.9214(1)(a)	(T)
F025	Condensed light ends, spent filters and filter acids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from 1 to 5, with varying amounts and positions of chlorine substitution	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027	(T)

Petro-Chem Wastes Received from Off-Site Source

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F032	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations, except potentially cross-contaminated wastes that have had the F032 hazardous waste number deleted pursuant to 40 C.F.R. §261.35 or potentially cross-contaminated wastes that are otherwise currently regulated as F034 or F035, and where the generator does not resume or initiate the use of chlorophenolic formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F034	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F035	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F037	Petroleum refinery primary oil/water/solids (oil and/or water and/or solids) separation sludge-any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in R 299.9213(4) , including sludges generated in 1 or more additional units after wastewaters have been treated in aggressive biological treatment units, and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under R 299.9204(1)(I) if those residuals are being disposed.	(T)

Petro-Chem Wastes Received from Off-Site Source

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F038	Petroleum refinery secondary (emulsified) oil/water/solids (oil and/or water and/or solids) separation sludge-any sludge or float generated from the physical or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in induced air flotation (IAF) units and tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow; sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters; sludges and floats generated in aggressive biological treatment units as defined in R 299.9213(4), including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units; and F037, K048, and K051 wastes are not included in this listing.	(T)
F039	Leachate resulting from the treatment, storage, or disposal of wastes classified by more than 1 hazardous waste number pursuant to R 299.9213 and R 299.9214 or from a mixture of wastes classified pursuant to R 299.9213 and R 299.9214. Leachate resulting from the management of 1 or more of the following hazardous wastes, and no other hazardous wastes, retains its original hazardous waste number or numbers: F020, F021, F022, F023, F026, F027, or F028.	(T)

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
Wood Preservation	K001	Bottom sediment sludge from the treatment of wastewaters from wood-preserving processes that use creosote or pentachlorophenol, or both of these compounds	(T)
Inorganic Pigments	K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
	K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
	K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
	K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
	K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated forms	(T)
	K007	Wastewater treatment sludge from the production of iron blue pigments	(T)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic Chemicals	K009	Distillation bottoms from the production of chemicals acetaldehyde from ethylene	(T)
	K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
	K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R,T)
	K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R,T)
	K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
	K015	Still bottoms from the distillation of benzyl chloride	(T)
	K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
	K017	Heavy ends or still bottoms from the purification column in the production of epichlorohydrin	(T)
	K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
	K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
	K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
	K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
	K022	Distillation bottom tars from the production of phenol or acetone from cumene	(T)
	K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
	K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
	K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
	K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
	K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)
	K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
	K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
	K083	Distillation bottoms from aniline production	(T)
	K085	Distillation of fractionation column bottoms from the production of chlorobenzenes	(T)
	K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
	K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
	K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
	K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
	K103	Process residues from aniline extraction from the production of aniline	(T)
	K104	Combined wastewater streams generated from nitrobenzene or aniline production	(T)
	K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
	K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(C,T)
	K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(I,T)
	K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)
	K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)
	K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
	K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
	K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane	(T)
	K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. This waste does not include still bottoms from the distillation of benzyl chloride.	(T)
	K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
	K151	Wastewater treatment sludges, excluding *neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K156	Organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
	K157	Wastewaters, including scrubber waters, condenser waters, washwaters, and separation waters, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
	K158	Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
	K159	Organics from the treatment of thiocarbamate wastes	(T)
	K161	Purification solids, including filtration, evaporation, and centrifugation solids, bag house dust, and floor sweepings from the production of dithiocarbamates acids and their salts. This listing does not include K125 or K126.	(R,T)
	K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer, including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater, unless the sludges meet the following conditions: (1) they are disposed of in a hazardous waste landfill or a nonhazardous waste landfill licensed or permitted by the state or federal government, (2) they are not otherwise placed on the land before final disposal, and (3) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of RCRA or part 111 of the act must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth herein. In doing so, they must provide appropriate documentation, such as contracts between the generator and the landfill owner/operator or invoices documenting delivery of the waste to the landfill, that the terms of the exclusion were met.	(T)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	(T)
	K181	Nonwastewaters from the production of dyes or pigments, including nonwastewaters commingled at the point of generation with nonwastewaters from other processes, that, at the point of generation, contain mass loadings of any of the K181 listing constituents identified in 40 C.F.R. §261.32(c) that are equal to or greater than the listing levels identified in 40 C.F.R. §261.32(c) , as determined on a calendar year basis. These wastes shall not be considered hazardous if the nonwastewaters are managed in compliance with the requirements for this listing as outlined in 40 C.F.R. §261.32(a) . For the purposes of this listing, dyes or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or federal food and drug administration certified colors that are classified as azo, triarylmethane, perylene, or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes or pigments, are not included in this listing. The process for demonstrating that a facility's nonwastewaters are not K181 is contained in 40 C.F.R. §261.32(d) . This K181 listing does not apply to wastes that are otherwise identified as hazardous waste under R 299.9212 , R 299.9217 , R 299.9220 , R 299.9222 , R 299.9224 , or R 299.9225 at the point of generation. Also, the listing does not apply to the wastes generated before any annual mass loading limit is met.	(T)
	K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used	(T)
	K073	Chlorinated hydrocarbon wastes from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
	K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
Inorganic Chemicals	K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates	(E)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates	(T)
	K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process	(T)
	K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
	K032	Wastewater treatment sludge from the production of chlordane	(T)
	K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
Pesticides	K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	
	K035	Wastewater treatment sludges generated in the production of creosote	(T)
	K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
	K037	Wastewater treatment sludges from the production of disulfoton	(T)
	K038	Wastewater from the washing and stripping of phorate production	(T)
	K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
	K040	Wastewater treatment sludge from the production of phorate	(T)
	K041	Wastewater treatment sludge from the production of toxaphene	(T)
	K042	Heavy ends of distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
	K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)	

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K098	Untreated process wastewater from the production of toxaphene	(T)
	K099	Untreated wastewater from the production of 2,4-D	(T)
	K123	Process wastewater, including supernates, filtrates, and washwaters, from the production of ethylenebisdithiocarbamic acid and its salt	(T)
	K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salt	(T)
	K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salt	(C,T)
	K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	(T)
	K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	(T)
	K132	Spent absorbent and wastewater separator solids from the production of methyl bromide	(C,T)
	K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(T)
	K045	Spent carbon from the treatment of wastewater containing explosives	(I)
	K046	Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds	(I)
Explosives	K047	Pink or red water from TNT operations	(T)
	K048	Dissolved air floatation, DAF, float from the petroleum refining industry	(I)
	K049	Slop oil emulsion solids from the petroleum refining industry	(T)
	K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
Petroleum Refining	K051	API separator sludge from the petroleum refining industry	(T)
Petroleum Refining	K052	Tank bottoms, leaded, from the petroleum refining industry	(T)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K169	Crude oil storage tank sediment from petroleum refining operations	(T)
	K170	Clarified slurry oil tank sediment and/or inline filter/separation solids from petroleum refining operations	(T)
	K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support media.	(T)
	K172	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support media.	(I, T)
	K061	Emission control dust or sludge from the primary production of steel in electric furnaces	(I, T)
	K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry	(T)
	K088	Spent potliners from primary aluminum reduction	(C,T)
	K069	Emission control dust or sludge from secondary lead smelting. (This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further action is taken by the EPA and notice published in the Federal Register.)	(T)
Iron and Steel	K100	Waste leaching solution from acid leaching of emission control dust sludge from secondary lead smelting	(T)
Primary Aluminum	K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Secondary Lead	K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
	K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
	K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(T)
Veterinary Pharmaceuticals	K060	Ammonia still lime sludge from coking operations	(T)

Petro-Chem Wastes Received from Off-Site Source

Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K087	Decanter tank tar sludge from coking operations	(T)
	K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087.	(T)
Ink Formulation	K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	(T)
Coking	K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	(T)
	K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal	(T)
	K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal	(T)
	K147	Tar storage tank residues from coal tar refining	(T)
	K148	Residues from coal tar distillation, including, but not limited to, still bottoms	(T)

Michigan Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
001K	Residues, including emission control sludges, from the production process and packaging of 4,4'-Methylenebis (2-chloroaniline)	(T)
002K	Wash acids generated after the effective date of these rules from the production of 3,3'-Dichlorobenzidine and still bottoms from the recovery of these acids, excluding wash acids that are recycled or any materials that are reclaimed from the wash acids and used beneficially	(T)

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P023	107-20-0	Acetaldehyde, chloro-	
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-	
P057	640-19-7	Acetamide, 2-fluoro-	
P058	62-74-8	Acetic acid, fluoro-, sodium salt	
P002	591-08-2	1 - Acetyl-2-thiourea	
P003	107-02-8	Acrolein	
P070	116-06-3	Aldicarb	
P203	1646-88-4	Aldicarb sulfone	
P004	309-00-2	Aldrin	
P005	107-18-6	Allyl alcohol	
P006	20859-73-8	Aluminum phosphide	(R,T,)
P007	2763-96-4	5 -(Aminomethyl)-3 -i soxazolol	
P008	504-24-5	4-Aminopyridine	
P009	131-74-8	Ammonium picrate	(R)
P119	7803-55-6	Ammonium vanadate	
P099	506-61-6	Argentate (1-), bis(cyano-C)-, potassium	
P010	7778-39-4	Arsenic acid	
P012	1327-53-3	Arsenic (III) oxide	
P011	1303-28-2	Arsenic (V) oxide	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P011	1303-28-2	Arsenic pentoxide	
P012	1327-53-3	Arsenic trioxide	
P038	692-42-2	Arsine, diethyl-	
P036	696-28-6	Arsonous dichloride, phenyl-	
P054	151-56-4	Aziridine	
P067	75-55-8	Aziridine, 2-methyl-	
P013	542-62-1	Barium cyanide	
P024	106-47-8	Benzenamine, 4-chloro-	
P077	100-01-6	Benzenamine, 4-nitro-	
P028	100-44-7	Benzene, (chloromethyl)-	
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-	(R)
P046	122-09-2	Benzenethanamine, alpha, alpha-dimethyl-	
P014	108-98-5	Benzenethiol	
P127	1563-66-2	7-benzofuranol, 2,3-dihydro-2,2-dimethyl-, methoycarbamate	
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis) - 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b] indol-5-yl methylcarbamate ester (1:1)	
P001	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3%	
P028	100-44-7	Benzyl chloride	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P015	7440-41-7	Beryllium powder	
P017	598-31-2	Bromoacetone	
P018	357-57-3	Brucine	
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino) carbonyl] oxime	
P021	592-01-8	Calcium cyanide	
P021	592-01-8	Calcium cyanide Ca(CN) ₂	
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethylamino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester	
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pyrazol-5-yl ester	
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester	
P127	1563-66-2	Carbofuran	
P022	75-15-0	Carbon disulfide	
P095	75-44-5	Carbonyl chloride	
P189	55285-14-8	Carbosulfan	
P023	107-20-0	Chloroacetaldehyde	
P024	106-47-8	p-Chloroaniline	
P026	5344-82-1	1-(o-Chlorophenyl)thiourea	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P027	542-76-7	3-Chloropropionitrile	
P029	544-92-3	Copper cyanide	
P029	544-92-3	Copper cyanide Cu(CN)	
P202	64-00-6	m-Cumenyl methylcarbamate	
P030	-----	Cyanides (soluble cyanide salts), not elsewhere specified	
P031	460-19-5	Cyanogen	
P033	506-77-4	Cyanogen chloride	
P033	506-77-4	Cyanogen chloride (CN)Cl	
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol	
P016	542-88-1	Dichloromethyl ether	
P036	696-28-6	Dichlorophenylarsine	
P037	60-57-1	Dieldrin	
P038	692-42-2	Diethylarsine	
P041	311-45-5	Diethyl-p-nitrophenyl phosphate	
P040	297-97-2	0,0-Diethyl 0-pyrazinyl phosphorothioate	
P043	55-91-4	Diisopropyl fluorophosphate	
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta, 5alpha,8alpha,8abeta)-	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta, 5beta,8beta,8abeta)-	
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2alpha, 3beta,6beta,6alpha,7beta,7alpha)-	
P051	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha, 2beta,2abeta,3alpha, 6alpha,6abeta,7beta, 7alpha)-, & metabolites	
P044	60-51-5	Dimethoate	
P046	122-09-8	alpha,alpha-Dimethylphenethylamine	
P191	644-64-4	Dimetilan	
P047	534-52-1	4,6-Dinitro-o-cresol and salts	
P048	51-28-5	2,4-Dinitrophenol	
P020	88-85-7	Dinoseb	
P085	152-18-9	Diphosphoramidate, octamethyl-	
P111	107-49-3	Diphosphoric acid, tetraethyl ester	
P039	298-04-4	Disulfoton	
P049	541-53-7	2,4-Dithiobiuret	
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime	
P050	115-29-7	Endosulfan	
P088	145-73-7	Endothall	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P051	72-20-8	Endrin	
P051	72-20-8	Endrin, and metabolites	
P042	51-43-4	Epinephrine	
P031	460-19-5	Ethanedinitrile	
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester	
P066	16752-77-5	Ethanimidothioic acid, N-[[[(methylamine)carbonyl] oxy]-, methyl ester	
P101	107-12-0	Ethyl cyanide	
P054	151-58-4	Ethyleneimine	
P097	52-85-7	Famphur	
P056	7782-41-4	Fluorine	
P057	640-19-7	Fluoroacetamide	
P058	62-74-8	Fluoroacetic acid, sodium salt	
P198	23422-53-9	Formetanate hydrochloride	
P197	17702-57-7	Formparanate	
P065	628-86-4	Fulminic acid, mercury (II) salt	(R,T)
P059	76-44-8	Heptachlor	
P062	757-58-4	Hexaethyl tetraphosphate	
P116	79-19-6	Hydrazinecarbothioamide	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P068	60-34-4	Hydrazine, methyl-	
P063	74-90-8	Hydrocyanic acid	
P063	74-90-8	Hydrogen cyanide	
P096	7803-51-2	Hydrogen phosphide	
P060	465-73-6	Isodrin	
P192	119-38-0	Isolan	
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate	
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-	
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,	
P196	15339-36-3	Manganese, dimethyldithiocarbamate	
P092	62-38-4	Mercury, (acetato-O)phenyl-	
P065	628-86-4	Mercury fulminate	(R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-	
P064	624-83-9	Methane, isocyanato-	
P016	542-88-1	Methane, oxybis(chloro-	
P112	509-14-8	Methane, tetranitro-	(R)
P118	75-70-7	Methanethiol, trichloro-	
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]-	
P050	115-20-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	
P199	2032-65-7	Methiocarb	
P066	16752-77-5	Methomyl	
P068	60-34-4	Methyl hydrazine	
P064	624-83-9	Methyl isocyanate	
P069	75-86-5	2-Methylactonitrile	
P071	298-00-0	Methyl parathion	
P190	1129-41-5	Metolcarb	
P128	315-18-4	Mexacarbate	
P072	86-88-4	alpha-Naphthylthiourea	
P073	13463-39-3	Nickel carbonyl	
P073	13463-39-3	Nickel carbonyl Ni(CO) ₄ , (T-4)-	
P074	557-19-7	Nickel cyanide	
P074	557-19-7	Nickel (II) cyanide	
P075	54-11-5	Nicotine and salts	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P076	10102-43-9	Nitric oxide	
P077	100-01-6	p-Nitroaniline	
P078	10102-44-0	Nitrogen dioxide	
P076	10102-43-9	Nitrogen (II) oxide	
P078	10102-44-0	Nitrogen (IV) oxide	
P081	55-63-0	Nitroglycerine	(R)
P082	62-75-9	N-Nitrosodimethylamine	
P084	4549-40-0	N-Nitrosomethylvinylamine	
P085	152-16-9	Octamethylpyrophosphor-amide	
P087	20816-12-0	Osmium oxide	
P087	20816-12-0	Osmium tetroxide	
P088	145-73-3	7-Oxabicyclo [2.2.1] heptane-2,3-dicarboxylic acid	
P194	23135-22-0	Oxamyl	
P089	56-38-2	Parathion	
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-	
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	
P048	51-28-5	Phenol, 2,4-dinitro-	
P047	534-52-1	Phenol, 2-methyl-4,6-dinitro- and salts	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate	
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	
P020	88-85-7	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt	(R)
P092	62-38-4	Phenylmercuric acetate	
P093	103-85-5	N-Phenylthiourea	
P094	298-02-2	Phorate	
P095	75-44-5	Phosgene	
P096	783-51-2	Phosphine	
P041	311-45-5	Phosphoric acid, diethyl p-nitrophenyl ester	
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-O[2-(methylamino)-2-oxoethyl] ester	
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl)ester	
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P097	52-85-7	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino) sulfonyl)phenyl] ester	
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	
P204	57-47-6	Physostigmine	
P188	57-64-7	Physostigmine salicylate	
P110	78-00-2	Plumbane, tetraethyl-	
P098	151-50-8	Potassium cyanide	
P098	151-50-8	Potassium cyanide K(CN)	
P099	506-61-6	Potassium silver cyanide	
P201	2631-37-0	Promecarb	
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-,O-[(methylamino)carbonyl] oxime	
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl] oxime	
P101	107-12-0	Propanenitrile	
P027	542-76-7	Propanenitrile, 3-chloro-	
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-	
P081	55-63-0	1,2,3-Propanetriol, trinitrate-	(R)
P017	596-31-2	2-Propanone, 1-bromo-	
P102	107-19-7	Propargyl alcohol	
P003	107-02-8	2-Propenal	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P005	107-18-6	2-Propen-1-ol	
P067	75-55-8	1,2-Propylenimine	
P102	107-19-7	2-Propyn-1-ol	
P008	504-24-5	4-Pyridinamine	
P075	54-11-5	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	
P114	12039-52-0	Selenious acid, dithallium(1+) salt	
P103	630-10-4	Selenourea	
P104	506-64-9	Silver cyanide	
P104	506-64-9	Silver cyanide Ag(CN)	
P105	26628-22-8	Sodium azide	
P106	143-33-9	Sodium cyanide	
P106	143-33-9	Sodium cyanide Na(CN)	
P108	57-24-9	Strychnidin-10-one, and salts	
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-	
P108	57-24-9	Strychnine and salts	
P115	7446-18-6	Sulfuric acid, thallium (I) salt	
P109	3689-24-5	Tetraethyldithiopyrophosphate	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P110	78-00-2	Tetraethyl lead	
P111	107-49-3	Tetraethylpyrophosphate	
P112	509-14-8	Tetranitromethane	(R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester	
P113	1314-32-5	Thallic oxide	
P113	1314-32-5	Thallium (III) oxide	
P114	12039-52-0	Thallium (I) selenide	
P115	7446-18-6	Thallium (I) sulfate	
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester	
P045	39196-18-4	Thiofanox	
P049	541-53-7	Thioimidodicarbonic diamide	
P014	108-98-5	Thiophenol	
P116	79-19-6	Thiosemicarbazide	
P026	5344-82-1	Thiourea, (2-chlorophenyl)-	
P072	86-88-4	Thiourea, 1-naphthalenyl-	
P093	103-85-5	Thiourea, phenyl-	
P185	26419-73-8	Tirpate	
P123	8001-35-2	Toxaphene	
P118	75-70-7	Trichloromethanethiol	
P119	7803-55-6	Vanadic acid, ammonium salt	

Petro-Chem Wastes Received from Off-Site Source

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P120	1314-62-1	Vanadium (V) oxide	
P120	1314-62-1	Vanadium pentoxide	
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-	
P001	81-81-2	Warfarin, when present at concentrations greater than 0.3%	
P205	137-30-4	Zinc, bis(dimethylcarbomodithioato-S,S')-	
P121	557-21-1	Zinc cyanide	
P121	557-21-1	Zinc cyanide Zn(CN) ₂	
P122	1314-84-7	Zinc phosphide, when present at concentrations greater than 10%	(R,T)
P205	137-30-4	Ziram	

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U394	30558-43-1	A2213	
U001	75-07-0	Acetaldehyde	(I)
U034	75-87-6	Acetaldehyde, trichloro-	
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-	
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-	
U240	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters	
U112	141-78-6	Acetic acid, ethyl ester	(I)

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U144	301-04-2	Acetic acid, lead(2+) salt	
U214	563-68-8	Acetic acid, thallium(1+) salt	
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	
U002	67-64-1	Acetone	(I)
U003	75-05-8	Acetonitrile	(I,T)
U004	98-86-2	Acetophenone	
U005	53-96-3	2-Acetylaminofluorene	
U006	75-36-5	Acetyl chloride	(C,R,T)
U007	79-06-1	Acrylamide	
U008	79-10-7	Acrylic acid	(I)
U009	107-13-1	Acrylonitrile	
U011	61-82-5	Amitrole	
U012	62-53-3	Aniline	(I,T)
U136	75-60-5	Arsinic acid, dimethyl-	
U014	492-80-8	Auramine	
U015	115-02-6	Azaserine	
U010	50-07-7	Azirino(2',3':3,4)pyrrolo (1,2-a)indole-4,7-dione,6-amino-8-[(aminocarbonyloxy) methyl]-1,1a,2,8,8a,8b hexahydro-8a-methoxy-5-methyl-	
U280	101-27-9	Barban	
U278	22781-23-3	Bendiocarb	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U364	22961-82-6	Bendiocarb phenol	
U271	17804-35-2	Benomyl	
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	
U016	225-51-4	Benz[c]acridine	
U017	98-87-3	Benzal chloride	
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	
U018	56-55-3	Benz[a]anthracene	
U094	57-97-6	1,2-Benzanthracene, 7,12-dimethyl-	
U012	62-53-3	Benzenamine	(I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-	
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-	
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-	
U328	95-53-4	Benzenamine, 2-methyl-	
U353	106-49-0	Benzenamine, 4-methyl-	
U158	101-14-4	Benzenamine, 4,4'-methylenebis(2-chloro-	
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride	
U181	99-55-8	Benzenamine, 2-methyl-5-nitro	
U019	71-43-2	Benzene	(I,T)

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U038	510-15-8	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester	
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-	
U035	305-03-03	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	
U037	106-90-7	Benzene, chloro-	
U221	25376-45-8	Benzenediamine, ar-methyl-	
U028	117-81-7	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)] ester	
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	
U107	117-84-0	1,2-Benzenedicarboxylic acid, di-n-octyl ester	
U070	95-50-1	Benzene, 1,2-dichloro-	
U071	541-73-1	Benzene, 1,3-dichloro-	
U072	106-46-7	Benzene, 1,4-dichloro-	
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis=[4-chloro-	
U017	98-87-3	Benzene (dichloromethyl)-	
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-	(R,T)
U239	1330-20-7	Benzene, dimethyl-	(I,T)
U201	108-46-3	1,3-Benzenediol	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U127	118-74-1	Benzene, hexachloro-	
U056	110-82-7	Benzene, hexahydro-	(I)
U220	108-88-3	Benzene, methyl-	
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-	
U106	606-20-2	Benzene, 1-methyl-2,6-dinitro-	
U055	98-82-8	Benzene, (1-methylethyl)-	(I)
U169	98-95-3	Benzene, nitro-	(I,T)
U183	608-93-5	Benzene, pentachloro-	
U185	82-68-8	Benzene, pentachloronitro-	
U020	98-09-9	Benzenesulfonic acid chloride	(C,R)
U020	98-09-9	Benzenesulfonyl chloride	(C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-	
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)=bis [4-chloro-	
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)=bis [4-methoxy-	
U023	98-07-7	Benzene, (trichloromethyl)-	(C,R,T)
U234	99-35-4	Benzene, 1,3,5-trinitro-	(R,T)
U021	92-87-5	Benzidine	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U202	81-07-2	1,2-Benzisothiazol-3-(2H)-one, 1,1-dioxide and salts	
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	
U090	94-58-6	1,3-Benzodioxole, 5-propyl-	
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	
U064	189-55-9	Benzo[<i>a</i>]pentaphene	
U248	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3% or less	
U022	50-32-8	Benzo[<i>a</i>]pyrene	
U197	106-51-4	p-Benzoquinone	
U023	98-07-7	Benzotrichloride	(C,R,T)
U085	1464-53-5	2,2'-Bioxirane	(I,T)
U021	92-87-5	(1,1'-Biphenyl)-4,4'-diamine	
U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	
U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
U225	75-25-2	Bromoform	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U030	101-55-3	4-Bromophenyl phenyl ether	
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-	
U031	71-36-3	1-Butanol	(I)
U159	78-93-3	2-Butanone	(I,T)
U160	1338-23-4	2-Butanone peroxide	(R,T)
U053	4170-30-3	2-Butenal	
U074	764-41-0	2-Butene, 1,4-dichloro-	(I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxybutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl] ester, [1S-[1alpha(Z),7(2S*,3R*), 7aalpha]]-	
U031	71-36-3	n-Butyl alcohol	(I)
U136	75-60-5	Cacodylic acid	
U032	13765-19-0	Calcium chromate	
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester	
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	
U238	51-79-6	Carbamic acid, ethyl ester	
U178	815-53-2	Carbamic acid, methylnitroso-, ethyl ester	
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis-, dimethyl ester	
U097	79-44-7	Carbamic chloride, dimethyl	
U114	111-54-6	Carbamodithioic acid, 1,2-ethanediy]bis-, salts and esters	
U062	2303-16-4	Carbamodithioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	
U279	63-25-2	Carbaryl	
U372	10605-21-7	Carbendazim	
U367	1563-38-8	Carbofuran phenol	
U215	6533-73-9	Carbonic acid, dithallium(1+) salt	
U156	79-22-1	Carbonochloridic acid, methyl ester	(I,T)
U033	353-50-4	Carbon oxyfluoride	(R,T)
U211	56-23-5	Carbon tetrachloride	
U034	75-87-6	Chloral	
U035	305-03-3	Chlorambucil	
U036	57-74-9	Chlordane, technical	
U026	494-03-1	Chlornaphazine	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U037	108-90-7	Chlorobenzene	
U038	510-15-6	Chlorobenzilate	
U039	59-50-7	4-Chloro-m-cresol	
U042	110-75-8	2-Chloroethyl vinyl ether	
U044	67-66-3	Chloroform	
U046	107-30-2	Chloromethyl methyl ether	
U047	91-58-7	beta-Chloronaphthalene	
U048	95-57-8	o-Chlorophenol	
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride	
U032	13765-19-0	Chromic acid, calcium salt	
U050	218-01-9	Chrysene	
U051	-----	Creosote	
U052	1319-77-3	Cresylic acid	
U053	4170-30-3	Crotonaldehyde	
U055	98-82-8	Cumene	(I)
U246	506-68-3	Cyanogen bromide	
U197	106-51-4	1,4-Cyclohexadienedione	
U056	110-82-7	Cyclohexane	(I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha,3beta,4alpha, 5alpha,6beta)-	
U057	108-94-1	Cyclohexanone	(I)

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-	
U058	50-18-0	Cyclophosphamide	
U240	94-75-7	2,4-D, salts and esters	
U059	20830-81-3	Daunomycin	
U060	72-54-8	DDD	
U061	50-29-3	DDT	
U062	2303-16-4	Diallate	
U063	53-70-3	Dibenz[a,h]anthracene	
U064	189-55-9	Dibenz[a,i]pyrene	
U066	96-12-8	1,2-Dibromo-3-chloropropane	
U069	84-74-2	Dibutyl phthalate	
U070	95-50-1	o-Dichlorobenzene	
U071	541-73-1	m-Dichlorobenzene	
U072	106-46-7	p-Dichlorobenzene	
U073	91-94-1	3,3'-Dichlorobenzidine	
U074	764-41-0	1,4-Dichloro-2-butene	(I,T)
U075	75-71-8	Dichlorodifluoromethane	
U078	75-35-4	1,1-Dichloroethylene	
U079	156-60-5	1,2-Dichloroethylene	
U025	111-44-4	Dichloroethyl ether	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U027	108-60-1	Dichloroisopropyl ether	
U024	111-91-7	Dichloromethoxy ethane	
U081	120-83-2	2,4-Dichlorophenol	
U082	87-65-0	2,6-Dichlorophenol	
U084	542-75-6	1,3-Dichloropropene	
U085	1464-53-5	1,2:3,4-Diepoxybutane	(I,T)
U108	123-91-1	1,4-Diethylene dioxide	
U395	5952-26-1	Diethylene glycol, dicarbamate	
U028	117-81-7	Diethylhexyl phthalate	
U086	1615-80-1	N,N-Diethylhydrazine	
U087	3288-58-2	O,O-Diethyl-S-methyl-dithiophosphate	
U088	84-66-2	Diethyl phthalate	
U089	56-53-1	Diethylstilbestrol	
U090	94-58-6	Dihydrosafrole	
U091	119-90-4	3,3'-dimethoxybenzidine	
U092	124-40-3	Dimethylamine	(I)
U093	60-11-7	Dimethylaminoazobenzene	
U094	57-97-6	7,12-Dimethylbenz[a]anthracene	
U095	119-93-7	3,3'-Dimethylbenzidine	
U096	80-15-9	Alpha, alpha-Dimethyl-benzylhydroperoxide	(R)

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U097	79-44-7	Dimethylcarbamoyl chloride	
U098	57-14-7	1,1-Dimethylhydrazine	
U099	540-73-8	1,2-Dimethylhydrazine	
U101	105-67-9	2,4-Dimethylphenol	
U102	131-11-3	Dimethyl phthalate	
U103	77-78-1	Dimethyl sulfate	
U105	121-14-2	2,4-Dinitrotoluene	
U106	606-20-2	2,6-Dinitrotoluene	
U107	117-84-0	Di-n-octyl phthalate	
U108	123-91-1	1,4-Dioxane	
U109	122-66-7	1,2-Diphenylhydrazine	
U110	142-84-7	Dipropylamine	(I)
U111	621-64-7	Di-n-propylnitrosamine	
U041	106-89-8	Epichlorhydrin	
U001	75-07-0	Ethanal	(I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-	
U404	121-44-8	Ethanamine, N,N-diethyl-	
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	
U067	106-93-4	Ethane, 1,2-dibromo-	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U076	75-34-3	Ethane, 1,1-dichloro-	
U077	107-06-2	Ethane, 1,2-dichloro-	
U131	67-72-1	Ethane, 1,1,1,2,2,2-hexachloro-	
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	
U117	60-29-7	Ethane, 1,1'-oxybis-	(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	
U184	76-01-7	Ethane, pentachloro-	
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-	
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	
U218	62-55-5	Ethanethioamide	
U226	71-55-6	Ethane, 1,1,1-trichloro-	
U227	79-00-5	Ethane, 1,1,2-trichloro-	
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis(methylimino)carbonyloxy]]bis-, dimethyl ester	
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-n-hydroxy-2-oxo- methyl ester	
U359	110-80-5	Ethanol, 2-ethoxy-	
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-	
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate	
U004	98-86-2	Ethanone, 1-phenyl	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U043	75-01-4	Ethene, chloro-	
U042	110-75-8	Ethene, 2-chloroethoxy-	
U078	75-35-4	Ethene, 1,1-dichloro-	
U079	156-60-5	Ethene, trans-1,2-dichloro-	
U210	127-18-4	Ethene, 1,1,2,2-tetrachloro-	
U228	79-01-6	Ethene, trichloro-	
U112	141-78-8	Ethyl acetate	(I)
U113	140-88-5	Ethyl acrylate	(I)
U238	51-79-6	Ethyl carbamate (urethan)	
U117	60-29-7	Ethyl ether	(I)
U114	111-54-6	Ethylenebis(dithiocarbamic acid), salts and ester	
U067	106-93-4	Ethylene dibromide	
U077	107-06-2	Ethylene dichloride	
U359	110-80-5	Ethylene glycol monoethyl ether	
U115	75-21-8	Ethylene oxide	(I,T)
U116	96-45-7	Ethylene thiourea	
U076	75-34-3	Ethylidene dichloride	
U118	97-63-2	Ethyl methacrylate	
U119	62-50-0	Ethyl methanesulfonate	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U120	206-44-0	Fluoranthene	
U122	50-00-0	Formaldehyde	
U123	64-18-6	Formic acid	(C,T)
U124	110-00-9	Furan	(I)
U125	98-01-1	2-Furancarboxaldehyde	(I)
U147	108-31-6	2,5-Furandione	
U213	109-99-9	Furan, tetrahydro-	(I)
U125	98-01-1	Furfural	(I)
U124	110-00-9	Furfuran	(I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-	
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[methylnitrosoamino) carbonyl]amino]-	
U126	765-34-4	Glycidylaldehyde	
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-	
U127	118-74-1	Hexachlorobenzene	
U128	87-68-3	Hexachlorobutadiene	
U130	77-47-4	Hexachlorocyclopentadiene	
U131	67-72-1	Hexachloroethane	
U132	70-30-4	Hexachlorophene	
U243	1888-71-7	Hexachloropropene	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U133	302-01-2	Hydrazine	(R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-	
U098	57-14-7	Hydrazine, 1,1-dimethyl-	
U099	540-73-8	Hydrazine, 1,2-dimethyl-	
U109	122-66-7	Hydrazine, 1,2-diphenyl-	
U134	7664-39-3	Hydrofluoric acid	(C,T)
U134	7664-39-3	Hydrogen fluoride	(C,T)
U135	7783-06-4	Hydrogen sulfide	
U135	7783-06-4	Hydrogen sulfide H2S	
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-	(R)
U116	96-45-7	2-Imidazolidinethione	
U137	193-39-5	Indeno[1,2,3cd]pyrene	
U190	85-44-9	1,3-Isobenzofurandione	
U140	78-83-1	Isobutyl alcohol	(I,T)
U141	120-58-1	Isosafrole	
U142	143-50-0	Kepone	
U143	303-34-4	Lasiocarpine	
U144	301-04-2	Lead acetate	
U146	1335-32-6	Lead, bis(acetato-O) tetrahydroxytri-	
U145	7446-27-7	Lead phosphate	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U146	1335-32-6	Lead subacetate	
U129	58-89-9	Lindane	
U163	70-25-7	MNNG	
U147	108-31-6	Maleic anhydride	
U148	123-33-1	Maleic hydrazide	
U149	109-77-3	Malononitrile	
U150	148-82-3	Melphalan	
U151	7439-97-6	Mercury	
U152	126-98-7	Methacrylonitrile	(I,T)
U092	124-40-3	Methanamine, N-methyl-	(I)
U029	74-83-9	Methane, bromo-	
U045	74-87-3	Methane, chloro-	(I,T)
U046	107-30-2	Methane, chloromethoxy-	
U068	74-95-3	Methane, dibromo-	
U080	75-09-2	Methane, dichloro-	
U075	75-71-8	Methane, dichlorodifluoro-	
U138	74-88-4	Methane, iodo-	
U119	62-50-0	Methanesulfonic acid, ethyl ester	
U211	56-23-5	Methane, tetrachloro-	
U153	74-93-1	Methanethiol	(I,T)

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U225	75-25-2	Methane, tribromo-	
U044	67-66-3	Methane, trichloro-	
U121	75-69-4	Methane, trichlorofluoro-	
U036	57-74-9	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro	
U154	67-56-1	Methanol	(I)
U155	91-80-5	Methapyrilene	
U142	143-50-0	1,3,4-Metheneo-2H-cyclobuta[cd]pentalen-2-one, 1, 1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	
U247	72-43-5	Methoxychlor	
U154	67-56-1	Methyl alcohol	(I)
U029	74-83-9	Methyl bromide	
U186	504-60-9	1-Methylbutadiene	(I)
U045	74-87-3	Methyl chloride	(I,T)
U156	79-22-1	Methyl chlorocarbonate	(I,T)
U226	71-55-6	Methylchloroform	
U157	56-49-5	3-Methylcholanthrene	
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)	
U068	74-95-3	Methylene bromide	
U080	75-09-2	Methylene chloride	
U159	78-93-3	Methyl ethyl ketone	(I,T)

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U160	1338-23-4	Methyl ethyl ketone peroxide	(R,T)
U138	74-88-4	Methyl iodide	
U161	108-10-1	Methyl isobutyl ketone	(I)
U162	80-62-6	Methyl methacrylate	(I,T)
U161	108-10-1	4-Methyl-2-pentanone	(I)
U164	56-04-2	Methylthiouracil	
U010	50-07-7	Mitomycin	(C)
U059	20830-81-3	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxohexopyranosyl)oxyl]- 7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	
U167	134-32-7	1-Naphthalenamine	
U168	91-59-8	2-Naphthalenamine	
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-	
U165	91-20-3	Naphthalene	
U047	91-58-7	Naphthalene, 2-chloro-	
U166	130-15-4	1,4-Naphthalenedione	
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1-biphenyl)-4,4'diyl)]-bis(azo)bis (5-amino-4-hydroxy)-, tetrasodium salt	
U279	63-25-2	1-Naphthalenol, methylcarbamate	
U166	130-15-4	1,4-Naphthoquinone	
U167	134-32-7	alpha-Naphthylamine	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U168	91-59-8	beta-Naphthylamine	
U217	10102-45-1	Nitric acid, thallium(1+) salt	
U169	98-95-3	Nitrobenzene	(I,T)
U170	100-02-7	p-Nitrophenol	
U171	79-46-9	2-Nitropropane	(I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine	
U173	1116-54-7	N-Nitrosodiethanolamine	
U174	55-18-5	N-Nitrosodiethylamine	
U176	759-73-9	N-Nitroso-N-ethylurea	
U177	684-93-5	N-Nitroso-N-methylurea	
U178	615-53-2	N-Nitroso-N-methylurethane	
U179	100-75-4	N-Nitrosopiperidine	
U180	930-55-2	N-Nitrosopyrrolidine	
U181	99-55-8	5-Nitro-o-toluidine	
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide	
U058	50-18-0	2H-1,3,2-Oxazaphosphorin, 2-amine, N,N-bis(2-chloroethyl) tetrahydro-, 2-oxide	
U115	75-21-8	Oxirane	(I,T)
U126	765-34-4	Oxiranecarboxyaldehyde	
U041	106-89-8	Oxirane, 2-(chloromethyl)-	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U182	123-63-7	Paraldehyde	
U183	608-93-5	Pentachlorobenzene	
U184	76-01-7	Pentachloroethane	
U185	82-68-8	Pentachloronitrobenzene	
See F027	87-86-5	Pentachlorophenol	
U161	108-10-1	Pentanone, 4-methyl-	
U186	504-60-9	1,3-Pentadiene	(I)
U187	62-44-2	Phenacetin	
U188	108-95-2	Phenol	
U048	95-57-8	Phenol, 2-chloro-	
U039	59-50-7	Phenol, 4-chloro-3-methyl-	
U081	120-83-2	Phenol, 2,4-dichloro-	
U082	87-65-0	Phenol, 2,6-dichloro-	
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-	
U101	105-67-9	Phenol, 2,4-dimethyl-	
U052	1319-77-3	Phenol, methyl-	
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate	
U170	100-02-7	Phenol, 4-nitro-	
See F027	87-86-5	Phenol, pentachloro-	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-	
See F027	95-95-4	Phenol, 2,4,5-trichloro-	
See F027	88-06-2	Phenol, 2,4,6-trichloro-	
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-	
U145	7446-27-7	Phosphoric acid, lead salt	
U087	3288-58-2	Phosphorodithioic acid, 0,0-diethyl-S-methyl ester	
U189	1314-80-3	Phosphorus sulfide	(R)
U190	85-44-9	Phthalic anhydride	
U191	109-06-8	2-Picoline	
U179	100-75-4	Piperidine, 1-nitroso-	
U192	23950-58-5	Pronamide	
U194	107-10-8	1-Propanamine	(I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-	
U110	142-84-7	1-Propanamine, N-propyl-	(I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-	
U083	78-87-5	Propane, 1,2-dichloro-	
U149	109-77-3	Propanedinitrile	
U171	79-46-9	Propane, 2-nitro-	(I,T)
U027	108-60-1	Propane, 2,2'oxybis[2-chloro-	
U193	1120-71-4	1,3-Propane sultone	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
See F027	93-72-1	Propionic acid, 2-(2,4,5-trichlorophenoxy)-	
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
U140	78-83-1	1-Propanol, 2-methyl-	(I,T)
U002	67-64-1	2-Propanone	(I)
U007	79-06-1	2-Propenamide	
U084	542-75-6	Propene, 1,3-dichloro-	
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	
U009	107-13-1	2-Propenenitrile	
U152	126-98-7	2-Propenenitrile, 2-methyl-	(I,T)
U008	79-10-7	2-Propenoic acid	(I)
U113	140-88-5	2-Propenoic acid, ethyl ester	(I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	(I,T)
U373	122-42-9	Propham	
U411	114-26-1	Propoxur	
U194	107-10-8	n-Propylamine	(I,T)
U083	78-87-5	Propylene dichloride	
U387	52888-80-9	Prosulfocarb	
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-	
U196	110-86-1	Pyridine	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U191	109-06-8	Pyridine, 2-methyl-	
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	
U180	930-55-2	Pyrrole, tetrahydro-N-nitroso-	
U200	50-55-5	Reserpine	
U201	108-46-3	Resorcinol	
U202	81-07-2	Saccharin and salts	
U203	94-59-7	Safrole	
U204	7783-00-8	Selenious acid	
U204	7783-00-8	Selenium dioxide	
U205	7488-56-4	Selenium sulfide	
U205	7488-56-4	Selenium sulfide SeS ₂	(R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)	
See F027	93-72-1	Silvex	
U206	18883-66-4	Streptozotocin	
U103	77-78-1	Sulfuric acid, dimethyl ester	
U189	1314-80-3	Sulfur phosphide	(R)
See F027	93-76-5	2,4,5-T	
U207	95-94-3	1,2,4,5-Tetrachlorobenzene	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U208	630-20-6	1,1,1,2-Tetrachloroethane	
U209	79-34-5	1,1,2,2-Tetrachloroethane	
U210	127-18-4	Tetrachloroethylene	
See F027	58-90-2	2,3,4,6-Tetrachlorophenol	
U213	109-99-9	Tetrahydrofuran	(I)
U214	563-68-8	Thallium (I) acetate	
U215	6533-73-9	Thallium (I) carbonate	
U216	7791-12-0	Thallium (I) chloride	
U216	7791-12-0	Thallium chloride TlCl	
U217	10102-45-1	Thallium (I) nitrate	
U218	62-55-5	Thioacetamide	
U410	59669-26-0	Thiodicarb	
U153	74-93-1	Thiomethanol	(I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H ₂ N)C(S)] ₂ 5 ₂ , tetramethyl-	
U409	23564-05-8	Thiophanate-methyl	
U219	62-56-6	Thiourea	
U244	137-26-8	Thiram	
U220	108-88-3	Toluene	
U221	25376-45-8	Toluenediamine	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U223	26471-62-5	Toluene diisocyanate	(R,T)
U328	95-53-4	o-Toluidine	
U353	106-49-0	p-Toluidine	
U222	636-21-5	o-Toluidine hydrochloride	
U389	2303-17-5	Triallate	
U011	61-82-5	1H-1,2,4-Triazol-3-amine	
U227	79-00-5	1,1,2-Trichloroethane	
U228	79-01-6	Trichloroethylene	
U121	75-69-4	Trichloromonofluoromethane	
See F027	95-95-4	2,4,5-Trichlorophenol	
See F027	88-06-2	2,4,6-Trichlorophenol	
U404	121-44-8	Triethylamine	
U234	99-35-4	1,3,5-Trinitrobenzene	(R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-	
U235	126-72-7	Tris(2,3-Dibromopropyl) phosphate	
U236	72-57-1	Trypan blue	
U237	66-75-1	Uracil mustard	
U176	759-73-9	Urea, N-ethyl-N-nitroso-	
U177	684-93-5	Urea, N-methyl-N-nitroso-	
U043	75-01-4	Vinyl chloride	

Petro-Chem Wastes Received from Off-Site Source

U Listed Wastes			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U248	81-81-2	Warfarin, and salts, when present at a concentration of 0.3% or less	
U239	1330-20-7	Xylene	(I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester	
U249	1314-84-7	Zinc phosphide, when present at concentration 10% or less	

Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
001U	50-76-0	Actinomycin D	
002U	107-05-1	Allyl chloride	
003U	117-79-3	2-aminoanthraquinone	
004U	60-09-3	Aminoazobenzene	
005U	97-56-3	0-aminoazotoluene	
006U	92-67-1	4-aminobiphenyl	
007U	132-32-1	3-amino-9-ethyl carbazole	
157U	57360-17-5	3-amino-9-ethyl carbazole hydrochloride	
008U	82-28-0	1-amino-2-methyl anthraquinone	
009U	101-05-3	Anilazine	
158U	142-04-1	Aniline hydrochloride	
011U	90-04-0	o-Anisidine	
012U	134-29-2	o-Anisidine hydrochloride	
013U	Class-01-0	Antimony (when in the form of particles 100 microns or less)	
014U	1397-94-0	Antimycin A	
147U	2642-71-9	Azinphos-ethyl	
148U	86-50-0	Azinphos-methyl	
159U	103-33-3	Azobenzene	
015U	101-27-9	Barban	
016U	22781-23-3	Bendiocarb	
017U	17804-35-2	Benomyl	
020U	1689-84-5	Bromoxynil	
160U	106-99-0	1,3-Butadiene	
161U	85-68-7	Butyl benzl phthalate	
022U	2425-06-1	Captafol	

