

New York State Department of Environmental Conservation

Office of General Counsel, Region 9

270 Michigan Avenue, Buffalo, New York 14203-2915

Phone: (716) 851-7190 • Fax: (716) 851-7296

Website: www.dec.ny.gov



Joe Martens
Commissioner

October 10, 2014

Daniel P. O'Connell
Administrative Law Judge
NYSDEC
Office of Hearings and Mediation Services
625 Broadway, 1st Floor
Albany, NY 12233-1550

Dear Judge O'Connell:

CWM Chemical Services LLC
Part 361 and Part 373 Applications
Document Verification

In response to your October 3, 2014 letter in the above-captioned matter, staff has performed the requested scrutiny of the draft permit documents, both hard copies and CD's, located in its Region 9 office, the Regional repositories, and at its Albany offices. In addition, as noted in Mr. Rizzo's October 9, 2014 letter, Albany staff reviewed the Application documents at its office and provided the results of that review to CWM.

Transmitted herewith is the Table generated from staff's comparison, at all of the locations for which staff was responsible, of the Central Office Hard Copy and CD versions of the Draft Part 373 Permit Modification (including Modules, Attachments and Incorporated Documents), to the OHMS version of the Draft Part 373 Permit Modification posted on the DEC web page at: <http://www.dec.ny.gov/chemical/97778.html>. As noted in the Table, the primary differences discovered during the review related to pagination. That is, in most instances the OHMS, hard copy, and CD versions of the draft permit documents were identical, except for the substitution of a header with an OHMS document number for the original pagination. The Table lists all instances in the various documents where there is variability in the pagination, and describes the nature of that variability.

In addition, marked in red on the Table are a number of differences in the Groundwater SAP that relate to notes which identify pages to be removed or added in the Groundwater SAP.

Daniel P. O'Connell

October 10, 2014

Page 2

Also, as the Table notes, there were page flips or reversals in the Revised Groundwater SAP at App. C MW5-1D to GMW-5S and App. C GMW-7S. These discrepancies were noted only in the Albany office hard copies, and were corrected. Similarly, extraneous pages noted in the final portion of the Table dealing with the Tank System Design Assessment Report for Fac Pond 5 were noted only in the Albany office hard copies, and were removed.

The scrutiny of the Application documents, done by Albany staff at CWM's request, discovered two additional errors in the Part 373 Draft Permit Modification documents – one in Attachment C-Waste Analysis Plan and the other in the AWGS O&M Manual Incorporated document. These are noted in blue text in the Table. This transmittal also includes pages in “pdf” form correcting these errors.

Our review did discover one clear omission in the OHMS web page--at OHMS Document Number 201469232-00044, the RMU-2 Engineering Report. While the CD contains the entire RMU-2 Engineering Report and the hard copy has a CD in its pocket page containing the entire Report, the OHMS draft permit posting contains only a cover page of the Report. However, as noted on the Table, the OHMS “RMU-2 Project Application Materials” web page does contain the entire RMU-2 Engineering Report.

Please feel free to contact staff with any questions regarding this submittal.

Very truly yours,



David F. Stever
Attorney for Department Staff

DFS:sz

CWM Proposed RMU-2 Landfill
Draft Permit Modification Documents

TABLE 1: Part 373 Permit Modules & Attachments
Comparison of OHMS Web Version to Public Hard Copy and Electronic CD Versions

OHMS Doc. #	OHMS Doc. Coverage	Results of OHMS / Hard Copy (HC) / CD Versions Comparison
201469232-00009	Vol. 1 Cover to end of Module VIII	OHMS version identical to HC & CD versions, except OHMS does not have footer or Page #s for Modules, but does have header with OHMS doc. #.
201469232-00010	Att. A Cover to Att. A Page 6	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00011	Att. A Figs. A-1 to A-2(old)	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00012	Att. A Figs. A-2(old) to A-3	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00013	Att. A Site Photographs	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00014	Att. B Cover to end of Att. C	OHMS version identical to HC & CD versions, except: 1. OHMS does not have footer or Page #s, but does have header with OHMS doc. #. 2. In Attachment C, "Section C-2i Figures" only includes the cover page of "Figure C-1 Waste Profile" and none of the figures. This same omission occurs in the HC and CD versions. Appropriate pages for inclusion in this section are provided in "pdf" form. 3. In Attachment C, "Appendix A Standard Analytical Procedure" only includes the cover page of "Appendix A" and none of its contents. This same omission occurs in the HC and CD versions. Appropriate pages for inclusion in this appendix are provided in "pdf" form.
201469232-00015	Vol. 2 Cover to Att. D, App. D-1, SLF 1-11 OWS Page	OHMS version identical to HC & CD versions, except OHMS does not have header indicating document dates or footer with Page #s, but does have header with OHMS doc. #.
201469232-00016	Att. D, App. D-1, New Drum Bldg. Cover to Drawing #S-0	OHMS version identical to HC & CD versions, except: 1. OHMS has header with OHMS doc. #. 2. Red note on Drawing #s C-2 & C-5 relocated from upper, right corner to bottom of page.
201469232-00017	Att. D, App. D-1, New Drum Bldg. Drawing #S-1 to S-5	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00018	Att. D, App. D-1, Fig. D-1B Cover to App. D-2 Page 7	OHMS version identical to HC & CD versions, except some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #.
201469232-00019	Att. D, App. D-2, Fac Pond 5 Drawings Cover to Draw.#14	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00020	Att. D, App. D-2, Fac Pond 5 RAP Cover to end of Sect.4.4	OHMS version identical to HC & CD versions, except OHMS does not have header indicating document dates & Page #s, but does have header with OHMS doc. #.
201469232-00021	Att. D, App. D-2, Fac Pond 5 RAP App. A Cover to end of RAP App. B	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.