Petro-Chem Wastes Received from Off-Site Source

Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
023U	133-06-2	Captan	
024U	63-25-3	Carbaryl	
025U	1563-66-2	Carbofuran	
027U	786-19-6	Carbophenothion	
028U	Class-08-6	Chloramines	
152U	470-90-6	Chlorfenuinphos	
029U	2921-88-2	Chloropyrifos	
030U	Class-05-3	Chlorinated dibenzofurans (other than those listed in Table 202)	
031U	Class-05-4	Chlorinated dioxins (other than those listed in Table 202)	
032U	7782-50-5	Chlorine gas	
033U	107-07-3	2-Chloroethanol	
034U	6959-48-4	3-(Chloromethyl) pyridine hydrochloride	
150U	106-48-9	p-chlorophenol	
162U	7005-72-3	1-chloro-4-phenoxybenzene	
036U	5131-60-2	4-chloro-m-phenylenediamine	
037U	95-83-0	4-chloro-o-phenylenediamine	
038U	126-99-8	Chloroprene	
163U	590-21-6	1-chloropropene	
151U	96-79-4	5-chloro-o-toluidene	
040U	1420-04-8	Clonitralid	
041U	Class-01-6	Cobalt (when in the form of particles 100 microns or less)	
042U	56-72-4	Coumasphos	
043U	120-71-8	p-Cresidine	
044U	7700-17-6	Crotoxyphos	
046U	66-81-9	Cycloheximide	
164U	72-55-9	P,P' DDE	
048U	39156-41-7	2,4-Diaminoanisole sulfate	
049U	101-80-4	4,4'-Diaminodiphenyl ether	
050U	95-80-7	2,4-Diaminotoluene	
051U	333-41-5	Diazinon	
052U	117-80-6	Dichlone	
054U	62-73-7	Dichlorvos	
055U	141-66-2	Dichrotophos	
056U	64-67-5	Diethyl sulfite	
165U	105-55-5	N,N'-Diethylthiourea	
057U	39300-45-3	Dinocap	
058U	78-34-2	Dioxathion	

Petro-Chem Wastes Received from Off-Site Source

Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
059U	2104-64-5	EPN	
166U	106-88-7	1,2-Epoxybutane	
061U	563-12-2	Ethion	
063U	115-90-2	Fensulfothion	
064U	55-38-9	Fenthion	
065U	33245-39-5	Fluchloralin	
068U	680-31-9	Hexamethyl phosphoramidate	
070U	123-31-9	Hydroquinone	
071U	1072-52-2	N-(2-Hydroxyethyl) ethyleneimine	
072U	14380-61-1	Hypochlorite	
073U	54-85-3	Isonicotinic acid hydrazine	
167U	59299-51-3	Kanechlor C	
074U	463-51-4	Ketene	
075U	78-97-7	Lactonitril	
076U	21609-90-5	Leptophos	
077U	Class-02-0	Lithium and compounds	
078U	569-64-2	Malachite green	
079U	121-75-5	Malathion	
082U	838-88-0	4,4'-Methylenebis(2-methylaniline)	
083U	101-61-1	4,4'-Methylenebis(N,N-dimethylaniline)	
086U	90-12-0	1-Methylnaphthalene	
088U	7786-34-7	Mevinphos	
089U	315-18-4	Mexacarbate	
090U	2385-85-5	Mirex	
092U	6923-22-4	Monocrotophos	
093U	505-60-2	Mustard gas	
094U	300-76-5	Naled	
095U	2243-62-1	1,5-Napthalenediamine	
096U	Class-02-2	Nickel (when in the form of particles 100 microns or less)	
097U	61-57-4	Niridazole	
098U	139-94-6	Nithiazide	
099U	602-87-9	5-Nitroacenaphthene	
100U	99-59-2	Nitro-o-anisidine	
101U	92-93-3	4-Nitrobiphenyl	
102U	1836-75-5	Nitrofen	
103U	531-82-8	N-(4-(5-nitro-2-furanyl)-2-thiazolyl)-acetamide	
104U	51-75-2	Nitrogen mustard	

Petro-Chem Wastes Received from Off-Site Source

Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
106U	156-10-5	p-Nitrosodiphenylamine	
168U	4549-40-0	N-Nitrosomethylvinylamine	
108U	135-20-6	N-nitroso-N-phenylhydroxylamine, ammonium salt	
169U	29082-74-4	Octachlorostyrene	
110U	301-12-2	Oxydemeton-methyl	
111U	1910-42-5	Paraquat dichloride	
112U	79-21-0	Peroxyacetic acid	
113U	136-40-3	Phenazopyridine hydrochloride	
115U	50-06-6	Phenobarbital	
116U	57-41-0	Phenytoin	
117U	630-93-3	Phenytoin sodium	
118U	4104-14-7	Phosazetim	
119U	732-11-6	Phosmet	
120U	13171-21-6	Phosphamidon	
121U	120-62-7	Piperonyl sulfoxide	
122U	Class-07-8	Polybrominated biphenyls (PBB)	
124U	57-57-8	Propiolactone	
127U	51-52-5	Propylthiouracil	
128U	83-749-4	Rotenone	
129U	57-56-7	Semicarbazide	
170U	563-41-7	Semicarbazide hydrochloride	
153U	62-74-8	Sodium fluoroacetate	
131U	100-42-5	Styrene	
132U	95-06-7	Sulfallate	
134U	72-54-8	TDE	
135U	107-49-3	TEPP	
136U	13071-79-9	Terbufos	
137U	961-11-5	Tetrachlorvinphos	
138U	139-65-1	4,4'-Thiodianiline	
139U	95-53-4	o-Toluidine	
140U	Class-08-4	Triaryl phosphate esters	
154U	56-35-9	Bis(tri-n-butyl tin) oxide	
171U	688-73-3	Tributyltin (and other salts and esters)	
172U	87-61-6	1,2,3-Trichlorobenzene	
173U	120-82-1	1,2,4 Trichlorobenzene	
141U	52-68-6	Trichlorfon	
142U	1582-09-8	Trifluralin	
143U	137-17-7	2,4,5-Trimethylaniline	

Petro-Chem Wastes Received from Off-Site Source

Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
174U	51-79-6	Urethane	
175U	593-60-2	Vinyl bromide	

Table 201a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Material	Extract Concentration milligrams per liter
D004	7440-38-2	Arsenic	5.0
D005	7440-39-3	Barium	100.0
D018	71-43-2	Benzene	0.5
D006	7440-43-9	Cadmium	1.0
D019	56-23-5	Carbon tetrachloride	0.5
D020	57-74-9	Chlordane	0.03
D021	108-90-7	Chlorobenzene	100.0
D022	67-66-3	Chloroform	6.0
D007	7440-47-3	Chromium	5.0
D023	95-48-7	o-Cresol	200.0**
D024	108-39-4	m-Cresol	200.0**
D025	106-44-5	p-Cresol	200.0**
D026		Cresol	200.0**
D016	94-75-7 2,4-D	(2,4-Dichlorophenoxyacetic Acid)	10.0
D027	106-46-7	1,4-Dichlorobenzene	7.5
D028	107-06-2	1,2-Dichloroethane	0.5
D029	75-35-4	1,1-Dichloroethylene	0.7
D030	121-14-2	2,4-Dinitrotoluene	0.13*
D012	72-20-8	Endrin (1,2,3,4,10,10-hexachloro 1,7-Epoxy-1,4,4a,5,6,7,8,8a octahydro-1,4-endo,endo-5,8-dimethano naphthalene)	0.02
D031	76-44-8	Heptachlor (and its Epoxide)	0.008
D032	118-74-1	Hexachlorobenzene	0.13*
D033	87-68-3	Hexachlorobutadiene	0.5
D034	67-72-1	Hexachloroethane	3.0
D008	7439-92-1	Lead	5.0
D013	58-89-9	Lindane (1,2,3,4,5,6-hexa-chlorocyclo-hexane, gamma isomer)	0.4
D009	7439-97-6	Mercury	0.2
D014	72-43-5	Methoxychlor (1,1,1-trichloro-2,2-bis (p-methoxyphenyl)ethane)	10.0
D035	78-93-3	Methyl ethyl ketone	200.0
D036	98-95-3	Nitrobenzene	2.0
D037	87-86-5	Pentachlorophenol	100.0
D038	110-86-1	Pyridine	5.0*
D010	7782-49-2	Selenium	1.0
D011	7440-22-4	Silver	5.0
D039	127-18-4	Tetrachloroethylene	0.7
D015	8001-35-2	Toxaphene (C10H10C18, Technical chlorinated camphene, 67-69	0.5

Petro-Chem Wastes Received from Off-Site Source

EPA Hazardous Waste Number	Chemical Abstract Services Number	Material	Extract Concentration milligrams per liter
		percent chlorine)	
D040	79-01-6	Trichloroethylene	0.5
D041	95-95-4	2,4,5-Trichlorophenol	400.0
D042	88-06-2	2,4,6-Trichlorophenol	2.0
D017	93-72-1	2,4,5 TP Silvex (2,4,5-Tri-chlorophe-noxypropionic acid)	1.0
D043	75-01-4	Vinyl chloride	0.2

D001	F012	K046	K151	P050	P119	U033	U091	U148	U206	001K
D002	F019	K048	K156	P051	P120	U034	U092	U149	U207	002K
D003	F024	K049	K157	P054	P121	U035	U093	U150	U208	
D004	F025	K050	K158	P056	P122	U036	U094	U151	U209	001U
D005	F032	K051	K159	P057	P123	U037	U095	U152	U210	033U
D006	F034	K052	K161	P058	P127	U038	U096	U153	U211	070U
D007	F035	K060	K169	P059	P128	U039	U097	U154	U213	074U
D008	F037	K061	K170	P060	P185	U041	U098	U155	U214	124U
D009	F038	K062	K171	P062	P188	U042	U099	U156	U215	131U
D010	F039	K069	K172	P063	P189	U043	U101	U157	U216	139U
D011		K071	K176	P064	P190	U044	U102	U158	U217	150U
D012	K001	K073	P001	P065	P191	U045	U103	U159	U218	
D013	K002	K083	P002	P066	P192	U046	U105	U160	U219	
D014	K003	K084	P003	P067	P194	U047	U106	U161	U220	
D015	K004	K085	P004	P068	P196	U048	U107	U162	U221	
D016	K005	K086	P005	P069	P197	U049	U108	U163	U222	
D017	K006	K087	P006	P070	P198	U050	U109	U164	U223	
D018	K007	K088	P007	P071	P199	U051	U110	U165	U225	
D019	K008	K093	P008	P072	P201	U052	U111	U166	U226	
D020	K009	K094	P009	P073	P202	U053	U112	U167	U227	
D021	K010	K095	P010	P074	P203	U055	U113	U168	U228	
D022	K011	K096	P011	P075	P204	U056	U114	U169	U234	
D023	K013	K097	P012	P076	P205	U057	U115	U170	U235	
D024	K014	K098	P013	P077		U058	U116	U171	U236	
D025	K015	K099	P014	P078	U001	U059	U117	U172	U237	
D026	K016	K100	P015	P081	U002	U060	U118	U173	U238	
D027	K017	K101	P016	P082	U003	U061	U119	U174	U239	
D028	K018	K102	P017	P084	U004	U062	U120	U176	U240	
D029	K019	K103	P018	P085	U005	U063	U121	U177	U243	
D030	K020	K104	P020	P087	U006	U064	U122	U178	U244	
D031	K021	K105	P021	P088	U007	U066	U123	U179	U246	
D032	K022	K106	P022	P089	U008	U067	U124	U180	U247	
D033	K023	K111	P023	P092	U009	U068	U125	U181	U248	
D034	K024	K112	P024	P093	U010	U069	U126	U182	U249	
D035	K025	K113	P026	P094	U011	U070	U127	U183	U271	
D036	K026	K114	P027	P095	U012	U071	U128	U184	U277	
D037	K027	K115	P028	P097	U014	U072	U129	U185	U278	
D038	K028	K116	P029	P098	U015	U073	U130	U186	U279	
D039	K029	K117	P030	P099	U016	U074	U131	U187	U280	
D040	K030	K118	P033	P101	U017	U075	U132	U188	U328	
D041	K031	K123	P034	P102	U018	U076	U133	U189	U353	
D042	K032	K124	P036	P103	U019	U077	U134	U190	U359	
D043	K033	K125	P037	P104	U020	U078	U135	U191	U364	
	K034	K126	P038	P105	U021	U079	U136	U192	U367	
F001	K035	K132	P039	P106	U022	U080	U137	U193	U372	
F002	K036	K136	P040	P108	U023	U081	U138	U194	U373	
F003	K037	K141	P041	P109	U024	U082	U140	U196	U387	
F004	K038	K142	P042	P110	U025	U083	U141	U197	U389	
F005	K039	K143	P043	P111	U026	U084	U142	U200	U394	
F006	K040	K144	P044	P112	U027	U085	U143	U201	U395	
F007	K041	K145	P045	P113	U028	U086	U144	U202	U404	
F008	K042	K147	P046	P114	U029	U087	U145	U203	U409	
F009	K043	K148	P047	P115	U030	U088	U146	U204	U410	
F010	K044	K149	P048	P116	U031	U089	U147	U205	U411	
F011	K045	K150	P049	P118	U032	U090				

Section 3

Waste Analysis Plan (A3)

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

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 Petro-Chem Processing Group of Nortru, LLC, 'Petro-Chem' facility. All activities associated with the WAP will be conducted at the Petro-Chem, 421 Lycaste Street, Detroit Michigan facility. The pre-acceptance procedure may be initiated at the Petro-Chem 550 Lycaste Street Transfer Facility.

This template is organized as follows:

A3.A COMMERCIAL FACILITY

- A3.A.1 Initial Waste Characterization Requirements for Generators
 - A3.A.1(a) Generator Waste Characterization Discrepancies
 - A3.A.1(b) Subsequent Waste Shipment Procedures
 - A3.A.1(c) Additional Waste Analysis Requirements
- Appendix I Example, Generator's Waste Profile Form
- A3.A.2 Waste Acceptance Procedures
 - A3.A.2(a) Review Paperwork
 - A3.A.2(b) Visual Inspection of Waste
 - A3.A.2(c) Waste Screening/Fingerprinting
- Table A3.A.1 Waste Analysis Procedures
- Table A3.A.2 Representative Sampling Procedures
- A3.A.3 Procedures to Ensure Compliance with Land Disposal Restrictions (LDR) Requirements
 - A3.A.3(a) Spent Solvent and Dioxin Wastes
 - A3.A.3(b) Listed Wastes
 - A3.A.3(c) Characteristic Wastes
 - A3.A.3(d) Radioactive Mixed Waste
 - A3.A.3(e) Leachates
 - A3.A.3(f) Laboratory Packs
 - A3.A.3(g) Contaminated Debris
 - A3.A.3(h) Waste Mixtures and Wastes with Overlapping Requirements
 - A3.A.3(i) Dilution and Aggregation of Wastes
- Table A3.A.3 Contaminated Debris Categories

A3.B CAPTIVE FACILITY

- A3.B.1 Selection of Waste Analysis Parameters
- Table A3.B.1 Waste Analysis Procedures
- Table A3.B.2 Sampling Procedures
- A3.B.2 Additional Waste Analysis Requirements
- A3.B.3 Procedures to Ensure Compliance with Land Disposal Restriction Requirements
 - A3.B.3(a) Spent Solvent and Dioxin Wastes
 - A3.B.3(b) Listed Wastes

	A3.B.3(c)	Characteristic Wastes
	A3.B.3(d)	Radioactive Mixed Waste
	A3.B.3(e)	Leachates
	A3.B.3(f)	Laboratory Packs
	A3.B.3(g)	Contaminated Debris
	A3.B.3(h)	Waste Mixtures and Wastes with Overlapping Requirements
	A3.B.3(i)	Dilution and Aggregation of Wastes
	Table A3.B.3	Contaminated Debris Categories
A3.C	NOTIFICATION, CERTIFICATION, AND RECORD KEEPING REQUIREMENTS	
	A3.C.1	Retention of Generator Notices and Certifications
	A3.C.2	Notification and Certification Requirements for Treatment Facilities
	A3.C.3	Waste Shipped to Subtitle C Facilities
	A3.C.4	Waste Shipped to Subtitle D Facilities
	A3.C.5	Recyclable Materials
	A3.C.6	Record Keeping
	A3.C.7	Required Notice
Attachment A3.C.1		Documentation of Variations on Test Methods Used for Waste Analysis

A3.A COMMERCIAL FACILITY

Petro-Chem is a commercial facility that receives wastes generated off site. Petro-Chem has developed a WAP to ensure that its facility at 421 Lycaste Street, Detroit, 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 Plan included in Template A2. All samples for the purpose of waste characterization will be collected, transported, stored, and disposed by trained and qualified individuals in accordance with the QA/QC Plan.

In accordance with R 299.9609 and 40 CFR §264.73 and Part 264, Appendix I, Petro-Chem will retain all records and results of waste determinations performed as specified in 40 CFR §§264.13, 264.17, 264.314, 264.1034, 264.1063, 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)]

Petro-Chem has a very systematic and complete waste profiling system. Generators are required to complete a Generator Waste Profile (GWP) form for each waste stream that documents all of the waste characterization data outlined on EGLE's example generator waste profile form (Figure A.3.A.1 on the original form). Each waste stream profile is reviewed by Petro-Chem's technical staff for approval prior to initial waste shipments. An example copy of a Petro-Chem's Generator's Waste Profile form has been provided in Appendix I to this WAP located in Volume I, Section 3 of this application. The information on the GWP is entered into Petro-Chem's tracking software. A printed copy of the GWP, with the required certification statement, is provided to the generator to certify. The

GWP information supplied by the generator must be as specific as possible and not allow for uncertainty.

In addition to the waste profile information submitted by the generator, Petro-Chem may:

- Require submittal of a representative waste sample
- Conduct an audit of the generator facility
- Review industry literature to identify typical waste streams, such as Safety Data Sheets (SDS) for discarded products and product constituents in the waste.
- Other: Request past characterization reports, lab test results

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]

During the initial review process of the waste characterization report, if it is determined that the documents submitted are incomplete or contain information that is otherwise inconsistent with the supporting documentation or lab test results (as may be performed on a pre-shipment sample), the generator will be notified of the discrepancy and the requirement for clarification. Clarification may include:

1. re-submittal of an updated GWP
2. submittal or re-submittal of a pre-shipment sample
3. submittal of further supporting documents

The GWP will not be approved for subsequent shipment until the generator has clarified all discrepancies identified and recertified all changes made to the GWP.

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)]

In the event Petro-Chem is notified, or has reason to believe, that the process or operation generating the waste stream has changed, the generator must either provide an amended GWP or submit a new GWP to obtain approval. When the results of the inspection indicates that the waste delivered does not match the waste designated on the manifest or the GWP on file a discrepancy report will be completed and the generator will be contacted to resolve the discrepancy. The resolution will be based on Petro-Chem's ability to legally and safely manage the waste.

Discrepancy Resolution:

For waste materials that Petro-Chem can legally & safely manage:

1. The generator will be informed of the discrepancy and a new GWP will be submitted for repeated discrepancies of the same nature
2. All accompanied shipping documents will be updated to reflect the discrepant waste material
3. The material may be repackaged if necessary to ensure the contents are compatible and appropriate with the package to effect safe and compliant storage or transshipment of the material
4. The markings and/or labels of the package may be updated based on the characterization results of the material

5. The generator always has the option to have the material returned or shipped to an alternate facility for management
6. If the discrepancy cannot be resolved within 15 days or for waste materials that Petro-Chem cannot legally or safely manage, Petro-Chem will initiate the load rejection procedure as per R299.9608
7. If Petro-Chem accepts permitted hazardous wastes without the appropriate shipping document(s), an 'Unmanifested Waste Report' will be filed with MDEQ within 15 days of acceptance according to R299.9610

As a minimum requirement, on an annual basis the generator is required to certify that their waste stream has not changed since the previous submittal or provide a new GWP and supporting documentation. If neither of these activities is completed, the waste stream approval is cancelled and will not be reapproved for receipt until the generator re-signs the GWP verifying any changes.

Upon receipt of the generator certification of no change to the waste generating process, the existing documentation, initial analysis is reviewed for consistency and accuracy, then re-approved for future receipt. Any new documentation received will be evaluated and the waste stream will be re-approved and updated in the database or a request will be made for a new GWP for evaluation and approval if the new documentation is inconsistent with the original approval.

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)]

Petro-Chem 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
[Volume V, Section 1, Template C1, Section C1.G and C1.H]
- R 299.9605 and 40 CFR §264.314 Special requirements for bulk and containerized liquids
[Volume V, Section 2, Template C2. Section C2.J]
- 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 A2, Section A2]

The waste acceptance procedures for the storage and transshipment of hazardous wastes are identical. The waste inspection described in A3.A.2 (b) will include an inspection for biodegradable sorbent materials. These tasks are discussed in the following sections below.

Petro-Chem has a very systematic and complete waste profiling system. Generators are required to complete a Generator Waste Profile (GWP) form for each waste stream that documents all of the waste characterization data outlined on EGLE's example generator waste profile form. Each waste stream profile is reviewed by Petro-Chem's technical staff for approval prior to initial waste shipments. An example copy of a Petro-Chem's Generator's Waste Profile form has been provided as Appendix I to this WAP, Volume I, Section 3, Appendix I of this application.

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)]

Waste shipments arrive at the facility in the following containers:

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Drums | <input checked="" type="checkbox"/> Totes | <input checked="" type="checkbox"/> Tanker trucks |
| <input checked="" type="checkbox"/> Carboys | <input checked="" type="checkbox"/> Wrangler box | <input checked="" type="checkbox"/> Filter bags |
| <input checked="" type="checkbox"/> Roll-off boxes | <input checked="" type="checkbox"/> Vacuum trucks | |
| <input checked="" type="checkbox"/> Other: pails, boxes, lugger boxes, super sacks | | |

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

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

The waste acceptance procedures for the storage and transshipment of hazardous wastes are identical. These tasks are discussed in the subsections 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)]

Petro-Chem will review all paperwork, including manifests and LDR notifications, before any wastes are accepted by the facility. Petro-Chem 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.

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

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

Petro-Chem will visually inspect the contents of a minimum of 10 percent of the containers and up to a maximum of 100 percent of the containers from each nonreactive waste stream from each generator. The contents of the container will be visually inspected for the following:

Color pH Physical State Consistency Other: Notable Odors &
Biodegradable
Sorbent Material

Visual observations will be recorded and compared to the waste profile information. All discrepancies will be resolved before processing the waste. The applicant should describe how the information gathered would help identify each movement of hazardous waste managed at the facility.

If a significant manifest discrepancy is discovered (such as variation in piece count or misrepresentation of the type of waste or corrosive rather than flammable), the generator will be contacted to resolve the discrepancy. Any changes to the shipping documents and/or process and/or designated facility will be documented. Any discrepancies that cannot be resolved with the generator or transporter within 15 days of acceptance will initiate the rejection procedures as per R299.9608.

Each outer package of waste will be visually inspected for damage or leaks to ensure the container is suitable for further handling.

The waste inspection will include a visual inspection of the containerized hazardous waste to determine whether the generator or treater has added a biodegradable sorbent to the waste in the container.

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)]

Table A3.A.1 lists the waste analysis procedures, including screening parameters for each hazardous waste, the rationale for the selection of these parameters, test methods that will be used to test for these parameters, the appropriate reference, whether the waste is specified in R 299.9216, the frequency of waste screening, and the rationale for the frequency. The sampling methods that will be used to obtain a representative sample of the waste to be analyzed and the sampling equipment and rationale are summarized in Table A3.A.2. The results of the waste screening/fingerprint analysis will be compared to the waste profile information and analytical results provided by the generator during the initial waste characterization process. The outside container of inner laboratory pack containers will be 100 percent visually inspected. Containers of personal protective equipment (PPE) or debris will undergo visual inspection. All discrepancies will be resolved before processing the waste.

Discrepancies Arising from Fingerprinting Results:

For permitted waste materials that Petro-Chem can safely manage:

1. The generator will be informed of the discrepancy and a new GWP will be submitted for repeated discrepancies of the same nature
2. All accompanied shipping documents will be updated to reflect the discrepant waste material where necessary
3. The material may be repackaged if necessary to ensure the contents are compatible and appropriate with the package to effect safe and compliant storage or transshipment of the material

4. The markings and/or labels of the package may be updated based on the characterization results of the material
5. The generator always has the option to have the material returned or shipped to an alternate facility for management
6. If the discrepancy cannot be resolved within 15 days or for waste materials that Petro-Chem cannot legally or safely manage, Petro-Chem will initiate the load rejection procedure as per R299.9608

Wastes that are unacceptable for receipt, will be rejected in accordance with R299.9608
Unacceptable wastes include:

1. Explosives, with the exception of Class 1.4s and Class 1.4g, as defined by the US Department of Transportation (USDOT)
2. Polychlorinated Biphenyls, as regulated under the Toxic Substance Control Act (TSCA)
3. Dioxin Wastes, as defined by the Resource Conservation and Recovery Act (RCRA)
4. Radioactive, as defined by the Nuclear Regulatory Commission
5. Biohazards, as regulated by OSHA or EPA

Waste stream sampling and testing is performed consistent with the following methods:

- Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846), Update III plus variations. December 1996. EPA
- Waste Analysis at Facilities that Generate, Treat, Store, and Dispose Hazardous Waste; A Guidance Manual .EPA 530-R-94-024, OSWER Directive No. 9938.4-03. April 1994. EPA

Table A3.A.1 Waste Analysis Procedures

Screening Parameter	Rationale for Parameter	Test Method	Reference	Specified in R 299.9216 (Y/N)	Frequency	Rationale for Frequency
Oxidizing Potential	Determine reactivity of material; strongly reactive materials	Test Strip	Petro-Chem Lab SOP;	N	Each bulk inorganic container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Ensure reactive materials are managed to meet the requirement of R299.9614 & R299.9615 for containers and tank systems respectively
Ignitability	Identify flammable materials for safe handling and storage	Pensky-Martens Closed Cup Tester	Petro-Chem Lab SOP; SW-846 Method 1010, ASTM D93-90, E502-84	Y	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Ensure ignitable materials are managed to meet the requirement of R299.9614 & R299.9615 for containers and tank systems respectively
Isocyanate Screen	Identify incompatible fuel type waste streams	Visual Observation	Petro-Chem Lab SOP	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Prevent commingling of incompatible fuel type wastes in tank systems
Compatibility/Reactivity	Identify safe handling methods for materials	Visual Observation	Petro-Chem Lab SOP; ASTM D5058; ASTM D5232	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Ensure incompatible materials are not commingled; ensure proper storage of incompatible materials
Moisture Content	Determine aqueous content of liquid organic waste streams	Karl Fischer Titration	Petro-Chem Lab SOP; ASTM D4377, ASTM D5530	N	Each bulk container, tanker truck or trailer; composite up to 10 samples of each non-bulk container of liq. waste of each manifest line item	Identify organic wastes subject to Benzene NESHAP standards; determine blending ratios for fuel type wastes
Specific Gravity/Density	Determine weight of material for safe handling	Gravimetric Determination	Petro-Chem Lab SOP; ASTM D287	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	weight of material is acceptable for placement in tanks or storage in appropriately DOT rated container
pH	Identify wastes that may compromise structural integrity of containers, tanks; identify appropriate PPE for handling material	pH/ISE Electrode	Nortru Lab SOP; SW-846 Methods 9045C, 9040B	Y	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Prevent improper placement of materials in tank systems; ensure safe handling of materials; ensure suitability of containers for storage

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Screening Parameter	Rationale for Parameter	Test Method	Reference	Specified in R 299.9216 (Y/N)	Frequency	Rationale for Frequency
PCB's	Identify PCB containing wastes	Gas Chromatography/ ECD	Nortru Lab SOP; SW-846 Method 8081A; 3620B	N	Each bulk container, tanker truck or trailer; composite up to 10 samples of each non-bulk container of org waste of each manifest line item	Prevent acceptance of wastes contain PCB's greater than 50 ppm
Heat of Combustion	Determine heat value of materials destined for fuel program	Bomb Calorimetry	Nortru Lab SOP; ASTM D240, E144, D5468	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of liquid organic waste of each manifest line item	Confirm criteria for acceptance into fuel program (> 5,000 BTU/lb) (<5,000 BTU/lb will be evaluate for beneficial use at specific BIFs)
Halogen Content	Determine % halogen for materials destined for fuels program; used oil presumption	Combustate Titration	Petro-Chem Lab SOP; SW-846 Method 9253	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of liquid organic waste of each manifest line item	Verify blending ratios to meet fuel specification for cement kilns;
Metals	Verify waste code information; verify hazard characteristic for LDR	Inductively Coupled Plasma	Petro-Chem Lab SOP; SW-846 Method	Y	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of waste of each manifest line item	Ensure LDR are met; verify characteristics for offsite transportation

Note: The facility is subject to an Air Permit which includes LDAR monitoring. The facility has certified compliance with BB and CC through the Air program.

Table A3.A.2 Representative Sampling Procedures

Container Type or Material	Sampling Method¹	Sampling Equipment	Rationale
Non-bulk container of liquid	Drum thief or equivalent	Drum thief or equivalent	Representative core sample
Bulk portable container of liquid	ASTM D 6063	Coliwasa or equivalent	Representative core sample
Non-bulk container of solids	ASTM D 6063	Trier/Scoop	Commingling of various Grab samples at different depths
Bulk portable container of solids	ASTM D 6063	Trier/Scoop	Commingling of various Grab samples at different depths

¹ The sampling method are equivalent with the sampling methods described in 40 CFR, Part 261, Appendix I and follow sample collection methods and equipment described in SW846.

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

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 (GWP) 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:

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:

1. The generator will be informed of the discrepancy and a new LDR notification will be submitted
2. All accompanied shipping documents will be updated to reflect any updates to the LDR notification where necessary
3. The material may be repackaged if necessary to ensure the contents are compatible and appropriate with the package to effect safe and compliant storage or transshipment of the material
4. The markings and/or labels of the package may be updated based on the updated LDR notification
5. The generator always has the option to have the material returned or shipped to an alternate facility for management
6. If the discrepancy cannot be resolved within 15 days or for waste materials that Petro-Chem cannot legally or safely manage, Petro-Chem will initiate the load rejection procedure as per R299.9608

In accordance with the LDR regulations, all wastes shipped off site will be analyzed, or generator knowledge will be used when appropriate, to determine whether the waste meets the applicable LDR treatment standards specified in R 299.9627 and 40 CFR §§268.41-43. All analytical results will be maintained in the facility operating record until closure of the facility. Wastes that are determined through analysis to meet treatment standards as specified in R 299.9627 and 40 CFR §268.41-43 will be disposed accordingly at a Petro-Chem approved and appropriately permitted disposal facility.

Petro-Chem will supply LDR notifications and certification, including appropriate analytical records to support the certification, to the final receiving facility with each shipment of waste. The notifications and certifications will contain the information required under R 299.9627 and 40 CFR §268.7. Any additional data obtained from the generators (e.g., Waste Profile Forms, original LDR notifications, analysis provided by generators) will be provided to the licensed TSDF where the waste will be sent.

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.

Dioxin Waste, as defined by the Resource Conservation and Recovery Act (RCRA), will not be accepted or managed at the facility.

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 GWP waste 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.

Generator process knowledge will be used to identify the underlying hazardous constituents that are expected to be present in the waste. Generator process knowledge will be documented on the waste material profile report and LDR notification.

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)]

Petro-Chem does not accept radioactive of mixed waste.

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.

Petro-Chem accepts F039 leachates for storage only. The leachate will be transport to an approved and appropriately permitted off-site treatment and disposal facility where it will be analyzed and treatment by the appropriate specified treatment technology to meet LDR standards.

A3.A.3(f) Laboratory Packs

[R 299.9627 and 40 CFR §§268.7and 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.

The laboratory packs accepted at Petro-Chem are not land disposed. Lab packs may be repackaged, consolidated, or transshipped for further management off-site at other permitted TSDFs facilities. The LDR notification information that was provided by the generator is forwarded to the off-site facility.

If a laboratory pack hazardous waste is combined with non-laboratory pack hazardous waste prior to or during treatment, the entire mixture will be treated to meet the most stringent treatment standards for each waste constituent before being land disposed.

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)]

- The hazardous debris categories and the contaminant categories associated with the types of hazardous debris accepted at the facility are presented in Table A3.A.3.

Hazardous debris accepted at the facility that exhibits the characteristics of ignitability, corrosivity, or reactivity will be treated using one of the extraction, destruction, or immobilization technologies identified in Table 1 of 40 CFR §268.45.

OR

- Contaminated debris is not accepted at the facility.

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 or a listed Reactivity Group Number (RGN) 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, will not be diluted from the point of generation to the point of land disposal. Characteristic wastes will 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.

The facility will 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 will aggregate wastes for treatment and disposal.

Table A3.A.3 Contaminated Debris Categories

Hazardous Debris Category	Contaminant Category
Glass: Yes	Characteristic or listed waste
Metal: Yes	Characteristic or listed waste
Plastic: Yes	Characteristic or listed waste
Rubber: Yes	Characteristic or listed waste
Brick: Yes	Characteristic or listed waste
Cloth: Yes	Characteristic or listed waste
Concrete: Yes	Characteristic or listed waste
Paper: Yes	Characteristic or listed waste
Asphalt: Yes	Characteristic or listed waste
Rock: Yes	Characteristic or listed waste
Wood: Yes	Characteristic or listed waste
<p>Note: Hazardous debris that is accepted at the facility is only stored. The debris is then sent to an offsite permitted TSD facility where the offsite facility treats the debris in accordance with treatment standards R 299.9627 and 40 CFR §268.45, or to meet the existing treatment standards for each waste constituent specified in R 299.9627 and 40 CFR §§268.41 and 268.43 (except wastes with a specified treatment technology listed in R 299.9627 and 40 CFR §268.42, which must be treated as required in R 299.9627 and 40 CFR §268.42). LDR forms will be completed and provided to the end treatment facility.</p>	

A3.B CAPTIVE FACILITY

- The facility generates waste on site. The facility does not receive waste generated off site.

OR

- Petro-Chem generates waste on site. Petro-Chem also receives waste generated off site. Waste screening procedures for receiving wastes from off-site generators is discussed in Section A3.A.

The facility does not treat hazardous waste onsite.

All analysis performed pursuant to this application is consistent with the QA/QC Plan included in Volume I, Section 2, Appendix I and the Chemical Physical Analysis described in EGLE form A2. All samples for the purpose of waste characterization will be collected, transported, stored, and disposed by trained and qualified individuals in accordance with the QA/QC Plan.

In accordance with R 299.9609 and 40 CFR §264.73 and Part 264, Appendix I, Petro-Chem 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.B.1 Selection of Waste Analysis Parameters [R 299.9605(1) and 40 CFR §264.13(B)(1)]

Petro-Chem will select waste analysis parameters to confirm the identity of waste streams generated at the facility. The selection of waste analysis parameters will be based on knowledge of the raw material, analytical results, and physical and chemical processes that produce the waste stream. Knowledge of the process and analytical testing will be used to determine if the hazardous wastes exhibit one or more characteristics to: (1) ensure compliance with LDR regulations and (2) provide waste compatibility information to determine appropriate waste storage.

Table A3.B.1 lists the waste analysis procedures, including the waste analysis parameters for each hazardous waste, the rationale for the selection of these parameters, test methods that will be used to test for these parameters, the appropriate reference, the frequency of waste characterization, and the rationale for frequency. The sampling method that will be used to obtain a representative sample of the wastes to be analyzed, the sampling equipment to use, and rationale to use are presented in Table A3.B.2.

A3.B.2 Additional Waste Analysis Requirements

[R 299.9605(1) and R 299.9504(1)(c) and 40 CFR §264.13(b)(6) and (c)(3)]

Petro-Chem will review the waste characterization information to ensure that the facility is authorized to manage the waste in compliance with the following:

(Check as appropriate)

- R 299.9605 and 40 CFR §264.17 General requirements for ignitable, reactive, or incompatible wastes
[Volume V, Section 1, Template C1, Section C1.G and C1.H]
- R 299.9605 and 40 CFR §264.314 Special requirements for bulk and containerized liquids
[Volume V, Section 2, Template C2, Section C2.J]
- R 299.9630 and 40 CFR §264.1034(d) Test methods and procedures (Subpart AA)
[Template A3, Section A3.B(2)]
- R 299.9631 and 40 CFR §264.1063(d) Test methods and procedures (Subpart BB)
[Template A3, Section A3.B(2)]
- 40 CFR §264.1083 Waste determination procedures (Subpart CC)
[Template A3, Section A3.B(2)]
- R 299.9627 and 40 CFR §268.7 Waste analysis and record keeping LDR requirements
[Template A3, Sections A3.B(3) and A3.C]
- R 299.9228 Universal waste requirements
[Template A2, Section A2]

Table A3.A.1 Waste Analysis Procedures

Screening Parameter	Rationale for Parameter	Test Method	Reference	Specified in R 299.9216 (Y/N)	Frequency	Rationale for Frequency
Oxidizing Potential	Determine reactivity of material; strongly reactive materials	Test Strip	Petro-Chem Lab SOP;	N	Each bulk inorganic container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Ensure reactive materials are managed to meet the requirement of R299.9614 & R299.9615 for containers and tank systems respectively
Ignitability	Identify flammable materials for safe handling and storage	Pensky-Martens Closed Cup Tester	Petro-Chem Lab SOP; SW-846 Method 1010, ASTM D93-90, E502-84	Y	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Ensure ignitable materials are managed to meet the requirement of R299.9614 & R299.9615 for containers and tank systems respectively
Isocyanate Screen	Identify incompatible fuel type waste streams	Visual Observation	Petro-Chem Lab SOP	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Prevent commingling of incompatible fuel type wastes in tank systems
Compatibility/Reactivity	Identify safe handling methods for materials	Visual Observation	Nortru Lab SOP; ASTM D5058; ASTM D5232	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Ensure incompatible materials are not commingled; ensure proper storage of incompatible materials
Moisture Content	Determine aqueous content of liquid organic waste streams	Karl Fischer Titration	Petro-Chem Lab SOP; ASTM D4377, ASTM D5530	N	Each bulk container, tanker truck or trailer; composite up to 10 samples of each non-bulk container of liq. waste of each manifest line item	Identify organic wastes subject to Benzene NESHAP standards; determine blending ratios for fuel type wastes
Specific Gravity/Density	Determine weight of material for safe handling	Gravimetric Determination	Petro-Chem Lab SOP; ASTM D287	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	weight of material is acceptable for placement in tanks or storage in appropriately DOT rated container
pH	Identify wastes that may compromise structural integrity of containers, tanks; identify appropriate PPE for handling material	pH/ISE Electrode	Nortru Lab SOP; SW-846 Methods 9045C, 9040B	Y	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of each manifest line item	Prevent improper placement of materials in tank systems; ensure safe handling of materials; ensure suitability of containers for storage

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Screening Parameter	Rationale for Parameter	Test Method	Reference	Specified in R 299.9216 (Y/N)	Frequency	Rationale for Frequency
PCB's	Identify PCB containing wastes	Gas Chromatography/ ECD	Nortru Lab SOP; SW-846 Method 8081A; 3620B	N	Each bulk container, tanker truck or trailer; composite up to 10 samples of each non-bulk container of org waste of each manifest line item	Prevent acceptance of wastes contain PCB's greater than 50 ppm
Heat of Combustion	Determine heat value of materials destined for fuel program	Bomb Calorimetry	Nortru Lab SOP; ASTM D240, E144, D5468	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of liquid organic waste of each manifest line item	Confirm criteria for acceptance into fuel program (> 5,000 BTU/lb) (<5,000 BTU/lb will be evaluate for beneficial use at specific BIFs)
Halogen Content	Determine % halogen for materials destined for fuels program; used oil presumption	Combustate Titration	Petro-Chem Lab SOP; SW-846 Method 9253	N	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of liquid organic waste of each manifest line item	Verify blending ratios to meet fuel specification for cement kilns;
Metals	Verify waste code information; verify hazard characteristic for LDR	Inductively Coupled Plasma	Petro-Chem Lab SOP; SW-846 Method	Y	Each bulk container, tanker truck or trailer; composite of up to 10 samples of each non-bulk container of waste of each manifest line item	Ensure LDR are met; verify characteristics for offsite transportation

Note: The facility is subject to an Air Permit which includes LDAR monitoring. The facility has certified compliance with BB and CC through the Air program.

Table A3.B.2 Sampling Procedures

Container Type or Material	Sampling Method¹	Sampling Equipment	Rationale
Non-bulk container of liquid	Drum thief or equivalent	Drum thief or equivalent	Representative core sample
Bulk portable container of liquid	ASTM D 6063	Coliwasa or equivalent	Representative core sample
Non-bulk container of solids	ASTM D 6063	Trier/Scoop	Commingling of various Grab samples at different depths
Bulk portable container of solids	ASTM D 6063	Trier/Scoop	Commingling of various Grab samples at different depths

¹ The sampling method are equivalent with the sampling methods described in 40 CFR, Part 261, Appendix I and follow sample collection methods and equipment described in SW846.

A3.B.3 Procedures to Ensure Compliance with LDRs Requirements
[R 299.9627 and 40 CFR, Part 268]

In accordance with the LDR regulations, all wastes shipped off site will be analyzed to determine whether the waste meets the applicable LDR treatment standards specified in R 299.9627 and 40 CFR §268.41-43. All analytical results will be maintained in the facility operating record for up to five years. Wastes that are determined through analysis to meet treatment standards as specified in R 299.9627 and 40 CFR §§268.41-43 will be disposed at an appropriately permitted treatment and disposal facility.

Petro-Chem will supply LDR notifications and certification, including appropriate analytical records or documentation of generator knowledge to support the certification, to the final receiving disposal facility with each shipment of waste. The notifications and certifications will contain the information required under R 299.9627 and 40 CFR §268.7.

A3.B.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.

Dioxin Waste, as defined by the Resource Conservation and Recovery Act (RCRA), are not generated or managed at the facility.

A3.B.3(b) Listed Wastes
[R 299.9627, R 299.9213, and R 299.9214 and 40 CFR, Sections 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 assist in determining 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 disposal facility will use TCLP to determine if wastes meet treatment standards.

Arsenic containing wastewaters (K031, K084, K101, P010, P011, P012, P036, P038, and/or UB6) will be analyzed using the extraction procedure (EP) toxicity test to determine compliance with treatment standards.

Generator process knowledge will be documented on the waste material profile report and LDR notification.

A3.B.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, and 268.43 and Part 268, Appendix I and Appendix IX]

Generator process knowledge will be used to determine whether characteristic wastes meet 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 final disposal facility will determine if wastes meet treatment standards.

Generator process knowledge will be documented on the generator waste profile report and LDR notification.

A3.B.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 generate radioactive mixed waste.

OR

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

A3.B.3(e) Leachates

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

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

OR

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

A3.B.3(f) Laboratory Packs

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

The facility does not generate laboratory packs.

OR

The laboratory packs generated at the facility are not land disposed.

The laboratory packs generated at the facility are not land disposed. Lab packs may be repackaged, consolidated, or transshipped for further management off-site. The LDR notification information that was provided by the generator is forwarded to the off-site facility.

If a laboratory pack hazardous waste is combined with nonlaboratory pack hazardous waste prior to, or during, treatment, the entire mixture will be treated to meet the most stringent treatment standards for each waste constituent before being land disposed.

A3.B.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)]

The hazardous debris categories and the contaminant categories associated with the type of hazardous debris generated at the facility are presented in Table A3.B.3.

Hazardous debris generated at the facility that exhibits the characteristics of ignitability, corrosivity, or reactivity will be treated at the disposal facility using one of the extraction, destruction, or immobilization technologies identified in Table 1 of 40 CFR §268.45.

OR

Contaminated debris is not generated at the facility.

A3.B.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 waste mixtures and wastes carrying multiple codes are properly characterized. Wastes that carry more than one characteristic or listed Reactive Group Number RGN will be identified with a number for each characteristic. Waste identified as meeting a listing and exhibiting a characteristic will be identified with the listed waste code for the purpose of manifesting.

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

Listed wastes, if destined for land disposal, will 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 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.

The facility will 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 off site.

Table A3.B.3 Contaminated Debris Categories

Hazardous Debris Category	Contaminant Category
Glass: Yes	Characteristic or listed waste
Metal: Yes	Characteristic or listed waste
Plastic: Yes	Characteristic or listed waste
Rubber: Yes	Characteristic or listed waste
Brick: No	N/A
Cloth: Yes	Characteristic or listed waste
Concrete: No	N/A
Paper: Yes	N Characteristic or listed waste
Asphalt: No	N/A
Rock: No	N/A
Wood: Yes	Characteristic or listed waste
<p>Note: Hazardous debris that is managed at the facility is only stored. The debris is then sent to an offsite permitted TSD facility where the offsite facility treats the debris in accordance with treatment standards R 299.9627 and 40 CFR §268.45, or to meet the existing treatment standards for each waste constituent specified in R 299.9627 and 40 CFR §§268.41 and 268.43 (except wastes with a specified treatment technology listed in R 299.9627 and 40 CFR §268.42, which must be treated as required in R 299.9627 and 40 CFR §268.42) LDR forms will be completed and provided to the end treatment facility.</p>	

A3.C NOTIFICATION, CERTIFICATION, AND RECORDKEEPING REQUIREMENTS

[R 299.9627 and R 299.9609 and 40 CFR §§264.73, 268.7, and 268.9(d)]

Petro-Chem will perform the following procedures for preparing and/or maintaining applicable notifications and certifications to comply with LDRs as listed in the following subsections:

A3.C.1 Retention of Generator Notices and Certifications

[R 299.9627 and 40 CFR §268.7(a)(7)]

Petro-Chem 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)]

Petro-Chem waste or treatment residues received from off-site sources or generated from processing activities will be further managed at a different treatment or storage facility. The Petro-Chem 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).

The offsite treatment facility complies 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).

Each shipment of waste to be transported off site to a RCRA-authorized Subtitle C TSD will include a written notification and certification that the waste either meets or does not meet applicable treatment standards of prohibition levels. Biodegradable sorbents will not be added to wastes shipped to Subtitle C landfills.

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 treat hazardous wastes; therefore, RCRA wastes generated by Petro-Chem or received from off-site sources are not shipped to Subtitle D facilities.

The facility does not ship waste to Subtitle D facilities.

OR

If the facility ships [Insert type of waste (e.g., hazardous debris or characteristic waste)] 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)(6)]

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)]

Petro-Chem maintains a facility operating log in accordance with R 299.9609 and 40 CFR §264.73. The operating log consists of Tank Farm Volumes & Capacities, Inspection Forms, Inbound & Outbound Summary, Maintenance Request Form, Testing Results, Discrepancy Reports, and Shipping Documents.

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.

The facility does not manage restricted waste that is excluded from the definition of a hazardous or solid waste or exempt from Subtitle C regulations. However, if the facility were to manage an exempt waste, the facility will place a one-time notice in the facility files describing the generation, basis for exclusion or exemption, and disposal of the waste. For each shipment of treated debris, the facility will place a certification of compliance with applicable treatment standards in the facility's files.

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

The facility will notify the Division Director 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.

Appendix I

Example Generator Waste Profile



Generator's Waste Profile HCCACID-00

Status : ACTIVE

Starts : 15 JUN 2009

Sales Rep 2504 Becky Schaefer

Expires : 30 JUL 2011

Acct Mngr 2513 Trenessa Mitchell

A: GENERATOR (108149) SITE INFORMATION

ROTODYNE DECORATIVE TECH.
104 WHITING FARM ROAD
HOLYOKE, MA 01040

> Contact FRANK GERMAIN

TSDF Approval List No

B: CUSTOMER (56805) INFORMATION

EPA MAR000006528 HERITAGE-CRYSTAL CLEAN, LLC
NAICS 9999 Neshap N 3970 WEST 10TH STREET
INDIANAPOLIS, IN 46222

Phone (413) 536-5508

C: WASTE INFORMATION

On File > MSDS No Analysis No Sample No

Waste Name MIXED ACIDS

Process UNUSED, UNWATNED, OUT-OF-DATE PRODUCT, INDUSTRIAL CLEANING MATERIALS, COLLECTION OF CAUSTICS MATERIALS AT TSDF

Unused Commercial Product No Spill Residue No

D: PHYSICAL CHARACTERISTICS OF WASTE

Phys States L-Liq Top Color VARIOUS
Mid Color
Bot Color
% Ash
% Water

Odor None
Layers Single Phased
Spec Grav 0.8-1.0
BTU/Lbs
% Halogens

PH Range <2
Free Liq %
Flash Test Gen Knowledge
Flash Rnge >200F
Viscosity No
Pumpable No

E: CHEMICAL COMPOSITION OF WASTE

Information Provided By Generator

MIXED MINERAL ACIDS (100 %) SULFURIC ACID (- %)
HYDROCHLORIC ACID (- %) METALS (< 5 %)

PCB's Cyanides Phenolics NS Sulfides Dioxins

F: METALS METHOD

Gen Knowledge Cadmium <1 Chromium <5 Silver <5 Zinc
Arsenic <5 Merc TCLP <0.2 Selenium <1 Nickel Copper
Barium <100 Lead <5 Merc Tot Thallium Chrome-6

G: OTHER CHARACTERISTICS OF WASTE

Ign. Solid No Oxidizer No Explosive No Shock Sensitive No Cyanide Reactive No Sulfide Reactive No
Explosive Asbestos Radioactive No Water Reactive No Reactive (Other) No
Herbicides Pesticides Ammonia Infectious No Medical No

H: EPA / STATE WASTE IDENTIFICATION

EPA Waste Yes State Waste Yes TSCA No Waste Water No Universal Waste No
Form W103 Source G07 Origin 1 SubPart CC No NESHAPS No CERCLA No Debris No Reg. Organics No
EPA Codes D002 D004 D007 D008 D009 D011
State Codes 029L
UHC
Categorical Discharge Standards No

I: SHIPPING INFORMATION

Marine Pollutant No

Containers Qty to Ship Now Projected Volume
DOT Descrip WASTE VARIOUS - SEE SHIPPING LABEL

J: SPECIAL DISPOSAL INSTRUCTIONS



Generator's Waste Profile HCCACID-00

Status : ACTIVE

Starts : 15 JUN 2009

Sales Rep 2504 Becky Schaefer

Expires : 30 JUL 2011

Acct Mngr 2513 Trenessa Mitchell

GENERATOR CERTIFICATION

I hereby certify, as an authorized representative of the Generator named above, that Petro-Chem Processing Group has been fully informed of all information known about this waste, including but not limited to, the waste's generation process, composition, and physical characteristics, necessary to identify proper treatment and disposal of waste and this information is true and accurate. If this is an existing profile which is being renewed, I hereby certify that there have been no changes in this waste, chemical, physical, or regulatory designation since full characterization by sample testing.

Signature

Printed Name

Title

Date

Section 4

Inspection Plan (A5)

**FORM EQP 5111 ATTACHMENT TEMPLATE A5
INSPECTION REQUIREMENTS**

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, R 299.9605 and Title 40 of the Code of Federal Regulations (CFR) §§264.15 and 270.14(b)(5), establish requirements for inspections 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 inspections at the following hazardous waste management facility: Petro-Chem Processing Group of Nortur, LLC (Petro-Chem) in Detroit, Michigan.

Applicant for Operating License for Existing Facility

Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

This template is organized as follows:

INTRODUCTION

A5.A WRITTEN SCHEDULE

A5.A.1 Types of Problems

A5.A.2 Frequency of Inspection

A5.B REMEDY SCHEDULE

A5.C INSPECTION LOG OR SUMMARY

Table A5.C.1 Container Storage Area Inspection Log Example

INTRODUCTION

The facility has prepared a written inspection plan to meet the R 299.9605 and 40 CFR §264.15(a) requirements. The facility performs inspections to detect malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to: (1) release of hazardous waste constituents into the environment, or (2) a threat to human health. The facility conducts these inspections often enough to identify problems, in time to correct them before they harm human health or the environment. Additional information on inspection frequency and scope is contained in the inspection plan which has been provided in Volume I, Section 4, Appendix I "Inspection Plan, Rev 2."

A5.A WRITTEN SCHEDULE

[R 299.9605 and 40 CFR §264.15(b)(1)]

The Petro-Chem inspection plan which meets R 299.9605 and 40 CFR §264.15(a) requirements is attached to this Form A5 as Appendix I (Volume I, Section 4 Appendix I). Written inspection schedules are provided in Section II of the Inspection Plan. A summary of the inspections is provided in the Inspection Plan as Table 1. This plan is maintained at the facility in both hard copy and electronic formats.

A5.A.1 Types of Problems
[R 299.9605 and 40 CFR §264.15(b)(3)]

The inspection plan provided in Volume I, Section 4, Appendix I identifies the types of problems (e.g., malfunctions or deterioration) that are looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

A5.A.2 Frequency of Inspection
[R 299.9605 and 40 CFR §§264.15(b)(4), 264.174, 264.193, 264.195, 264.226, 264.254, 264.278, 264.303, 264.347, 264.602, 264.1033, 264.1052, 264.1053, 264.1058, and 264.1083 through 264.1089, where applicable]

The minimum frequency of inspection for each unit is summarized in Table 1 of the attached Inspection Plan. The minimum frequency of inspection is based on the requirements for each unit on the written schedule in Table 1 of the Inspection Plan. Areas subject to potential spills (e.g., loading and unloading areas) are inspected daily when in use. The inspection schedule in Table 1 in the plan includes the items and frequencies called for by the applicable regulations. Inspection requirements are provided in the Inspection Plan and Table 1. Daily and weekly inspection forms are included with the Inspection Plan, are provided in Volume I, Section 4, Appendix II "Daily Inspection Log" and Appendix III "Weekly Inspection Log."

A5.B REMEDY SCHEDULE
[R 299.9605 and 40 CFR §264.15(c)]

The corrective actions or remedy schedules for each unit type is discussed in Section II of the facilities Inspection Plan. A copy of the plan has been provided in Volume I, Section 4, Appendix I, of this application.

A5.C INSPECTION LOG OR SUMMARY
[R 299.9605 and 40 CFR §264.15(d)]

Daily and Weekly inspection logs are part of the Inspection Plan provided in Appendix I. Examples of the daily and weekly inspection logs have been provided in Volume I, Section 4, Appendix II and Appendix III, of this application.

Table A.5C.1 EXAMPLE Container Storage Area Inspection Log

Date/Time: *[insert date and time]*

Name of Inspector: *[insert full name]*

	Observations	Date of Repairs	Nature of Repairs	Date of Remedial Actions	Nature of Remedial Actions	Inspection Frequency
Operator Errors	None					Weekly
Discharges that may be causing or may lead to: (1) release of hazardous waste constituents to the environment or (2) a threat to human health and the environment.	None					Weekly
Leaking Containers	Leaking 55-gallon drum. About 1 gallon pooled in Sec. Contain. From F005.	Same Day	Overpacked drum, sorbent used on spill	NA	NA	Weekly
Container Deterioration	1 Container	Same Day	Overpacked drum, sorbent used on spill	NA	NA	Weekly
Containment System Deterioration	None					Weekly

Petro-Chem Processing Group of Nortru

RCRA Inspection Plan

Revised June 14, 2022

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Table 1.....Summary of Inspection Checks and Frequencies

INSPECTIONS

I. GENERAL INSPECTION REQUIREMENTS

This section outlines the procedures used by Petro-Chem Processing Group of Nortru, LLC. (Petro-Chem) to comply with the inspection requirements of 40 CFR 264.15. Inspection procedures are used to ensure that equipment and operational areas will not fail so as to endanger employees, public health or the surrounding environment. Inspections are conducted on a regular schedule to minimize any such risk. The inspection schedule identifies the type of problems, such as malfunctions or deterioration, which are to be looked for during the inspections, and the appropriate frequency necessary for inspecting each component based on operational experience or as mandated by appropriate regulations.

Petro-Chem's inspection covers the following areas:

- Safety Equipment
- Tanks, Piping and Ancillary Equipment
- Container Storage Areas
- Emergency Equipment
- Security and Communication Equipment
- Loading/Unloading Areas

The degree of detail within the inspection schedule varies in relation to the importance of the equipment to ensure the environmental integrity of the complex.

Inspections of the material storage and operational areas are conducted on a routine basis to ensure that no leakage, malfunctions, deterioration, or operator errors are occurring or are likely to occur which may cause a release to the environment or a threat to human health. Safety and emergency equipment is inspected to ensure that it remains in good condition and that adequate supplies are available. Inspection procedures consist of visual and/or operational checks, depending on the type and importance of the equipment. The results of each inspection are recorded on logs. These logs identify:

- Equipment or area being inspected
- Observations or checks which should be conducted
- Date and time of the inspection
- Name of the inspector
- Notations of any observations made
- Copies of any maintenance request forms

The Inspection Logs are maintained at the facility for a period of at least three years.

II. INSPECTION SCHEDULE

The frequency of inspections vary and are dependent upon the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. These inspections are summarized in Inspections Table 1. Refer to the Emissions Standards Section for the monitoring and inspections conducted for compliance with 40 CFR Subparts BB and CC.

A. Container Storage Areas

The container storage areas will be visually checked each operational day to confirm condition of secondary containment and containers. Containers will be inspected to ensure they are in good condition, (i.e., no severe rusting or apparent structural defects) and kept closed when not filling, removing or inspecting the contents. If the container is found to be leaking or damaged, Petro-Chem will transfer the hazardous waste from the failed container into a DOT specification container that is compatible with the waste, or place the failed container into a DOT specification overpack container. Records of these inspections are maintained in the Daily Operational Inspection Log (see Inspections Appendix II).

B. Tank Storage Areas

As Inspection Table 1 indicates, the integrity of each tank will be visually checked on a daily basis. This will include a visual inspection to determine any possible leaks. To the extent possible, the bottom of the tanks will be checked for leaks during this inspection as well. Records of these inspections are maintained in the Daily Operational Inspection Log (see Inspections Appendix II).

Tank assessments are performed according to the schedules in 40 CFR 264.191, 192, 193 or if the results of daily inspections indicate the possible failure of a tank's integrity. Leak testing of ancillary equipment, assessed pursuant to 40 CFR 193(i)(3), is conducted in the same manner as that for compliance with 40 CFR Subparts BB and CC (see Emissions Standards Section). In addition to the testing performed under the Emissions Standards Section, leak testing of the flanges on the ancillary equipment is conducted using EPA Method 21. Reference Emissions Standards Appendix II for a detailed equipment listing of the ancillary equipment monitored at least annually.

If a tank holding hazardous waste is found to be structurally defective, severely corroded, leaking, or otherwise impaired, Petro-Chem will remove the tank from service and take appropriate action consistent with procedures defined in the Contingency Plan for removing materials.

C. Containment Structures

All containers and tanks located at the Petro-Chem complex employ secondary containment meeting the requirements of 40 CFR 264.175(a), 264.193(a), 264.193(b) - (f), and Act 451 Rule 299.9615. As Inspection Table 1 indicates, the integrity of each containment device will be visually checked on a daily basis. This will include a visual inspection to determine any possible leaks into or out of the containment device. Records of these inspections are maintained in the Daily Operational Inspection Log (see Inspections Appendix II).

Petro-Chem will remedy any deterioration or malfunction of equipment or structures identified by inspection in a timely manner so that the identified problem will not lead to an environmental or human health hazard. Where a hazard is imminent or has occurred, available on-site emergency equipment will allow remedial actions to begin immediately.

D. Security and Communication Equipment

All security and communication equipment at the facility will be visually checked on a weekly basis. This will include a visual inspection to verify the proper operation and/or determine the condition of the equipment. Records of these inspections are maintained in the Weekly Operational Inspection Log (see Appendix II).

E. Safety and Emergency Equipment

All supplies of safety and emergency equipment at the facility will be checked on a minimum monthly basis. Eyewashes and emergency showers will be inspected on a weekly basis (see Inspections Appendix III for the Weekly Operational Inspection Log). Inspections will verify the proper operation of the equipment and/or determine if adequate inventory is available. Records of these inspections are maintained in the Monthly Operational Inspection Log. Please reference the Site Safety and Emergency Equipment Appendix for a complete listing of the equipment and the facility and figures detailing the equipment layout.

Personal Protective Equipment (PPE) including safety glasses/goggles, hard hats, safety boots, work gloves, tyvek suits, and organic vapor respirators are provided to each employee upon hire and as needed. Inspections are conducted on a monthly basis to ensure that adequate supplies are available for employee use.

**Inspections Table 1
 Summary of Inspection Checks and Frequencies**

Equipment	Specific Items	Inspection Required	Frequency
Tanks, Piping & Ancillary Equipment	Tank structure	Leaks, valves, corrosion, structural support, grounding, high level control	Daily; §264.193
	Piping	Leaks, corrosion, open ends	Daily; §264.193
	Containment integrity	Leaks, cracks, housekeeping	Daily; §264.193
	Tank structure (40 CFR 193(i)(2))	integrity test/assessment	as needed;
	Ancillary Equipment (flanges, pumps, valves) (40 CFR 193(i)(3))	leak detection and repair (EPA Method 21 testing)	Annually (minimum); §264.195; §264.1052
Bulk Un/Loading Areas	Pumps	Leaks, gaskets, deterioration, seal,	Daily (when in use); §264.193; §264.1052
	Filters	General condition	Daily (when in use); §264.193
	Piping to/from pumps	Leaks, corrosion, bonding, open ends	Daily (when in use); §264.193
	Flex hoses	Leaks, deterioration	Daily (when in use); §264.193
	Containment, pad area	Housekeeping, sump level, cracks	Daily (when in use); §264.193
Dock Un/Loading Areas	Drums	open, leaking, aisle spacing, housekeeping	Daily (when in use); §264.174; §264.1086
	Containment integrity	Leaks, cracks, housekeeping	Daily (when in use); §264.174
	Pad Areas	Housekeeping, sump level, cracks	Daily (when in use); §264.174
Container Storage/ Processing Areas	CMB, CMB2, Docks, SBS Storage, TS1 thru TS4 and the QACQ area.	Aisle space, open lids, leaks	Daily (when in use); §264.174; §264.1086
	Containment	Leaks, cracks, housekeeping	Daily (when in use); §264.174
	Sand and/or absorbent material	Low supply	Daily (when in use)

Inspections Table 1 (cont.)

Equipment	Specific Items	Inspection Required	Frequency
Container Storage Areas (cont'd)	Ventilation hood and exhaust	Deterioration	Daily (when in use);
	Valves	Deterioration, leaks	Daily (when in use)
	Pumps	Leaks, seal, deterioration, gaskets	Daily (when in use); §264.1052
Process Areas	Containment integrity	Leaks, cracks, housekeeping	Daily (when in use); §264.174
	Piping to/from pumps	Leaks, corrosion, grounding, open ends	Daily (when in use)
	Pumps	Leaks, seal, deterioration, gaskets	Daily (when in use); §264.1052
	Feed system	General condition, housekeeping	Daily (when in use)
Emission Control Systems	Vapor Balance System	Leaks, corrosion	Monthly; §264.1088
	Carbon System (once installed)	Leaks, corrosion	
Security Equipment	Facility fences	Corrosion, damage to chain-link fence or barbed wire, vandalism	Weekly
	Warning Signs (on facility fences)	Damaged, legible, missing	Weekly
	Main access gate	Corrosion or damage to gate, motor control	Weekly
	Emergency gates (locked)	Corrosion or damage to gate, inspect lock	Weekly
	Office building burglar /intrusion alarm system	Sensors, alarms	Weekly
	Closed-circuit television surveillance system	Operable	Weekly

Inspections Table 1 (cont.)

Area/Equipment	Specific Items	Inspection Required	Frequency
Communication Equipment	Two-way/ stationary radios	Transmitter & receiver, battery charger, accessible	Upon failure, weekly
	Internal telephone communications	Operable	Weekly
Personnel Protective Equipment (PPE)	Organic vapor respirators	Cleanliness, filters, inventory	Monthly, as needed
	Tyvek suits	Worn, torn, inventory	Monthly
	Safety glasses/ Goggles	Scratched, inventory	Monthly
	Hard hats	Worn, cracked	Monthly
	Hard toe boots	Worn, inventory	Monthly
	Rubber aprons	Torn, inventory	Monthly
	Work gloves	Inventory	Monthly
Safety Equipment	Eyewash stations	Leaks, spray pattern, cleanliness, accessible, structural integrity	Weekly
	Safety shower	Leaks, water pressure, accessible	Weekly
	Fire extinguishers (hand held, portable, foam dolly)	charged, accessible	Monthly
	First aid station	Fully stocked, clean, accessible	Monthly
	Fire blanket	clean, accessible	Monthly
	Stretcher	clean, accessible	Monthly
	Emergency Equipment	Absorbent	Inventory, accessible
Sand		Inventory, accessible	Monthly
Containment Booms		Inventory, accessible	Monthly
Alarm pull stations		Damage (operable)	Monthly (annually)
Sewer Shutoff System		Operating correctly, calibration	Monthly

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

Note: The Inspection Criteria is provided at the bottom of this check list.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
CMB Pump Room and CMB-2 Building Pump/ Transfer				CMB pump room or CMB-2 pump room once new CMB-2 has been constructed	
Leaks, Corrosion-None					
Containers properly closed and labeled					
Ventilation Hood/Exhaust-No Deterioration					
Eye Wash Operational					
Fire Extinguisher Inspected					
Valves-No leaks					
Pumps-No leaks, seal/gasket deterioration, excess noise					
Hose/line ends closed					
Grounding & Bonding in place					
Containment Walls & Floor -- No cracks, debris, accumulated precipitation					
Truck Staging Area Map ID 8				Truck Staging	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles-Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Container Management Building (Waste Tank 01 & 02)				Waste Tank 1 and 2 capacity reassigned to Dock 2	
Tank sample Ports closed					
Spills/Leaks -- None					
Trenches-- Empty					
NFPA Markings and BB Tags-Visible					
Covers and ends closed					
Fire Extinguisher Accessable					
Eye Wash Accessable					
Hi-Level Indicators-Operational					
Containment Walls & Floor -- No cracks, debris, accumulated precipitation					
Valves-No leaks					
Pumps-No leaks, seal/gasket deterioration, excess noise					
Grounding & Bonding in place					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
CMB Container Storage Areas (CSA) Rows 1-24				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles-Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Dock 4				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
1st Floor Operations (Back Dock)				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Dock 3				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Tank System 3 Transfer Pad (Frac Pad)				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Dock 2				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					
Flammable/Reactives w/i 50' set back					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
TS1 Transfer Pad (Load/Unload Pad)				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Containment Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					
Covers and ends closed					
Valves-No leaks					
Pumps-No leaks, seal/gasket deterioration, excess noise					
Grounding & Bonding in place					

DAILY INSPECTION
MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
TS1 (Tanks 16,17,18,19,20,21,22,23,24,25,26,27,28,29,30)				HW Storage and Blending	
Spills/Leaks -- None					
Trenches-- Empty					
NFPA Markings and BB Tags-Visible					
Covers and ends closed					
Fire Extinguisher Accessable					
Eye Wash Accessable					
Hi-Level Indicators-Operational					
Containment Walls & Floor -- No cracks, debris, accumulated precipitation					
Pipe and Valves-No leaks					
Pumps-No leaks, seal/gasket deterioration, excess noise					
Grounding & Bonding in place					
Containers properly closed, labeled and elevated					
Tank sample Ports closed					
TS2 Transfer Pad (Load/Unload Pad)				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles-Properly segregated					
Containers not damaged or deteriorating.					
Containment Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					
Covers and ends closed					
Valves-No leaks					
Pumps-No leaks, seal/gasket deterioration, excess noise					
Grounding & Bonding in place					
TS2 (Tanks 35,36,37,38,39,40)				HW Storage and Blending	
Spills/Leaks -- None					
Trenches-- Empty					
NFPA Markings and BB Tags-Visible					
Covers and ends closed					
Fire Extinguisher Accessable					
Eye Wash Accessable					
Hi-Level Indicators-Operational					
Containment Walls & Floor -- No cracks, debris, accumulated precipitation					
Pipe and Valves-No leaks					

DAILY INSPECTION
MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Pumps-No leaks, seal/gasket deterioration, excess noise					
Grounding & Bonding in place					
Containers properly closed, labeled and elevated					
Tank sample Ports closed					
CMB-2 Container Storage Area (new 2022)				HW Storage and Container Pump / Transfer Area	
Leaks, Corrosion-None					
Containers properly closed and labeled					
Ventilation Hood/Exhaust-No Deterioration					
Eye Wash Operational					
Fire Extinguisher Inspected					
Valves-No leaks					
Pumps-No leaks, seal/gasket deterioration, excess noise					
Hose/line ends closed					
Grounding & Bonding in place					
Containment Walls & Floor -- No cracks, debris, accumulated precipitation					
CMB-2 Transfer Pad (Load/Unload dock) Previous TS4					
Spills/Leaks -- None					
Trenches/Containment -- Empty					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Containment Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					
Covers and ends closed					
Valves- No leaks					
Pumps- No leaks, seal/gasket deterioration, excess noise					
Grounding & Bonding in place					
TS3 Storage Area				HW Storage	
Spills/Leaks -- None					
Trenches-- Empty					

DAILY INSPECTION
MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
NFPA Markings and BB Tags-Visible					
Covers and ends closed					
Fire Extinguisher Accessable					
Eye Wash Accessable					
Hi-Level Indicators-Operational					
Containment Walls & Floor -- No cracks, debris, accumulated precipitation					
Valves-No leaks					
Pumps-No leaks, seal/gasket deterioration, excess noise					
Grounding & Bonding in place					
Containers properly closed, labeled and elevated					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Tank sample Ports closed					
QAQC Sun Porch Map ID 16				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					

DAILY INSPECTION
 MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Containers properly closed, labeled and elevated					
SBS Building-Container Storage				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles- Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		
Containers properly closed, labeled and elevated					
SBS Solids Storage Area				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles-Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					
SBS Building-Container Storage				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles-Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					
SBS Dock Storage Area (Building Truck Well)				HW Storage	
Spills/Leaks -- None					
Trenches/Containment -- Empty					
Aisle Spacing Adequate 2'					
Incompatibles-Properly segregated					
Containers not damaged or deteriorating.					
Walls & Floor -- No cracks, debris					
Eye Wash Accessable					
Fire Extinguisher Accessable					
Containers properly closed, labeled and elevated					

INSPECTION CRITERIA

Storage Tanks, Loading/Unloading Pad & Aboveground Piping

DAILY INSPECTION
MONITORING, OPERATIONAL, AND STRUCTURAL SYSTEMS

Inspector: _____

Date/Time: _____

Record using 24 hour time.

DESCRIPTION	ACCEPTABLE?			CORRECTIVE ACTION (Who, What)	COMPLETE
	Yes	No	N/A		

Verify that there are no spills. Verify that there are no leaks.
 Verify that the NFPA markings are readable. There are no tags obviously missing or on the ground.
 Confirm that all openings on the tanks are closed. Confirm that all hoses and lines are capped.
 Hi-Level Indicators: Verify that all units are operating.
 Inspect impoundment walls and floor for leaks, cracks or accumulation of liquids.
 Verify that there is no signs of leakage around all valves and pumps.
 Check that all grounding of tanks and equipment is in place, and that the bonding equipment is available and if appropriate in use.
 Verify that hazardous waste containers (including satellite container) are closed

Container Storage Areas
 Verify that there are no spills. Inspect for leaks or cracks in dikes and the concrete or asphalt base.
 Verify that labels are complete and readable. Verify that aisles have a clearance of a minimum of 2 feet.
 Verify that where applicable that there is sufficient distance from the containment edge to contain waste squirting from a container.
 Where applicable verify that incompatible wastes are not stored in the same containment zone.
 Verify that the containers are closed (lids and bungs secure) and that containers are stored on pallets or runners.
 Verify that the number of containers are in good condition without significant damage and/or deterioration.
 Verify that containment, trenches and sumps are empty*. Ascertain that the integrity of the containment system is satisfactory.
 Verify that the containment floor and walls are free of 'deep' cracks, debris, and precipitation.
 *Trenches and sumps are "empty" if all wastes have been removed that can be removed through pumping.

Section 5.1

Preparedness Plans (A6)

**FORM EQP 5111 ATTACHMENT TEMPLATE A6
PREPAREDNESS AND PREVENTION**

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 the Petro-Chem in Detroit, Michigan.

Applicant for Operating License for Existing Facility:

- No waiver requested
- Waiver requested for one or more units for required equipment
- Waiver requested for one or more units for required aisle space

Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility:

- No waiver requested
- Waiver requested for one or more units for required equipment
- Waiver requested for one or more units for required aisle space

This template is organized as follows:

INTRODUCTION

A6.A REQUIRED EQUIPMENT

- A6.A.1 Internal Communication System
- A6.A.2 Emergency Response Communication System
- A6.A.3 Fire, Spill, and Decontamination Equipment
- A6.A.4 Adequate Water Volume

A6.B TESTING AND MAINTENANCE OF EQUIPMENT

A6.C ACCESS TO COMMUNICATIONS OR ALARM SYSTEM

- A6.C.1 Multiple Employees Present
- A6.C.2 Single Employee Present

A6.D REQUIRED AISLE SPACE

A6.E STATE OR LOCAL AUTHORITIES

- A6.E.1 Arrangements with State or Local Authorities
- A6.E.2 Refusal of State or Local Authorities to Enter into Emergency Response Agreements

A6.F Security

A6.G Transportation / Traffic Information

INTRODUCTION

In compliance with the preparedness and prevention standards, The Petro-Chem facility is operated and maintained in a manner that minimizes the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents. Petro-Chem maintains equipment, alarms and minimum aisle space and has provisions for contacting local authorities in compliance with R 299.9606 and 40 CFR §264.31.

A6.A REQUIRED EQUIPMENT

[R 299.9606 and 40 CFR §264.32]

Petro-Chem maintains the following preparedness and prevention equipment:

A6.A.1 Internal Communication System

[R 299.9606 and 40 CFR §264.32(a)]

The Petro-Chem container management buildings (CMB and CMB-2) and other tank system areas (TS-1, TS-2 and the CMB tanks) and container storage areas (QAQC area, SBS building, Dock 2, transfer pads) are equipped with an alarm/siren/public address (PA) system to be used in the case of an emergency or emergency drill. The PA system will allow instructions and information to be supplied to all plant personnel. If the situation warrants, the site-wide facility siren will be activated, via either (1) a manual alarm pull station or (2) the public address system. Verbal instruction can also be communicated via the public address system by dialing 704 from any telephone. Instruction may also be given using two-way radio communications with plant management, security, and operations personnel. Air horns are utilized as a back-up to the PA system in the event of a power failure.

A6.A.2 Emergency Response Communication System

[R 299.9606 and 40 CFR §264.32(b)]

The facility utilizes three forms of communications in the event of an emergency. These include telephones, radios, and the alarm/PA system. Telephones are located throughout the facility. The Safety and Emergency Equipment, located in Appendix 3 of the Contingency Plan located in Volume I, Section 5, Sub-Section 5.2 Figure 051 of this application, shows the current location of manual alarm pull stations and telephones. Two-way radios are carried by every Supervisor/ Manager/ key response personnel and by employees working alone or at locations where telephones may not be immediately available. In the event of an emergency, any or all of these devices will be used to alert employees and notify the proper personnel, agencies, or emergency reaction teams. Each employee has access to the alarm stations and telephone communication systems located throughout the facility (See Figure 051 in the contingency plan).

A6.A.3 Fire, Spill, and Decontamination Equipment

[R 299.9606 and 40 CFR §264.32(c)]

The Contingency Plan, Figure 051, shows the location of all phones and portable fire extinguishers which would be used in the case of a fire. Automatic fire doors are installed within the container pumping room to isolate areas of the CMB in the event of a fire.

Additionally, all site personnel are instructed on fire safety as a part of the training procedures. An automatic fire suppression system, equipped with a foam chemical suppression agent, is provided for the container pumping room and the lab pack consolidation area.

A6.A.4 Adequate Water Volume

[R 299.9606 and 40 CFR §264.32(d)]

The Safety and Emergency Equipment list, located in Appendix 3 of the Contingency Plan located in Volume I, Section 5 and Section 5.2 of this application, lists the locations of the five (5) fire hydrants adjacent to the perimeter of the complex. The City of Detroit has the responsibility of maintaining these hydrants in operable condition.

A6.B TESTING AND MAINTENANCE OF EQUIPMENT

[R 299.9606 and 40 CFR §264.33]

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment are inspected, tested, and maintained as necessary to assure its proper operation in the event of an emergency. The inspection schedule is described in Volume I, Section 4 of this application. Examples of the emergency equipment inspection, testing and maintenance have been provided in Volume I, Section 5.1, Appendix I of this application. A record of these inspections and any maintenance or repairs performed on inspected items, is included in the operating log pursuant to 40 CFR 264.15(d).

A6.C ACCESS TO COMMUNICATIONS OR ALARM SYSTEM

[R 299.9606 and 40 CFR §264.34]

The facility utilizes three forms of communications in the event of an emergency. These include telephones, radios, and the alarm/PA system. Telephones are located throughout the facility. The Safety and Emergency Equipment list, located in Appendix 3 of the Contingency Plan located in Volume I, Section 5 and Section 5.2 of this application, describes the current location of manual alarm pull stations and telephones. Two-way radios are carried by every Supervisor/ Manager/ key response personnel and by employees working alone or at locations where telephones may not be immediately available. In the event of an emergency, any or all of these devices will be used to alert employees and notify the proper personnel, agencies, or emergency reaction teams. Each employee has access to the alarm stations and telephone communication systems located throughout the facility (See Figure 051 in the contingency plan).

A6.C(1) Multiple Employees Present

[R 299.9606 and 40 CFR §264.34(a)]

Pursuant to 40 CFR 264.34(a) and (b), all operations personnel have access to one of the emergency communication devices. It is company policy not to allow any employee to work on-site without at least one other employee present.

A6.C(2) Single Employee Present

[R 299.9606 and 40 CFR §264.34(b)]

It is company policy not to allow any employee to work on-site without at least one other employee present.

A6.D REQUIRED AISLE SPACE

[R 299.9606 and 40 CFR §264.35]

The facility maintains adequate aisle spacing in accordance with Michigan's Flammable and Combustible Liquids Rule, Section 5-9.2, See Volume I, Section 4, Section 5.1, Appendix II "*Flammable & Combustible Liquids (OSC-6165)*". The container storage areas have yellow lines marked on the floor to indicate the placement of the pallets that will ensure adequate aisle space is maintained. Volume II, Section 2 of this license application includes drawings that identify the placement of containers in the container storage areas.

A6.E STATE AND LOCAL AUTHORITIES

[R 299.9606 and 40 CFR §264.37]

The facility has made the following arrangements with State and Local authorities:

A6.E.1 Arrangements with State and Local Authorities

[R 299.9606 and 40 CFR §264.37(a)(1)]

To comply with 40 CFR 264.37 (a) and (b), the facility provided a copy of its most current Contingency Plan, hazardous material descriptions and operations information to:

- The City of Detroit Emergency Management Division;
- Two local emergency response contractors; and
- The fire department.

The City of Detroit Emergency Management Division has also conducted a site visit in order to familiarize them with plant operations.

A6.E.2 Refusal of State or Local Authorities to Enter into Emergency Response Agreements

[R 299.9606 and 40 CFR §264.37(b)]

If state or local authorities decline to enter into emergency response arrangements, the facility will document the refusal in the facility operating record.

A6.F Security

The facility has installed a tall chain-link fence with barbed wire around the entire perimeter. Access to the facility either by the main gate or the pedestrian gates, are restricted by a security card system. The main gate automatically closes after a vehicle passes. The facility also operates a video surveillance system at key locations around the facility. Anyone entering the facility must check in at the guard shack or at the main office.

A6F Traffic

The facility has prepared a DOT hazardous materials transportation security plan for the transport of hazardous materials at the facility. A traffic study was performed as part of the original application including the traffic patterns, number of vehicles, and truck routes. The traffic map has been provided with the Part A Application in Volume I, Section 1. The facility is in an industrial park and all truck traffic follows specified truck routes to and from the facility.

Appendix I

Inspection

FIRE EXTINGUISHER INSPECTIONS

Equipment	Location
MAINTENANCE GARAGE	
Fire Extinguisher	W. wall of the maintenance garage
	E. wall of the maintenance garage
	N.E. of maintenance garage door
	S. at back door of maintenance
	N.W. wall
First Aid	S. at back door of maintenance
LAB SAMPLE ROOM	
Fire Extinguisher	N.W. corner by door
MAIN ENTRANCE	
Fire Extinguisher	On pole W. of security office
Spill Kit	Next to pole, W. of security office
First Aid	Inside security office
CONTAINER MANAGEMENT BUILDING (CMB)	
Main Floor	
Portable Extinguisher	S.E. wall by pump room doors
	North entrance
Alarm Pull Station	Pump Room-S.E. side by door
Alarm Pull Station	S. wall by exit near stairs to 2nd floor
Alarm Pull Station	N.W. wall by door
Alarm Pull Station	Control Room-E. wall
2nd Floor	
Alarm Pull Station	E. wall near door
DOCK 1 and 4	
Fire Extinguisher	S. wall Dock 1
	N.W. corner of Dock 4 truckwell
Portable Extinguisher	N. Wall btwn Dock 1 &4
Alarm Pull Station	N. wall by Dock 4
DOCK 2	
Fire Extinguisher	N.E. on pole
	N.W. on pole
DOCK 3	
Fire Extinguisher	N. wall of Dock 3
Portable Extinguisher	S.W. corner of Dock 3

FIRE EXTINGUISHER INSPECTIONS

Equipment	Location
TS3 - SDG WASTE STORAGE TANK FARM	
Fire Extinguisher	N. wall of pre-reclamation tank farm
PROPANE STORAGE AREA	
Fire Extinguisher	S.W. side on pole
TS4 - SDG PRODUCT TANK FARM	
Fire Extinguisher	N. of SDG tank farm
	S.E. of SDG tank farm
	S.W. of SDG tank farm
Alarm Pull Station	N. of SDG tank farm
	S. of SDG tank farm
Spill Kit	E. of SDG tank farm
Portable Extinguisher	E. of SDG tank farm
	N.W. corner of SDG tank farm
TANK SYSTEM 1 (TS1)	
Fire Extinguisher	N. beam on back pad
	Middle beam on back pad
	Middle beam of back pad
	S. beam on back pad
	S.E. Wall
Spill Kit	S.W. corner of truck containment
Alarm Pull Station	S.E. wall outside of header
MOTOR CONTROL CENTER (GREEN HOUSE)	
Fire Extinguisher	S. wall inside of building
Fire Blanket	S. wall inside of building
Stretcher	S. wall inside of building
TANK SYSTEM 2 (TS2)	
Fire Extinguisher	Middle pole outside header area
	Inside header area on S.E. corner
	N.E. on pole inside containment
	E on middle beam of truck containment
Portable Fire Extinguisher	N.E. corner outside of containment area
Alarm Pull Station	N.E. corner outside of containment area
SUPER BLENDER SYSTEM	
Spill Kit	N.E. corner of building (outside)
COMPACTOR AREA INSIDE SUPER BLENDER SYSTEM	

FIRE EXTINGUISHER INSPECTIONS

Equipment	Location
Fire Extinguisher	N.E. corner
	S. wall
	N. wall
	S.W. corner
Spill Kit	S.W. corner
TRUCK UNLOAD DOCK INSIDE SUPER BLENDER SYSTEM	
Fire Extinguisher	W. wall of SBS unload dock
	S. wall
	N. wall
	S.W. corner
Portable Fire Extinguisher	E. wall of SBS unload dock
Alarm Pull Station	E. wall of SBS unload dock
SUPER BLENDER SYSTEM CRANE AREA	
Fire Extinguisher	E. wall by door
SUPER BLENDER SYSTEM CRANE AREA	
Spill Kit	S.E. corner of building
PCPG LAB	
Fire Extinguisher	S. wall of sample closet
	W. wall of the PCPG lab clean room
	N.E. wall of the PCPG lab
	S.W. wall of the PCPG lab
	Break room- S. wall across from time clock
Fire Blanket	S. wall near sample closet
First Aid	E. wall near sample closet
Stretcher	E. wall near sample closet
501 SHIPPING & RECEIVING	
Fire Extinguisher	S.W. wall by plant exit
	W. wall of main area
LOCKER ROOM	
Fire Extinguisher	N. wall of the lunch room
	N. wall of the dirty side of the locker room
	E. wall of the clean side of the locker room
BOILER ROOM	
Fire Extinguisher	S. wall of the north side of the boiler room
	S. wall of the middle of the boiler room
	N. wall of the south side of the boiler room

FIRE EXTINGUISHER INSPECTIONS

Equipment	Location
EMERGENCY SUPPLY ROOM	
Foam Dolly Extinguisher	S. of door to the emergency room
ADDITIONAL EQUIPMENT	
Portable Fire Extinguisher	Staged in maintenance building
515 Office Building	
Fire Extinguisher	S.W. Wall 2nd Floor
	N. Wall by Vault 2nd floor
	N.W. Wall 1st Floor
	Pole in Customer Service 1st Floor
	E. Wall in Trans by main entrance 1st floor
	E. Wall by file room 1st floor

Ladder Monthly Inspection Sheet

Name: _____

Date: _____

Ladder Description	24' Louisville Fiberglass - ID 1			12' Huskey Fiberglass - ID 2			10' Louisville Fiberglass - ID 3			8' Louisville Fiberglass - ID 4			8' Werner Fiberglass - ID 5			6' Louisville Fiberglass - ID 6		
	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired
General																		
Loose steps or rungs (considered loose if they can be moved at all with the hand)? Verify all joints are tight and hardware/fitting are secure.																		
Loose nails, screws, bolts, or other metal parts?																		
Cracked, spilt, or broken uprights, braces, or rungs?																		
Broken, split or worn uprights, rungs, or steps?																		
Damaged or worn non-slip bases?																		
Loose, damaged or bent hinges/hinge spreaders?																		
Loose, broken, or missing extension locks?																		
Worn or rotted rope?																		
Are rungs clean and kept free of grease and oil? Is skid resistant material intact?																		

Ladder Description	6' Louisville Fiberglass - ID 7			4' Werner Fiberglass - ID 8			2' Louisville Metal - ID 9			2' Wood Ladder - ID 10			10' Louisville Fiberglass-ID 11					
	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired
General																		
Loose steps or rungs (considered loose if they can be moved at all with the hand)? Verify all joints are tight and hardware/fitting are secure.																		
Loose nails, screws, bolts, or other metal parts?																		
Cracked, spilt, or broken uprights, braces, or rungs?																		
Broken, split or worn uprights, rungs, or steps?																		
Damaged or worn non-slip bases?																		
Loose, damaged or bent hinges/hinge spreaders?																		
Loose, broken, or missing extension locks?																		
Worn or rotted rope?																		
Are rungs clean and kept free of grease and oil? Is skid resistant material intact?																		

Security and Communication Equipment Weekly Inspection

Name: _____

Date: _____

Equipment	Inspection Required	Week 1		Week 2		Week 3		Week 4	
Date:									
Security Equipment		Y	N	Y	N	Y	N	Y	N
Facility Fences	Free from corrosion, damage to chain link or barbed wire, vandalism								
Warning Signs	Visible from 50', free from damage, legible								
Main Access Gate	Free from corrosion, or damage, motor control is operable								
Emergency Gates (locked)	Free from corrosion, or damage, lock inspected								
Office Bldg. Burglar/Intrusion Alarm System	Sensors, alarms are functional								
Closed-Circuit TV Surveillance System	Operable								
Communication Equipment									
Two-Way/Stationary Radios	Functional-Transmitter and receiver, battery charger, accessible								
Telephones	Operable								

Petro-Chem

Sling Inspection.

Slings (wire rope or chain) shall be inspected prior to each use.

Wire rope slings shall be removed from service if any of the following conditions are present:

1. Ten randomly distributed broken wires in 1 rope lay or 5 broken wires in 1 strand in 1 rope lay.
2. Wear or scraping of 1/3 the original diameter of outside individual wires.
3. Kinking, crushing, bird caging or any other damage resulting in distortion of the wire rope structure.
4. evidence of heat damage.
5. End attachments that are cracked, deformed or worn.
6. Hooks that have been opened more than 15% of the normal throat opening measured at the narrowest point, or twisted more than 10 degrees from the plane of the unbent hook.
7. Corrosion of the rope end or attachment.

Chain slings shall be removed if evidence of the following is present:

1. Damaged or kinked links
2. Evidence of weakening
3. Extensive rusting
4. Evidence of stretching

If there is any defect or evidence of damage to any part of a sling, it will immediately be removed from service, tagged out of service and turned in to the maintenance department for disposal.