**TABLE 1: Part 373 Permit Modules & Attachments
Comparison of OHMS Web Version to Public Hard Copy and Electronic CD Versions**

OHMS Doc. #	OHMS Doc. Coverage	Results of OHMS / Hard Copy (HC) / CD Versions Comparison
201469232-00022	Att. D, App. D-3 Cover to App. D-3 Fig. D-36	OHMS version identical to HC & CD versions, except some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #.
201469232-00023	Att. E Cover to Att. E, App. E-3	OHMS version identical to HC & CD versions, except OHMS does not have Page #s, but does have header with OHMS doc. #.
201469232-00024	Vol. 3 Cover to end of Att. I	OHMS version identical to HC & CD versions, except: <ol style="list-style-type: none"> 1. Some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #. 2. Red header on Appendix C of Attachment H relocated from top to off right side of page.
201469232-00025	Vol. 4 Cover to Att. J, App. D-6, Drawing #3	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00026	Att. J, App. D-6, Drawing #4 to Drawing #6	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00027	Att. J, App. D-6, Drawing #7 to Drawing #21	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00028	Att. J, App. D-6, Drawing #22 to Drawing #36	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00029	Att. J, App. D-7 Cover to end of Att. J, App. D-8	OHMS version identical to HC & CD versions, except some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #.
201469232-00030	Vol. 5 Cover to end of Att. O	OHMS version identical to HC & CD versions, except some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #.

TABLE 2: Part 373 Incorporated Documents
Comparison of OHMS Web Version to Public Hard Copy and Electronic CD Versions

OHMS Doc. #	OHMS Doc. Coverage	Results of OHMS / Hard Copy (HC) / CD Versions Comparison
201469232-00040	Revised Cost Estimates - Detailed	OHMS version identical to HC & CD versions, except some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #.
201469232-00041	Revised Tank System P&IDs	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00042	Revised AWTS O&M Manual	OHMS version identical to HC & CD versions, except: 1. Some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #. 2. Figures 1.1a & 1.1b are incorrect, outdated figures and should be replaced with the new, revised Figures 1.1a & 1.1b from CWM's Permit modification application. This same error occurs in the HC and CD versions. Appropriate pages for replacing Figures 1.1a & 1.1b are provided in "pdf" form.
201469232-00043 [1of10]	Revised Groundwater SAP: Cover to end of App. A.	OHMS version identical to HC & CD versions, except: 1. Some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #. 2. Some red, strikeout lines through text to be deleted in HC & CD versions, does not appear in OHMS version. 3. Red text box containing "NOTE: Page to be removed" on the first, 8 pages of TABLE 2 in HC & CD versions, does not appear in OHMS version. 4. The 9 th page in TABLE 2 entitled "Groundwater Monitoring Program (Revised 08/09)" with red text box containing "NOTE: Page to be removed" in HC & CD versions, appears to be missing from OHMS version. 5. Red text box containing "NOTE: Page to be added" on the 10 th and all subsequent pages of TABLE 2 in HC & CD versions, does not appear in OHMS version. 6. Red text box containing "NOTE: Page to be removed" on the first, 11 pages of TABLE 3 in HC & CD versions, does not appear in OHMS version. 7. Red text box containing "NOTE: Page to be added" on the remaining, 12 pages of TABLE 3 in HC & CD versions, does not appear in OHMS version. 8. The page after TABLE 5 entitled "General Facility Site Inspection Report" has "TABLE 6" on top of the page in HC & CD versions, which does not appear in OHMS version. 9. The Facility Wells figure is identified in the lower, right corner as "Figure 5" in HC & CD versions, but is identified as "Figure 1" in OHMS version.
201469232-00043 [2of10]	Revised Groundwater SAP: App. B Cover to MW6-15	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00043 [3of10]	Revised Groundwater SAP: App. B-1 MW6-1D to P10-1S	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.

TABLE 2: Part 373 Incorporated Documents
Comparison of OHMS Web Version to Public Hard Copy and Electronic CD Versions