Slings shall be inspected quarterly by the maintenance department.

Year of Inspection _____

Quarter inspected	Inspected By	Date inspected	List equipment removed from service and actions to correct damaged/out of service equipment.

Spill Kit

Date	Initials	Date	Initials
1/ /11		7/ /11	
2/ /11		8/ /11	
3/ /11		9/ /11	
4/ /11		10/ /11	
5/ /11		11/ /11	
6/ /11		12/ /11	

Spill Kit

Date	Initials	Date	Initials
1/ /12		7/ /12	
2/ /12		8/ /12	
3/ /12		9/ /12	
4/ /12		10/ /12	
5/ /12		11/ /12	
6/ /12		12/ /12	

Spill Kit

Date	Initials	Date	Initials
1/ /11		7/ /11	
2/ /11		8/ /11	
3/ /11		9/ /11	
4/ /11		10/ /11	
5/ /11		11/ /11	
6/ /11		12/ /11	

Spill Kit

Date	Initials	Date	Initials
1/ /12		7/ /12	
2/ /12		8/ /12	
3/ /12		9/ /12	
4/ /12		10/ /12	
5/ /12		11/ /12	
6/ /12		12/ /12	

Spill Kit

Date	Initials	Date	Initials
1/ /11		7/ /11	
2/ /11		8/ /11	
3/ /11		9/ /11	
4/ /11		10/ /11	
5/ /11		11/ /11	
6/ /11		12/ /11	

Spill Kit

Date	Initials	Date	Initials
1/ /12		7/ /12	
2/ /12		8/ /12	
3/ /12		9/ /12	
4/ /12		10/ /12	
5/ /12		11/ /12	
6/ /12		12/ /12	

Ladder inspection checklist – Monthly Inspection

Name: _____ Date: _____

Ladder Description	2 Step Ladder - ID 1			3 Step Ladder - ID 2			6 Foot Ladder - ID 3			8 Foot Ladder - ID 4			10 Foot Ladder - ID 5			10 Foot Ladder - ID 6		
	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired	Needs Repair	OK	Date Repaired
General																		
Loose steps or rungs (considered loose if they can be moved at all with the hand)? Verify all joints are tight and hardware/fitting are secure.																		
Loose nails, screws, bolts, or other metal parts?																		
Cracked, spilt, or broken uprights, braces, or rungs?																		
Broken, split or worn uprights, rungs, or steps?																		
Damaged or worn non-slip bases?																		
Loose, damaged or bent hinges/hinge spreaders?																		
Loose, broken, or missing extension locks?																		
Worn or rotted rope?																		
Are rungs clean and kept free of grease and oil? Is skid resistant material intact?																		
Fixed Industrial Stairs																		
Are fixed stairways designed and constructed to carry a load of five times the normal live load anticipated but never of less strength than to carry safely a moving concentrated load of 1,000 pounds? 29 CFR 1910.24(c)																		
Do fixed stairways have a minimum width of 22 inches? 29 CFR 1910.24(d)																		
Are fixed stairs installed at angles to the horizontal of between 30°, and 50°? 29 CFR 1910.24(e)																		
Is the rise height and tread width uniform throughout any flight of stairs? 29 CFR 1910.24(f)																		
Are stairway platforms no less than the width of a stairway and a minimum of 30 inches in length measured in the direction of travel? 29 CFR 1910.24(g)																		

Are standard railings provided on the open sides of all exposed stairways and stair platforms? 29 CFR 1910.24(h)																				
Are handrails provided on at least one side of closed stairways, preferably on the right side descending? 29 CFR 1910.24(h)																				
Is the vertical clearance above any stair tread to an overhead obstruction at least 7 feet measured from the leading edge of the tread? 29 CFR 1910.24(i)																				
Fixed Ladders																				
Do all rungs have a minimum diameter of three-fourths inch for metal ladders, and a minimum diameter of 1-1/8 inches for wood ladders?																				
Is the distance between rungs, cleats, and steps, not greater than 12 inches and uniform throughout the length of the ladder? 29 CFR 1910.27(b)(1)(ii)																				
Are the rungs of an individual-rung ladder designed so that the foot cannot slide off the end? 29 CFR 1910.27(b)(1)(v)																				
Are side rails which might be used as a climbing aid of such cross sections as to afford adequate gripping surface without sharp edges, splinters, or burrs? 29 CFR 1910.27(b)(2)																				
Are fastenings made an integral part of fixed ladder design? 29 CFR 1910.27(b)(3)																				
Are metal ladders and appurtenances painted or otherwise treated to resist corrosion and rusting when location demands?																				
For ladders without cages or wells, is a clear width of at least 15 inches provided each way from the centerline of the ladder in the climbing space? 29 CFR 1910.27(c)(2)																				
Is the distance from the centerline of rungs, cleats, or steps to the nearest permanent object in back of the ladder not less than 7 inches? 29 CFR 1910.27(c)(4)																				

<p>Is the distance from the centerline of the grab bar to the nearest permanent object in back of the grab bars not less than 4 inches? 29 CFR 1910.27(c)(5)</p>																		
<p>Do cages extend a minimum of 42 inches above the top of landing, unless other acceptable protection is provided? 29 CFR 1910.27(d)(1)(iii)</p>																		
<p>Are all landing platforms equipped with standard railings and toeboards? 29 CFR 1910.27(d)(2)(ii)</p>																		

Appendix II

Michigan Flam & Comb Rules

Michigan Department of Energy, Labor & Economic Growth



Michigan Occupational Safety & Health Administration
Consultation Education & Training Division

Onsite Consultation
Abatement Method Advice for:

FLAMMABLE & COMBUSTIBLE LIQUIDS

Note: This handout is not inclusive of all standard rule requirements that apply to rule requirements for Flammable and Combustible Liquids



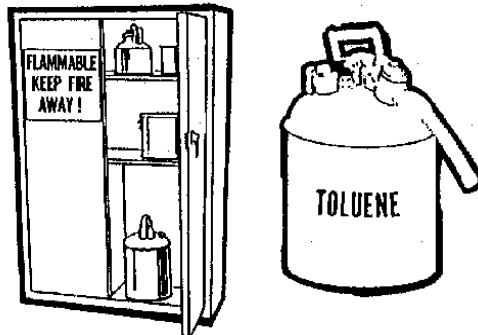
OSC-6165 (Rev. 8/05)

Flammable & Combustible Liquids

Storage Cabinets

Storage cabinets must be distinctly designated “FLAMMABLE—KEEP FIRE AWAY.” Storage cabinets MUST meet National Fire Protection Association tests requirements. Cabinets constructed in the following manner will meet these requirements:

Metal cabinets—MUST be constructed of at least No. 18 gauge sheet iron, double-walled with tight joints and a 1½ “ air space between. Doors MUST have three-point locks with the sill raised at least two inches above the cabinet floor.



Wooden cabinets—MUST be constructed of at least one-inch plywood with rabbetted joints fastened two-directionally with flat head screws.

Inside Storage

Open flames and smoking MUST NOT be permitted in flammable or combustible liquid storage areas. Openings to other rooms or buildings MUST be provided with noncombustible, liquid-tight, raised sills or ramps at least four inches in height. A permissible alternative to a sill or ramp is an open-grated trench which drains to a safe location.

(e) **Industrial plants.**

(2) **Incidental storage or use of flammable and combustible liquids.**

(ii) **Containers.** Flammable or combustible liquids shall be stored in tanks or closed containers.

(b) The quantity of liquid that may be located outside of an inside storage room or storage cabinet in a building or in any one fire area of a building shall not exceed:

(1) 25 gallons of Class IA liquids in containers.

(2) 120 gallons of Class IB, IC, II, or III liquids in containers.

(3) 660 gallons of Class IB, IC, II, or III liquids in a single portable tank.

(d) **Container and portable tank storage.**

(3) **Design, construction, and capacity of storage cabinets.**

(i) **Maximum capacity.** Not more than 60 gallons of Class I or Class II liquids, nor more than 120 gallons of Class III liquids may be stored in a storage cabinet.

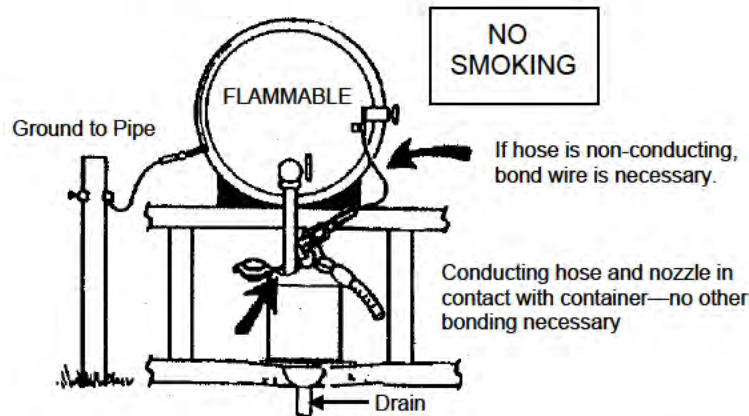
(ii) **Fire resistance.** Storage cabinets shall be designed and constructed to limit the internal temperature to not more than 325° F. When subjected to a 10-minute fire test using the standard time-temperature curve as set forth in Standard Methods of Fire Tests of Building Construction and Materials, NFPA 251-1969. All joints and seams shall remain tight and the door shall remain securely closed during the fire test. Cabinets shall be labeled in conspicuous lettering, “Flammable—Keep Fire Away.”

- (a) Metal cabinets constructed in the following manner shall be deemed to be in compliance. The bottom, top, door, and sides of cabinet shall be at least No. 18 gage sheet iron and double walled with 1 ½ " air space. Joints shall be riveted, welded or made tight by some equally effective means. The door shall be provided with a three-point lock, and the door sill shall be raised at least 2 inches above the bottom of the cabinet.
- (b) Wooden cabinets constructed in the following manner shall be deemed in compliance. The bottom, sides and top shall be constructed of an approved grade of plywood at least 1 inch in thickness, which shall not break down or delaminate under fire conditions. All joints shall be rabbetted and shall be fastened in two directions with flat head wood screws. When more than one door is used, there shall be a rabbetted overlap of not less than 1 inch. Hinges shall be mounted in such a manner as not to lose their holding capacity due to loosening or burning out of the screws when subjected to the fire test.

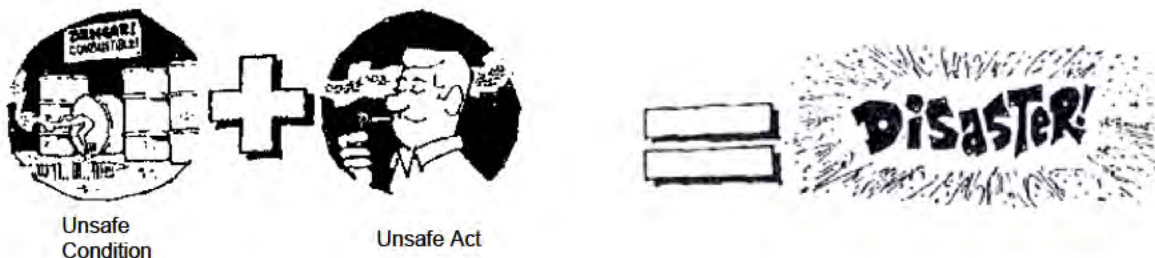
Flammable and Combustible Liquids.

Flammable and combustible liquids are categorized by their ease of ignition. Flammable liquids are more easily ignited than combustible ones. Some examples of flammables are gasoline, acetone, lacquer thinner; and examples of combustibles are kerosene, fuel oil, Stoddard solvent, etc.

- 1. The connections on all drums and piped systems of flammable and combustible liquids must be vapor-and-liquid tight.
- 2. When flammable liquids are transferred from one container to another, for example, from a bulk container to another, they must be effectively bonded and grounded. This practice prevents electrical discharge (e.g., sparks) from the accumulation of static charge because of the transfer process.



- 3. All spills of flammable or combustible liquids must be cleaned up promptly. With major spills remove ignition sources, ventilate the area, and provide respirators if needed. These liquids must not be allowed to enter a confined space, such as a sewer, because of the possibility of an explosion.



4. Supplies of flammable and combustible liquids must be stored in approved fire-resistant safety containers equipped with flash screens and self-closing lids. These containers can be purchased in an industrial supply house.
5. All flammable liquids must be kept in closed containers when not in use.
6. Combustible waste materials, such as oily shop rags, paint rags, etc., must be stored in covered metal containers and be disposed of daily.

1910.106(3)(2)

- (iii) **Separation and protection.** Areas in which flammable or combustible liquids are transferred from one tank or container to another container shall be separated from other operations in the building by adequate distance or by construction having adequate fire resistance. Drainage or other means shall be provided to control spills. Adequate natural or mechanical ventilation shall be provided.
- (9) **Housekeeping.**
 - (i) **General.** Maintenance and operating practices shall be in accordance with established procedures which will tend to control leakage and prevent the accidental escape of flammable or combustible liquids. Spills shall be cleaned up promptly.
 - (ii) **Access.** Adequate aisles shall be maintained for unobstructed movement of personnel and so that fire protection equipment can be brought to bear on any part of flammable or combustible liquid storage, use, or any unit physical operation.
 - (III) **Waste and residue.** Combustible waste material and residues in a building or unit operating area shall be kept to a minimum, stored in covered metal receptacles and disposed of daily.

1910.106(d)(7)(iii)

Open flames and smoking.

Open flames and smoking shall not be permitted in flammable or combustible liquid storage areas.

1910.106(e)(6)

Sources of Ignition

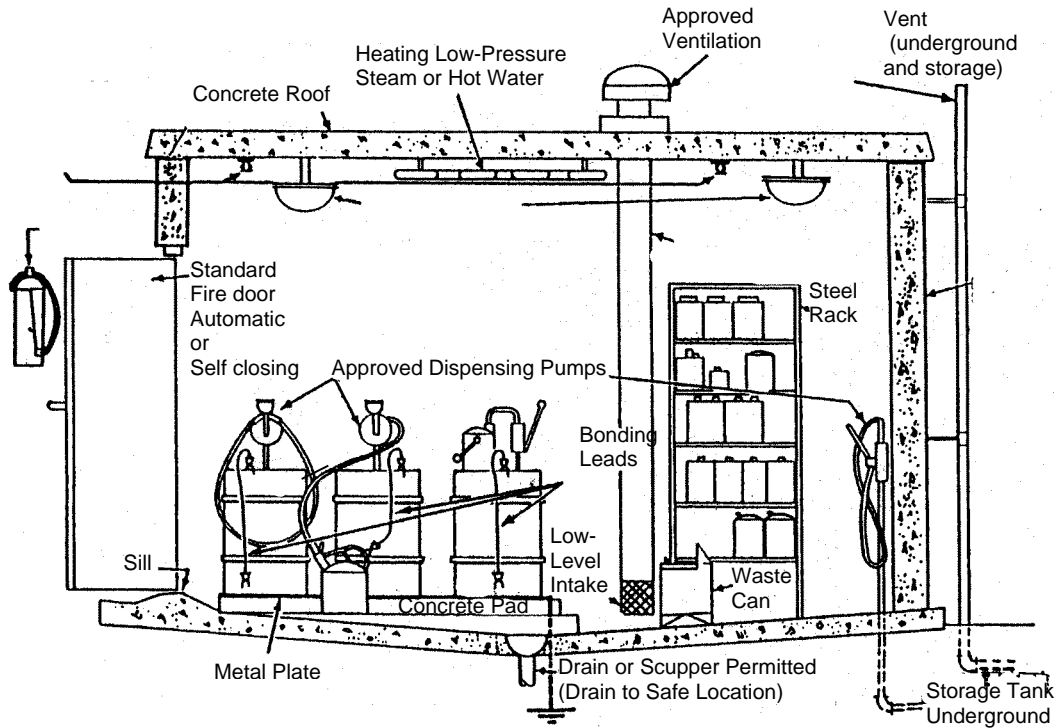
- (i) **General.** Adequate precautions shall be taken to prevent the ignition of flammable vapors. Sources of ignition include but are not limited to open flames; lightning; smoking; cutting and welding; hot surfaces; frictional heat; static, electrical, and mechanical sparks; spontaneous ignition, including heat-producing chemical reactions; and radiant heat.
- (ii) **Grounding.** Class 1 liquids shall not be dispensed into containers unless the nozzle and container are electrically interconnected. Where the metallic floor plate on which the container stands while filling is electrically connected to the fill stem or where the fill stem is bonded to the container during filling operations by means of bond wire, the provisions of this section shall be deemed to have been complied with.

1910.106(d)

(4) Design and construction of inside storage rooms.

- (i) **Construction.** Inside storage rooms shall be constructed to meet the required fire resistive rating for their use. Such construction shall comply with the test specifications set forth in Standard Methods of Fire Tests of building Construction and Materials, NFPA 251-1969. Where an automatic sprinkler system is provided, the system shall be designed and installed in an acceptable manner. Openings to other rooms or buildings shall be provided with noncombustible liquid-tight raised sills or ramps at least 4 inches in height or the floor in the storage area shall be at least 4 inches below the surrounding floor. Openings shall be provided with approved self-closing fire doors. The room shall be liquid-tight where the walls join the floor. A permissible alternate to the sill or ramp is an open-grated trench inside of the room

which drains to a safe location. Where other portions of the building or other properties are exposed, windows shall be protected as set forth in the Standard for Fire Doors and Windows, NFPA No. 180-1968, for Class E or F openings. Wood at least 1 inch nominal thickness may be used for shelving, racks, dunnage, scuffboards, floor overlay, and similar installations.



(II) **Rating and capacity.** Storage in inside storage rooms shall comply with Table H-13.

Table H-13—STORAGE IN INSIDE ROOMS

Fire Protection* Provided	Fire Resistance	Maximum Size	Table Allowable Quantities Gals./sq. ft./ Floor Area)
Yes	2 Hours	500 sq. ft.	10
No	2 Hours	500 sq. ft.	5
Yes	1 Hour	150 sq. ft.	4
No	1 Hour	150 sq. ft.	2

*Fire protection system shall be sprinkler, water spray, carbon dioxide, or other system.

- (III) **Wiring.** Electrical wiring and equipment located in inside storage rooms used for Class I liquids shall be approved under the general industry standards 1910.308 and 1910.309, Electrical, for Class I, Division 2 Hazardous locations; for Class II and Class III liquids, shall be approved for general use.
- (iv) **Ventilation.** Every inside storage room shall be provided with either a gravity or a mechanical exhaust ventilation system. Such system shall be designed to provide for a complete change of air within the room at least six times per hour. If a mechanical exhaust system is used, it shall be controlled by a switch located outside of the door. The ventilating equipment and any lighting fixtures shall be operated by the same switch. A pilot light shall be installed adjacent to the switch if Class I flammable liquids are dispensed within the room. Where gravity ventilation is provided, the fresh air intake, as well as the exhaust outlet from the room, shall be on the exterior of the building in which the room is located.
- (v) **Storage in inside storage rooms.** In every inside storage room there shall be maintained one clear aisle at least 3 feet wide. Containers over 30 gallons capacity shall not be stacked one upon the other. Dispensing shall be by approved pump or self-closing faucet only.

1910.106(e)(2)(iv)

Handling liquids at point of final use.

- (a) Flammable liquids shall be kept in covered containers when not actually in use.
- (b) Where flammable or combustible liquids are used or handled, except in closed containers, means shall be provided to dispose promptly and safely of leakage or spills.
- (c) Class I liquids may be used only where there are no open flames or other sources of ignition within the possible path of vapor travel.
- (d) Flammable or combustible liquids shall be drawn from or transferred into vessels, containers, or portable tanks within a building only through a closed piping system, from safety cans, by means of air pressure on the container or portable tanks shall be prohibited.

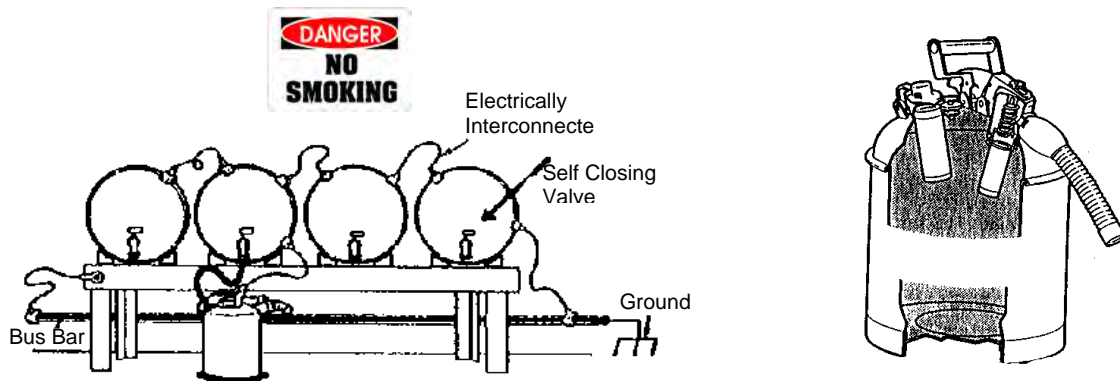


TABLE H-12—MAXIMUM ALLOWABLE SIZE OF CONTAINERS AND PORTABLE TANKS

Container Type	Flammable Liquids			Combustible Liquids	
	Class 1A	Class 1B	Class 1C	Class 11	Class III
Glass or approved plastic	1 pt	1 qt	1 gal	1 gal	1 gal
Metal (other than DOT Drums)	1 gal	5 gal	5 gal	5 gal	5 gal
Safety Cans	2 gal	5 gal	5 gal	5 gal	5 gal
Metal drums (DOT spec.)	60 gal	60 gal	60 gal	60 gal	60 gal.
Approved portable tanks	660 gal	660 gal	660 gal	660 gal	660 gal.

Container exemptions: (a) Medicines, beverages, foodstuffs, cosmetics, and other comm.. consumer items, when packaged according to commonly accepted practices, shall be exempt from the requirements of 1910.106 (d)(2)(i)and (ii).

1910.106(d)(2)(iii)

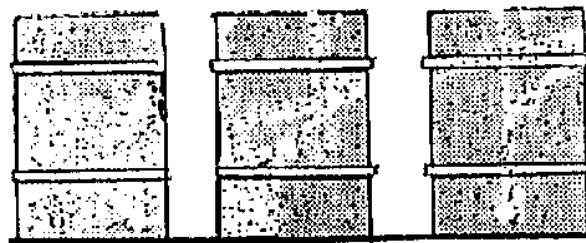
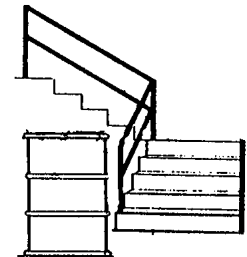
Size.

- (a) Flammable and combustible liquid containers shall be in accordance with Table H-12, except that glass or plastic containers of no more than 1 gallon capacity may be used for a Class IA or IB flammable liquid if:
 - (1) Such liquid either would be rendered unfit for its intended use by contact with metal or would excessively corrode a metal container so as to create a leakage hazard; and
 - (2) The user's process either would require more than 1 pint of a Class IA liquid or more than 1 quart of a Class IB liquid of a single assay lot to be used at one time, or would require the maintenance of an analytical standard liquid of a quality which is not met by the specified standards of liquids available, and the quantity of the analytical standard liquid required to be used in any one control process exceeds one-sixteenth the capacity of the container allowed under Table H-12 for the class of liquid; or
- (b) The containers are intended for direct export outside the United States.

1910.106(d)

(5) **Storage inside building.**

- (i) **Egress.** Flammable or combustible liquids, including stock for sale, shall not be stored so as to limit use of exits, stairways, or areas normally used for the safe egress of people.



(vi) **Flammable and combustible liquid warehouses or storage buildings.**

- (b) The total quantity of liquids within a building shall not be restricted, but the arrangement of storage shall comply with Table H-14 or H-15.

TABLE H-14—INDOOR CONTAINER STORAGE

Class Liquid	Storage Level	Protected Storage Maximum per pile Gallons*	Unprotected Storage Maximum per pile Gallons*
1A	Ground and Upper floors	2750 * (50)	660* (12)
	Basement	Not permitted	Not permitted
1B	Ground and upper floors	5,500* (100)	1,375* (25)
	Basement	Not Permitted	Not permitted
1C	Ground and upper floors	16,500* (300)	4,125* (75)
	Basement	Not permitted	Not permitted
II	Ground and upper floors	16,500* (300)	4,125* (75)
	Basement	5,500 (100)	Not permitted
III	Ground and upper floors	55,000* (1,000)	13,750* (250)
	Basement	8,250 (450)	Not Permitted

Note 1: When 2 or more classes of materials are stored in a single pile, the maximum gallonage permitted in that pile shall be the smallest of the 2 or more separate maximum gallonages.

Note 2: Aisles shall be provided so that no container is more than 12 ft. from an aisle. Main aisles shall be at least 8 ft. wide and side aisles at least 4 ft. wide.

Note 3: Each pile shall be separated from each other by at least 4 ft.

* Revoked

TABLE H-15—INDOOR PORTABLE TANK STORAGE

Class Liquid	Storage Level	Protected Storage Maximum per pile Gallons*	Unprotected Storage Maximum per pile Gallons*
1A	Ground and upper floors Basement	Not permitted Not permitted	Not permitted Not permitted
1B	Ground and upper floors Basement	20,000* Not permitted	2,000* Not permitted
1C	Ground and upper floors Basement	40,000* Not permitted	Not permitted 5,500*
II	Ground and upper floors Basement	40,000* 20,000*	5,500* Not permitted
III	Ground and upper floors Basement	60,000* 20,000	22,000* Not permitted

Note 1: When 2 or more classes of materials are stored in a single pile, the maximum gallonage permitted in that pile shall be the smallest of the 2 or more separate maximum gallonages.

Note 2: Aisles shall be provided so that no portable tank is more than 12 Ft. from an aisle. Main aisles shall be at least 8 ft. wide and side aisles at least 4 ft. wide.

Note 3: Each pile shall be separated from each other by at least 4 ft.

* Revoked.

1910.106(d)

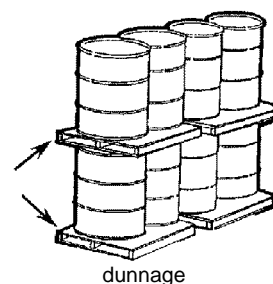
(6) **Storage outside buildings.**

- (i) **General.** Storage outside buildings shall be in accordance with Table H-16 or H-17, and subdivisions (ii) and (iv) of this sub paragraph.
- (ii) **Maximum storage.** A maximum of 1,100 gallons of flammable or combustible liquids may be located adjacent to buildings located on the same premises and under the same management provided the provisions of this subdivision are complied with.
 - (a) Revoked.
 - (b) Where quantity stored exceeds 1,100 gallons, or provisions of subdivision (a) of this subdivision cannot be met, a minimum distance of 10 feet between buildings and nearest container of flammable or combustible liquid shall be maintained.

1910.106(d)(v)

(vi) **Flammable and combustible liquid warehouses or storage buildings.**

- (a) If the storage building is located 50 feet or less from a building or line of adjoining property that may be built upon, the exposing wall shall be a blank wall having a fire-resistance rating of at least 2 hours.
- (b) The total quantity of liquids within a building shall not be restricted, but arrangement of storage shall comply with Table H-14 or H15.
- (c) Containers in piles shall be separated by pallets or dunnage where necessary to provide stability and to prevent excessive stress on container walls.

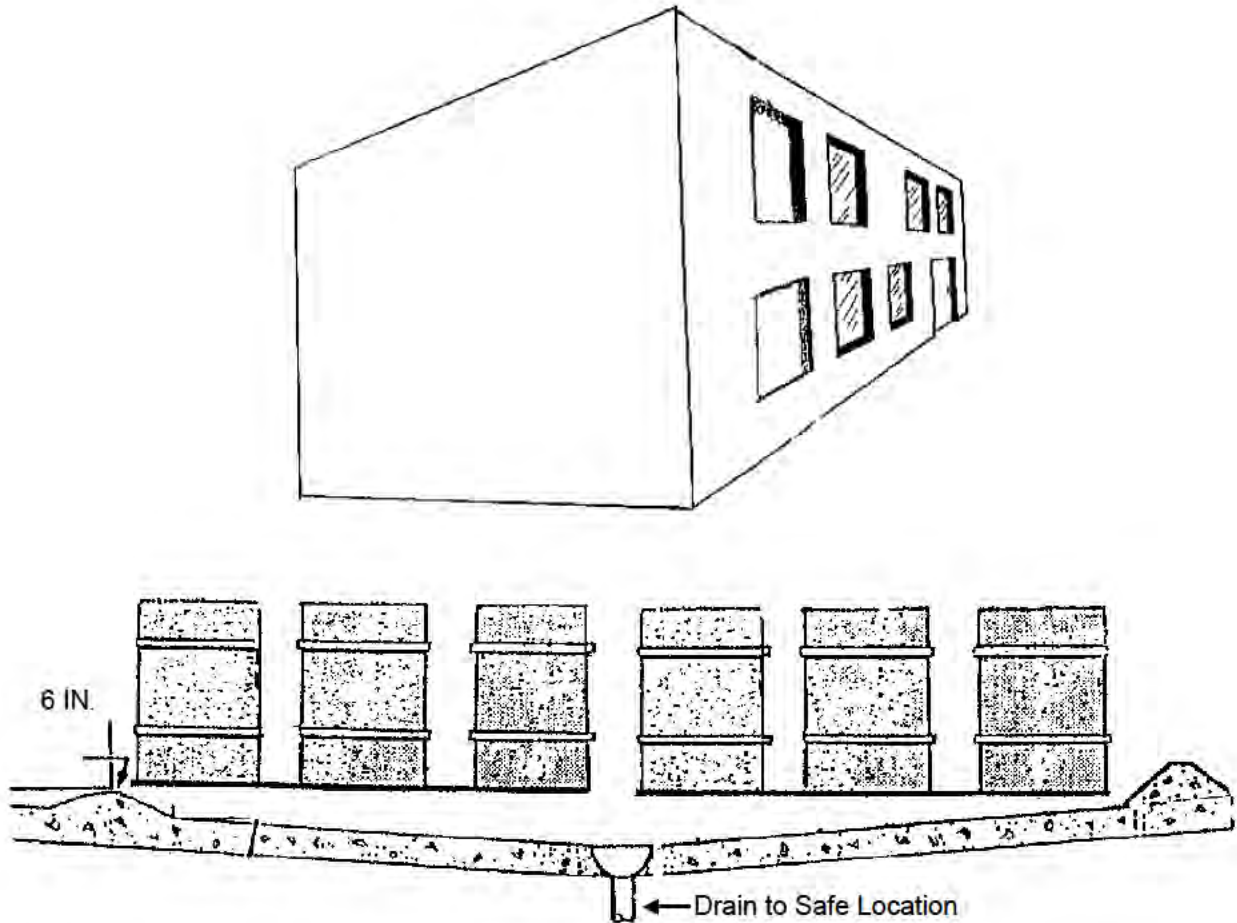


1910.106(d)(6)

- (III) **Spill containment.** The storage area shall be graded in a manner to divert possible spills away from buildings or other exposures or shall be surrounded by a curb at least 6 inches high. When curbs are used, provisions shall be made for draining of accumulations of ground or rain water or spills of flammable or combustible liquids. Drains shall terminate at a safe location and shall be accessible to operation under fire conditions.

1910.106(e)(9)
(iv)

Clear zone. Ground area around buildings and unit operating areas shall be kept free of weeds, trash, or other unnecessary combustible materials.



FREE ONSITE CONSULTATION SERVICE FOR EMPLOYERS

To help employers better understand and voluntarily comply with the MIOSHA Act, free Onsite Consultation programs are available to help small employers identify and correct potential safety and health hazards.



Michigan Occupational Safety & Health Administration
Consultation Education & Training Division
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Section 5.2

Contingency Plan (A7)

**FORM EQP 5111 ATTACHMENT TEMPLATE A7
CONTINGENCY PLAN**

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 299.9521(3)(b), 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 Petro-Chem Processing Group of Nortru LLC. (Petro-Chem) located in Detroit, Michigan.

The Petro-Chem facility performs annual drill exercises and when available will coordinate the drills with the local fire department and emergency responders using the contingency plan to make sure all staff are familiar with the plan and to determine whether the plan needs any updating.

- Applicant for Operating License for Existing Facility
- Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

This template is organized as follows:

INTRODUCTION

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- A7.A.2 Description of Facility Operations
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- A7.B.2 Qualifications of the Emergency Coordinators
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A7.E.2(b) Written Incident Report

A7.F PROCEDURE FOR ASSESSING OFFSITE RISK DURING AND AFTER A FIRE/EXPLOSION INCIDENT OR SIGNIFICANT RELEASE

A7.G PROCEDURES FOR REVIEWING AND AMENDING THE CONTINGENCY PLAN

Template A7 Attachment List	Cross Reference to Contingency Plan	Title
Attachment A7.1	Appendix 7	Documentation of Arrangements with Local Authorities
Attachment A7.2	Figure 054	Evacuation Plan and Routes
Attachment A7.3	Appendix 3	Emergency Equipment Description
Attachment A7.4	Appendix 6	Checklist for Tracking Facility Response Actions During and After a Fire/Explosion Incident

INTRODUCTION

The Petro-Chem facility has prepared a standalone Contingency Plan compliant with the requirements of 40 CFR part 264. This template is used to cross reference the regulatory requirements with the corresponding sections or appendices of the facility's Contingency Plan, which has been provided in Volume I, Section 5, Section 5.2, Appendix I of this application.

A7.A BACKGROUND INFORMATION

A7.A.1 Purpose of the Contingency Plan

[R 299.9607 and 40 CFR §§264.51 and 264.53]

The facility has prepared a stand-alone Contingency Plan in accordance with the requirements of 40 CFR, Part 264, Subpart D, and R 299.9607. A copy of the Contingency Plan has been provided in Volume I, Section 5, Section 5.2, of this application.

The contingency plan has been designed to establish the necessary planned procedures to be followed in the event of an emergency situation at the Petro-Chem facility located in Detroit, 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 the contingency 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 stand-alone 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. An example of correspondence with emergency response agencies that have received this contingency plan and quick response guide is included in Appendix 8 to the Contingency Plan.

A7.A.2 Description of Facility Operations

A description of the facility operations has been provided in Section A.2 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.A.3 Identification of Potential Situations

Identification of potential emergency situations has been provided in Section A.4 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.B EMERGENCY COORDINATORS

[R 299.9607 and 40 CFR §§264.52 and 264.55]

Emergency coordinator information is provided in Section B, Table 2 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.B.1 Identification of Primary and Alternate Emergency Coordinators

[R 299.9607 and 40 CFR §§264.52 and 264.55]

The identification and contact information of primary and alternate emergency coordinators has been provided in Table 2, Section B.1 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

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 1 of the Contingency Plan. 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]

The qualifications of the emergency coordinators have been addressed in Section B.2 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.B.3 Authority to Commit Resources

[R 299.9607 and 40 CFR §264.55]

The authority to commit resources during an emergency is discussed in Section B.3 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.C IMPLEMENTATION OF THE CONTINGENCY PLAN

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The implementation of the contingency plan is described in Section C of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

The emergency coordinator will 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 will 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.

Situations provided as guidance to facility personnel as the conditions or circumstances under which the plan must be implemented have been provide in Section C1 thru C4 in the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.D EMERGENCY PROCEDURES

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The procedures which the facility will implement during an emergency are provided in Section D of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

General emergency 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 facility's procedure and checklist for assessing offsite risk during and after a significant release is provided in the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I and addressed in Attachment A7.F and Attachment A7.4 of this template.

The facility's response to the scenarios identified in Section A7.C above and Section C of the Contingency plan include the following procedures:

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 immediate notification procedures for facility personnel and their designated response roles have been provided in Section D.1 of the Contingency Plan.

The list of emergency contacts in Contingency Plan has been provided in Table 2 Section B.1 in the Contingency Plan. A list of external 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 has been provided in Appendix 1 to the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

The emergency coordinator will be responsible for ensuring that all appropriate authorities are notified as necessary.

A7.D.2 Procedures to Be Used for Identification of Releases

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

Procedures to be used for identification of releases is discussed in Section D.2 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

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]

Procedures to be used to assess potential hazards to human health and the environment have been address in Section D.3 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

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. This assessment includes the determination of both onsite and offsite risk.

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.

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]

The procedure for the emergency coordinator's risk assessment described in Section D.3 of the Contingency Plan, which has been provided in Volume I, Section 5, Section 5.2, Appendix I, includes an evacuation and immediate notification determination. 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 Contingency Plan Appendix 1). The National Response Center will also be notified (see Contingency Plan Appendix 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 Figures 052, 054, and 064. These figures address Attachment A7.2 of this template.

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]

The Contingency Plan contains procedures to be used to ensure fires, explosions, and releases do not occur, reoccur, or spread during the emergency in Section D.5. The contingency plan has been provided in Volume I, Section 5, Section 5.2, Appendix I.

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 procedures listed in the contingency plan.

During an emergency, the emergency coordinator will 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. These procedures are identified in the Contingency Plan Section D5.iv) as appropriate.

The federal, state, and local response contact information is provided in the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A detailed list of emergency equipment type, amount, and location has been provided in the Contingency Plan Appendix 3.

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)]

The monitoring of equipment should facility operations cease is discussed in Section D.6 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

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)]

A procedure for the management (treatment, storage, or disposal) of released materials is discussed in the Contingency Plan Section D7 which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.D.8 Procedures for Cleanup and Decontamination

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(h)]

A procedure for the for the cleanup and decontamination of released materials is discussed in the Contingency Plan Section D8 which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.E RESUMPTION OF OPERATIONS AND RECORD KEEPING REQUIREMENTS

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(h) and (i)]

The following subsections identify procedures that will be followed to meet the notification and record keeping requirements.

A7.E.1 Procedures to Be Used Prior to Resuming Operations

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(h)]

Procedures to be implemented prior to resuming operations are discussed in the Contingency Plan

Section E1, which has been provided in Volume I, Section 5, Section 5.2, Appendix I. Prior to resuming operations in the affected area(s), the facility will inspect all emergency equipment to ensure that the proper cleanup procedures have been implemented and all equipment has been cleaned and is fit for its intended use.

A7.E.2 Record Keeping Requirements

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(i)]

Record keeping requirements are discussed in Section E2 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

A7.E.2(a) Operating Record

Any implementation of the Contingency Plan will be documented in the facility's operating record. A discussion of the record keeping procedures at the facility is discussed in Section E.2 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

In the event of an emergency situation that requires implementation of the Contingency Plan, the emergency coordinator will record in the operating record the time, date, and description of the event. The operating record is maintained by the facility and can be found in the main office operating files.

A7.E(2)(b) Written Incident Report

The requirement and procedure for compliance with written incident reporting is in Section E.2 of the Contingency Plan which has been provided in Volume I, Section 5, Section 5.2, Appendix I.

Within 15 days of an incident requiring implementation of the Contingency Plan, the facility will submit a written incident report to the DEQ at the following address:

Chief of the Office of Waste Management and Radiological Protection
Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909

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.

A7.F PROCEDURE FOR ASSESSING OFFSITE RISK DURING AND AFTER A FIRE/EXPLOSION INCIDENT OR SIGNIFICANT RELEASE

[R 299.9521(3)(b) and R 299.9607 and 40 CFR §264.56(d)]

The facility will work with the Fire Department to assess offsite risk in the event of a significant release of hazardous waste from a fire, explosion, or other similar incident to the offsite environment. The Police Department in coordination with the Fire Department will be responsible for implementing any evacuations.

The facility will work with response contractors, consultants, and the Michigan EGLE to identify what type of data will be obtained under what circumstances and how the data will be used, detail how the information gathered as part of the assessment will be provided to the DEQ and other

governmental agencies as appropriate, and address retention of all assessment information by the facility.

The facility developed a flow chart and checklist to ensure that all steps contained in the procedure required under this Section, are listed below. The flow chart is attached to the Contingency Plan as Figure 053 and the Contingency Plan & Checklist has been provided in Contingency plan as Appendix 6. The assessment of offsite risk includes the following tasks:

Air Monitoring During Incident

- 1.a If possible, model dispersion and deposition of the release with real-time parameters to determine likely extent of plume and assist local authorities making shelter-in-place or evacuation recommendations.
- 1.b Establish air monitoring equipment in locations upwind and downwind of the incident using visual/meteorological data, and update, as needed, with modeling results. Monitoring should continue until downwind data is consistent with upwind values.
- 1.c Air monitoring should be conducted utilizing approved methods and include as many of the identified substances as possible. In the event of a fire/explosion, continuous particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) should be monitored as well. The Contingency Plan should indicate what kind of monitoring equipment may be necessary (e.g., $PM_{2.5}$ meters for fire events, SUMMA canisters/Tedlar bags for volatile organic compounds released from ruptured tanks), and which ones will be readily available.

Record Incident Parameters

- 2.a Document the time the incident began and the duration of the overall incident. Identify the specific location(s) where the incident began.
- 2.b Identify employees/witnesses having direct involvement or direct knowledge of the incident.
- 2.c Identify any relevant witnesses to the incident.
- 2.d Gather local meteorological data from the National Weather Service (point-specific data are available at the National Oceanic and Atmospheric Administration web site) and identify any characteristics noted by personnel directly involved with the incident or recorded elsewhere.

Develop Narrative

- 3.a Determine the sequence of events and timeline leading up to and throughout the incident. Review the incident with employees directly involved and other on-site peripheral witnesses such as office staff, truck drivers, etc. Access other tools and resources, as available (automated data records, surveillance cameras, etc.).
- 3.b Identify specific event locations, materials, substances, and equipment involved in incident.
- 3.c Identify and characterize, to the extent possible, the size and scope of incident.

Comprehensive List of Materials or Substances Involved

- 4.a Identify materials/substances that may have been involved in the incident, using the information obtained in the previous steps, inventory records and/or container/tank logs, laboratory data, approval records, material safety data sheets, or any other means available. Use a generic list initially, and then develop a final list from off-site records. Verify that the most up-to-date records are used.
- 4.b Determine the volume, concentration, and weight of substances identified above, and determine how they may have been altered by the incident (e.g., pyrolysis products, decomposition, degradation, and both known and potential mixture reactions). Based on this

- information, begin developing a list of substances of potential concern.
- 4.c Ensure that information critical to the response activity is kept in the information repository identified by the DEQ.

Post-Incident Sample Collection

- 5.a Develop a sampling plan, as appropriate, for the collection of waste, groundwater, soil, ash, airborne dust, debris, surface water, and/or wipe samples. The plan may take into account fallout density, air monitoring data, visual observation, or air modeling. A statistical sampling design may not be necessary for the screening evaluation. Post-incident, off-site sampling may not be necessary based on air monitoring data and lack of off-site migration or deposition.
- 5.b Collect a sufficient number of samples to identify and characterize concentrations of substances involved in the incident. Include sampling for background concentrations.
- 5.c Complete the analysis of collected samples and review by comparison to relevant environmental protection standards. Environmental protection standards may have to be developed for some chemicals or environmental media.
- 5.d Identify and document any substances found to be present in levels that exceed environmental protection standards.

Evaluate Data for Screening Potential Risk

- 6.a Compare existing data to relevant environmental protection standards.
- 6.b Prepare risk assessment report and submit it to the DEQ, Office of Waste Management and Radiological Protection (OWMRP) within 90 days after the incident.
- 6.c If less than environmental protection standards, no further action is needed for off-site potential releases upon approval of the OWMRP.
- 6.d If the data is greater than the environmental protection standards, proceed with corrective action after notification from the DEQ.

Corrective Action

Perform corrective action based on results of information gathered in previous steps in accordance with Volume I, Section 8, Corrective Action Information, of this license application.

A checklist is provided the Contingency Plan for in Attachment A7.4.

Any of the actions incorporated into this procedure are to be performed by facility personnel to the extent possible. However, much of the offsite sampling and monitoring will, in all likelihood, have to be performed by a duly authorized governmental agency or third-party contractors as such activities can present legal barriers.

A7.G PROCEDURES FOR REVIEWING AND AMENDING THE CONTINGENCY PLAN

[R 299.9607 and 40 CFR §264.54]

The procedure to address reviewing and amending the Contingency Plan is discussed in Section F of the Contingency Plan.