OHMS Doc. #	OHMS Doc. Coverage	Results of OHMS / Hard Copy (HC) / CD Versions Comparison
201469232-00043 [4of10]	Revised Groundwater SAP: App. B-1 P10-1S to P11-4S	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00043 [5of10]	Revised Groundwater SAP: App. B-1 P11-5S to F9-2S	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00043 [6of10]	Revised Groundwater SAP: App. B-1 F9-2S to MW12-1S	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00043 [7of10]	Revised Groundwater SAP: App. B-1 blank to F9-1S	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00043 [8of10]	Revised Groundwater SAP: App. B-1 F9-1S to App. C MW5-2S	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00043 [9of10]	Revised Groundwater SAP: App. C MW5-1D to TMW -5S	OHMS version identical to CD version, except OHMS has header with OHMS doc. #. However, some pages in HC do not match and to be out of order. In HC, pages identified as “WELL NO. F1&2-3S” to “WELL NO. MW12-6S (DRY WELL)” should be taken out and flipped so page “WELL NO. MW12-6S (DRY WELL)” appears immediately after page identified as “WELL NO. MW12-5D”.
201469232-00043 [10of10]	Revised Groundwater SAP: App. C TMW-7S to	<p>OHMS version identical to CD versions, except:</p> <ol style="list-style-type: none"> 1. Red text box containing “NOTE: Page to be removed” on cover and first, 12 pages of App. D dated 12/17/13 in HC & CD versions, does not appear in OHMS version. 2. Red text box containing “NOTE: Page to be added” on cover and first, 13 pages of App. D dated 12/18/13 in HC & CD versions, does not appear in OHMS version. <p>Also, as indicated above, some pages in HC do not match and to be out of order. In HC, pages identified as “WELL NO. F1&2-3S” to “WELL NO. MW12-6S (DRY WELL)” should be taken out and flipped so page “WELL NO. MW12-6S (DRY WELL)” appears immediately after page identified as “WELL NO. MW12-5D”.</p>
201469232-00044	RMU-2 Engineering Report	<p>CD version contains entire RMU-2 Engineering Report. HC version has CD in pocket page which contains entire RMU-2 Engineering Report. OHMS version contains only the DEC generated cover page of the RMU-2 Engineering Report. The entire RMU-2 Engineering Report can be found on the OHMS “RMU-2 Project Application Materials” web page, but there is no reference to it on the OHMS “CWM Draft Permits” page.</p>
201469232-00045	RMU-2 Transition Plan	OHMS version identical to HC & CD versions, except some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #.

**TABLE 2: Part 373 Incorporated Documents
Comparison of OHMS Web Version to Public Hard Copy and Electronic CD Versions**

OHMS Doc. #	OHMS Doc. Coverage	Results of OHMS / Hard Copy (HC) / CD Versions Comparison
201469232-00046	RMU-2 Project Specific Soil Excavation Monitoring, Management and Corrective Action Plan	OHMS version identical to HC & CD versions, except some OHMS pages do not have header indicating document dates or footer with Page #s, but do have header with OHMS doc. #.
201469232-00047 [1of2]	Tank System Design Assessment Report for Fac Pond 5 Tank T-9001, from cover to App. A Drawing 14	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #.
201469232-00047 [2of2]	Tank System Design Assessment Report for Fac Pond 5 Tank T-9001, from App. B cover to	OHMS version identical to HC & CD versions, except OHMS has header with OHMS doc. #. However, Central Office HC version has additional pages which start with page entitled "Report on 2013 RG&E Brooks Ave. Groundwater Monitoring. These additional pages may be in other HC copies and should be removed.

Figure C-1 Waste Profile



Requested Facility: _____ Unsure Profile Number: _____
 Check if there are multiple generator locations Attach locations. Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

- Generator Name: _____
- Site Address: _____
(City, State, ZIP) _____
- County: _____
- Contact Name: _____
- Email: _____
- Phone: _____ 7. Fax: _____
- Generator EPA ID: _____ N/A
- State ID: _____ N/A

B. BILLING INFORMATION

SAME AS GENERATOR

- Billing Name: _____
- Billing Address _____
(City, State, ZIP) _____
- Contact Name _____
- Email: _____
- Phone: _____ 6. Fax: _____
- WM Hauled? Yes No
- P.O. Number: _____

C. MATERIAL INFORMATION

- Common Name: _____
Describe Process Generating Material: See Attached
- Material Composition and Contaminants: See Attached

1.		
2.		
3.		
4.		
		≥100%
- State Waste Codes: _____ N/A
- Color: _____
- Physical State at 70°F: Solid Liquid Other: _____
- Free Liquid Range Percentage: _____ to _____ N/A (Solid)
- pH _____ to _____ N/A (Solid)
- Strong Odor: Yes No Describe: _____
- Flash Point: <140°F 140°-199°F ≥200° N/A (Solid)

D. REGULATORY INFORMATION

- EPA Hazardous Waste? Yes* No
Code: _____
 - State Hazardous Waste? Yes No
Code: _____
 - Excluded waste under 40 CFR 261.4 (a) or (b)? Yes* No
 - Contains Underlying Hazardous Constituents? Yes* No
 - Contains benzene **and** subject to Benzene NESHAP? Yes* No
 - Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
 - CERCLA or State-mandated clean-up? Yes* No
 - NRC or State-regulated radioactive or NORM waste? Yes* No
- *If Yes, see Addendum (page 2) for additional questions and space.**
- Contains PCBs? → If Yes, answer a, b and c. Yes No
 a. Regulated by 40 CFR 761? Yes No
 b. Remediation under 40 CFR 761.61 (a)? Yes No
 c. Were PCB imported into the US? Yes No
 - Regulated and/or Untreated Medical/Infectious Waste? Yes No
 - Contains Asbestos? Yes: Friable Yes: Non-Friable No

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

- Analytical attached Yes
Please identify applicable samples and/or lab reports:
- Other information attached (such as MSDS)? Yes

F. SHIPPING AND DOT INFORMATION

- One-Time Event Repeat Event/Ongoing Business
- Estimated Quantity/Unit of Measure: _____
 Tons Yards Drums Gallons Other: _____
- Container Type and Size: _____
- USDOT Proper Shipping Name: _____ N/A

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.

Name (Print): _____ Date _____
 Title: _____
 Company: _____

Certification Signature _____



EZ Profile™ Addendum



Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1):

If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1):

If more space is needed, please attach additional pages.

5.		
6.		
7.		
8.		
9.		
10.		≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No

c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No

d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083 and 265.1084)? Yes No

→ If Yes, please select one of the following:

Waste has been determined to be LDR exempt [265.1083(c)(4) and 265.1084(c)(4)] based on the fact that it meets all applicable organic treatment standards (including UHCs for D-coded characteristic wastes) or a Specified Technology has been utilized.

Waste does not qualify for a LDR exemption, but the average VOC at the point of origination is <500 ppmw and this determination was based on analytical testing (upload copy of analysis) or generator knowledge.

2. State Hazardous Waste → Please list all state waste codes: _____

3. Excluded Waste → Please select which of the following categories apply to your material:

Delisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____

Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Benzene NESHAP → Please include benzene concentration and percent water/moisture in chemical composition

a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue.

b. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg

c. Is this waste soil from remediation at a closed facility? Yes No

d. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No

e. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No

→ If yes, specify exemption: _____

f. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No

6. 40 CFR 63 GGGGG → Does the material contain <500 ppw VOHAPs at the point of determination? Yes No

7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation to assist others in the evaluation for proper disposal.

8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: _____



Additional Profile Information

Profile Number: _____

C. MATERIAL INFORMATION

Material Composition and Contaminants (Continued from page 2):

If more space is needed, please attach additional pages.

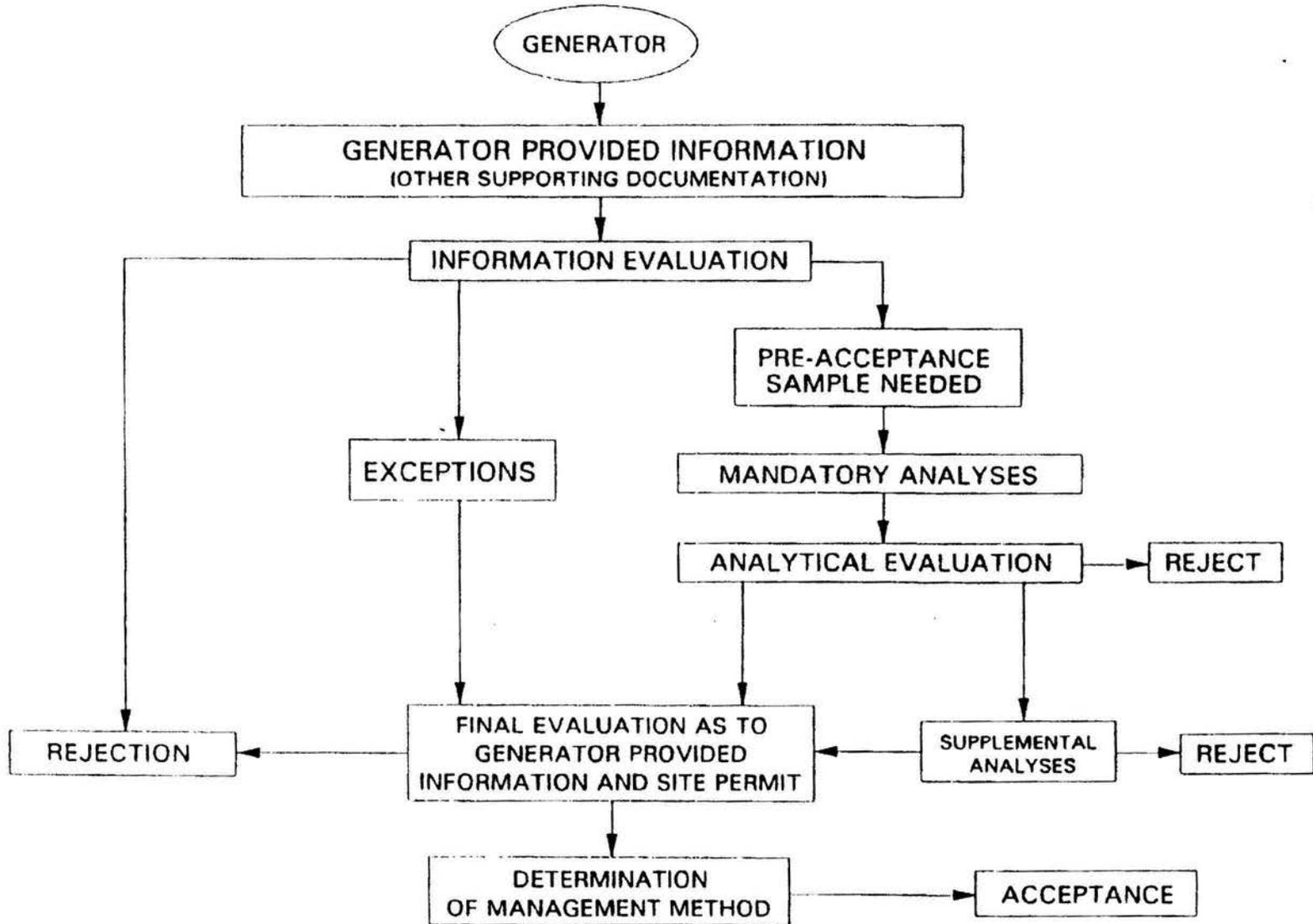
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
	≥100%