- Attachment A7.1:** Documentation of Arrangements with Local Authorities is included in the Contingency Plan as Appendix 8
- Attachment A7.2:** Evacuation Plan and Routes is included in the Contingency Plan as Figures 052, 054 and 064 and Appendix 4
- Attachment A7.3:** A list of Emergency Equipment with Description has been included in the Contingency Plan as Appendix 3
- Attachment A7.4:** A Checklist for Tracking Facility Response Actions During and After a Fire/Explosion Incident has been included with the Contingency Plan as Appendix 6

Appendix I
Contingency Plan

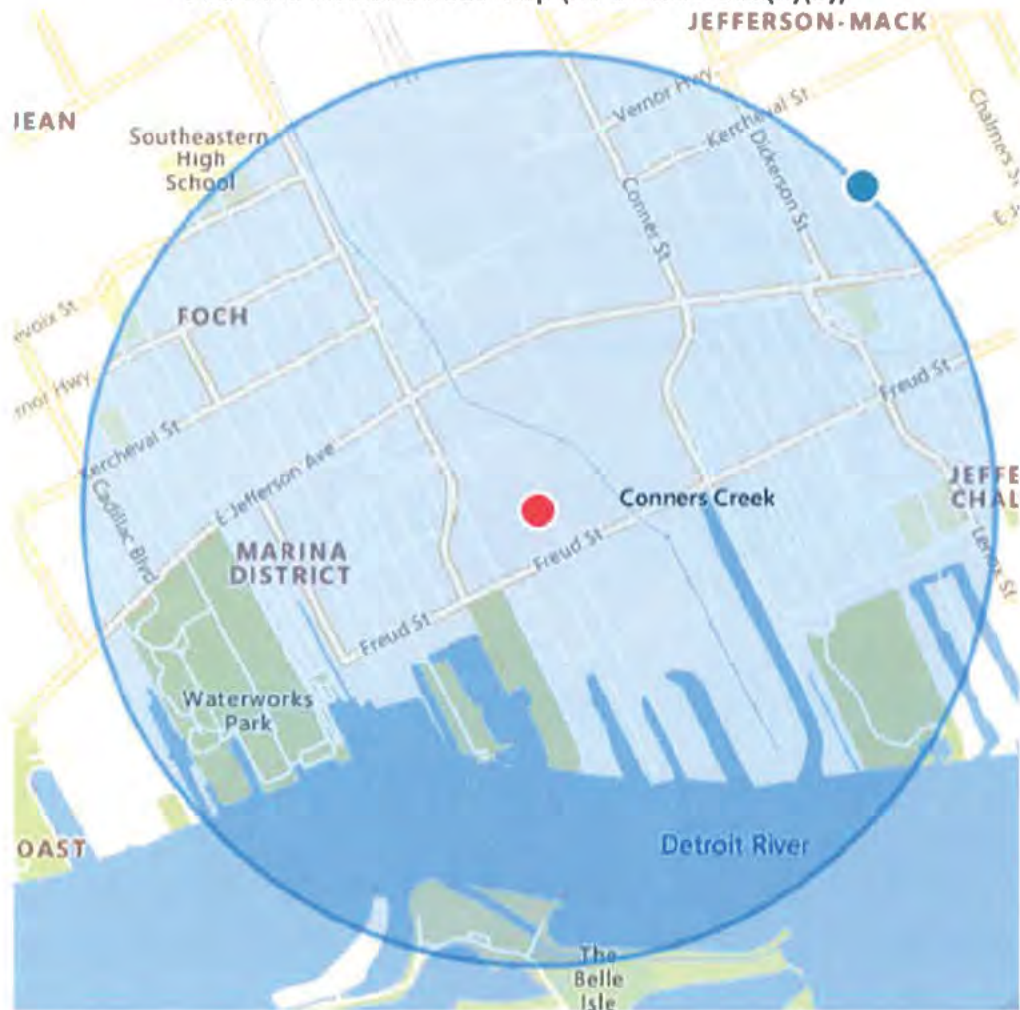
Contingency Plan Quick Reference Guide
Petro-Chem Processing Group of Nortru, LLC
515 Lycaste St., Detroit, MI 48214
EPA ID# MID980 615 298

Petro-Chem

For emergency assistance at the site, please contact one of the following coordinators:

Facility Emergency Coordinators (40 CFR 262.262(b)(8))				
Role	Name	Office #	Mobile #	Alternate #
Primary Emergency Coordinator	Melanie Frohriep	313-824-5848	313-743-4487	586-201-3212
Secondary Emergency Coordinator	Donald Jones	313-215-0610	313-215-0610	313-215-0610
Primary Environmental Coordinator	Ed Burke	313-824-5840	313-316-1623	734-675-7021

One Mile Radius Street Map (40 CFR262.262(b)(5))



One Mile Radius = Shaded Area

Directions to the Main Gate at the Facility (40 CFR 262.262(b)(5))

Facility Address	From the North	From the West	From the East	From the South
515 Lycaste St. Detroit, MI 48214	I-75 Take Mack Ave to Joseph Campau Ave., continue on East Vernor Hwy. Take Kercheval Ave to Edlie St. Follow Edlie St to Lycaste	Head northeast on I-94 E Take exit 220 B for Connor Ave toward City Airport. Continue onto Connor St then onto Clairpoint Ave/Conner Creek Greenway. Turn right onto Freud St Turn right on to Lycaste St Destination on the right	Take I-94 West to Detroit exit exit 220 B Connor St to Clairpointe Ave/Conner Creek Greenway Turn right onto Freud St Turn right on to Lycaste St Destination on the right	Head southwest on Essex Ave toward Lycaste St Turn right onto Lycaste St Turn left to destination

*All routes can accommodate a 53-foot trailer. (?)

The following hazardous waste may be present at the site:

Hazardous Waste¹ (40 CFR 262.262(b)(1), (2) & (3))

Waste Types:

Hazardous Class 2 - flammable, non-flammable and toxic compressed gases

Hazard Class 3 - flammable liquids

Hazard Class 4 - flammable solids, spontaneously combustible solids, dangerous when wet solids

Hazard Class 5 - liquid and solid oxidizers, organic peroxides

Hazard Class 6 - liquid and solid toxic wastes including pesticides

Hazard Class 8 - liquid and solid acids and bases

Hazard Class 9 - liquid and solid environmentally hazardous substances

Liquid Industrial By-Product (LIB)

The types of waste codes handled at PCPG include:

- F, K Type - waste from listed nonspecific and specific sources
- P, U Type - discarded acutely hazardous & hazardous commercial chemical products
- D Type - ignitable, corrosive, reactive and toxic waste

1 – The quantity and type of hazardous waste may vary due to production activity.

2 – Toxic, Corrosive, Reactive, Ignitable (or combination of these)

3 – Numbered locations are provided on the following map. Locations are subject to change. Consult with onsite personnel for current information.

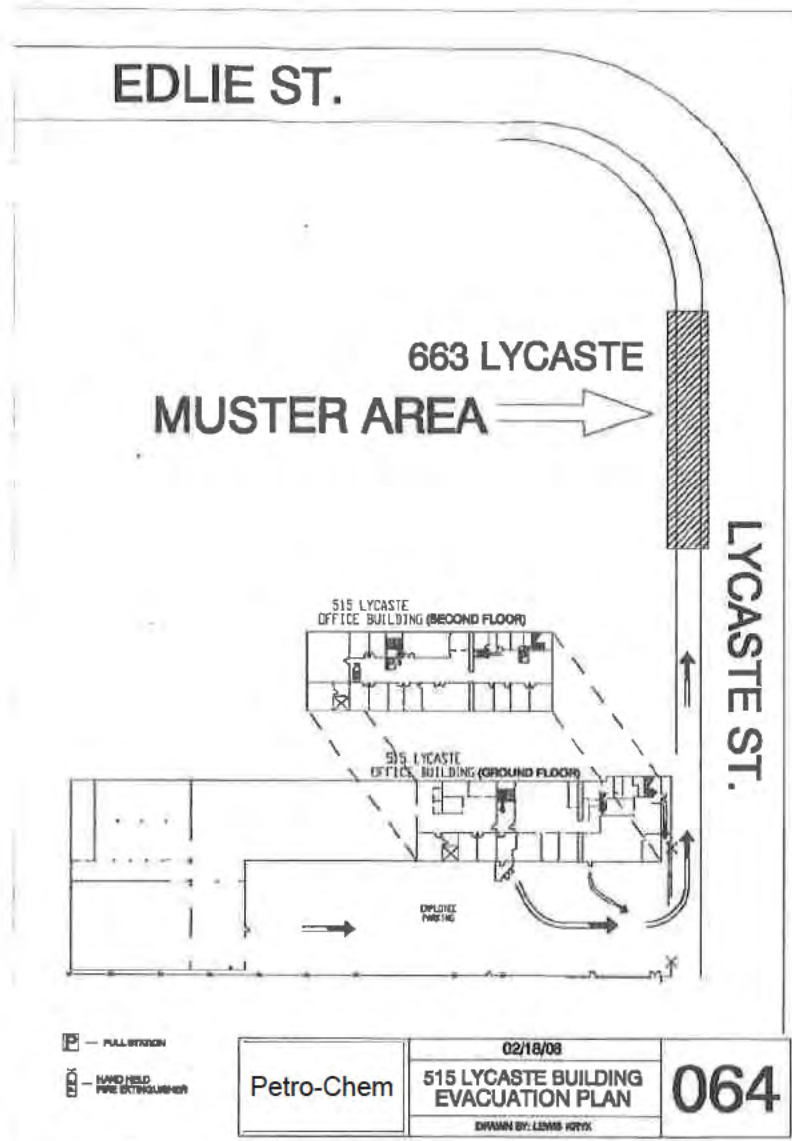
The following hazardous waste may be present at the site: *Continued*

Hazardous Waste¹ (40 CFR 262.262(b)(1), (2) & (3))

US EPA & Michigan Waste Codes

D001 F011 K045 K150 P050 P119 U033 U091 U149 U208 001K 057U 131U
D002 F012 K046 K151 P051 P120 U034 U092 U150 U209 002K 058U 131U
D003 F019 K048 K156 P054 P121 U035 U093 U151 U210 059U 132U
D004 F024 K049 K157 P056 P122 U036 U094 U152 U211 001U 166U 134U
D005 F025 K050 K158 P057 P123 U037 U095 U153 U213 002U 061U 135U
D006 F032 K051 K159 P058 P127 U038 U096 U154 U214 003U 063U 136U
D007 F034 K052 K161 P059 P128 U039 U097 U155 U215 004U 064U 137U
D008 F035 K060 K169 P060 P185 U041 U098 U156 U216 005U 068U 138U
D009 F037 K061 K170 P062 P188 U042 U099 U157 U217 006U 070U 139U
D010 F038 K062 K171 P063 P189 U043 U101 U158 U218 007U 071U 140U
D011 F039 K069 K172 P064 P190 U044 U102 U159 U219 157U 072U 154U
D012 K071 P001 P065 P191 U045 U103 U160 U220 008U 073U 171U
D013 K001 K073 P002 P066 P192 U046 U105 U161 U221 009U 167U 172U
D014 K002 K083 P003 P067 P194 U047 U106 U162 U222 158U 074U 173U
D015 K003 K084 P004 P068 P196 U048 U107 U163 U223 011U 075U 141U
D016 K004 K085 P005 P069 P197 U049 U108 U164 U225 012U 076U 142U
D017 K005 K086 P006 P070 P198 U050 U109 U165 U226 014U 077U 143U
D018 K006 K087 P007 P071 P199 U051 U110 U166 U227 147U 078U 174U
D019 F011 K045 K150 P050 P119 U033 U091 U167 U208 001K 057U 131U
D020 F012 K046 K151 P051 P120 U034 U092 U168 U209 002K 058U 131U
D021 F019 K048 K156 P054 P121 U035 U093 U169 U210 059U 132U
D022 F024 K049 K157 P056 P122 U036 U094 U170 U211 001U 166U 134U
D023 F025 K050 K158 P057 P123 U037 U095 U171 U213 002U 061U 135U
D024 F032 K051 K159 P058 P127 U038 U096 U172 U214 003U 063U 136U
D025 F034 K052 K161 P059 P128 U039 U097 U173 U215 004U 064U 137U
D026 F035 K060 K169 P060 P185 U041 U098 U174 U216 005U 068U 138U
D027 F037 K061 K170 P062 P188 U042 U099 U175 U217 006U 070U 139U
D028 F038 K062 K171 P063 P189 U043 U101 U176 U218 007U 071U 140U
D029 F039 K069 K172 P064 P190 U044 U102 U177 U219 157U 072U 154U
D030 K071 P008 P065 P191 U045 U103 U178 U220 008U 073U 171U
D031 K007 K073 P009 P066 P192 U046 U105 U179 U221 009U 167U 172U
D032 K008 K083 P010 P067 P194 U047 U106 U180 U222 158U 074U 173U
D033 K009 K084 P011 P068 P196 U048 U107 U181 U223 011U 075U 141U
D034 K010 K085 P012 P069 P197 U049 U108 U182 U225 012U 076U 142U
D035 K011 K086 P013 P070 P198 U050 U109 U183 U226 014U 077U 143U
D036 F011 K045 K150 P050 P119 U033 U091 U184 U208 001K 057U 131U
D037 F012 K046 K151 P051 P120 U034 U092 U185 U209 002K 058U 131U
D038 F019 K048 K156 P054 P121 U035 U093 U186 U210 059U 132U
D039 F024 K049 K157 P056 P122 U036 U094 U187 U211 001U 166U 134U
D040 F025 K050 K158 P057 P123 U037 U095 U188 U213 002U 061U 135U
D041 F032 K051 K159 P058 P127 U038 U096 U189 U214 003U 063U 136U
D042 F034 K052 K161 P059 P128 U039 U097 U190 U215 004U 064U 137U
D043 F035 K060 K169 P060 P185 U041 U098 U191 U216 005U 068U 138U
D044 F037 K061 K170 P062 P188 U042 U099 U192 U217 006U 070U 139U
D045 F038 K062 K171 P063 P189 U043 U101 U193 U218 007U 071U 140U
D046 F039 K069 K172 P064 P190 U044 U102 U194 U219 157U 072U 154U
D047 K071 P008 P065 P191 U045 U103 ~~U195~~ U220 008U 073U 171U
D048 K007 K073 P009 P066 P192 U046 U105 U196 U221 009U 167U 172U
D049 K008 K083 P010 P067 P194 U047 U106 U197 U222 158U 074U 173U
D050 K009 K084 P011 P068 P196 U048 U107 U198 U223 011U 075U 141U
D051 K010 K085 P012 P069 P197 U049 U108 U199 U225 012U 076U 142U
D052 K011 K086 P013 P070 P198 U050 U109 U200 U226 014U 077U 143U
D053 K012 K087 P014 P071 P199 U051 U110 U201 U227 147U 078U 174U
D054 F011 K045 K150 P050 P119 U033 U091 U202 U208 001K 057U 131U
D055 F012 K046 K151 P051 P120 U034 U092 U203 U209 002K 058U 131U

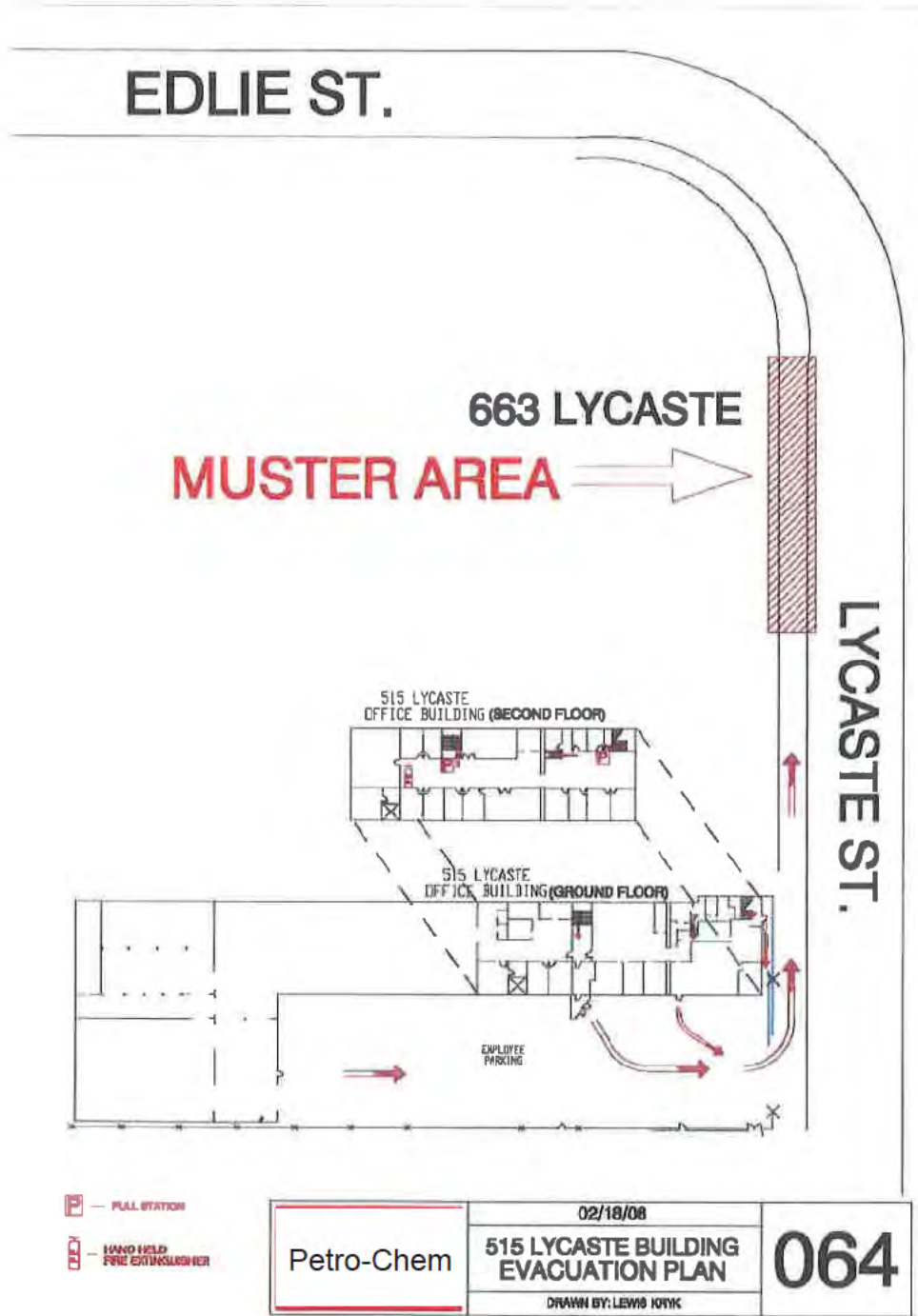
SECTION IV 515 BUILDING FLOOR PLAN



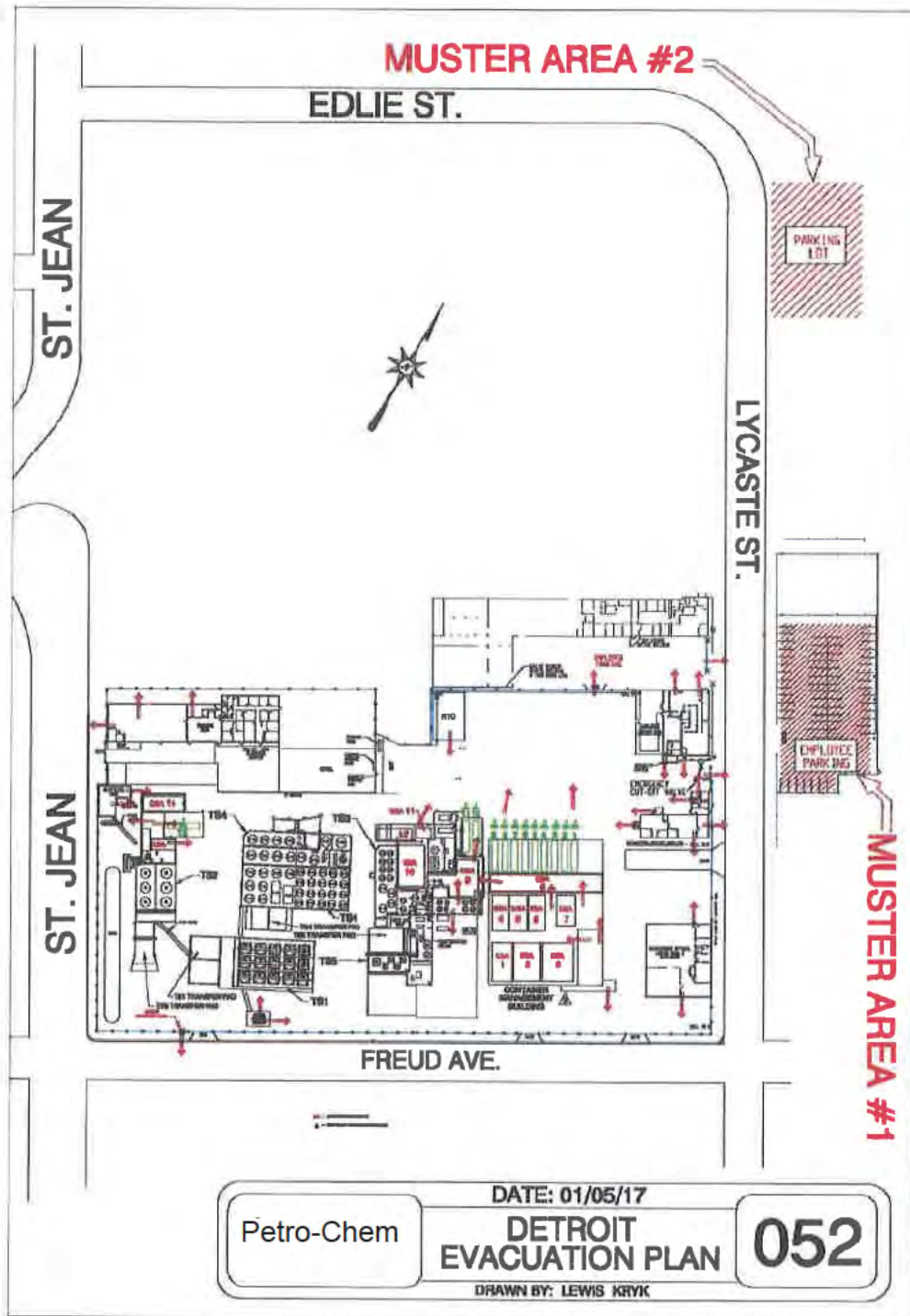
The facility has the following on-site alarm systems:

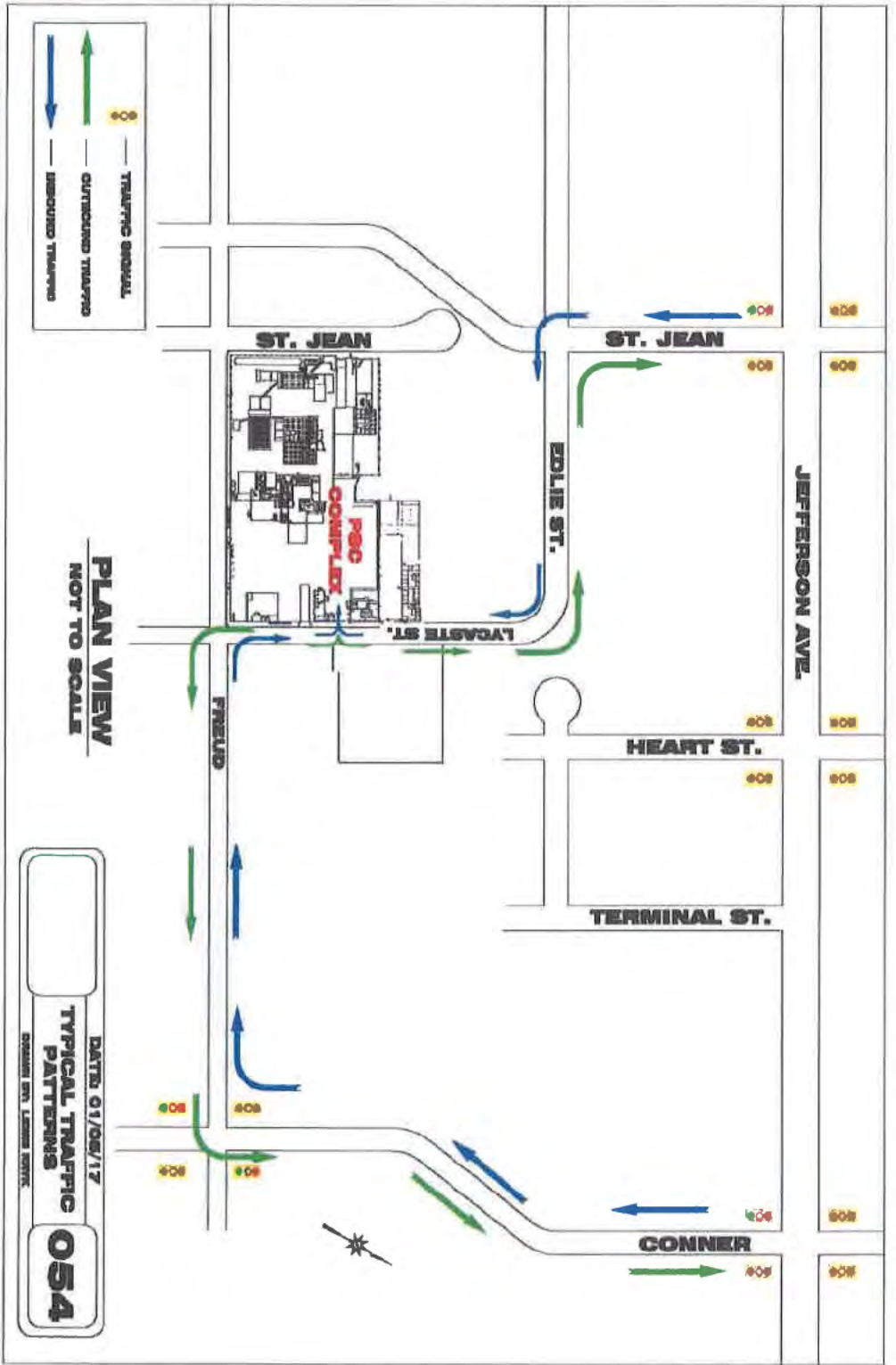
Alarm Systems (40 CFR 262.262(b)(7))		
System	Type	Location
Fire alarm system with direct Security Service Connection (linked to Detroit Fire Department).	Automated with direct security service connection	Warehouse
Hand held radios	Manual	All managers, supervisors, and plant leads

SECTION IV 515 BUILDING FLOOR PLAN



421 EVACUATION PLAN AND TRAFFIC FLOW PLAN





PLAN VIEW
 NOT TO SCALE

Petro-Chem

CONTINGENCY PLAN

Petro-Chem Processing Group of Nortru, LLC.

Revision 7.0 - 01/18/2022

CONTINGENCY PLAN
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A BACKGROUND INFORMATION

The information contained in this section is submitted in accordance with the requirements of 40 CFR Part 264 Subpart D, and as adopted by reference in R 299.9607.

The Petro-Chem Processing Group of Nortru, LLC. ("PCPG") operating office and facility is located in a highly industrialized section of northeastern Detroit. The street address is:

Petro-Chem Processing Group of Nortru, LLC.
421 Lycaste
Detroit, Michigan 48214

The administrative office for the complex is located adjacent to the main plant at

Clean Earth Environmental Solutions, Inc.
515 Lycaste Street
Detroit, Michigan 48214

1) Purpose

- i) The purpose of this stand-alone Contingency Plan is to establish the necessary planned procedures to be followed in the event of an emergency situation and the actions taken to prevent occurrences during operations at the PCPG facility in Detroit, Michigan. Occurrences include: fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil or surface water. The provisions of this plan will be implemented upon the occurrence of a fire, explosion or release of hazardous waste or waste constituents which could threaten human health or the environment. It is also recognized that no single person or agency can possibly manage a serious hazardous materials incident. Hence, an important part of this contingency plan is to establish the emergency response procedures in such a way as to allocate available resources as efficiently as possible to achieve the primary goal: the preservation of human health and the environment. These procedures are not intended for normal, routine clean-up operations which pose no threat to human health or the environment; rather, this Contingency Plan describes the specific actions that facility personnel will take in the event of a fire, explosion or other unplanned occurrence which could impact the health and safety of those personnel at the complex, or in the area surrounding of the complex.
- ii) To comply with 40 CFR 264.37 (a) and (b), PCPG issues a copy of its most current Contingency Plan, hazardous material descriptions and operations information to:

- iii) City of Detroit Emergency Management Division
- iv) Two local emergency response contractors identified in the Contingency Plan Reporting Contact Information - Appendix 1
- v) Concentra Medical Clinic
- vi) City of Detroit Police Department
- vii) City of Detroit **Local Emergency Planning Committee (LEPC)**
- viii) The City of Detroit Fire Marshall's Division has also conducted a site visit in order to familiarize them with plant operations. See Appendix 6 for verification that these entities have received a copy of this contingency plan. They will also receive a copy of every modified plan.

2) Description of Facility and Operations

- i) PCPG is a full-service Hazardous Waste Treatment and Storage facility capable of handling a wide variety of waste streams for fuel blending, storage and consolidation.
- ii) All process areas have reinforced concrete and are contained. Containment areas are designed to hold at least 150% of the entire contents of the largest vessel inside the containment device.
- iii) Bulk materials are stored in tanks located within secondary containment structures. The secondary containment structures are constructed of concrete floor and walls and provide 150% containment of the largest tank.
- iv) Containerized materials are managed in multiple areas throughout the facility, including both inside and outside storage. Inside storage is within the buildings with secondary containment provided by the building structure and curbing. Outside storage is within concrete secondary containment typically under canopies.
- v) Waste Streams: These waste streams include aerosols, asbestos, batteries, chlorinated hydrocarbons, contaminated soils, contaminated waters, electronic wastes, empty containers, fluorescent bulbs, inorganic acids & bases, lab packs, metals, oils, organic acids, organic liquids, pesticides, pharmaceuticals, rags, solvents and water reactives. PCPG does not accept dioxin, explosive, infectious, poly chlorinated bi-phenols (PCB) or radioactive wastes

Waste Types:

Hazardous Class 2 - flammable, non-flammable and toxic compressed gases

Hazard Class 3 - flammable liquids

Hazard Class 4 - flammable solids, spontaneously combustible solids, dangerous when wet solids

Hazard Class 5 - liquid and solid oxidizers, organic peroxides

Hazard Class 6 - liquid and solid toxic wastes including pesticides

Hazard Class 8 - liquid and solid acids and bases

Hazard Class 9 - liquid and solid environmentally hazardous substances

Liquid Industrial By-Product (LIB)

The types of waste codes handled at PCPG include:

- F, K Type - waste from listed nonspecific and specific sources
- P, U Type - discarded acutely hazardous & hazardous commercial chemical products
- D Type - ignitable, corrosive, reactive and toxic waste

US EPA & Michigan Waste Codes

D001	F011	K045	K150	P050	P119	U033	U091	U149	U208	001K	057U	131U
D002	F012	K046	K151	P051	P120	U034	U092	U150	U209	002K	058U	131U
D003	F019	K048	K156	P054	P121	U035	U093	U151	U210		059U	132U
D004	F024	K049	K157	P056	P122	U036	U094	U152	U211	001U	166U	134U
D005	F025	K050	K158	P057	P123	U037	U095	U153	U213	002U	061U	135U
D006	F032	K051	K159	P058	P127	U038	U096	U154	U214	003U	063U	136U
D007	F034	K052	K161	P059	P128	U039	U097	U155	U215	004U	064U	137U
D008	F035	K060	K169	P060	P185	U041	U098	U156	U216	005U	068U	138U
D009	F037	K061	K170	P062	P188	U042	U099	U157	U217	006U	070U	139U
D010	F038	K062	K171	P063	P189	U043	U101	U158	U218	007U	071U	140U
D011	F039	K069	K172	P064	P190	U044	U102	U159	U219	157U	072U	154U
D012		K071	P001	P065	P191	U045	U103	U160	U220	008U	073U	171U
D013	K001	K073	P002	P066	P192	U046	U105	U161	U221	009U	167U	172U
D014	K002	K083	P003	P067	P194	U047	U106	U162	U222	158U	074U	173U
D015	K003	K084	P004	P068	P196	U048	U107	U163	U223	011U	075U	141U
D016	K004	K085	P005	P069	P197	U049	U108	U164	U225	012U	076U	142U
D017	K005	K086	P006	P070	P198	U050	U109	U165	U226	014U	077U	143U
D018	K006	K087	P007	P071	P199	U051	U110	U166	U227	147U	078U	174U
D019	F011	K045	K150	P050	P119	U033	U091	U167	U208	001K	057U	131U
D020	F012	K046	K151	P051	P120	U034	U092	U168	U209	002K	058U	131U

D021	F019	K048	K156	P054	P121	U035	U093	U169	U210		059U	132U
D022	F024	K049	K157	P056	P122	U036	U094	U170	U211	001U	166U	134U
D023	F025	K050	K158	P057	P123	U037	U095	U171	U213	002U	061U	135U
D024	F032	K051	K159	P058	P127	U038	U096	U172	U214	003U	063U	136U
D025	F034	K052	K161	P059	P128	U039	U097	U173	U215	004U	064U	137U
D026	F035	K060	K169	P060	P185	U041	U098	U174	U216	005U	068U	138U
D027	F037	K061	K170	P062	P188	U042	U099	U175	U217	006U	070U	139U
D028	F038	K062	K171	P063	P189	U043	U101	U176	U218	007U	071U	140U
D029	F039	K069	K172	P064	P190	U044	U102	U177	U219	157U	072U	154U
D030		K071	P008	P065	P191	U045	U103	U178	U220	008U	073U	171U
D031	K007	K073	P009	P066	P192	U046	U105	U179	U221	009U	167U	172U
D032	K008	K083	P010	P067	P194	U047	U106	U180	U222	158U	074U	173U
D033	K009	K084	P011	P068	P196	U048	U107	U181	U223	011U	075U	141U
D034	K010	K085	P012	P069	P197	U049	U108	U182	U225	012U	076U	142U
D035	K011	K086	P013	P070	P198	U050	U109	U183	U226	014U	077U	143U
D036	F011	K045	K150	P050	P119	U033	U091	U184	U208	001K	057U	131U
D037	F012	K046	K151	P051	P120	U034	U092	U185	U209	002K	058U	131U
D038	F019	K048	K156	P054	P121	U035	U093	U186	U210		059U	132U
D039	F024	K049	K157	P056	P122	U036	U094	U187	U211	001U	166U	134U
D040	F025	K050	K158	P057	P123	U037	U095	U188	U213	002U	061U	135U
D041	F032	K051	K159	P058	P127	U038	U096	U189	U214	003U	063U	136U
D042	F034	K052	K161	P059	P128	U039	U097	U190	U215	004U	064U	137U
D043	F035	K060	K169	P060	P185	U041	U098	U191	U216	005U	068U	138U
D044	F037	K061	K170	P062	P188	U042	U099	U192	U217	006U	070U	139U
D045	F038	K062	K171	P063	P189	U043	U101	U193	U218	007U	071U	140U
D046	F039	K069	K172	P064	P190	U044	U102	U194	U219	157U	072U	154U
D047		K071	P008	P065	P191	U045	U103	U195	U220	008U	073U	171U
D048	K007	K073	P009	P066	P192	U046	U105	U196	U221	009U	167U	172U
D049	K008	K083	P010	P067	P194	U047	U106	U197	U222	158U	074U	173U
D050	K009	K084	P011	P068	P196	U048	U107	U198	U223	011U	075U	141U
D051	K010	K085	P012	P069	P197	U049	U108	U199	U225	012U	076U	142U
D052	K011	K086	P013	P070	P198	U050	U109	U200	U226	014U	077U	143U
D053	K012	K087	P014	P071	P199	U051	U110	U201	U227	147U	078U	174U
D054	F011	K045	K150	P050	P119	U033	U091	U202	U208	001K	057U	131U
D055	F012	K046	K151	P051	P120	U034	U092	U203	U209	002K	058U	131U

3 Facility Security

- a. The PCPG complex is secured by multiple means to prevent the unauthorized or unknowing entry of any person or animal onto the site in accordance with 40 CFR 264.14 and R299.9605.
- b. A six-foot high, cyclone and barbed wire security fence encloses the entire perimeter of the operational area of the plant. The perimeter fencing includes eight gates that remain secured when not in use.
- c. The security office is located adjacent to the main access gate. A security guard is stationed at the security office on a 24-hour basis as a means to control entry. The main access gate is motor operated and controlled from within the security office. All deliveries and visitors entering the complex must enter at this point. The security guard maintains a log of individuals entering the complex.

4 Identification of Potential Situations

The decision to implement the contingency plan will depend on whether the occurrence presents a potential hazard to human health or could release hazardous waste or hazardous waste constituents to the environment.

Table 1: Emergency Situations for Implementing the Contingency Plan

EMERGENCY	POSSIBLE EFFECTS
Fire and/or explosion	Fire cannot be contained with portable fire- fighting equipment
	Toxic fumes are released
	Imminent danger exists of a fire/ explosion
Spillage	Spill cannot be contained with available equipment, i.e., spill exceeds the secondary containment capacities and/or the on-site capacity
	Spill could release toxic fumes or liquids which harm human health
Natural Disaster	A tornado has damaged the site High winds in excess of 70 mph hit the site
	An earthquake has occurred
Breach of security or sabotage	The facility's security has been breached and sabotage may result

B EMERGENCY COORDINATORS

The Emergency Coordinators for the PCPG complex are responsible for determining the nature of the emergency, implementing the contingency plan, coordinating all on-site activities with local, State, and Federal emergency management personnel and for all required notifications.

All employees are trained to notify their supervisor upon discovery of a fire, explosion, or spill. The supervisor will in turn notify an Emergency Coordinator for further directions regarding implementation of this Contingency Plan. Should the Emergency Coordinator be on call and require time to arrive on-site, a designee will be assigned to direct the preliminary emergency response procedures necessary to protect human health and the environment.

1) Identification of Primary and Alternate Emergency Coordinators

Should such an emergency result after normal working hours, an after hours phone listing is maintained by all management personnel and at the security office. This listing includes all home telephone numbers and mobile telephone numbers where appropriate.

Table 2 - Site Emergency Coordinators

	Name	Work Address	Work / Office Phone	Home Address	Home Phone	Mobil Phone
Primary Coordinator	Melanie Frohriep	515 Lycaste St. Detroit, MI 48214	313.824.5848	23725 Rosalind Eastpointe, MI 48021	586.201.3212	313.743.4487
Second Alternate Coordinator	Donald Jones	515 Lycaste St. Detroit, MI 48214	313.215.0610	10507 Merlin Detroit, MI 48224	313-215-0610	313.215.0610
Third Alternate Coordinator	Edward Burk	515 Lycaste St. Detroit, MI 48214	313.824.5840	8227 O'Donnell Grosse Ile, MI 48138	734.675.7021	313.316.1623

2) Qualifications of the Emergency Coordinators

Emergency Coordinators and Alternate Emergency Coordinators have been chosen based on their knowledge of the activities of the complex, experience, and background. Contingency Plan Table 1 lists, in priority, those individuals who have been given the responsibility of Emergency Coordinator. These individuals have been

trained to be thoroughly familiar with all aspects of the Contingency Plan, the various operations conducted at the complex, the locations and types of waste handled, the location of all emergency equipment, procedures for safe emergency response, the location of all records, and the complex's general layout. The Emergency Coordinator will be notified immediately, should an emergency occur.

3) Authority to Commit Resources

Each potential Emergency Coordinator/Alternate has been given full authority to commit whatever resources are necessary for implementing this plan.

4) Responsible Persons

A Responsible Person will be assigned at both the 515 building and the 412 complex to maintain a complete list of on-site staff, as well as the guest registry. The Responsible Person will collect the facility's guest sign in book along with the on-site personnel list and take a position at the gate on the west side of the employee parking lot. Attendance will be taken by the two Responsible Persons to assure that all on-site personnel and guests have been evacuated and are accounted for. If there is anyone missing or not accounted for - the emergency coordinator(s) will be notified immediately.

C. IMPLEMENTATION OF THE CONTINGENCY PLAN

A site emergency may be caused by a fire or explosion, accidental spillage of material, natural disasters, or breach of security. The following situations are provided as guidance to facility personnel as the conditions or circumstances under which the Plan must be implemented:

1. Fire and/or Explosion

- i) Fire poses the greatest risk of any possible cause of a site emergency. PCPG has designed its complex in compliance with appropriate National Fire Protection Agency Codes and the National Electrical Code, including Class I Group D, Division 1 equipment, where applicable.
- ii) Explosions may result from accidental ignition or vapors developed during operations at the complex.
- iii) In the event of a fire or explosion, personnel have been instructed to do the following:
 - (1) Activate the emergency alarm system or back-up air signal horns.
 - (2) Notify the primary Emergency Coordinator immediately.
 - (3) Evacuate all site personnel in the vicinity of the accident. These persons are to report to the designated safety locations for accountability. These designated areas are shown in Evacuation Plan Figure 052

- (4) For small, contained fires where risk of extension of fire is not present, procure fire extinguishers and attempt to control or extinguish the fire, without putting oneself in a health-threatening situation.
- iv) If the fire/explosion is determined to be within the on-site emergency response capabilities, the Emergency Coordinator will contact and deploy properly trained in-plant personnel. Emergency equipment locations are shown on Figure 051 Emergency Equipment Locations, and list with a brief description of capabilities of the emergency equipment is provided in Appendix 3 - Safety & Emergency Equipment. If the accident is beyond plant capabilities, the Emergency Coordinator will contact the appropriate agencies for assistance. A list of agencies and phone numbers can be found in Appendix 1 - Contingency Plan Reporting Contact Information.
- v) Fire-fighting will not be done at the risk of injury to the persons involved; however, early containment of the fires can significantly decrease potential harm or risk.
- vi) Evacuation of plant personnel will be necessary if the fire cannot be contained or if there is a threat of an explosion. All personnel have been trained in evacuation procedures and means of exit from their respective work areas.

2. Spillage

- a. Only a spill in excess of the secondary containment would pose any threat to the surrounding environment and once which the Plan must be implemented
- b. If the spilled material has the potential for ignition, the Emergency Coordinator will follow the procedures outlined under Fire and/or Explosion.
- c. If a hazardous waste spill is not contained or if a threat to human health or the environment off-site is present, the Plan will be implemented.
- d. If an employee discovers a major hazardous waste spill or process problem resulting in a vapor release, he or she will immediately report to the shift supervisor at the time of the incident, who will contact the appropriate Emergency Coordinator.
- e. The Emergency Coordinator will assess the magnitude and potential seriousness of the spill or release. If the accident is beyond the facility's capabilities, the Emergency Coordinator will contact the appropriate emergency response contractors and agencies for assistance, as appropriate.

A list of agencies and phone numbers can be found in Appendix 1 - Contingency Plan Reporting Contact Information.

- f. The initial priority of all emergency response activities is to protect human health and safety, and then the environment. Identification, containment, treatment, and disposal assessment will be the second priority. In the event of a spill or release, all efforts will be taken to contain the material on-site.

3. Natural Disasters

In the event of any emergency caused by severe weather (i.e., tornadoes, earthquake, heavy rain, or snowfall, etc.), the following types of actions may be taken under the direction of the Emergency Coordinator, if and only if they can be accomplished without unduly endangering the safety of any personnel:

- a. Visually inspect tanks to ascertain structural integrity.
- b. Close windows and doors.
- c. Move any containers on loading or unloading areas to the container storage area.
- d. Instruct employees to proceed to the designated Safety Location - the locker room/break room - toward the center of the building.

Additional information regard preparedness and response to Natural Disasters is included in Appendix 8.

4. Breach of Security

In the event of an emergency caused by a breach of security, the following actions will be taken under the direction of the Emergency Coordinator:

- a. Alert the security office.
- b. Notify the Detroit Police Department as to the nature the breach and request support.
- c. Limit on-site operations to essential activities.
- d. Evacuate the site if the risk of sabotage exists.
- e. Advise transporters of the situation and limit access to the site until any threat of sabotage has been eliminated.

D. EMERGENCY PROCEDURES

The following general procedures will be implemented by the Emergency Coordinator, or a designee, once the contingency plan is implemented to efficiently respond to the release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

1) Immediate Notification Procedures

- i) Generally, the procedure upon the discovery of a fire, release, or other incident is the following:
 - (1) Employees should notify their supervisor for further instruction.
 - (2) The supervisor will contact the Emergency Coordinator to determine the steps necessary to protect human health and the environment.
 - (3) The Emergency Coordinator or designee will notify security of the nature and extent of an emergency incident and direct security to activate the facility alarm or the public address system.
 - (4) If the emergency warrants IMMEDIATE evacuation, all employees have been trained to activate the site-wide facility alarm or the back-up Air Signal Horns located at:
 - (a) Nortru, LLC. Transfer Facility (550 Lycaste Street).
 - (b) SBS Building.
 - (c) Motor Control Center.
 - (d) Dock I.
 - (e) 501 Lycaste Building.
 - (f) If the facility alarm is activated, all employees are directed to evacuate the facility according to the designated evacuation routes.
- ii) If the emergency warrants assistance from an outside State or local agency, additional emergency response resources shall be immediately summoned from the agencies listed on Appendix 1 - Contingency Plan Reporting Contact information
- iii) Each employee has access to the alarm stations and telephone communication systems located throughout the facility (see Figure No. 051 - Emergency Equipment Locations).