D. REGULATORY INFORMATION

1. EPA Hazardous Waste

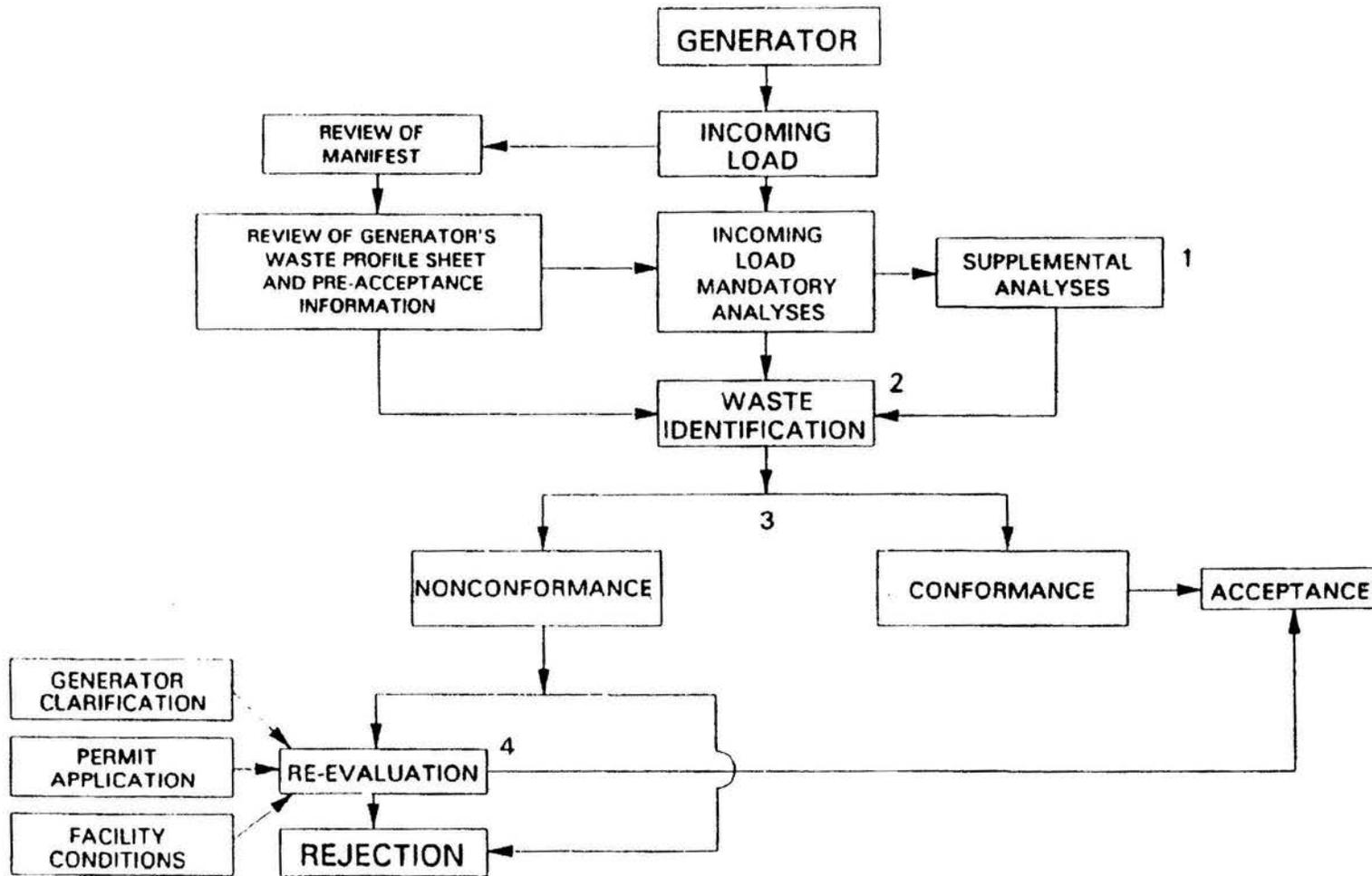
a. Please list all USEPA listed and characteristic waste code numbers (Continued from page 2)