2) Identification of Releases

- i) In the event of an emergency, the Emergency Coordinator will immediately identify the following regarding any released material:
 - (1) Characteristics.
 - (2) Exact source.
 - (3) Amount.
 - (4) Extent of migration.

This may be achieved through observation and/or review of manifests, facility records, generator profiles, chemical labels, placards, material safety data sheets, or if necessary, by chemical analysis.

- ii) The designated Emergency Coordinator will obtain, at a minimum, the following information:
 - (1) The material spilled or released.
 - (2) Location of the release or spill.
 - (3) An estimate of quantity released and the rate at which it is being released.
 - (4) The direction in which the spill, or release, is heading.
 - (5) Any injuries involved.
 - (6) Fire and/or explosion or possibility of these events.
 - (7) The area and materials involved and the intensity of any fire or explosion.

3) Hazard Assessment

- i) According to the information obtained from the identification of the hazardous materials and information supplied by the area supervisors, the Emergency Coordinator will assess possible hazards to human health and the environment. The assessment will consider both direct and indirect effects of the release, fire, explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosions).
- ii) The assessment, at a minimum, will include the following:
 - (a) Determination of hazardous properties of the involved material by review of available analytical data, waste profile and Safety Data Sheets (SDS), as appropriate.
 - (b) Determination of the environmental conditions contributing to the seriousness of the situation (i.e., wind speed and direction, ground moisture, relative humidity, temperature, etc.).
 - (c) Determination of the population at risk (both on-site and off-site).
 - (d) Determination of the readiness and suitability of the available response equipment.
- iii) If the assessment indicates that an evacuation of local areas is advisable, the appropriate local authorities must be notified immediately. The Emergency Coordinator must be available to help officials decide if local areas should be evacuated.
- iv) The Facility's Evacuation Plan is included in the Contingency Plan (Appendix 4 - Evacuation Plan)

4) Notify all Appropriate Emergency Response Authorities

- i) If the Emergency Coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, the findings must be reported as directed on the Contingency Plan Incident Report form found in Appendix 2.
- ii) If the Emergency Coordinator determines one of the following:
 - (1) A fire, explosion, or other release of hazardous waste or hazardous waste constituents has occurred that could threaten human health or the environment, or
 - (2) A spill has reached surface water or groundwater,

the Emergency Coordinator shall immediately notify the National Response Center (NRC and/or the Michigan Pollution Emergency Alerting System (PEAS) as directed on the Contingency Plan Incident Report form found in Appendix 2.

5) Control Procedures to Prevent Occurrence, Reoccurrence or Migration during the Emergency

- i) During an emergency, the coordinator will take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, reoccur, or spread to other areas of the complex. These measures will include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers, tank contents, engaging the sewer shutoff mechanism, etc.
- ii) Actions to prevent the recurrence or spread of fires, explosions, or releases include:
 - (1) Determining the source or cause of the incident.
 - (2) Ceasing operations.
 - (3) Turning off all auxiliary fuel lines and power supplies to the affected equipment or areas.
 - (4) Cleaning up all of the debris from the incident.
 - (5) Maintaining good housekeeping.
 - (6) Containing and collecting all released waste.
 - (7) Recovering and isolating affected containers.
 - (8) Ensuring fire is completely extinguished.
 - (9) Restoring all emergency equipment to operating condition.
- iii) Further measures to prevent the recurrence or spread of fires, explosions or releases include prohibiting smoking in all operational areas, using spark-proof tools, isolating the waste by removing all sources of ignition or reaction, and by protecting the area from open flames, cutting and welding activities, hot surfaces, frictional heat, static discharge, etc. If fire or explosion is

determined to be an ongoing hazard, standby fire-fighting equipment will be maintained in a ready state until the emergency is over.

iv) Specific control plans for each type of emergency have been developed:

(1) Fire and/or Explosion

- (a) Fire poses the greatest risk of any possible cause of a site emergency. PCPG has designed its complex in compliance with appropriate National Fire Protection Agency Codes and the National Electrical Code, including Class I Group D, Division 1 equipment, where applicable. Included in Appendix 5 – Fire Safety Plan, is the schematic plan of the expanded SBS buildings' fire suppression system. This compliments the other fire safety equipment that is located throughout the facility. Equipment such as pressure/vacuum release valves, flame arrestors, tank and container grounding and bonding systems, valves, pipelines, and explosion-proof controls, light fixtures, fire valves, pumps, and motors, are installed to reduce the potential risk of a fire. Smoking is strictly prohibited in operational areas of the property fence line. Portable fire extinguishers are located throughout the complex and office areas; and at least five (5) city fire hydrants are located in close proximity to the complex. The locations of fire extinguishers and alarms are itemized in Appendix 3 - Safety and Emergency Equipment.

Additionally, all site personnel are instructed on fire safety as a part of the training procedures. This includes the proper management and/or protocol for consolidation of containerized materials. The Standard Operation Procedure (SOP) for this activity is also included in Appendix 5.

- (b) Explosions may result from accidental ignition or vapors developed during operations at the complex.
- (c) Only intrinsically safe mobile phones may be used in the operating areas of PCPG to reduce any spark potential.

(2) Spillage

- (a) The environmental consequences of an accidental spill have been substantially reduced by providing secondary containment for tanks, pipes, and container storage areas in accordance with Federal and State regulations. Concrete containment is provided for all tanks and container storage areas, and an aboveground steel trough provides containment for yard piping. Thus, only a spill in excess of the secondary containment would pose any threat to the surrounding environment.

- (b) A sewer safety valve is installed as a part of the storm water run-off control that provides further secondary containment capabilities at

the facility. The sewer safety valve is designed to contain on-site spillage from transportation vehicles or that exceeds the containment capabilities and prevents any release from entering the Great Lakes Water Authority sewer system. In the event of an accidental spill, fire poses a secondary threat; therefore employees are not permitted to smoke in any operational areas. Other possible sources of ignition have been eliminated to the extent practical. If the spilled material has the potential for ignition, the Emergency Coordinator will follow the procedures outlined under Fire and/or Explosion.

- v) A description of the locations, brief description of the capabilities and limitations of the emergency equipment available at the facility are listed in Appendix 3 - Safety & Emergency Equipment. Figure No. 051 - Emergency Equipment Locations shows the locations of the equipment. Emergency equipment includes:
 - (1) Internal communication systems.
 - (2) Fire alarm.
 - (3) Fire suppression system.
 - (4) Spill control material.
 - (5) Decontamination equipment.

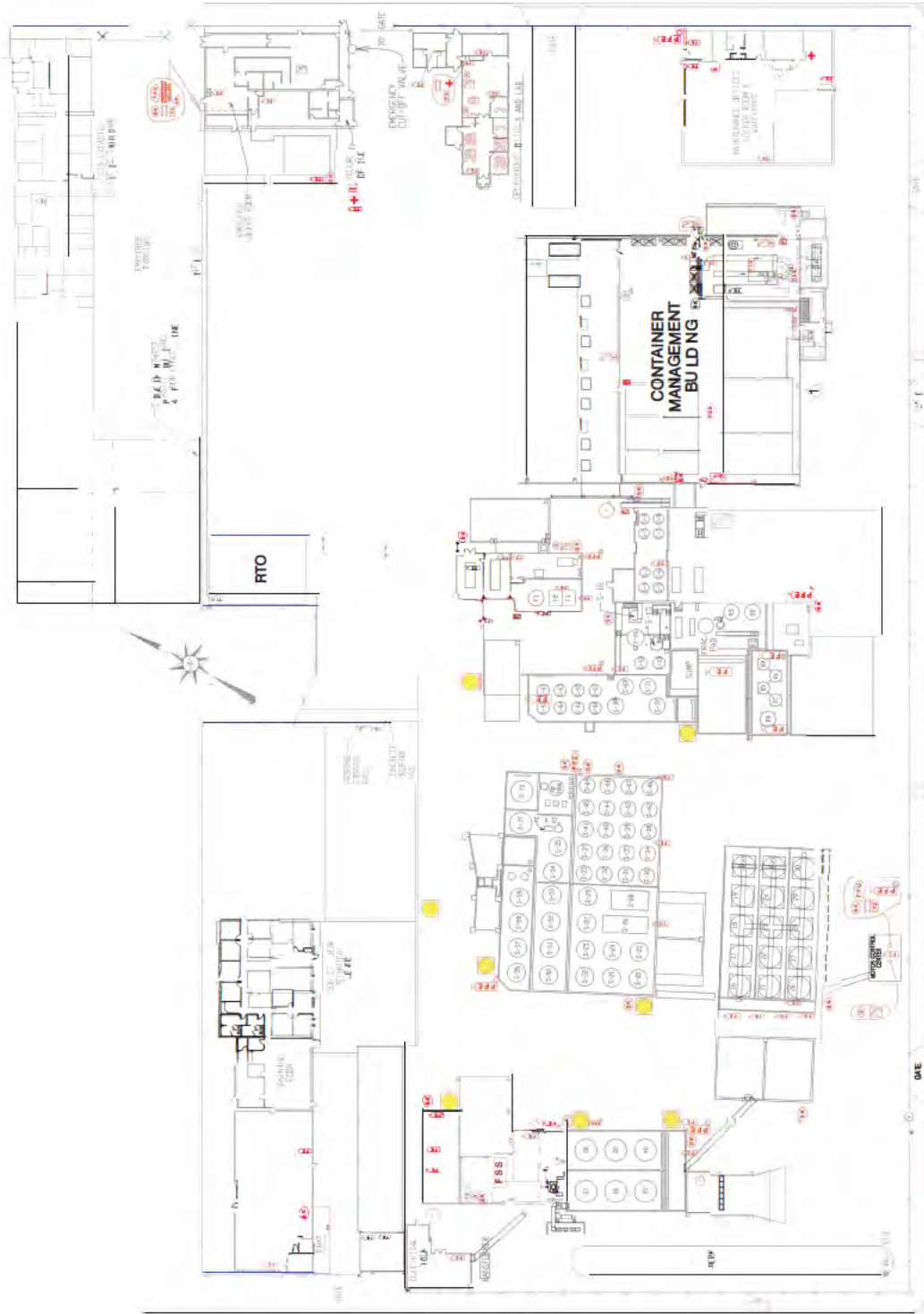
6) **Equipment Monitoring**

The Emergency Coordinator will monitor for leaks, pressure buildup, gas generation, ruptured valves, pipes, or other equipment whenever the facility stops operations in response to an emergency event. Visual inspections will be performed at regular intervals to identify leaks, gas evolution. The controls in the Motor Control Room will be observed for warning lights indicating malfunction or high levels in the tank systems. The pressure readings of the boiler systems will be monitored for leaks and/or pressure build-up. Air samples will be collected at appropriate areas utilizing existing air sampling equipment

7) **Management of Released Materials**

In the event of a site emergency, it will ultimately be the Emergency Coordinator's responsibility to:

- i) 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. The material will be handled in accordance with applicable hazardous waste generator regulations, if required.
- ii) Ensure that in the affected area of the facility, no waste that is incompatible with the released material is treated, stored, or disposed of until clean up procedures are completed.
- iii) Ensure that any equipment used in the response activities are properly cleaned or decontaminated, repaired, replaced, and returned to the proper location.



LEGEND

- [Symbol] - STRETCHER
- [Symbol] - FIRE BLANKET
- [Symbol] - FIRE EXTINGUISHER
- [Symbol] - PULL STATION
- [Symbol] - FIRST AID STATION
- [Symbol] - EYE WASH STATION

- [Symbol] - HANDHELD FIRE EXTINGUISHER
- [Symbol] - MAINTAINED FIRE EXTINGUISHER
- [Symbol] - MAINTAINED FIRE EXTINGUISHER (ROLLING)
- [Symbol] - FIRE EXTINGUISHER (ROLLING)
- [Symbol] - FIRE HYDRANT

- [Symbol] - TELEPHONE
- [Symbol] - STATIONARY RADIO
- [Symbol] - FESS
- [Symbol] - FPU

- [Symbol] - SAFETY SHOWER
- [Symbol] - SPILL KIT
- [Symbol] - FIRE SUPPRESSION SYSTEM
- [Symbol] - FOAM PROPORTIONING UNIT

- [Symbol] - WATER TOTE
- [Symbol] - ALARM ACTUATOR
- [Symbol] - SCOTT AIR PACK

051
(2019 update)

DATE 06/18/19
OPERATIONS
EMERGENCY EQUIPMENT
LOCATIONS

CleanEarth

FREUD AVE

ST. JEAN AVE

LYCAIRE AVE

CONTAINER
MANAGEMENT
BUILDING

RTO



8) Procedures for Cleanup and Decontamination

Immediately after an emergency, the Emergency Coordinator will have representative samples of all recovered wastes, contaminated soils, and waters characterized. Should the appropriate management method of any contaminated material be outside the scope of the facility's permits or capabilities, arrangements for any necessary off-site management will be completed as soon as possible after the conclusion of the emergency. Accumulated materials will be containerized to the extent possible for on-site treatment or off-site shipment. If large quantities of a hazardous waste which require off-site recycling/treatment are generated during the emergency cleanup operations, bulk vehicles complying with the transportation requirements of 40 CFR Part 171, et. seq., will be used to transport this waste off-site as it is excavated, pumped or made ready for off-site storage, treatment or disposal.

i) Specific Procedures for Tank or Container Spills and/or Leakage

In the event of a spill, personnel have been instructed to do the following:

(1) Containers

(a) Spills

The following represent general procedures that may be followed in the event of a container spill.

- (i) For a major spill contact an Emergency Coordinator.
- (ii) Ascertain the extent of the spill and what the material is that spilled.
- (iii) Isolate the area of the spill.
- (iv) Remove all of the sources of ignition and any incompatible materials from the affected area.
- (v) Initiate clean-up of spill.
- (vi) Recharge, decontaminate, replace and/or make fit for use any emergency equipment used.
- (vii) Document spill response activities

b) Leakage

Should a container be found to be leaking either through the inspection requirements of 40 CFR 264.174 or other visual inspection, every attempt will be made to facilitate the expeditious removal of leaked material and repair, replace or repackage the affected container.

(2) Tanks

If a spill or leak occurs due to the failure of a tank, the requirements contained in 40 CFR 264.196 will be met to include:

- (a) Cessation of use and prevention of additions of wastes (40 CFR 264.196(a)). Immediately stop the flow of material into the tank and inspect the tank for the cause of the release.
- (b) Removal of wastes (40 CFR 264.196(b)). Within 24 hours or at the earliest practical time, remove as much of the material as is needed to prevent further release to the environment and inspect and repair the tank.
- (c) Containment of any visible release to the environment (40 CFR 264.196(c)). Secondary containment in excess of 150% of the containment area's largest tank is provided for all regulated tank farms in the complex. This makes release outside of containment extremely unlikely. If secondary containment were breached, use adsorbent booms and materials to contain the released materials. At least one vacuum truck is available at all times, which could also be utilized to collect released materials. All adsorbent materials, contaminated soils and collected wastes will be processed on-site or managed off-site in accordance with applicable Federal, State, and local requirements.
- (d) Notification as required (40 CFR 264.196(d)). All releases to the environment, unless under one (1) pound and immediately contained and cleaned up, will be reported to the Regional Administrator within 24 hours of its detection, and a written report will be sent within 15 days.
- (e) Repair or closure (40 CFR 264.196(e)). The tank will be closed unless:
 - (1) the cause of the release was a spill that did not damage the integrity of the containment system or the tank, the tank will return to service as soon as any necessary repairs are made, or
 - (2) if the cause of the release was from the tank, the tank will be repaired prior to being returned to service.
- (f) Certifications (40 CFR 264.197(f)). If the repair is extensive, the tank will not be returned to service until certification from an independent registered professional engineer is obtained. This certification will be submitted to the Regional Administrator within 7 days of returning the tank to service. A certification will also be sent to the MDEQ Chief of the Waste Management Division.

E NOTIFICATION AND RECORDKEEPING REQUIREMENTS

1) Agency Notification Prior to Commencement of Operations

- Should any of the emergency equipment be utilized during an emergency, affected operations will not be allowed to resume until a post-incident inspection has been completed and all equipment is cleaned, recharged, replaced and/or made fit for use.
- The Emergency Coordinator will notify U.S. EPA, MDEQ and local agencies (see Table 3 - Contingency Plan Reporting Contact Information) that a post-incident emergency equipment maintenance check has been performed and all emergency equipment has been returned to pre-incident status and normal operations will resume.

2) Recordkeeping Requirements

- **Operating Record**
In the event of an emergency situation that requires implementation of the contingency plan, the Emergency Coordinator will document in the facility's operating record, the time, date and description of the event. The operating record is maintained by the Facility Supervisor and can be found in the Supervisor's Office at the 421 Lycaste Street location. Previous Day's records can be found in the EH&S office @ 515 Lycaste
- **Written Incident Report**
Within 15 days of the incident, a report must be filed with the U.S. EPA Regional Administrator and EGLE. The information required is contained in Appendix 2 - Contingency Plan Incident Report.

F CONTINGENCY PLAN REVIEW AND AMENDMENTS

The contingency plan will be reviewed and immediately amended per 40 CFR 265.54, if necessary, whenever:

- 3) Applicable regulations are revised or promulgated.
- 4) The plan fails in an emergency.
- 5) The facility changes in design, construction, operation, maintenance, or other 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.
- 6) The list of Emergency Coordinators changes.
- 7) The list of emergency equipment changes substantially.

Appendix 1 - Contingency Plan Reporting Contact Information

1) If an outside contractor is necessary to assist in containing the hazardous material release call either of the following:

a) Inland Waters Pollution Control, Inc.
2021 South Schaefer Highway
Detroit, MI 48217
800.992.9118

b) Hydro-Chem Services
Outsourcing, LP 1300 Wood Street
Monroe, MI 48161
734.384.9200

2) If a fire or explosion has occurred call: City of Detroit Fire Department: 911

3) If an evacuation of the area is ordered or security has been breached call:

City of Detroit Police Department: 911
Wayne County Sheriff: 601.735.2323
State Police - Radio Room: 313.456.6600

4) If personnel exposure or injury has occurred call:

Ambulance: 911
Detroit Receiving Hospital: 313.745.3000
Concentra Medical Service: 313.259.7990

5) If there has been an emergency or release call:

i) Michigan Department of Environment, Great Lakes, Energy (PEAS)

Outside Michigan: 517.373.7660
Inside Michigan: 800.292.4706

ii) U.S. EPA National Response Center: 800.424.8802

iii) Great Lakes Water Authority: 313.267.7401

iv) City of Detroit Health Department: 313.876.4000

v) MIOSHA: 517.487.4996

Appendix 2 - Contingency Plan Incident Report

If the Emergency Coordinator determines that the facility has had a release, fire or explosion which could threaten human health, or the environment, outside the facility, IMMEDIATELY notify the National Response Center at 800.424.8802.

If the emergency coordinator determines that the facility has had a fire, explosion or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if it is known that a spill has reached surface water or groundwater, then the Emergency Coordinator shall immediately notify the Michigan Pollution Emergency Alerting System (PEAS: 800.292.4706).

The following information must be provided:

1. Name: _____
2. Telephone: _____
3. Facility Name: _____
4. Facility Address: _____
5. EPA ID No.: _____
6. Date: _____ 7. Time: _____
8. Type of Incident (i.e., fire, release): _____
9. Name Material(s) involved: _____

10. Quantity _____
- 11 Extent of injuries, if any: _____
12. Quantity and disposition of recovered materials: _____

13. Actual/potential hazards to human health or the environment: _____

14. Immediate response action taken: _____

If the emergency coordinator determines that this contingency plan has been implemented, a written incident report must be submitted to the Regional Administrator, and appropriate State and local authorities within 15 days. The report must include the following information.

Owner Name: _____

1. Owner Address: _____

2. Owner Telephone: _____

3. Facility Name: _____

4. Facility address: _____

5. Facility Phone: _____

6. Incident Date: _____ 6.a. Incident Time: _____

7. Type of incident (i.e., fire, release): _____

8. Name Material(s) Involved: _____

9. Quantity: _____

10. Extent of Injuries, if any: _____

11. Actual/potential hazards to human health or the environment: _____

12. Quantity and disposition of recovered materials: _____

Appendix 3 - Safety & Emergency Equipment

Equipment	Location
MAINTENANCE GARAGE	
Fire Extinguisher	W. wall of the maintenance garage
	E. wall of the maintenance garage
	N.E. of maintenance garage door
	S. at back door of maintenance
	N.W. wall
First Aid	S. at back door of maintenance
LAB SAMPLE ROOM	
Fire Extinguisher	N.W. corner by door
MAIN ENTRANCE	
Fire Extinguisher	On pole W. of security office
	S. wall of security office
Spill Kit	Next to pole, W. of security office
Telephone	Inside security office
Stationary Radio	Inside security office
First Aid	Inside security office
CONTAINER MANAGEMENT BUILDING (CMB)	
Main Floor	
Portable Extinguisher	S.E. wall by pump room doors
	W. entrance
Fire Extinguisher	S wall of pump room
	Center of pump room
Alarm Pull Station	Pump Room-S.E. side by door
Alarm Pull Station	S. wall by exit near stairs to 2nd floor
Alarm Pull Station	N.W. wall by door
Alarm Pull Station	Control Room-E. wall
Eye Wash & Safety Shower	CMB dock
	W. wall CMB
	Center of pump room
	E. wall of pump room
	E. wall CMB by pump room doors
Spill Kit	E. wall CMB by pump room doors
2nd Floor	
Alarm Pull Station	E. wall near door

DOCK 1 and 4	
Fire Extinguisher	S. wall Dock 1
	N.W. corner of Dock 4 truck well
	N. wall between Dock 1 & 4 near reactive cabinet
	E. Wall of Dock 1 near reactive cabinet
	N. wall Dock 1
Eye Wash & Safety Shower	W. wall by Dock 4
Portable Extinguisher	N. Wall btwn Dock 1 & 4
	W. wall of Dock 1
Alarm Pull Station	E. wall by Dock 4
DOCK2	
Fire Extinguisher	N.E. on pole
	N.W. on pole
DOCK3	
Fire Extinguisher	N. wall of Dock 3
Portable Extinguisher	S.W. corner of Dock 3
TANKSYSTEM 3 (TS3)	
Fire Extinguisher	N. wall of pre-reclamation tank farm
	S.W. Corner
	E. Wall
Alarm Pull Station	N. side on pole
PROPANE STORAGE AREA	
Fire Extinguisher	S.W. side on pole
SDG PRODUCT TANK FARM	
Fire Extinguisher	N. of SDG tank farm
	S.E. of SDG tank farm
	S.W. of SDG tank farm
Alarm Pull Station	N. of SDG tank farm
	S. of SDG tank farm
Spill Kit	E. of SDG tank farm
Portable Extinguisher	E. of SDG tank farm
	N.W. corner of SDG tank farm

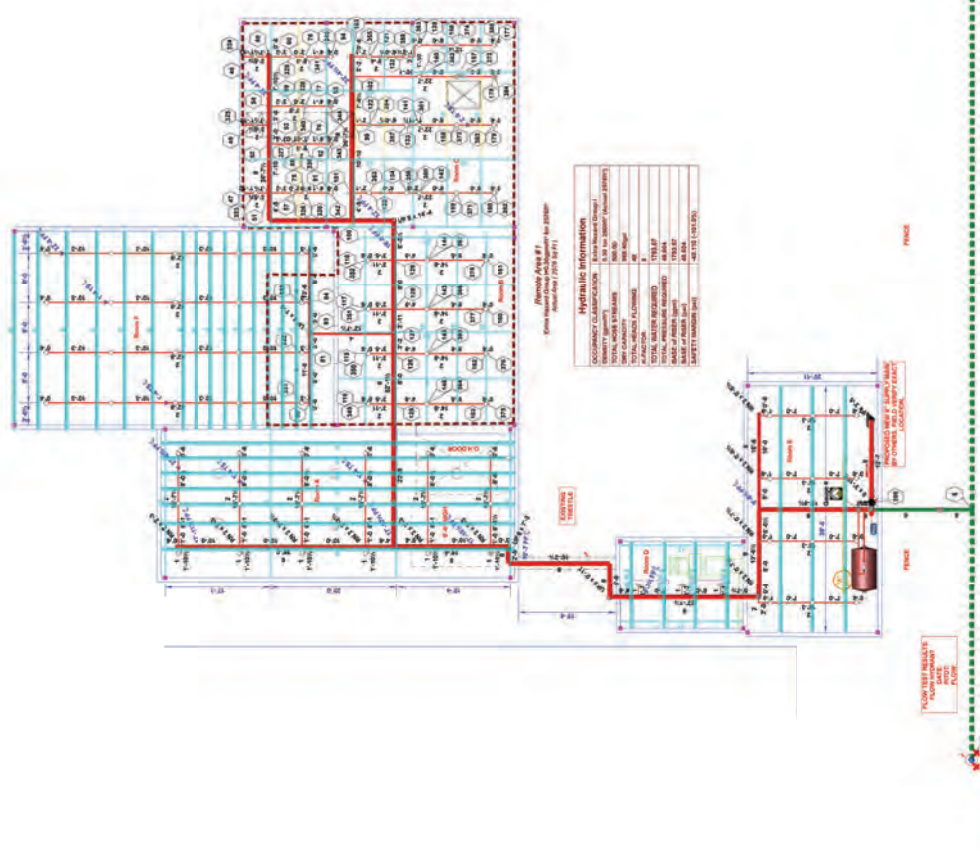
TANK SYSTEM 1 (TS1)	
Fire Extinguisher	N. beam on back pad
	Middle beam on back pad
	Middle beam of back pad
	S. beam on back pad
	S.E. Wall
Spill Kit	S.W. corner of truck containment
Alarm Pull Station	S.E. wall outside of header
MOTOR CONTROL CENTER (GREEN HOUSE)	
Fire Extinguisher	S. wall inside of building
Fire Blanket	S. wall inside of building
Stretcher	S. wall inside of building
Eye Wash & Safety Shower	W. wall inside of building
TANK SYSTEM 2 (TS2)	
Fire Extinguisher	Middle pole put side header area
	Inside header area on S.E. corner
	N.E. on pole inside containment
	E on middle beam of truck containment
Portable Fire Extinguisher	N.E. corner outside of containment area
Alarm Pull Station	N.E. corner outside of containment area
SUPER BLENDER SYSTEM	
Spill Kit	N.E. corner of building (outside)
SUPER BLENDER SYSTEM (SBS)	
Fire Extinguisher	N.E. corner
	S. wall
	N. wall
	S.W. corner
Spill Kit	S.W. corner
Portable Eye Wash	W. wall

TRUCK UNLOAD DOCK INSIDE SUPER BLENDER SYSTEM (SBS)	
Fire Extinguisher	W. wall of SBS unload dock
	S. wall
	N. wall
	S.W. corner
Portable Fire Extinguisher	E. wall of SBS unload dock
Alarm Pull Station	E. wall of SBS unload dock
SUPER BLENDER SYSTEM (SBS) CRANE AREA	
Fire Extinguisher	E. wall by door
Spill Kit	S.E. corner of building
THROUGHOUT SBS BUILDINGS/AREA – Foam / water charged fire suppression system	
PCPGLAB	
Fire Extinguisher	S. wall of sample closet
	W. wall of the PCPG lab clean room
	N.E. wall of the PCPG lab
	S.W. wall of the PCPG lab
	Break room- S. wall across from time clock
Fire Blanket	S. wall near sample closet
First Aid	E. wall near sample closet
Stretcher	E. wall near sample closet
Eye Wash & Safety Shower	N. wall of the PCPG lab
Eye Wash	W. wall of PCPG lab
Telephone	W. wall of PCPG lab
Stationary Radio	W. wall of PCPG lab
501 BUILDING	
Fire Extinguisher	S.W. wall by plant exit
	W. wall of main area
Telephone	N. wall of office
	N. wall of office
	S. wall of office
	S.W. wall of office
Stationary Radio	N. wall of office
	N. wall of office
	S. wall of office
	S.W. wall of office

LOCKER ROOM	
Fire Extinguisher	N. wall of the lunch room
	N. wall of the dirty side of the locker room
	E. wall of the clean side of the locker room
BOILER ROOM	
Fire Extinguisher	S. wall of the north side of the boiler room
	S. wall of the middle of the boiler room
	N. wall of the south side of the boiler room
EMERGENCY SUPPLY ROOM	
Foam Dolly Extinguisher	Inside of emergency supply room
Stretcher	Inside of emergency supply room
Fire Blanket	Inside of emergency supply room
Oxygen	Inside of emergency supply room
First Aid	Inside of emergency supply room
Air Purifying Respirators	Issued upon hire/as needed; inside emergency supply room
Tyvek suits	Issued as needed; inside emergency supply room
Safety glasses	Issued upon hire/as needed; inside emergency supply room
Hard Hats	Issued upon hire/as needed ; inside emergency supply room
Safety boots	Issued upon hire/as needed; inside emergency supply room
Rubber aprons	Issued upon hire/as needed; inside emergency supply room
Chemical goggles	Issued as needed; inside emergency supply room
ADDITIONAL EQUIPMENT	
Portable Fire Extinguisher	Staged in maintenance building
515 OFFICE BUILDING	
Fire Extinguisher	S.W. Wall 2nd Floor
	N. Wall by Vault 2nd floor
	N.W. Wall 1st Floor
	Pole in Customer Service 1st Floor
	E. Wall in Trans by main entrance 1st floor
	E. Wall by file room 1st floor

SAFETY AND EMERGENCY EQUIPMENT CAPABILITIES

Equipment	Capabilities
Fire Extinguishers (20 lbs, ABC)	hand held; capable of handling a three foot diameter fire
Portable Fire Extinguisher (100 lbs, CO2, Purple K; 150 lbs ABC)	easily moved on cart; capable of handling a seven foot diameter fire
Wheeled Foam Extinguisher (35 gallons, foam)	easily moved on cart; capable of handling a seven foot diameter fire
Fire Suppression System – throughout the SBS building and CMB and main operations buildings	manual/automatic start; remote fire fighting *diagram attached below.
Alarm Pull Station	capable of verbal instruction; notification of emergency and/or to initiate facility evacuation
Absorbent Materials (absorbent, sand, booms, etc.)	easily deployed, capable of containing and/or absorbing spilled liquid; generally limited to spills under 100 Gallons
Eye Wash	able to flush material from eyes and face
Shower	able to flush material from body and clothing
First Aid Station	capable of responding to minor injuries
Fire Blanket	able to control and/or extinguish fires and/or protect employees
Stretchers	able to move injured employees
Air Purifying Respirator	minimize employee exposure to air contaminants
Safety Glasses and Goggles	employee eye protection
Hard Hats	employee head protection
Safety Boots	employee foot protection
Tyvek Uniforms	employee protection
Rubber aprons	employee protection



Part Number	Qty	Desc	Manufacturer
1	1	Water Room	Water Room
2	1	Water Room	Water Room
3	1	Water Room	Water Room
4	1	Water Room	Water Room
5	1	Water Room	Water Room
6	1	Water Room	Water Room



SECTION VIEW "A"
SCALE: 1/4" = 1'-0"

Symbol	Description
○	Standard Manufacturer
□	Non-Standard Manufacturer
△	Special Manufacturer

FIRE PROTECTION PLAN

SCALE: 1/8" = 1'-0"

DATE	BY	DESCRIPTION
01/15/2024	J. Smith	Initial Design
02/01/2024	J. Smith	Revised Design
03/10/2024	J. Smith	Final Design

NO.	DATE	REVISIONS
1	01/15/2024	Initial Design
2	02/01/2024	Revised Design
3	03/10/2024	Final Design

PROJECT	CLIENT	DATE
12345 Main St	ABC Company	01/15/2024

MANUFACTURER	MODEL	QUANTITY	UNIT PRICE	TOTAL PRICE
Standard	Model X	100	\$1.00	\$100.00
Special	Model Y	50	\$2.00	\$100.00
Non-Standard	Model Z	25	\$4.00	\$100.00

GENERAL NOTES
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NFPA 909, 101, 13, 201, 220, 241, 252, 310, 313, 314, 315, 316, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400.

Appendix 4 - Evacuation Plan

A PURPOSE

This plan is designed to provide for the safe and organized evacuation of on-site personnel and visitors during a site emergency.

B IMPLEMENTATION

In the event of a fire or explosion, IMMEDIATE implementation of this Evacuation Plan may be initiated by activating a facility alarm system. Otherwise, this Evacuation Plan will be implemented at the discretion of the Emergency Coordinator. Once implemented, all employees are responsible for following these procedures and reporting to designated safety locations as directed. The Emergency Coordinator and supervisory personnel will account for all persons including visitors and any subcontractors, prior to any individual leaving the Evacuation Area.

C SAFETY LOCATIONS

Two primary Evacuation Areas has been designated on the Evacuation Plan. The east side of Lycaste Street directly across from the facility main gate (east into the employee parking lot). In the event prevailing winds and toxic fumes would affect this location, all personnel will be directed to the secondary Evacuation Area to the north at the bend or corner of Lycaste Street.

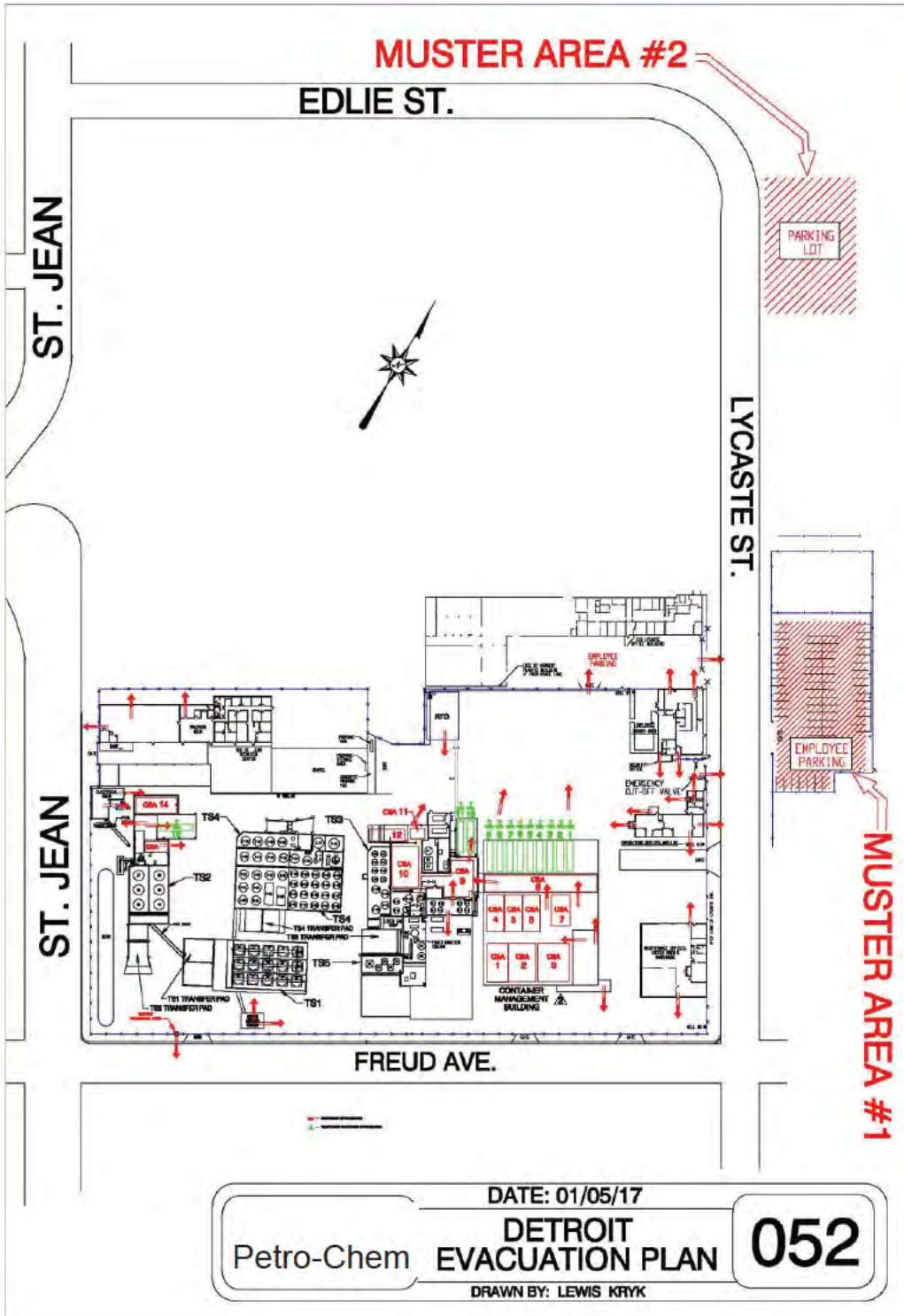
D INSTRUCTIONS

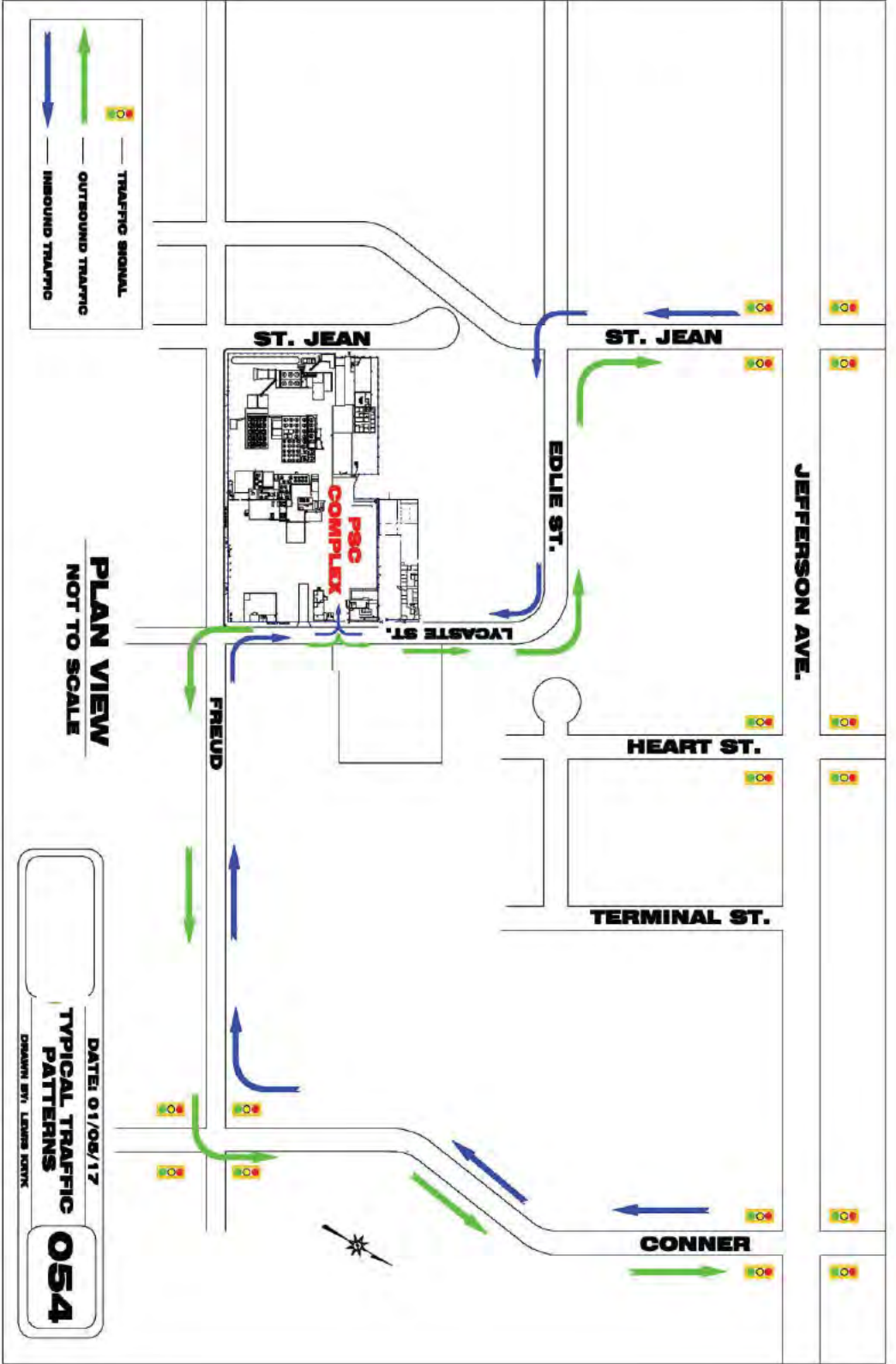
- 1) Once the emergency alarm is sounded and an evacuation of the site is ordered by the Emergency Coordinator, all on-site personnel will shut down operations and proceed immediately to the safety location specified. A copy of the Contingency Plan is located in the 421 Complex and the 515 building. Personnel are instructed to gather it and proceed to the safety location.
- 2) Until evacuation is signaled, personnel who are not in an affected area will stay in their respective work areas. Visitors including any subcontractors performing work at the facility will be cleared from the area and instructed to report to the main office area, and thereafter released.
- 3) Unless otherwise directed by announcement on the Public Address System, evacuation will be via the most direct route, either the main access gate or any emergency gate. The security officer will open the main gate immediately, and any other emergency gates, to facilitate the most direct evacuation.
- 4) All on-site personnel will be accounted for at the safety location by the designated attendance keepers; one representing the 515 Building and one representing the Plant, to ensure that all personnel have been safely evacuated

and that no individual(s) remain within the complex. Individuals are to report to the designee equipped with a safety vest, employee list for attendance, and visitor sign in sheet. The Emergency Coordinator may request individuals to return to the complex to support emergency activities if such activities do not pose a risk of harm to the individual, or continue work once conditions permit.

- 5) If necessary, the Emergency Coordinator may establish an emergency coordination center. The primary emergency coordination center will be the conference room located at the main office building. If this location is not safe, the Training Room located at 11700 Freud will be used.
- 6) An "all clear" signal will be given when the emergency has been controlled and the safety of personnel is assured. The Emergency Coordinator will determine when the emergency has passed and consult any on-site officials if necessary before the "all clear" signal is given. All emergency equipment used in the emergency will be cleaned for use prior to resuming plant operation in affected areas.

421 EVACUATION PLAN AND TRAFFIC FLOW PLAN





APPENDIX 5 - FIRE SAFETY PLAN

Petro-Chem Processing Group of Nortru, LLC.

515 Lycaste Street, Detroit, Michigan 48214
313.824.5840

SECTION I - FACILITY

This is a two-story masonry and steel frame construction building with three exits from the second floor and four exits from the first floor. The second floor is occupied as offices and two conference rooms. The first floor is occupied as lobby, offices and customer services. Standpipe systems are not located in each floor stairwell. Smoke detectors are located throughout each floor in offices and corridors. The building has an emergency fire alarm system. Fire extinguishers are in the building as indicated on the attached floor plan. The building does not have overhead sprinklers. Flammable liquids are not stored in the building. The electrical room is located on the first floor in the north- west corner of the building. The building is heated by a natural gas fired forced air furnace located on the first floor in the south west corner of the building and on the roof top. The gas shut-off is located on the exterior south west corner of the building.

IN THE EVENT OF FIRE, the emergency coordinator(s) or alternate without delay shall place a call to the fire department by calling **911**. The coordinator(s) upon receipt of fire alarm shall take charge of assisting other employees and visitors in evacuating their floor via the closest unobstructed stairway and exit building and proceed directly east of the facility main gate into the employee parking lot is the primary Evacuation Area (exit employee gate and turn left). In the event prevailing winds and toxic fumes would affect this location, all personnel will be directed to Evacuation Area in front of the Transportation Maintenance Garage located at 11700 Freud Street.

SECTION II - WHEN YOU DISCOVER A FIRE

1. The first person to discover a fire shall immediately sound the building alarm (pull the fire alarm pull station in the immediate vicinity). **NEVER VERBALLY YELL FIRE;** It may cause panic. Use the telephone system to announce the evacuation of the building
2. If possible, assist all persons (employees, injured and handicapped) in the immediate vicinity of fire.
3. Isolate the fire, if possible. Close the door to the fire scene after all persons have been evacuated from the vicinity. (Do not attempt to extinguish a fire, unless the fire is small and you have received the proper fire extinguisher training and the proper fire extinguisher is available and **ONLY AFTER THE FIRE**

DEPARTMENT HAS BEEN CALLED. As a rule of thumb, if you cannot extinguish the fire after using two fire extinguishers, confine it, and then evacuate using nearest stairway.