FIGURE C-2
OVERVIEW OF THE PRE-ACCEPTANCE PROCESS



Modified: 6/09

FIGURE C-3
OVERVIEW OF THE INCOMING LOAD IDENTIFICATION PROCESS



Modified: 6/09

Figure C-4
Aqueous Waste Treatment

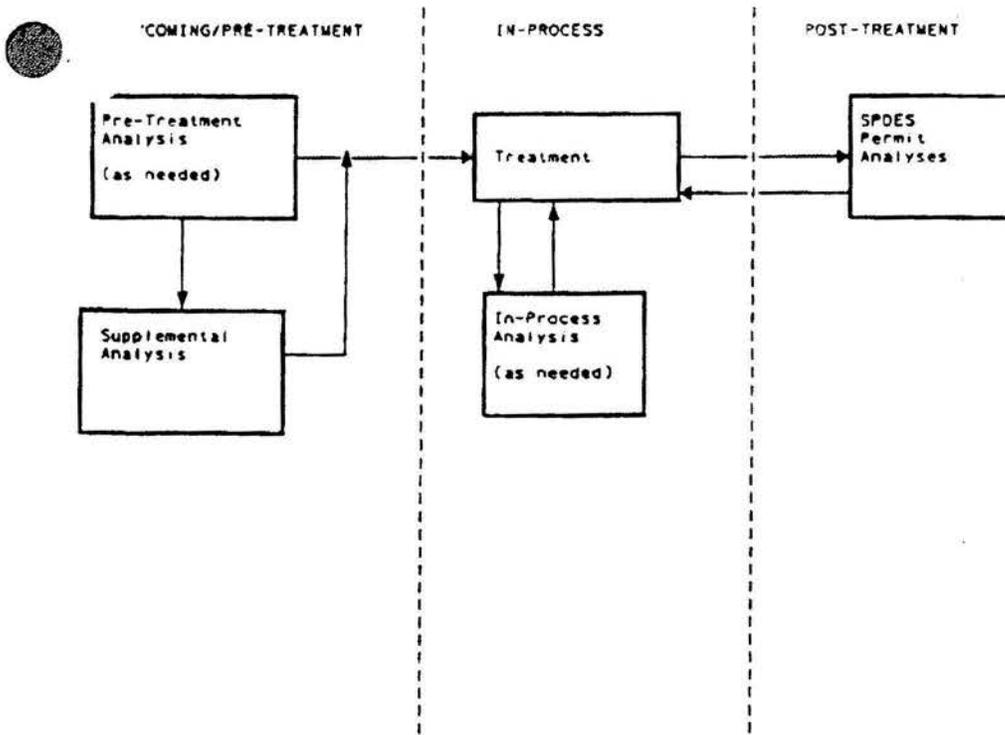
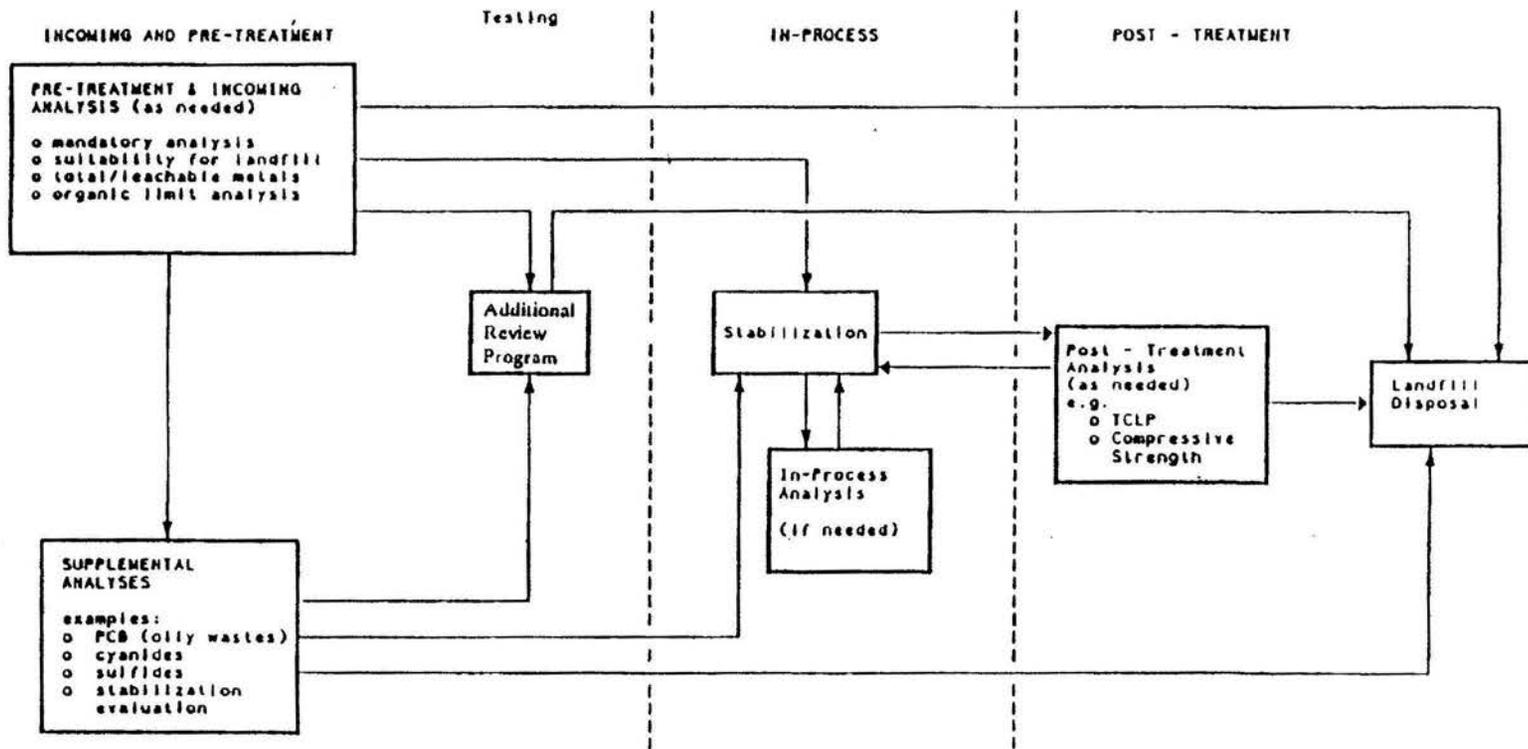


Figure C-5
LANDFILL AND STABILIZATION PROCESS



Modified: 6/09

APPENDIX A

STANDARD ANALYTICAL PROCEDURES

Standard Analytical Procedures

PARAMETER/METHOD	SW-846¹	EPA²	Std Meth³	ASTM⁴
Method Selection	Chap 2	Table 1B, 1C		
Extraction Procedure (EP) Toxicity Test	1310B			
Toxicity Characteristic Leaching Procedure (TCLP)	1311			

Sample Digestion Methods:

Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP	3005A			
Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP	3010A			
Microwave Assisted Digestion of Aqueous Samples and Extracts	3015A			
Acid Digestions of Aqueous Samples and Extracts for Total Metals for Analysis by GFAA	3020A			
Acid Digestion of Oils for Metals Analysis by Atomic Absorption or ICP	3031			
Dissolution Procedure for Oils, Greases or Waxes	3040A			
Acid Digestion of Sediments, Sludges and Soils	3050B			
Microwave Assisted Digestion of Siliceous and Organically Based Matrices	3052			

Determination of Inorganic Analytes:

Inductively Coupled Plasma-Atomic Emission Spectrometry	6010C	200.7 rev 4.4	3120B	
Flame Atomic Absorption Spectrophotometry	7000B		3111B,C,D,E	
Graphite Furnace Atomic Absorption Spectrophotometry	7010	200.9 rev 2.2	3113B	
Arsenic (Atomic Absorption Gaseous Hydride)	7061A		3114B	
Antimony and Arsenic (Atomic Absorption, Borohydride Reduction)	7062			
Chromium Hexavalent (Coprecipitation)	7195			
Chromium Hexavalent (Colorimetric)	7196A		3500-Cr B,C	
Chromium Hexavalent (Chelation/Extraction)	7197			
Determination of Hexavalent Chromium in Drinking Water, Groundwater and Industrial Wastewater Effluent by Ion Chromatograph	7199	218.6 rev 3.3		
Mercury in Liquid Waste (Manual Cold-Vapor Technique)	7470A	245.1 rev 3.0	3112B	
Mercury in Solid Waste (Manual Cold-Vapor Technique)	7471B			
Selenium (Atomic Absorption Gaseous Hydride)	7741A		3114B	
Selenium (Atomic Absorption, Borohydride Reduction)	7742			

Organic Extractions and Preparations:

Organic Extraction and Sample Preparation	3500C			
Separatory Funnel Liquid-Liquid Extraction	3510C			
Soxhlet Extraction	3540C			
Pressurized Fluid Extraction (PFE)	3545A			
Ultrasonic Extraction	3550C			
Waste Dilution	3580A			
Waste Dilution for Volatile Organics	3585			
Sample Preparation for Volatile Organic Compounds	5000			
Volatile Organic Compounds in Soils and Other Solid Matrices Using Equilibrium Headspace Analysis	5021			
Purge-and-trap for Aqueous Samples	5030C			
Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples	5035A			
Cleanup	3600C			
Florisil Cleanup	3620C			
Sulfur Cleanup	3660B			
Sulfuric Acid/Permanganate Cleanup	3665A			

Standard Analytical Procedures

PARAMETER/METHOD

SW-846¹

EPA²

Std Meth³

ASTM⁴

Organic Analytical Methods

Determinative Chromatographic Separations	8000C			
Pesticides	8081B	608	6630B,C	
Polychlorinated Biphenyls	8082A	608	6431B	
Volatile Organic Compounds	8260C	624	6200 B & C	
		1624B		
Semivolatile Organic Compounds	8270D	625	6410B	
		1625B		
Heat of Combustion, Bomb Calorimeter Method				D240
				D2015
Chlorine (Halogen) Content	5050			D808
				D2361
				D4327
Sulfur Content				D129
				D3177
				D4327

Screening Methods

Bulk Density & Apparent Specific Gravity				D5057
Commingled Waste Compatibility				D5058 Method A
Flammability Potential/Ignitability Screen	1030			D4982
Oxidizer Screen				D4981
Paint Filter Liquids Test	9095B			
Physical Description				D4979
pH Screen	9041A			
Polymerization Potential				D5058 Method B
Sulfide Screen by Lead Acetate Paper				D4978 Method A
Water Compatibility Screen				D5058 Method C
Screening of Waste for Radioactivity				D5928

Miscellaneous Analytical Methods

Acidity			2310B	D1067
Alkalinity			2320B	D1067
Ammonia		350.3	4500-NH ₃	
Ash Content				D482
				D2974
				D3174
Chemical Oxygen Demand (COD)			5220D	
Chlorine	9075			
	9076			
	9077			
Chlorine, Residual			4500-Cl G	
Compaction Test	1310A			
Conductivity/Specific Conductance	9050A	120.1	2510	D1125
Corrosivity Toward Steel	1110A			
Dermal Corrosion	1120			
Total and Amenable Cyanide	9010C	335.1	4500-CN	
	9012B			
	9013			
	9014			
Free Cyanide			4500-CN	
Flash Point, Cleveland Open Cup				D92

Standard Analytical Procedures

PARAMETER/METHOD

SW-846¹

EPA²

Std Meth³

ASTM⁴

Miscellaneous Analytical Methods

Flash Point, Pensky-Martens Closed-Cup	1010A			D93
Flash Point, Setaflash Closed-Cup	1020B			D3278
Flash Point, Tag Closed-Cup				D56
Fluoride			4500-F^C	
Oil & Grease		1664A	5520B	
Oxidation/Reduction (Redox) Potential (ORP)				D1498
pH Measurement	9040C	150.1	4500H	
	9041A			E70
	9045D			
Pour Point of Petroleum Oils				D97
Radiation	9310			
	9315			
	9320			
Soil Identification				D2487
				D2488
Solids, Fixed and Volatile (500 C)		160.4	2540E,G	
Solids, Total Dissolved Solids (180 C)		160.1	2540C	
Total Solids (103/105 C)		160.3	2540B	D2974
Total Suspended Solids (103/105 C)		160.2	2540D	
Specific Gravity			2710F	D70
				D891
				D1217
				D1429
Sulfide	9030B		4500-S ⁻²	
	9031			
	9034			
	9215			
Unconsolidated, Undrained Compressive (UUC) Strength of Cohesive Soils in Triaxial Compression				D2850