4. Evacuate - **DOWN TO LOBBY.** Use closest unobstructed exit.
5. Notify reception and security/emergency coordinator(s) as to the fire location and severity, and then proceed to exit the building. Receptionists should gather sign-in book and exit the building. **Call 911 immediately.**
6. Exit the building and proceed to the west side of Lycaste Street in front of 663 Lycaste Building is the primary Evacuation Area (exit employee gate and turn left). In the event prevailing winds and toxic fumes would affect this location, all personnel will be directed to Evacuation Area in front of the Transportation Maintenance Garage located at 11700 Freud Street.
7. Remember, once you leave the building, do not re-enter for ANY REASON, until you have received an all clear. Emergency coordinator(s) shall take a head count and report all missing persons to firefighters in charge at the scene.

SECTION III - WHEN YOU HEAR THE FIRE ALARM

The building fire alarm system will sound throughout via the pull station or automated system. The building fire alarm system will sound throughout by other staff members in the vicinity by the use of the established code word for fire, '**CODE RED**' by indicating over the telephone system

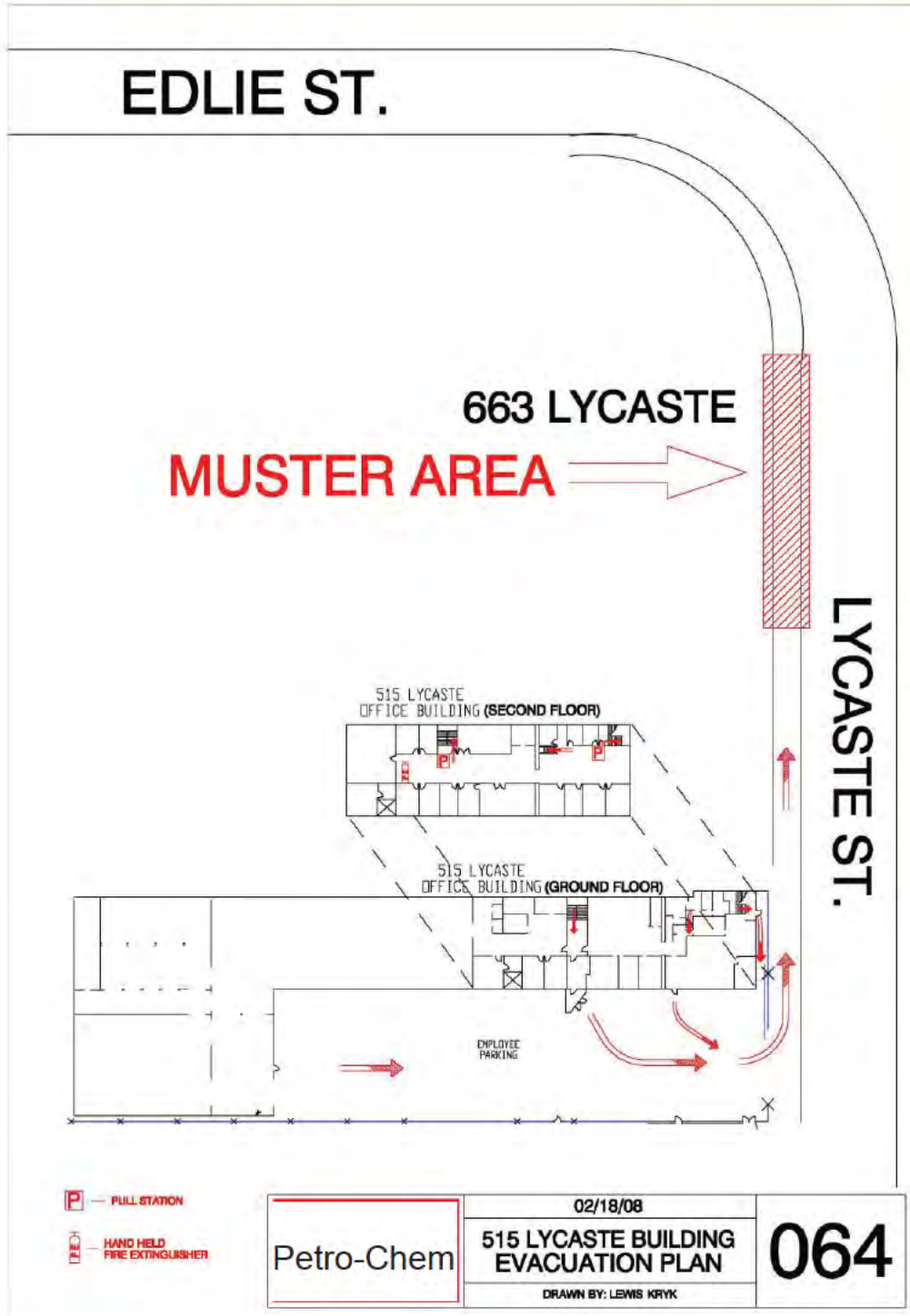
1. Listen and follow the instructions of the person in charge (emergency coordinator) or directions broadcasted over the public address system or loudspeaker.
2. Assist the emergency coordinator(s) in evacuating the handicapped, visitors, employees, etc.
3. Close the door(s) behind you.
4. Do not use elevator.
5. Leave the building using the closest exit that is not obstructed by fire (See attached floor plan).
6. Exit the building and proceed to the west side of Lycaste Street in front of 663 Lycaste Building is the primary Evacuation Area (exit employee gate and turn left). In the event prevailing winds and toxic fumes would affect this location, all

personnel will be directed to Evacuation Area in front of the Transportation Maintenance Garage located at 11700 Freud Street.

7. Remember, once you leave the building, do not re-enter for **ANY REASON**, until you have received an all clear. Emergency coordinator(s) shall take a head count and report all missing persons to firefighters in charge at the scene.

It is impossible to anticipate every fire situation; however, the above fire safety procedures have been thought cover most fire situations. For further information call 313.596.2968

SECTION IV 515 BUILDING FLOOR PLAN



EDLIE ST.

663 LYCASTE

MUSTER AREA

LYCASTE ST.

515 LYCASTE OFFICE BUILDING (SECOND FLOOR)

515 LYCASTE OFFICE BUILDING (GROUND FLOOR)

EMPLOYEE PARKING

P FULL STATION

EED HAND HELD FIRE EXTINGUISHER

Petro-Chem

02/18/08

515 LYCASTE BUILDING EVACUATION PLAN

DRAWN BY: LEWIS KRYK

064

APPENDIX 6 - CONTINGENCY PLAN SOP AND CHECKLIST

Clean Earth Environmental Solutions STANDARD OPERATING PROCEDURES

TITLE: Contingency Plan Implementation
Level: Detroit Document Control: PSC-DET-19
Function: Environmental Compliance Revision Number: 0
Department: Operations Issue Date: September 22, 2011
Revision Date: _____

Allen Jones 4/29/16 Melanie Frohriep 4/29/16
Facility Manager Date Operations Manager
Date

Ed Burk 4/29/16
EH&S Manager Date

1.0 Purpose:

The purpose of this SOP is to outline the steps to be taken to determine if a release has occurred and the steps required to address off-site issues if a release has occurred.

2.0 Description:

This SOP applies to key personnel responsible for gathering information, determining the need to and implementing the Contingency Plan.

3.0 General:

3.1 This SOP applies to key personnel who respond to emergency situation at the facility.

3.2 All applicable employees will be trained in the requirements of this SOP.

3.3 The provisions of this SOP will be strictly adhered to.

3.4 The EHS Department will be responsible for training of key personnel.

4.0 Required Safety Equipment:

Hard hat, safety glasses, steel-toed boots and chemical resistant gloves. Additional PPE and supplies may be needed depending on the nature of the incident.

5.0 Procedure for Implementation:

5.1 The decision to implement the Contingency Plan will depend on whether the occurrence presents a potential hazard to human health or the environment.

5.2 Determine whether any of the following type of emergency situations exist:

EMERGENCY	POSSIBLE EFFECTS
Fire and/or explosion	Fire cannot be contained with portable fire fighting equipment
	Toxic fumes are released
	Imminent danger exists of a fire/explosion
Spillage	Spill cannot be contained with available equipment, i.e., spill exceeds the secondary containment capacities and/or the on-site capacity
	Spill could release toxic fumes or liquids which harm human health
Natural Disaster	A tornado has damaged the site High winds in excess of 70 mph hit the site
	An earthquake has occurred
Breach of security or sabotage	The facility's security has been breached and sabotage may result

5.3 If any of the above situations exist, alert immediate supervisors who will in turn alert the emergency coordinators listed in the contingency plan.

5.4 The emergency coordinators will make the appropriate notifications and commit the resources necessary.

5.5 Emergency coordinators will also assist in completing the attached checklist for tracking facility response actions.

6.0 Duties and Responsibilities:

6.1 The EHS representative and any additional designee will be responsible for supervising the activities of this SOP.

7.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Contingency Plan Implementation and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

APPENDIX 7 - HAZARDOUS DEBRIS CONSOLIDATION

Clean Earth Environmental Solutions, Inc.

STANDARD OPERATING PROCEDURES

TITLE: Hazardous Debris Consolidation
Level: Detroit Document Control: DET-10
Function: Environmental Compliance Revision Number: 2
Department: Operations Issue Date: October 13, 2009
Revision Date: 9/14/19

<u>Melanie Frohriep</u>	<u>9/14/19</u>	<u>Ed Burk</u>	<u>9/14/19</u>
Technical Review, Facility Manager	Date	EHS&C Manager	Date

1.0 Purpose:

The purpose of this procedure is to minimize the volume of containers shipped out of our facility and to maximize efficiency by executing safe and compatible consolidation processes.

2.0 Description:

This SOP applies to containerized waste and any other type of waste that that has been designated for consolidation.

3.0 General:

- 3.1 This SOP applies to all employees who depack or consolidate containers.
- 3.2 All applicable employees will be trained in the requirements of this SOP.
- 3.3 The provisions of this SOP will be strictly adhered to.
- 3.4 Prior to beginning any and all safety sensitive tasks, a Job Safety Analysis (JSA) is to be completed per ESD-JSA Policy_0110.
- 3.5 The Operations Manager will be responsible for training of key personnel who will be responsible for training their employees.

4.0 Definition:

Roll off – Roll-Off containers have a rectangular footprint typically determined by the size of typical trucks. Roll off container sizes are determined by the amount of cubic yards of debris they contain.

Hazardous Debris – Dumpable material such as PPE, filters, wipes, rags, wood, etc. that has been contaminated with hazardous waste.

5.0 Required Safety Equipment:

Hard hat, safety glasses, dust mask (upgraded to respirator with acid/organic vapor cartridges if needed), steel-toed boots, apron and chemical resistant gloves. Other equipment should include: Roll off box, forklift.

6.0 Consolidation Procedure:

Equipment required for this procedure should include: Roll-off box, forklift, liners, shovels, floor dry, caulk and appropriate closure materials.

- 6.1** Prepare roll-off by ensuring that it is sealed and lined.
- 6.2** Bring the drums from the storage area to the consolidation staging area.
- 6.3** Carefully read the barcode label on the side of the container, noting the process code. If the process code is anything other than INC13, INC16, or INC17, verify with supervisor that the material is compatible.
- 6.4** Write the container numbers on the process form associated with the roll off box that is being used for consolidation.
- 6.5** Submit process form to Shipping and Receiving for review. Receiving will verify that the containers can be consolidated, date and sign the process form.
- 6.6** Once drums have been cleared by Shipping and Receiving, the consolidation procedure can begin.
- 6.7** Place hazardous waste label on the roll off.
- 6.8** Open containers in the staging area, verifying contents.
- 6.9** Forklift operator will verify contents and pick up the drums to be dumped.
- 6.10** Forklift operator will dump containers into roll off.
- 6.11** Empty containers should be placed in the appropriate location for verification.
- 6.12** Repeat steps 6 through 11 until box is full, periodically packing material in the box to maximize space.
- 6.13** When consolidation is complete, close roll off to DOT closure specs in preparation for shipment.

7.0 Duties and Responsibilities: The Operations Manager and any additional designee will be responsible for supervising the activities of this SOP.

8.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Hazardous Debris Consolidation and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

APPENDIX 8 - VERIFICATION OF CONTINGENCY PLAN DISTRIBUTION

Sign and date the receipt of the company's Contingency Plan

EMPLOYEE SIGN-OFF SHEET	
I acknowledge I have been informed, and given a copy, of the company's Contingency Plan. I have read and understand the procedures contained therein, and I accept the policy as a working document that I will support and follow in my daily work.	
Employee's Signature:	Date:
Supervisor's Signature:	Date:
Instructor's Signature:	Date:

APPENDIX 9 - NATURAL DISASTERS

Earthquakes

Earthquakes can cause severe damage due to ground vibration, surface faulting, tectonic uplifts, and ground ruptures. They can trigger landslides, flooding, fires, dam failures, and other disasters several hundred kilometers from the epicenter. The actual movement of the ground during an earthquake seldom directly causes death or injury; most casualties result from falling objects and debris, or the collapse of buildings that were not built to "sway" during a quake (e.g., mud or brick, as opposed to wood or steel reinforced).

During an earthquake, two or more 'waves' or 'shocks' of increasing magnitude can occur, 2 to 5 minutes apart. Foreshocks and aftershocks are earthquakes of lesser magnitude. Foreshocks can occur days or minutes before an earthquake. Aftershocks can be lethal and may continue for hours or years after the initial (strongest) quake. Buildings that survive the actual earthquake and can be destroyed by an aftershock.

Preparation For An Earthquake...

There is no such thing as "earthquake weather" or earthquake seasons. Earthquakes can occur at any time and any place. There are no proven scientific means of predicting them. UNICEF offices located in seismic areas should take the following actions in order to prepare and minimize the risks if an earthquake should happen:

- Make necessary repairs to home and office buildings
- Know location of emergency exits, fire alarms, and fire extinguishers
- Check for cracks in building foundations (a crack wider than 0.3 cm indicates a potential weakness)
- Insure building is attached directly to foundation, e.g., with bolts through the sill; this may require an inspection by an expert
- Attach water heater securely to wall to prevent tipping
- If feasible, replace rigid water heater hoses with flexible piping
- Eliminate or minimize heavy furniture, chandeliers, heavy or glass framed wall hangings, tall book-shelves, breakable items (glass, mirrors, etc.) and any attached- to the-wall construction
- Do not store heavy and bulky equipment, boxes, books, etc. on top of each other
- Store household chemicals and fuel to safeguard from falling and spilling
- Keep emergency supply kits in home, vehicle, and office.
- Sleep with flashlight and hard-soled shoes nearby (cuts from broken glass are a common injury in earthquakes)
- Inform staff of safe places in offices (see below)

During an Earthquake...

People should be instructed NOT TO RUSH OUTSIDE, even after the initial shock. The time span between first and second shocks is generally too short (2-5 minutes) for evacuation. The safest areas during an earthquake are in the designated safe areas

located in the personnel break room and locker room, away from heavy furniture or appliances, windows, fireplaces (crumbling chimneys), heaters, electric supply center, water and gas lines. Seek out spots protected from falling objects, such as, under a desk or table, in a doorway, or under main support beams. Elevators and stairways are very dangerous during an earthquake. Remain calm and remember these simple instructions:

- Get under a desk, table or doorway, and hang on
- Avoid panic and help others to remain calm
- Stay clear of windows, mirrors, fireplaces, heaters, heavy furniture and appliances
- **DO NOT USE STAIRS OR ELEVATORS!**
- If outside, stay in an open area away from buildings, power lines, bridges, trees, signs, light posts, etc.
- If in a vehicle, drive to an open area (see above), stop and stay inside
- If in a mountainous area watch for falling rocks, mudslides, etc.

After an Earthquake...

- Quickly estimate damage and further danger and make decision on a full/partial evacuation
- Check evacuation routes for obstacles, such as water (electrical hazard), fire, fallen debris, or blocked passages
- If safe, evacuate staff away from buildings, light posts, electric power lines, etc.
- If possible, save first aid kit to assist injured

Do not permit re-entry before checking these potential risks:

- Fire or fire hazards
- **Gas leaks:** if leak is suspected or identified shut off main gas valve
- **Damaged electrical wiring:** if there is any damage, shut off power at control box
- **Downed or damaged utility lines:** DO NOT TOUCH downed power lines or objects in contact with them
- Items in closets and cupboards which may tumble off shelves when door is opened
- Immediately clean up any spilled medicines, and other potentially harmful materials such as bleach, lye, gasoline or other petroleum products
- Check food and water supply

Never assume that water is safe to drink unless it is bottled. If municipal water supply is cut or contaminated and bottled water unavailable, boil water for drinking from water heaters, toilet reservoirs or swimming pools filled before the earthquake occurred.

FLOODS

There are three main types of floods: river floods, flash floods, and coastal floods. River floods are due to heavy rains and/or snowmelt in up-stream areas. Flash floods result from isolated and localized intense rainstorms, dam failures, and breakups of ice jams. Coastal floods are associated with tropical cyclones, tsunami waves, and storm surges.

Depending on depth of water, duration, velocity, rate of rise, frequency of occurrence, and season, floods can roll boulders, tear out trees, wash away buildings and bridges, and carve out new channels. Lethal waves can move at incredible speeds and exceed 2m in height.

Many floods are predictable by hours if caused by storm surges or rains accompanying tropical storms and by days if the result of melting snows or heavy rains up river. This allows time to move people, livestock and property to higher ground. Floods caused by intensive rainfall in localized areas are more difficult to predict, though they are typically seasonal. Avoid rivers, gullies and streams during flash flood season. In mountainous areas, when rainfall occurs at high elevations, lower elevations will have no warning of the wall of water that approaches.

Statistically, the largest numbers of casualties are children and the weak as a result of drowning or injuries from collapsing buildings and floating debris. Slow flooding causes few deaths or injuries, but has a higher incidence of snake-bites, malaria, diarrhea and viral infections, lasting up to ten weeks following flooding. Floods can make water sources inaccessible for days and cause losses of harvests and food stocks.

Before a Flood...

- _ Keep first aid supplies, batteries, drinking water, water purification kits, and canned food at hand
- _ Arrange for auxiliary electrical supplies
- _ Know your elevation above flood state
- _ Know your evacuation route
- _ If warning signal is received, move to safe area before access is cut by flood water

During a Flood...

- _ **You may have only seconds! Avoid panic!** Act quickly to save yourself, children and handicapped
- _ If possible, save first aid kit
- _ Get out of areas subject to flooding, including dips, low spots, canyons, washes, etc.
- 9
- _ Avoid already flooded and high velocity flow areas -- do not attempt to cross flowing streams on foot where water is above the knee
- _ If driving, know the depth of the water in a dip before crossing; if vehicle stalls, get out immediately and seek higher ground as rapidly rising water may engulf car and sweep it away
- _ Be especially cautious at night as it is harder to recognize flood danger.

After a Flood...

- _ Search office/area for injured personnel and assist
- _ Try to establish reliable communication with DO, UNICEF NYHQs, and/or representatives of international community in safe areas
- _ Use flashlights, not candles or torches, to examine buildings (flammables may be inside);

- _ Do not handle live electrical equipment in wet areas; it should be checked and dried before use
 - Do not use fresh food that has come in contact with flood water
- _ Boil drinking water

TORNADOES

Tornadoes are violently swirling columns of air that come in contact with the ground, usually as a result of severe spring or summer thunderstorms. Their duration is short and their path is small. However, when passing through populated areas tornadoes can cause total destruction. Tornado wind speeds can reach 100 to 300 miles per hour, travelling at an average rate of 30 miles per hour. Tornadoes can topple buildings, roll mobile homes/trailers, uproot trees, hurl people and animals hundreds of yards, and threaten with lethal wind borne debris. Tornadoes travel erratically, changing direction suddenly.

Before a Tornado...

- _ Know location of gas, electric, and water main valves and keep pipe and crescent wrenches handy for shutoffs
- _ Know location of fire extinguishers, and insure that they are checked regularly
- _ Keep emergency supply kits in offices, vehicles, and homes

During a Tornado...

If indoors:

- _ Alert everyone to stay inside building - go to the designated safe room - the locker room and break room.
- _ Get to basement, if possible
- _ Move to interior closet, bathroom or hallway on lowest floor, and shut doors to minimize injuries from flying glass and debris
- _ If in hallway area without doors, sit in center of area face wall
- _ For added protection, sit under strong structure like a heavy desk and find cover under blanket or sleeping bag
- _ Protect your head by any means available
- _ Do not use elevators since power may go off
- _ Avoid rock or brick walls and chimneys which may collapse

If outdoors:

- _ Get as far below ground as possible, i.e., in cave, ditch, gully or low spot in ground
- _ Avoid rivers, streams, and other bodies of water since tornado may be accompanied by lightning and/or flash flooding
- _ Avoid tree groves, glass, and areas of dense debris

If in a vehicle:

- Get out and seek shelter
- _ Do not seek shelter under vehicles since they can become flying missiles in tornado
- _ Do not try to out run tornado as distances, path and speed are hard to determine

THUNDERSTORMS AND LIGHTNING

Lightning always accompanies thunderstorms, which generally occur during warm summer months. A single bolt of lightning can carry 100 million volts and intense heat. People are rarely directly struck by lightning but you can receive a charge from standing near an object that has been struck. Two-thirds of people struck by lightning survive; nevertheless lightning kills more people than hurricanes and tornadoes combined.

When struck by lightning, all cells in the body stop functioning momentarily, placing victims in state of suspended animation for 5-20 minutes during which respiration, heartbeat, and metabolism cease. Death can occur as result of lack of emergency medical attention since observers may assume the victim is dead when natural functions are interrupted.

During a Thunderstorm...

Remain indoors and away from windows during thunderstorms If you cannot get indoors:

- Do not be - or stand next to - tallest object in the area
- Do not stand on hilltops or open beaches
- Do not stand near wire fences, metal pipes, railroad tracks, or other metal objects that could conduct electricity
- Do not stand in or near water
- Do not seek shelter in small sheds or barns in open areas
- If in closed vehicle, roll up windows and remain inside
- If in vehicle, do not lean against doors or play radio
- Seek shelter in a dry cave, gully or ditch lower than ground level

March 03, 2008

Deputy Chief Daniel O'Neill
City of Detroit Police Homeland Security
1300 Beaubien
Detroit, MI 48226

**REFERENCE: Petro-Chem Processing Group of Nortru Inc, ("PCPG") 421
Lycaste, Detroit, MI 48214 – Contingency Plan**

Dear Deputy Chief O'Neill:

PCPG is submitting an updated (Revision 2) of our Contingency Plan for your review.


The purpose of the enclosed stand-alone Contingency Plan is to establish the necessary planned procedures to be followed in the event of an emergency situation at PCPG such as a fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil or surface water. The provisions of this plan will be implemented upon the occurrence of a fire, explosion or release of hazardous waste or waste constituents which could threaten human health or the environment. It is also recognized that no single person or agency can possibly manage a serious hazardous materials incident. Hence, an important part of this contingency plan is to establish the emergency response procedures in such a way as to allocate available resources as efficiently as possible to achieve the primary goal: the preservation of human health and the environment.

See enclosed certification letter for the following Facilities:

Please feel free to contact me at 313.824.5303 or jdavis@pscnow.com for further clarification or comments.

Yours truly,

NORTRU, INC.



Jeffrey O. Davis
Regional Manager, EH&S

Encl.

March 03, 2008

Ms. Brenda Ice
Detroit LEPC
13331 Lyndon
Detroit, MI 48227

REFERENCE: Michigan SARA Title III Program

Dear Ms. Ice:

See enclosed certification letter for the following Facilities:

1. Petro-Chem Processing & Solvent Distillers Groups, 421 Lyncaste, Detroit, MI (Facility ID 1860)
2. Nortru Transportation Group, 11700 Freud, Detroit, MI (Facility ID 4183)

The Tier II Emergency & Hazardous Chemical Inventory Reports for both facilities have been filed electronically.


This information is being submitted as required under Section 312, Title III of the Superfund Amendments and Reauthorization Act for the 2005 calendar year.

I have also included a copy of the current contingency plans for both facilities.

Please feel free to contact me at 313.824.5303 or jdavis@pscnow.com for further clarification or comments.

Yours truly,

NORTRU, INC.



Jeffrey O. Davis
Regional Manager, EH&S

Encl.

Davis, Jeffrey

From: Davis, Jeffrey
Sent: Monday, March 03, 2008 8:59 PM
To: 'Christopher Dixon (dixonchris@detroitmi.gov)'
Cc: 'Captain Otis Holt (holto@dfdhq.ci.detroit.mi.us)'; Cape, Brian
Subject: Petro-Chem Processing Group of Nortru, Inc (MID 980 615 298) Updated Fire Safety Plan

Importance: High
Sensitivity: Confidential

Attachments: Fire Safety Plan.doc; PCPG_CONTINGENCY PLAN_Rev 2.doc; Drawing 051.pdf; Drawing 052-EvacuationPlan.pdf; Drawing 53.pdf; Drawing 054.pdf

Captain Dixon,

Further to your site visit on January 25th, 2008 to review our updated contingency plan and perform a site preparedness audit, we have incorporated the recommended changes into the attached Fire Safety Plan. In addition, see attached revised contingency plan which incorporates the Fire Safety Plan.



Fire Safety
Plan.doc (3 MB)



PCPG_CONTINGEN
CY PLAN_Rev 2.do..



Drawing 051.pdf
(100 KB)



Drawing
2-EvacuationPlan.pd



Drawing 53.pdf (39
KB)



Drawing 054.pdf
(51 KB)

Jeffrey O. Davis | **Regional Manager, EH&S**
Direct: 313.824.5303 | Mobile: 313.743.3013 | Fax: 313.824.5865
jdavis@pscnow.com

PSC Environmental Services Division
515 Lyncaste St. | Detroit, MI 48214 | www.pscnow.com

Davis, Jeffrey

From: Davis, Jeffrey
Sent: Monday, March 03, 2008 3:21 PM
To: 'steve.white@inlandwaters.com'
Subject: Petro-Chem Processing Group (MID 980 615 298) Revised Contingency Plan

Importance: High
Sensitivity: Confidential

Attachments: PCPG_CONTINGENCY PLAN_Rev 2.doc; Drawing 064-515LYCASTE-EVACUATION.pdf; Drawing 051.pdf; Drawing 052-EvacuationPlan.pdf; Drawing 53.pdf; Drawing 054.pdf

Mr. White,

As our primary emergency responder, I have attached an updated copy (Revision 2) of Petro-Chem's Contingency Plan for your records. If you have any questions, please feel free to contact me.



PCPG_CONTINGEN
CY PLAN_Rev 2.do.



Drawing
515LYCASTE-EVACU



Drawing 051.pdf
(100 KB)



Drawing
2-EvacuationPlan.pd



Drawing 53.pdf (39
KB)



Drawing 054.pdf
(51 KB)

Jeffrey O. Davis | Regional Manager, EH&S

Direct: 313.824.5303 | Mobile: 313.743.3013 | Fax: 313.824.5865
jdavis@pscnow.com

PSC Environmental Services Division
515 Lycaste St. | Detroit, MI 48214 | www.pscnow.com

Davis, Jeffrey

From: Davis, Jeffrey
Sent: Monday, March 03, 2008 9:20 PM
To: Flippin, Todd
Subject: Petro-Chem Processing Group (MID 980 615 298) Updated Contingency Plan

Sensitivity: Confidential

Attachments: PCPG_CONTINGENCY PLAN_Rev 2.doc; Drawing 051.pdf; Drawing 052-EvacuationPlan.pdf; Drawing 053.pdf

Todd,

Petro-Chem continues to identify your location, PSC – 1300 Wood Street, Monroe MI 48161 as a secondary emergency responder to the PSC – 421 Lycaste Complex in their Contingency Plan. I have attached the updated Contingency Plan – Revision 2 for your review. Please contact me if you have any questions or comments.



PCPG_CONTINGEN
CY PLAN_Rev 2.do..



Drawing 051.pdf
(100 KB)



Drawing
2-EvacuationPlan.pd

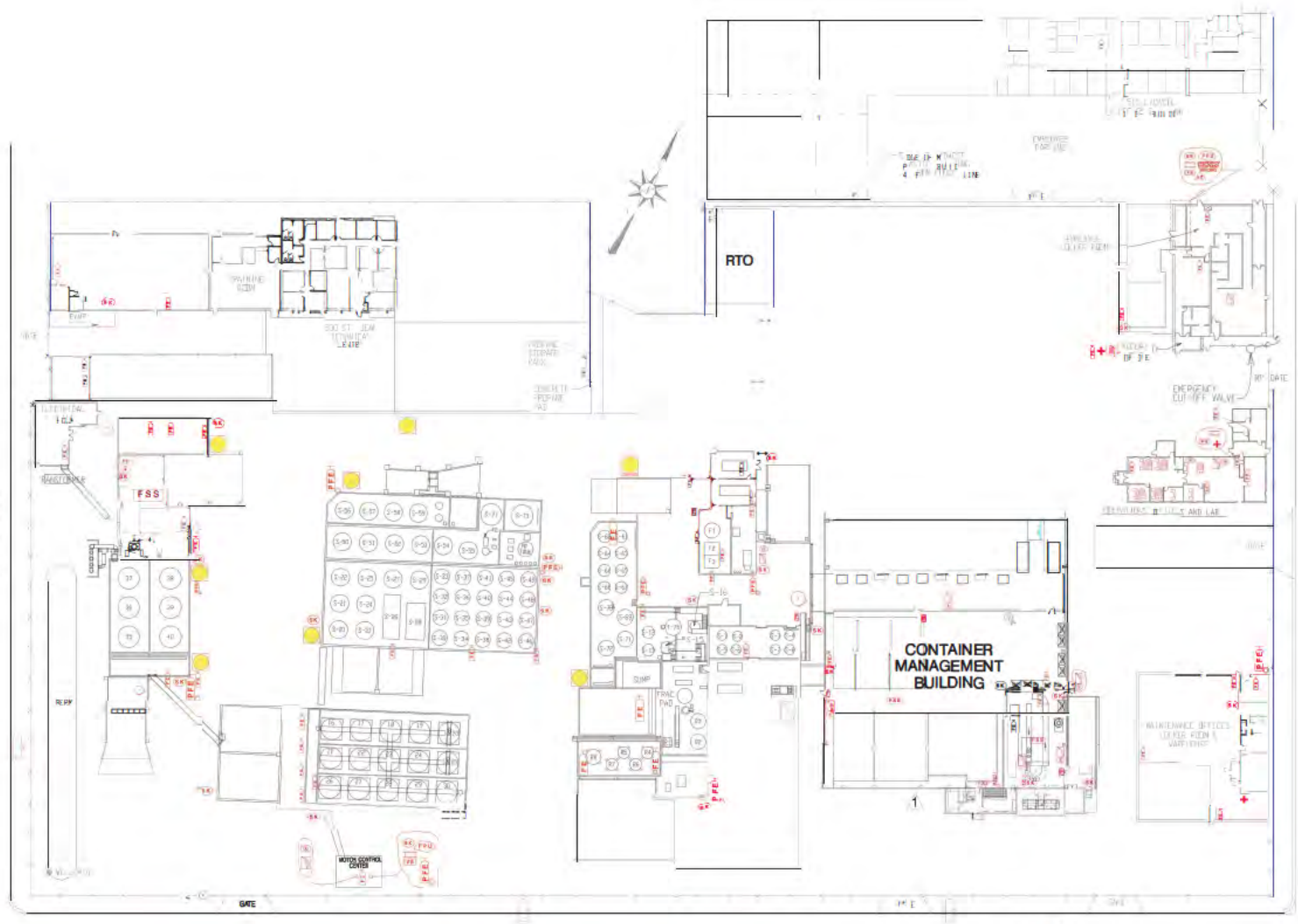


Drawing 053.pdf
(39 KB)

Jeffrey O. Davis | Regional Manager, EH&S

Direct: 313.824.5303 | Mobile: 313.743.3013 | Fax: 313.824.5865
jdavis@pscnow.com

PSC Environmental Services Division
515 Lycaste St. | Detroit, MI 48214 | www.pscnow.com

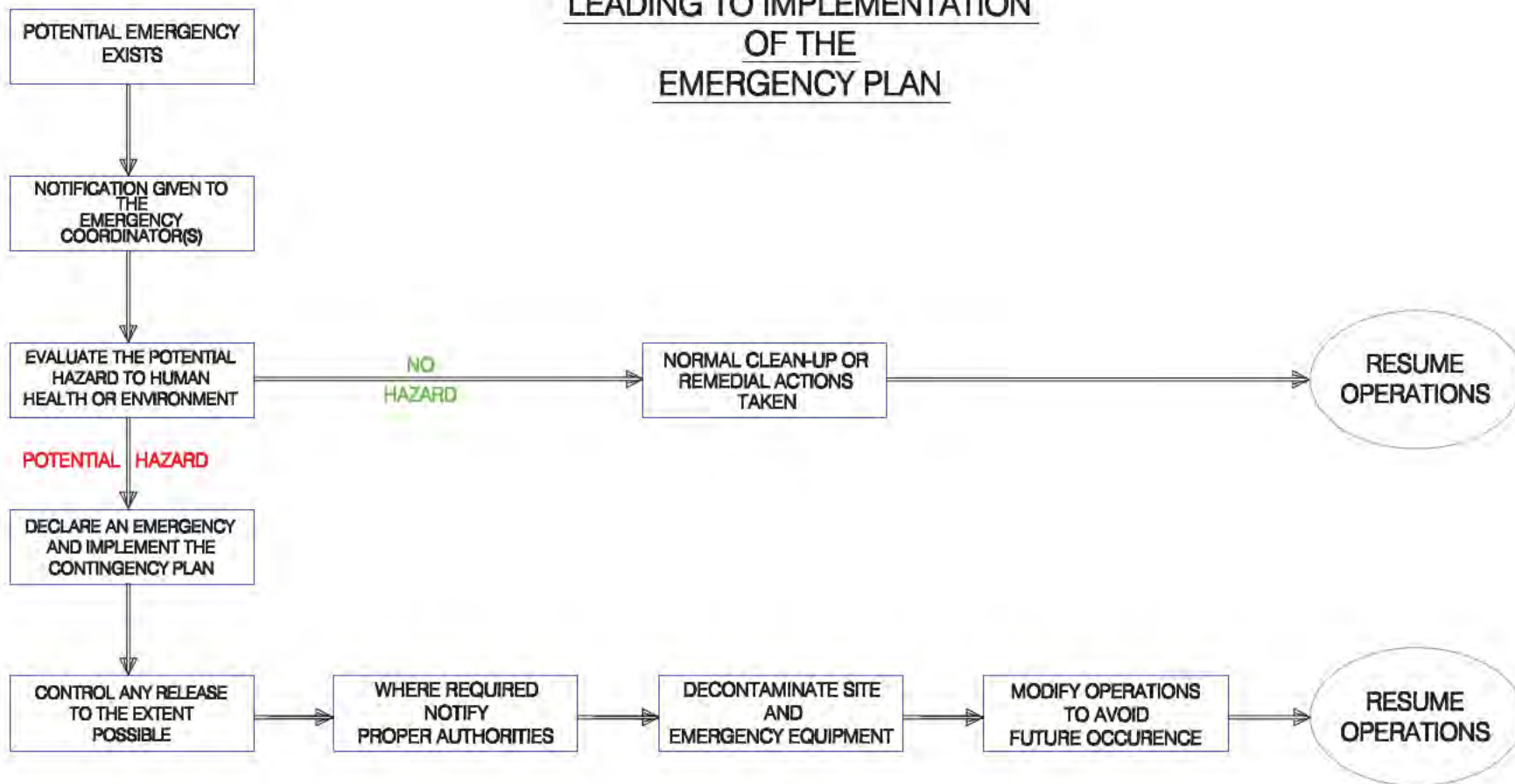


LEGEND

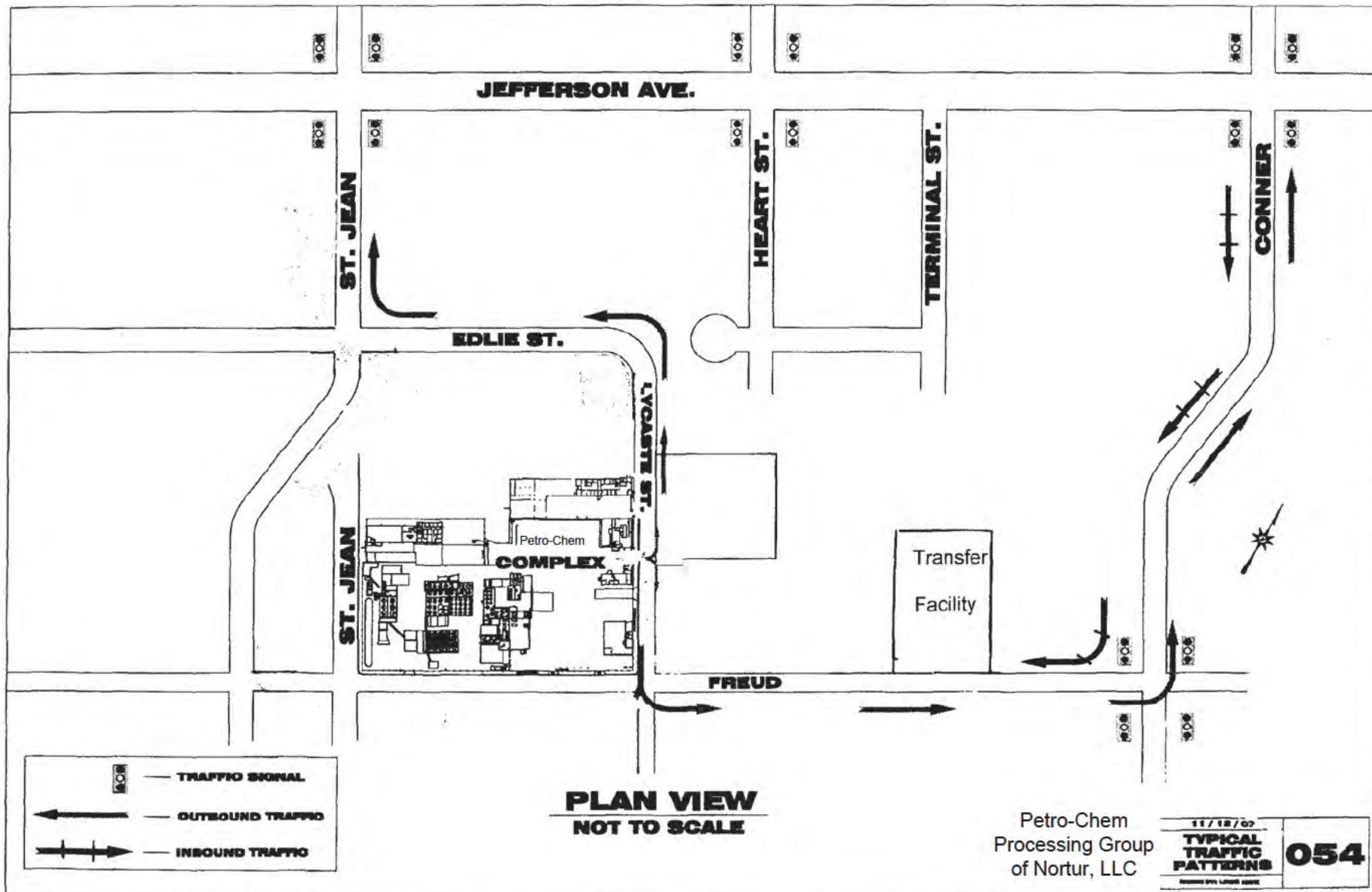
[S] STRETCHER	[FE] HAND HELD FIRE EXTINGUISHER IN CASE	[T] TELEPHONE	[SS] SAFETY SHOWER	[W] WATER TOTE
[FB] FIRE BLANKET	[FE] HAND HELD FIRE EXTINGUISHER	[RD] STATIONARY RABD	[SK] SPILL KIT	
[P] PULL STATION	[PFE] PORTABLE FIRE EXTINGUISHER (ROLLING)	[FSS] FIRE SUPPRESSION SYSTEM	[AA] ALARM ACTUATOR	
[+R] FIRST AID STATION	[FH] FIRE HYDRANT	[FPU] FOAM PROPORTIONING UNIT	[AP] SCOTT AIR PACK	
[EWS] EYE WASH STATION				

Petro-Chem Processing Group of Nortru, LLC	DATE: 06/18/19	051 (2019 update)
	OPERATIONS EMERGENCY EQUIPMENT LOCATIONS	

FLOWCHART FOR DECISION MAKING LEADING TO IMPLEMENTATION OF THE EMERGENCY PLAN



EMERGENCY EVACUATION TRAFFIC PATTERN FLOW



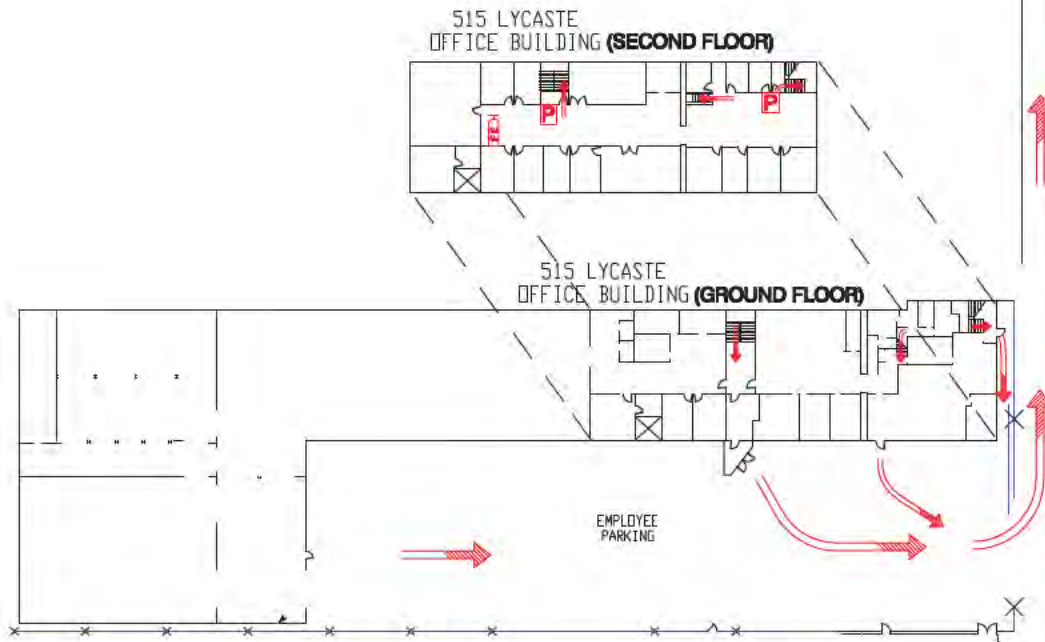
All inbound traffic arrives at Transfer Facility via Freud St. entrance

EDLIE ST.

663 LYCASTE

MUSTER AREA →

LYCASTE ST.



- P** — PULL STATION
- H.E.** — HAND HELD FIRE EXTINGUISHER

Petro-Chem Processing Group of Nortur, LLC	02/18/08	064
	515 LYCASTE BUILDING EVACUATION PLAN	
DRAWN BY: LEWIS KRYK		

Section 6

Training Plan (A10)

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

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 Petro-Chem Processing Group of Nortru, LLC (Petro-Chem) located in Detroit, Michigan. The information included in the template demonstrates how the facility meets the personnel training requirements for hazardous waste management facilities.

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.1(a) Job Titles
 - A10.E.1(b) Written Job Descriptions
 - A10.E.1(c) Written Description of Type and Amount of Training Given to Each Position
 - A10.E.1(d) Documentation That Training Has Been Given to and Completed by Facility Personnel
 - A10.E.2 Record Keeping

A10.A CONTENT OF INTRODUCTORY AND CONTINUING EDUCATION TRAINING PROGRAMS

[R 299.9605 and 40 CFR §264.16(a)]

Petro-Chem's training program has been divided into two major categories:

1. Regulatory:
Training specifically required by federal, state or local regulations, permits or licenses.
2. Job Specific
Training required within specific jobs that are directly related to operations or equipment within Petro-Chem. SOPs are utilized for initial job awareness training and on the job training (OJT).

Within these categories, the required skill level has been classified into 4 levels:

Level I: Basic Awareness: Basic understanding of the topic and associated policies and corporate objectives and targets.

Level II: Job Knowledge: Basic Awareness plus a more comprehensive knowledge of associated policies and corporate objectives and targets as well as facility objectives targets.

Level III: Work Without Assistance: Job Knowledge plus enhanced knowledge of the topic that is sufficient to enable the employee to work independently.

Level IV: Able to Train: Work without Assistance plus 1-year continuous working experience within the topic; complete understanding of the topic and possesses internal training certification authority

Training in each topic and to each classification level will be dependent on the job classification based upon the training needs.

Standard Operating Procedures (SOP's)

When a particular job or task is routine to the effect that there is no day to day change in the hazards or risks, an established and approved SOP is utilized. SOPs are to be reviewed by management and updated as required. See Volume I, Section 6, Appendix I (Form SOP-001) for the SOP Template. SOPs will form the basis of initial awareness training, OJT and competency evaluation. Copies of SOPs must be readily accessible to workers. See Volume I, Section 6, Appendix VI for examples of signed Petro-Chem Standard Operating Procedures.

Specific health and safety issues will be addressed through the use of the Job Safety Analysis (JSA). See Volume I, Section 6, Appendix II for the JSA template.

Job Safety Analysis (JSA)

The JSA worksheet is a proactive approach to injury prevention and involves a pre-job discussion with all applicable Operators of the potential risks associated with various processes and the preventive measures in place to eliminate/minimize risks.

The JSA elements to be incorporated will include:

1. The JSA will be completed for each process conducted at Petro-Chem;
2. Each item identified on the JSA work will be reviewed for applicability and then reviewed with each affected employee;
3. All affected employees will be trained on the appropriate JSA prior to commencement of each process;
4. A JSA will be performed at least monthly with each affected employee prior to commencement of a process (pre-job or tailgate meeting) as part of the on-the-job training (OJT) and competency testing;
5. A new JSA will be completed and reviewed with each affected employee for every extraordinary material type introduced at the Facility prior to receipt of the material. An extraordinary material will include all IDLH, DOT packing group one material and highly reactive material.
6. A JSA will be performed prior to commencement of each activity at the Facility that requires:
 - a. Hot Work Permit (HWP)
 - b. Confined Space Permit (CSP)
 - c. Lock out Tag out (LOTO)
 - d. Subcontract Personnel
7. The JSA must be updated to reflect any changes in hazards or conditions as necessary;
8. Audits and/or inspections required by Supervisors or designate prior to commencement of a process or while performing a process must be documented on the JSA Form;

The training program includes introductory and continuing education training programs for personnel. The training programs have been designed to ensure the facility personnel are familiar with the Contingency Plan (Template A7 and the standalone Contingency Plan) implementation and are able to respond effectively to emergencies. The training programs include instruction on hazardous waste procedures and must enable employees to responsibly perform their duties in hazardous waste management activities. Examples of topics covered in the training programs include:

- 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 will include 'General Employment Training Packet', 'RCRA Training Course and 24-Hour HAZWOPER Training Course – See Volume I, Section 6, Appendix III

A10.A.2 Outline for Continuing Education

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

Continuing training includes HAZWOPER and RCRA Training refresher (min 8 hours). Petro-Chem will source further training courses to supplement required training for competent employees.

A10.B PERSONNEL SUBJECT TO TRAINING REQUIREMENTS

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

A10.B.1 Job Titles and Job Descriptions

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

A job titles, job descriptions and a training matrix has been provided in Volume I, Section 6, Appendix IV. The training matrix outlines the required training for each job title. Job descriptions are routinely updated and maintained in the employee file. An example of a typical job description has been provided in Volume I, Section 6, Appendix IV.

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)]

Training includes in class instruction or CBT, practical training, and competency evaluation. This training encompasses work instructions, safety & environmental precautions, visual observations, and a quiz at the end of the training to ensure each task is completed in an environmentally safe and effective manner.

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 are required to complete introductory training within six months of their hire date or assignment to a new position or area of responsibility. Employees may not work in unsupervised positions until they have completed the required training.

A10.C.2 Continuing Education

[R 299.9605 and 40 CFR §264.16(c)]

Personnel must participate in continuing education training as required.

A10.D TRAINING DIRECTOR
[R 299.9605 and 40 CFR §264.16(a)(2)]

The local EHS Specialist will co-ordinate all training for personnel and ensures training personnel have the minimum qualifications. The training will include a combination of computer-based training (CBT), external training resources and in-house training by qualified specialists.

Qualifications of in-house trainers will include:

1. RCRA: 40HR HAZWOPER certification + minimum 5 years' experience in hazardous waste operations + 2 years HAZWOPER training experience
2. PSC Orientation: minimum one-year supervisory experience
3. OJT: Minimum qualification of Level IV (Able to Train)

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)]

All training records will be maintained by the EHS staff and filed with the EHS Department.

A10.E.1(a) Job Titles and Names of Employees Filling Each Job
[R 299.9605 and 40 CFR §264.16(d)(1)]

Each training file will include the employee's name and job title.

A10.E.1(b) Written Job Descriptions
[R 299.9605 and 40 CFR §264.16(d)(2)]

Written job descriptions for each job title will be placed in each employee training file.

A10.E.1(c) Written Description of Type and Amount of Training Given to Each Position
[R 299.9605 and 40 CFR §264.16(d)(3)]

Each training course completed by each employee will include a copy of the material covered and the instructor information. See Volume I, Section 6, Appendix IV for the training of each position.

A10.E.1(d) Documentation That Training Has Been Given to and Completed by Facility Personnel
[R 299.9605 and 40 CFR §264.16(d)(4)]

Training certificates will be issued upon completion of training and placed in each employee file. Examples training certificates have been provided in Volume I, Section 6, Appendix V.

A10.E.2 Record Keeping
[R 299.9605 and 40 CFR §264.16(e)]

All training records for current employees will be kept until closure of the facility. Records for former employees will be kept for five years from the date employment ceased.

Appendix I

SOP's and Template

PETRO-CHEM PROCESSING GROUP OF NORTRU, LLC

Standard Operating Procedures

421 Lycaste
Detroit, MI 48214

Rev: 1.1 – DEC-11

Table of Contents

Number	Title
PSC-DET-01	Empty Container Disposal
PSC-DET-02	Tanker Load/Unload
PSC-DET-03	Labpack/Depack/Repack
PSC-DET-04	Forklift Operations
PSC-DET-05	Switcher Operations
PSC-DET-06	Container Pump-up
PSC-DET-07	Container Check-in
PSC-DET-08	Secondary Review – Process Code Identification
PSC-DET-09	Tanker Sampling
PSC-DET-10	Debris Consolidation
PSC-DET-11	Inspection Procedures
PSC-DET-12	Container Sampling
PSC-DET-13	Manifest Review
PSC-DET-14	Oxidizer Management
PSC-DET-15	Drum Breaking and Moving
PSC-DET-16	Sump Management
PSC-DET-17	Drum Deheading
PSC-DET-18	Precipitation Removal
PSC-DET-19	Contingency Plan

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE: Secondary Review- Process Code Identification

Level: Detroit
Function: Environmental Compliance
Department: Operations

Document Control: PSC-DET-08
Revision Number: 0
Issue Date: October 3, 2009
Revision Date: _____

Technical Review, Date
Facility Manager

Operations Manager Date

EH&S Specialist Date

1.0 Purpose:

Provide instruction to ensure employees understand the proper process necessary to review and code material for acceptance.

2.0 Description:

This SOP will set out the list of steps necessary to properly review and code inbound material.

3.0 General:

- 3.1 This SOP applies to all employees who provide secondary analytical review and determine appropriate process codes for inbound material, including but not limited to: Laboratory Manager, Shipping and Receiving Supervisor (SRS).
- 3.2 All applicable employees will be trained in the requirements of this SOP.
- 3.3 The provisions of this SOP will be strictly adhered to.
- 3.4 All training will be performed by a qualified individual.
- 3.5 This person is considered qualified only after they have been fully trained and proven capable of performing this task.
- 3.6 Employees are expected to consider ramifications of improper coding at all times.
- 3.7 The Operations Manger and EHS will be responsible for training of key personnel who will be responsible for training their employees.

4.0 Secondary Review and Final Process Code Determination:

This procedure should be performed daily, at the beginning of the Shipping and Receiving Supervisor's (SRS) shift. This provides adequate time for Operations personnel to complete labelling requirements before the end of their shift.

- 4.1** Laboratory personnel will place completed analytical and check-in paperwork in the Shipping and Receiving Supervisor's (SRS) office.
- 4.2** SRS will compare analytical results and physical descriptions to the waste profile.
- 4.3** If material corresponds to the profile, assign profiled process code in waste tracking system and print barcode labels.
- 4.4** If material is off spec, determine the new code based on all data considerations; add this code to the profile with the verbiage noting that the said code was added as a discrepant code. Complete a discrepancy form to submit to customer service. Then assign the process code in the waste tracking system and print the barcode labels.
- 4.5** Match barcodes with appropriate manifest package for the inbound load. Remove manifests, verify they are complete and sign them.
- 4.6** Once package is complete, (all barcodes printed) place the package in the rack designated for Operations personnel to pick up.
- 4.7** Disperse manifest copies as required. If manifest corresponds to a discrepancy, attach entire manifest to the discrepancy notification and receiving paperwork. Submit the discrepant manifests to Customer Service.

5.0 Duties and Responsibilities: The Operations Manager and any additional designee will be responsible for supervising the activities of this SOP.

6.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Secondary Review and Process Code Determination and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE:	Required Inspections	Document Control:	<u>PSC-DET-11</u>
Level:	<u>Detroit</u>	Revision Number:	<u>0</u>
Function:	<u>Environmental Compliance</u>	Issue Date:	<u>October 20, 2009</u>
Department:	<u>Operations</u>	Revision Date:	<u>October 18, 2011</u>

<u>Plant Manager</u>	<u>Date</u>	<u>EH&S Specialist</u>	<u>Date</u>
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1.0 Purpose:

The purpose of this procedure is to set forth the requirements for facility inspections including frequency and time.

2.0 Description:

The inspection program is intended to identify malfunctions, deterioration, operator errors and discharges which may cause or be causing unintended releases to the environment of a threat to human health. Once identified, the condition must be remedied and the remedy recorded.

3.0 General:

- 3.1** This SOP applies to all employees who perform daily, weekly, monthly, quarterly, and annually.
- 3.2** All applicable employees will be trained in the requirements of this SOP.
- 3.3** The provisions of this SOP will be strictly adhered to.
- 3.4** The Operations Manger and EHS Representative will be responsible for training of key personnel who will be responsible for training their employees.

4.0 Definition:

Permit Required Inspections – The inspections as required in permits issued to the facility, by various governmental agencies that specify the content and frequency of inspection of the facility and its equipment. These inspections may be required on a daily, weekly, monthly, quarterly, and annual basis.

5.0 Required Documents:

Inspection forms as specified in the hazardous waste operating license or developed internally to meet inspection requirements of other licenses and permits.

6.0 Inspection Procedure:

Obtain a copy of the required inspection form from supervisor for the specific inspection to be conducted. All inspections must be hand written, no data should be typed in other than the data that is pre-printed on the inspection.

- 6.1** Complete the inspection form by inspecting each component for the criteria specified on the form. Record your name and the time, using military time.
- 6.2** Forms should be submitted to the Management Team according to the following criteria:
 - Daily Inspections: Completed and submitted by the end of the operating day. These should also be completed on weekends when the plant is operating.
 - Weekly Inspections (this includes: security equipment, communication equipment, eyewash, safety shower): Completed and submitted by the end of the inspection week.
 - Monthly Inspections (this includes: PPE, fire extinguishers and related equipment, emergency equipment, BB, and CC requirements): Completed and submitted by the end of the inspection month.
- 6.3** The Management Team will review the form and make necessary corrections to unacceptable conditions cited on the inspection form. Corrections are to be completed by the end of the shift if possible.
- 6.4** If an unacceptable condition requires Maintenance to make the repair, the Operations Manager or designee will complete a Maintenance Request Form. A copy of this form should be attached to the inspection form.
- 6.5** Once corrections have been made, the Management Team will record the corrections on the inspection form. This info includes: what was done, who did it, date and time completed.
- 6.6** Inspections will be submitted to EHS and filed by date in recordkeeping area.

7.0 Duties and Responsibilities: The Operations Manager, EHS Representative and any additional designee will be responsible for supervising the activities of this SOP.

8.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Inspection Procedures and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE: Inbound Manifest Review and Distribution

Level: Detroit
Function: Environmental Compliance
Department: Operations

Document Control: PSC-DET-13
Revision Number: 0
Issue Date: October 30, 2009
Revision Date: _____

Technical Review, Date
Facility Manager

Operations Manager Date

EH&S Specialist Date

1.0 Purpose:

Provide instruction to ensure employees understand the proper process necessary to review and distribute inbound manifests.

2.0 Description:

This SOP will set out the list of steps necessary to properly review and distribute completed inbound manifests.

3.0 General:

- 3.1 This SOP applies to all employees who review, complete and sign manifests.
- 3.2 All applicable employees will be trained in the requirements of this SOP.
- 3.3 The provisions of this SOP will be strictly adhered to.
- 3.4 All training will be performed by a qualified individual.
- 3.5 This person is considered qualified only after they have been fully trained and proven capable of performing this task.
- 3.6 Employees are expected to consider ramifications of signing improper and incomplete manifests all times.
- 3.7 The Shipping and Receiving Supervisor will be responsible for the training of key personnel.

4.0 Review of Manifests:

This procedure should be performed by everyone that touches a manifest, from the initial receipt to the final signature.

- 4.1 Ensure that the following items are complete on every manifest that comes through this facility.
- 4.2 Generator EPA ID Number: This **MUST** be completed for all manifests. The State of Michigan does not allow Generators to ship with out this number. The general format of this number is ABC123456789. Anything else is unacceptable.
- 4.3 Page 1 of XX: The XX should reflect the total number of manifest pages
- 4.4 Emergency Response Number: This is required in the event of an incident that requires notification
- 4.5 Manifest Tracking number: This is a pre-printed number that under no circumstances is to be altered.
- 4.6 Generator's Name, Mailing Address and Phone: This information should be present, complete and legible.
- 4.7 Transporter 1 Company Name and EPA ID Number: All transporter information should be complete and legible. Transporter EPA ID numbers have the same format as the Generator number listed above. Anything else is unacceptable. This information must be completed for every transportation company that has transported this waste.
- 4.8 Designated Facility Name, Address, Phone and EPA ID Number: This information should be complete, accurate, and legible. Our information should read as follows:

Petro-Chem Processing Group
421 Lycaste
Detroit, MI 48214
(313)824-5840
MID980615298

- 4.9 HM: This box should be marked if the material is considered a Hazardous Material.
- 4.10 US DOT Description: This information should be complete, accurate and legible. Information in this area should include: UN/NA Number, proper shipping name, hazard class and packing group (if any).
- 4.11 Container Number and Type: This information should be complete and legible. Only accepted container types should be listed: BA, CF, CM, CW, CY, DF, DM, DT, DW, HG, TC, TP, and TT. Descriptions for these abbreviations are listed on the back page of the manifest packet.
- 4.12 Total Quantity: This information should be complete, accurate and legible.
- 4.13 Unit Wt. / Vol: Appropriate units for this section are: G, K, L, M, N, P, T, Y. Descriptions for these abbreviations are listed on the back page of the manifest packet. These are the only accepted units for this section.

- 4.14 Waste Codes: This section must be complete and accurate. This includes the Michigan Liquid Industrial Waste codes for non-hazardous liquid waste (029L, 021L are the most common).
- 4.15 Generator and Transporter Signatures and Dates: These signatures are required for receipt of material.
- 4.16 Hazardous Waste Report Method Management Codes: These codes should be filled in just prior to signing off on the manifest as the Designated Facility. The codes we use are H061-fuel blending and H141-pass thru.
- 4.17 Designated Facility Owner or Operator: This signature is required when material is received at the facility. By signing, you are certifying that the information listed on the manifest is accurate, correct and complete. You are also certifying that the material was correct as manifested. Note that not properly completing a manifest can result in fines and enforcement actions against the facility.

5.0 Distribution of Manifests:

Each state has specific requirements for manifest distribution. Below are the states that we generally receive material from and the requirements for those states.

- 5.1 Michigan-the first page of every manifest (Designated Facility to Destination State) for waste received at Petro-Chem must be sent to the state of Michigan. This copy should be submitted to the MDEQ no later than the 10th day of the month following receipt of the material.
- 5.2 New York-the second page of manifests (Designated Facility to Generator State) for waste that originated in New York must be mailed back to the state of New York. These copies must be mailed to the NES DEC no later than 10 days from receipt of material.
- 5.3 Wisconsin- the second page of manifests (Designated Facility to Generator State) for waste that originated in Wisconsin must be mailed back to the state of Wisconsin. These copies must be mailed to the WI DNR no later than 30 days from receipt of material.
- 5.4 Pennsylvania- the second page of manifests (Designated Facility to Generator State) for waste that originated in Pennsylvania must be mailed back to the state of Pennsylvania. These copies must be mailed to the PA DEP no later than 30 days from receipt of material.
- 5.5 Massachusetts- the second page of manifests (Designated Facility to Generator State) for waste that originated in Massachusetts must be mailed back to the state of Massachusetts. These copies must be mailed to the MA DEQ no later than 30 days from receipt of material.
- 5.6 Vermont- the second page of manifests (Designated Facility to Generator State) for waste that originated in Vermont must be mailed back to the state of Vermont. These copies must be mailed to the VT ANR no later than 30 days from receipt of material.
- 5.7 Rhode Island- the second page of manifests (Designated Facility to Generator State) for waste that originated in Rhode Island must be mailed back to the state of Rhode Island. These copies must be mailed to the RI DEM no later than 30 days from receipt of material.

- 5.8 New Jersey- the second page of manifests (Designated Facility to Generator State) for waste that originated in New Jersey must be mailed back to the state of New Jersey. These copies must be mailed to the NJ DEP no later than 10 days from receipt of material.
- 5.9 Minnesota- the second page of manifests (Designated Facility to Generator State) for waste that originated in Minnesota must be mailed back to the state of Minnesota. These copies must be mailed to the MN PCA no later than 40 days from receipt of material.
- 5.10 Connecticut- the second page of manifests (Designated Facility to Generator State) for waste that originated in Connecticut must be mailed back to the state of Connecticut. These copies must be mailed to the CT DHM no later than 30 days from receipt of material.
- 5.11 California- the second page of manifests (Designated Facility to Generator State) for waste that originated in California must be mailed back to the state of California. These copies must be mailed to the CA DTSC no later than 30 days from receipt of material.
- 5.12 Arizona- the second page of manifests (Designated Facility to Generator State) for waste that originated in Arizona must be mailed back to the state of Arizona. These copies must be mailed to the AZ DEQ no later than 30 days from receipt of material.

6.0 Duties and Responsibilities: The Shipping and Receiving Supervisor will be responsible for supervising the activities of this SOP.

7.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Inbound Manifest Review and Distribution and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

6.0 Packing of Oxidizers:

Equipment required for this procedure should include: clay based absorbent, (vermiculite is not an appropriate absorbent for oxidizers)

- 6.1 Spilled chemicals are repacked with absorbent (usually clay based) – make sure to eliminate debris (organic material), e.g. paper, cardboard, etc.
- 6.2 Ensure there is no moisture, material should be completely dry with no debris.. If there is moisture, repack separately in 5-gal pail
- 6.3 For wet material- material must be placed in a larger sealable container, containing enough water to dissolve the oxidizing material. The process may require some agitation to complete the reaction. Once the oxidizer is dissolved, the pail will be closed and safely transferred into another 55 gallon poly drum.
- 6.4 Any oxidizers found to be in Cubic Yard Boxes will be immediately repacked. No cardboard boxes will be authorized for shipment of oxidizers; only poly containers and metal drums with liners are acceptable.
- 6.5 Oxidizers in glass bottles will be packed with a sufficient amount of clay powder to absorb any leaks if container is compromised.

7.0 Storage of Oxidizers:

7.1 Storage at 10-Day Transfer Facility

- 7.1.1 All containers must be inspected to ensure containers are not reacting.
- 7.1.2 If there is evidence of a reaction, immediately notify Supervisor who will give guidance on how to properly re-package material.
- 7.1.3 Oxidizers should be store in a shaded, cool, dry area, out of direct sunlight.
- 7.1.4 In the summer months, oxidizers MUST be sent to the TDSF at the end of the operating day.

7.2 Storage at TSDF

- 7.2.1 Oxidizers are to be stored in the designated Oxidizer area. They are not permitted to be in the CMB.
- 7.2.2 All containers must be inspected daily to ensure containers are not reacting.
- 7.2.3 If there is evidence of a reaction, immediately notify Supervisor who will give guidance on how to properly re-package material.
- 7.2.4 Oxidizer shipments must be made frequently, every 30 days from the TSDF to the final disposal site.

8.0 Duties and Responsibilities: The Operations Manager and any additional designee will be responsible for supervising the activities of this SOP.

9.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Hazardous Debris Consolidation and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE: Drum Breaking and Moving
Level: Detroit
Function: Environmental Compliance
Department: Operations

Document Control: PSC-DET-15
Revision Number: 0
Issue Date: March 25, 2011
Revision Date: _____

Technical Review, Date
Facility Manager

Operations Manager Date

EH&S Specialist Date

1.0 Purpose:

The purpose of this SOP is to provide instruction to ensure employees have the skills to perform this task safely and in a compliant manner.

2.0 Description:

This SOP applies to all container types being moved within the facility.

3.0 General:

- 3.1** This SOP applies to all employees who move containers.
- 3.2** All applicable employees will be trained in the requirements of this SOP.
- 3.3** The provisions of this SOP will be strictly adhered to.
- 3.4** Prior to beginning any and all safety sensitive tasks, a Job Safety Analysis (JSA) is to be completed per PSC-ESD-JSA Policy_0110.
- 3.5** The Operations Manger will be responsible for training of key personnel who will be responsible for training their employees.
- 3.6** Manual drum movement should only be used when mechanical means are unavailable or not applicable.

4.0 Definition: N/A

5.0 Required Safety Equipment:

Hard hat, safety glasses, respirator with acid/organic vapor cartridges (if needed), steel-toed boots, and chemical resistant gloves.

6.0 Drum Movement Procedure:

Manual drum movement should only be used when mechanical means are unavailable or not applicable.

- 6.1** Before moving a drum, always check workspace to make sure you have enough room.
- 6.2** Plan your route before you move drum.
 - 6.2.1** Check rolling surface for bumps, cracks, and holes.
 - 6.2.2** Check drum for damage and/or sharp edges.
 - 6.2.3** Make sure bung is tight so it won't leak.
 - 6.2.4** Check drum top for grease or collected water.
 - 6.2.5** If using a pallet, check its condition. Don't use broken pallets.
 - 6.2.6** If a drum loses balance and starts to fall toward you, move away from drum as quickly as possible.
- 6.3** There are 4 basic methods of breaking a drum to move it:
 - Pushing
 - Pulling
 - Drag/pull
 - Push/pull
- 6.4** Pushing
 - 6.4.1** Put hands on the near chime at shoulder width.
 - 6.4.2** Move shoulders low and close to drum.
 - 6.4.3** Slowly push forward with legs until you feel drum reach its balance point.
- 6.5** Pulling
 - 6.5.1** Drums in a cluster must be pulled.
 - 6.5.2** Grip far chime with one hand and near chime with other hand.
 - 6.5.3** Brace your foot at an angle across bottom chime.
 - 6.5.4** Your hands and feet should form a straight line.
 - 6.5.5** Check position of your fingers for possible pinch points.
 - 6.5.6** Pull back, letting the weight of your body help you, until you feel the drum reach its balance point.
- 6.6** Drag/Pull
 - 6.6.1** Use this method when you are surrounded by pinch points.
 - 6.6.2** Place hands, shoulder width apart, at the near position.
 - 6.6.3** Brace drum with foot to prevent it from sliding.
 - 6.6.4** Shift your weight to rear foot.
 - 6.6.5** Pull and drag drum a few inches to the left, then a few inches to the right.
- 6.7** Push/Pull

- 6.7.1 This method should be used when drum is located next to a wall or drum to be moved is exceptionally heavy.
- 6.7.2 Using one hand, pull far chime, push against wall with other hand.
- 6.7.3 Let drum roll and settle.
- 6.7.4 Repeat until drum is safely away from wall, or in new location.

6.8 Rolling Drums

- 6.8.1 It is safer and more efficient for 1 person to roll a drum than 2 people.
- 6.8.2 Never cross arms or legs when rolling drums.
- 6.8.3 Break drum and locate balance point before rolling drum.
- 6.8.4 Looking down at top of drum, place left hand high on rim and right hand low (drum will roll counter-clockwise and to the left).
- 6.8.5 Roll drum.
- 6.8.6 As your right hand reaches top position, quickly move left hand to top and right hand around to bottom.
- 6.8.7 Lift hands into position: do not slide.
- 6.8.8 Keep feet separated and move with a side-step motion: do not slide feet.
- 6.8.9 Turn body slightly away from drum.
- 6.8.10 Keep one next to and nearly touching drum for stability.
- 6.8.11 Stay close to and ahead of drum.

6.9 Moving Drum to Pallet

- 6.9.1 Choose a pallet in good condition.
- 6.9.2 Position drum close to pallet.
- 6.9.3 Break drum, using pull technique.
- 6.9.4 Keeping your shoulders low, your hands and feet in a straight line, use the weight of your body to roll drum until half bottom chime is over pallet.
- 6.9.5 If less than half the chime is over pallet, weight of drum will work against you.
- 6.9.6 Counterbalance drum with your body weight as you set it down on pallet.
- 6.9.7 Push drum completely onto pallet, using your legs.
- 6.9.8 Keep your shoulders low and close to drum.

6.10 Positioning Drum

- 6.10.1 After drum is where you want it, rotate it back and forth in a short arc.
- 6.10.2 Continue to rotate drum until it is in position.
- 6.10.3 Ensure that appropriate labels and marking are faced out and visible.

7.0 Duties and Responsibilities: The Operations Manager and any additional designee will be responsible for supervising the activities of this SOP.

8.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Drum Breaking and Moving and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE: Sump Management
Level: Detroit
Function: Environmental Compliance
Department: Operations

Document Control: PSC-DET-16
Revision Number: 0
Issue Date: March 30, 2011
Revision Date: _____

Technical Review, _____ Date
Facility Manager

Operations Manager _____ Date

EH&S Specialist _____ Date

1.0 Purpose:

The purpose of this SOP is to provide instruction to ensure employees have the skills to perform this task safely and in a compliant manner.

2.0 Description:

This SOP applies to all sumps throughout the facility.

3.0 General:

- 3.1 This SOP applies to all employees who empty sumps.
- 3.2 All applicable employees will be trained in the requirements of this SOP.
- 3.3 The provisions of this SOP will be strictly adhered to.
- 3.4 Prior to beginning any and all safety sensitive tasks, a Job Safety Analysis (JSA) is to be completed per PSC-ESD-JSA Policy_0110.
- 3.5 The Operations Manger will be responsible for training of key personnel who will be responsible for training their employees.
- 3.6 Manual drum movement should only be used when mechanical means are unavailable or not applicable.

4.0 Definition:

Sump- pit or reservoir serving as a receptacle or as a drain for fluids

5.0 Required Safety Equipment:

Hard hat, safety glasses, respirator with acid/organic vapor cartridges (if needed), steel-toed boots, and chemical resistant gloves.

6.0 Drum Movement Procedure:

Manual drum movement should only be used when mechanical means are unavailable or not applicable.

6.1 Before moving a drum, always check workspace to make sure you have enough room.

6.2 Plan your route before you move drum.

6.2.1 Check rolling surface for bumps, cracks, and holes.

6.2.2 Check bottom chime for damage.

6.2.3 Check top chime for burrs and slivers.

6.2.4 Make sure bung is tight so it won't leak.

6.2.5 Check drum top for grease or collected water.

6.2.6 If using a pallet, check its condition. Don't use broken pallets.

6.2.7 If a drum loses balance and starts to fall toward you, move away from drum as quickly as possible.

6.3 There are 4 basic methods of breaking a drum to move it:

Pushing

Pulling

Drag/pull

Push/pull

6.4 Pushing

6.4.1 Put hands on the near chime at shoulder width.

6.4.2 Move shoulders low and close to drum.

6.4.3 Slowly push forward with legs until you feel drum reach its balance point.

6.5 Pulling

6.5.1 Drums in a cluster must be pulled.

6.5.2 Grip far chime with one hand and near chime with other hand.

6.5.3 Brace your foot at an angle across bottom chime.

6.5.4 Your hands and feet should form a straight line.

6.5.5 Check position of your fingers for possible pinch points.

6.5.6 Pull back, letting the weight of your body help you, until you feel the drum reach its balance point.

6.6 Drag/Pull

6.6.1 Use this method when you are surrounded by pinch points.

6.6.2 Place hands, shoulder width apart, at the near position.

6.6.3 Brace drum with foot to prevent it from sliding.

6.6.4 Shift your weight to rear foot.

6.6.5 Pull and drag drum a few inches to the left, then a few inches to the right.

6.7 Push/Pull

6.7.1 This method should be used when drum is located next to a wall or drum to be moved is exceptionally heavy.

6.7.2 Using one hand, pull far chime, push against wall with other hand.

6.7.3 Let drum roll and settle.

6.7.4 Repeat until drum is safely away from wall, or in new location.

6.8 Rolling Drums

6.8.1 It is safer and more efficient for 1 person to roll a drum than 2 people.

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6.8.7 Lift hands into position: do not slide.

6.8.8 Keep feet separated and move with a side-step motion: do not slide feet.

6.8.9 Turn body slightly away from drum.

6.8.10 Keep one next to and nearly touching drum for stability.

6.8.11 Stay close to and ahead of drum.

6.9 Moving Drum to Pallet

6.9.1 Choose a pallet in good condition.

6.9.2 Position drum close to pallet.

6.9.3 Break drum, using pull technique.

6.9.4 Keeping your shoulders low, your hands and feet in a straight line, use the weight of your body to roll drum until half bottom chime is over pallet.

6.9.5 If less than half the chime is over pallet, weight of drum will work against you.

6.9.6 Counterbalance drum with your body weight as you set it down on pallet.

6.9.7 Push drum completely onto pallet, using your legs.

6.9.8 Keep your shoulders low and close to drum.

6.10 Positioning Drum

6.10.1 After drum is where you want it, rotate it back and forth in a short arc.

6.10.2 Continue to rotate drum until it is in position.

6.10.3 Ensure that appropriate labels and marking are faced out and visible.

7.0 Duties and Responsibilities: The Operations Manager and any additional designee will be responsible for supervising the activities of this SOP.

8.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Drum Breaking and Moving and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE: Drum De-Heading
Level: Detroit
Function: Environmental Compliance
Department: Operations

Document Control: PSC-DET-17
Revision Number: 0
Issue Date: September 2, 2011
Revision Date: _____

Technical Review, Date Plant Manager Date
Facility Manager

EH&S Specialist Date

1.0 Purpose:

The purpose of this SOP is to provide instruction to ensure employees have the skills to perform this task safely and in a compliant manner.

2.0 Description:

This SOP applies to all drum de-heading activities throughout the facility.

3.0 General:

- 3.1 This SOP applies to all employees who operate de-headers.
- 3.2 All applicable employees will be trained in the requirements of this SOP.
- 3.3 The provisions of this SOP will be strictly adhered to.
- 3.4 Prior to beginning any and all safety sensitive tasks, a Job Safety Analysis (JSA) is to be completed per PSC-ESD-JSA Policy_0110.
- 3.5 The Plant Manger will be responsible for training of key personnel who will be responsible for training their employees.

4.0 Definition:

5.0 Required Safety Equipment:

Hard hat, safety glasses, respirator with acid/organic vapor cartridges (if needed), steel-toed boots, and chemical resistant gloves.

6.0 Drum De-Heading Procedure:

- 6.1 Before de-heading a drum, always check workspace to make sure you have enough room and adequate housekeeping.
 - 6.2 If plugs are present in bung fittings, remove them.
 - 6.3 Hammer down the bungs so they do not block or interfere with the driver roller or cutter wheel.
 - 6.4 Straighten any bent chime by hammering back to original contour.
 - 6.5 Make sure track wheel on unit is in the retracted position, away from drive roller to allow chime clearance.
 - 6.6 Turn on supply air and push/pull plunger button on air valve.
 - 6.7 Place de-header on drum so the chime rollers ride on the top of the chime.
 - 6.8 Push/pull the plunger button of the air valve to engage the cutter wheel.
 - 6.9 Turn the adjusting screw handle clockwise until the cutter wheel just touches the chime. The cutter wheel must not bite into the metal at this point. Excessive pressure prevents the motor from reaching operating speed which may overload motor.
 - 6.10 Apply air to the opener and push/pull the plunger button of the air valve. With the cutter wheel engaged, the cutting action is automatic as the de-header travels around the drums.
 - 6.11 As the metal splits, it makes a popping /cracking sound. Usually only 2-5 revolutions are enough to cut through the metal.
 - 6.12 Once finished cutting drum or its chime, push/pull the plunger button of the air valve to disengage the cutter wheel. Tilt the de-header toward the center of the drum lid and lift off the drum.
- 7.0 Duties and Responsibilities:** The Plant Manager and any additional designee will be responsible for supervising the activities of this SOP.

8.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Drum De-Heading and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE: Removal of Precipitation
Level: Detroit
Function: Environmental Compliance
Department: Operations

Document Control: PSC-DET-18
Revision Number: 0
Issue Date: September 22, 2011
Revision Date: _____

<u>Plant Manager</u>	<u>Date</u>	<u>EH&S Specialist</u>	<u>Date</u>
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1.0 Purpose:

The purpose of this SOP is to provide instruction to ensure employees have the skills to perform this task safely and in a compliant manner.

2.0 Description:

This SOP applies to all precipitation removal activities throughout the facility.

3.0 General:

- 3.1 This SOP applies to all employees who operate the pumps required to do this task.
- 3.2 All applicable employees will be trained in the requirements of this SOP.
- 3.3 The provisions of this SOP will be strictly adhered to.
- 3.4 Prior to beginning any and all safety sensitive tasks, a Job Safety Analysis (JSA) is to be completed per PSC-ESD-JSA Policy_0110.
- 3.5 The Plant Manger will be responsible for training of key personnel who will be responsible for training their employees.

4.0 Required Safety Equipment:

Hard hat, safety glasses, steel-toed boots, rain gear (if necessary) and chemical resistant gloves.

5.0 Precipitation Removal:

- 5.1 A 32 oz sample is to be collected from the sample box located adjacent to the RTO; 55' S of the north concrete curb; 42' W of the west concrete curb of the truck staging area and submitted for analytical monthly.
- 5.2 Visually inspect the area intended for water removal by looking for any spill or oil sheen.

- 5.3 After identifying that no spills have occurred, place sump pump or hose into the sump.
- 5.4 Visually inspect the intended container (tanker or totes) for contamination. If no contamination is present, connect the discharge hose to the assigned container, open the valve and turn on the pump.
- 5.5 Monitor the tanker or tote for potential spillage, when the container is full, turn the pump off, close the valve, and remove the hose.
- 5.6 Take the container to the carbon filtration unit and connect it to the system for discharging.
- 5.7 Repeat steps 5.2-5.6 as many times as necessary
- 5.8 The rainwater is collected in a batch, run through the carbon filtration unit and discharged at the discharge point located SW of the sampling box.
- 5.9 Log the total amount of precipitation removed for the day.

- 5.10 **Duties and Responsibilities:** The Plant Manager and any additional designee will be responsible for supervising the activities of this SOP.

6.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Precipitation Removal and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

5.0 Procedure for Implementation :

- 5.1 The decision to implement the Contingency Plan will depend on whether the occurrence presents a potential hazard to human health or the environment.
- 5.2 Determine whether any of the following type of emergency situations exist:

EMERGENCY	POSSIBLE EFFECTS
Fire and/or explosion	Fire cannot be contained with portable fire fighting equipment
	Toxic fumes are released
	Imminent danger exists of a fire/ explosion
Spillage	Spill cannot be contained with available equipment, i.e., spill exceeds the secondary containment capacities and/or the on-site capacity
	Spill could release toxic fumes or liquids which harm human health
Natural Disaster	A tornado has damaged the site High winds in excess of 70 mph hit the site
	An earthquake has occurred
Breach of security or sabotage	The facility's security has been breached and sabotage may result

- 5.3 If any of the above situations exist, alert immediate supervisors who will in turn alert the emergency coordinators listed in the contingency plan.
- 5.4 The emergency coordinators will make the appropriate notifications and commit the resources necessary.
- 5.5 Emergency coordinators will also assist in completing the attached checklist for tracking facility response actions.

6.0 Duties and Responsibilities:

- 6.1 The EHS representative and any additional designee will be responsible for supervising the activities of this SOP.

7.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Precipitation Removal and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

Petro-Chem
STANDARD OPERATING PROCEDURES

TITLE: Procedure for Assessing Off-Site Risk During and After and Significant
Unplanned Release

Level: Detroit Document Control: PSC-DET-20
Function: Environmental Compliance Revision Number: 0
Department: Operations Issue Date: May 21, 2012
Revision Date: _____

Plant Manager Date _____ EH&S Specialist Date _____

1.0 Purpose:
The purpose of this SOP is to outline the steps required to determine/address the off-site risk associated with a significant release of contaminants and/or hazardous substances to the environment from a fire, explosion, spill, etc. The information obtained may be used to address the potential short and long-term health effects associated with the contaminants released during the event.

2.0 Description:
This SOP applies in the event of a significant off-site release of contaminants and/or hazardous substances to the environment from a fire, explosion, spill, etc.

- 3.0 Duties and Responsibilities:**
- 3.1** This SOP applies to key personnel who respond to emergency situations at the facility.
 - 3.2** All applicable employees will be trained in the requirements of this SOP.
 - 3.3** The provisions of this SOP will be strictly adhered to.
 - 3.4** The EHS Department will be responsible for training of key personnel.
 - 3.5** To the extent possible, the steps outlined in this SOP will be performed by PSC personnel.
 - 3.6** Off-site monitoring and sampling will likely be performed by a duly authorized governmental agency (Michigan Department of Environmental Quality) or their designated representative.

3.7 The EHS representative and any additional designee will be responsible for supervising the activities of this SOP.

4.0 Required Safety Equipment:

At a minimum, facility requirements include: hard hat, safety glasses, steel-toed boots and chemical resistant gloves. Additional PPE and supplies may be needed depending on the nature of the incident.

5.0 Procedure:

The steps below will be taken to timely assess the off-site risk in the event of a significant off-site release of contaminants and/or hazardous substances to the environment from a fire, explosion, spill, etc. The steps may not be performed in the exact order listed as ensuring personnel safety, containing the release and preventing additional harmful exposures are first priority.

5.1 Record Incident Parameters:

PCPG Representative- As soon as access is available to employees/witnesses

- 5.1.1 Document the time the incident began and the duration of the overall event. Identify the specific location(s) where the incident began.
- 5.1.2 Identify employees/witnesses having direct involvement or direct knowledge of the incident.
- 5.1.3 Identify any relevant witnesses to the event.
- 5.1.4 Gather local meteorological data from the National Weather Service (point-specific data are available at the National Oceanic and Atmospheric Administration [NOAA] Web site) and any characteristic noted by personnel directly involved with the incident or recorded elsewhere.

5.2 Develop Event Narrative:

PCPG Representative- As soon as access is available to employees/witnesses

- 5.2.1 Determine the sequence of events and time line leading up to and throughout the incident by ~~reviewing with~~ interviewing employees directly involved ~~and~~; other on-site peripheral witnesses (office staff, truck drivers, maintenance staff, etc.), ~~and~~ The PCPG representative will also collect information by accessing ~~to~~ other tools and resources, as available (automated data records, surveillance cameras, etc.).
- 5.2.2 Identify specific event locations, materials and equipment involved in the incident.
- 5.2.3 Identify and characterize, to the extent possible, the size and scope of the event.

5.3 Develop a Comprehensive List of Materials or Substances Involved:

PCPG Representative- In combination with regulatory and health agencies and hazardous materials (hazmat) response teams-As soon as possible

- 5.3.1 Identify all of the materials/substances that may have been involved in the event, using the information obtained in the previous steps, inventory records and/or container/tank logs, laboratory data, approval records, material safety data sheets, or any other means available. Use a generic list initially, and then develop a final list from off-site records. Verify that the most up-to-date records are used.
- 5.3.2 Determine the volume, concentration, and weight of substances identified above, and determine how they may have been altered by the event (e.g. pyrolysis products, decomposition, degradation, and both known and potential mixture reactions). Based on this information, begin developing a list of compounds of potential concern.
- 5.3.3 The WHMD shall identify the primary location where information and documents used in previous steps 5.3.1 and 5.3.2 will be housed and ensure that information critical to response to an activity is kept in that location.

5.4 Air Monitoring During Incident:

PCPG in conjunction with Bureau Veritas North America, Inc. or alternate vendor-Federal (EPA, NOAA) and local hazmat response teams- As soon as can be mobilized

- 5.4.1 If possible, model dispersion of the release with real time parameters to determine likely extent of plume and to assist local authorities making shelter-in-place or evacuation recommendations. Identify specific event locations, materials and equipment involved in the incident.
- 5.4.2 Establish air monitoring equipment locations upwind and downwind of the incident (assign locations as soon as possible, using visual/meteorological data and update, as needed, with modeling results). Monitoring should continue until downwind data is consistent with upwind values.
- 5.4.3 Air monitoring should be conducted utilizing approved methods and should include as many of the identified substances as possible. In the event of a fire/explosion, continuous particulate matter less than 2.5 microns in diameter (PM2.5) should be monitored as well. The Contingency Plan should indicate what kind of monitoring equipment may be necessary (e.g., PM2.5 meters for fire events, SUMMA canisters/Tedlar bags for volatile organic compounds released from ruptured tanks), and which ones will be readily available.

Commented [JOD1]: I would check with BV or University Labs on the availability of canisters

5.5 Post-Incident Sample Collection:

PCPG in conjunction with Bureau Veritas North America, Inc. or alternate vendor, EPA, DEQ, DCH-

During and/or immediately following the incident

- 5.5.1 Develop a sampling plan for the collection of waste, groundwater, soil, ash, airborne dust, debris, surface water, and/or wipe samples, as appropriate. The plan, or the need for one, may take into account fallout density, air monitoring data, visual observation, or air modeling. A statistical sampling design may not be necessary for the screening evaluation. Post-incident, off-site sampling may not be necessary based on air monitoring data and lack of off-site migration or deposition.
- 5.5.2 Collect a sufficient number of samples to identify and characterize concentrations of substances involved in the incident. Include sampling for background concentrations.
- 5.5.3 Complete the analysis of collected samples and review by comparison to relevant screening levels. Screening levels may have to be developed for some chemicals or environmental media.
- 5.5.4 Identify and document any substances found to be present in levels that exceed screening levels.

5.6 Evaluate Data for Screening Potential Risk Yes/No (determines next step):

PCPG in conjunction with Bureau Veritas North America, Inc or alternate vendor.

- As Soon As Possible

- 5.6.1 Screen existing data against relevant screening levels.
- 5.6.2 Prepare RA Screening Report and submit it to the DEQ, Waste and Hazardous Materials Division (WHMD), for review as soon as possible but no more than 90 Days after the incident.
- 5.6.3 If less than screening levels, no further action is needed for off-site potential releases upon approval of the WHMD.
- 5.6.4 If greater than screening levels, proceed immediately to step 5.7, after notification from the DEQ.

5.7 If needed, Conduct Off-Site RCRA RFI and Prepare Full RA Report:

PCPG in conjunction with Bureau Veritas North America, Inc. (Steps 5.7.2 through 5.7.3) to be completed within 180 days, if at all possible

- 5.7.1 Prepare off-site RFI Work Plan and submit for review to the WHMD. Submit within 30 days from step 5.6.4 notification from DEQ.

- 5.7.2** Commence RFI immediately after DEQ approval of step 5.7.1 RFI Work Plan.
- 5.7.3** Conduct a RA on RFI data.
- 5.7.4** Prepare and submit RFI Report to the WHMD.
- 5.7.5** Upon DEQ approval of RFI, prepare a combined CMS and CMI Plan, and submit for review to the WHMD, if directed.
- 5.7.6** Upon DEQ approval of the CMS/CMI, implement the CMI Plan as directed.
- 5.7.7** Provide a report to the DEQ upon completion of the CMI Plan.

7.0 Acknowledgement:

SOP ACKNOWLEDGEMENT

I have read the attached SOP entitled Assessing Off-Site Risk and understand all portions.

Employee Name (Printed)

Employee Name (Signature)

Date

STANDARD OPERATING PROCEDURE

Month DD, YYYY	Division	Title	##-####
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No	Operating Procedures	Tools/Documents	Key Points/Hazards
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
1.10			
1.11			
1.12			
1.13			

Version 1.00	Approval Signatures			
Page 1 of 1	EH&S Manager	General Manager	Revision Date	SOP Title