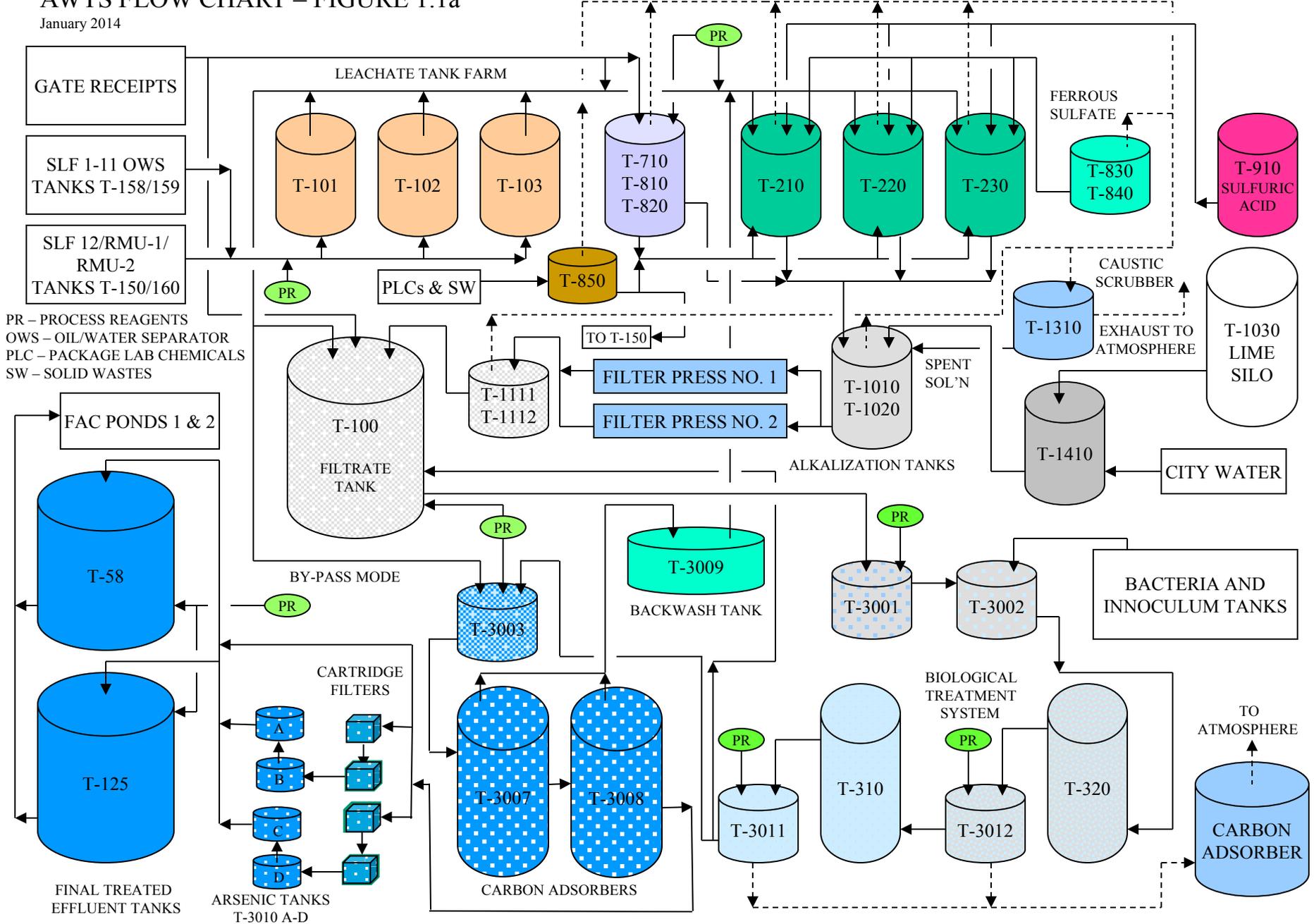
References

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Third Edition, U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC September 1986, as amended by Final Updates I, II, III, IIIA, IIIB and IV or most recent edition or revision.
2. Tables 1B, 1C and 1D of EPA Approved Test Procedures listed in 40 CFR 136 (March 12,2007 or most recent). Full text of 600 series methods included in Appendix A. Full text of metals methods in Methods for the Determination of Metals in Environmental Samples, Supplement 1, National Exposure Risk Laboratory-Cincinnati (NERL-CI) EPA/600/R-94/111,May 1994. Full text of inorganic methods in Methods for the Determination of Inorganics in Environmental Samples, National Exposure Risk Laboratory-Cincinnati (NERL-CI) EPA/600/R-93/100, August 1993..
3. Standard Methods for the Examination of Water and Wastewater, 20th Edition (or on-line) American Public Health Association (APHA), American Water Works Association, Water Environment Federation, 2000 or more recent.
4. Annual Book of ASTM Standards, American Society for Testing and Materials, 1993 or more recent edition or revision.

AWTS FLOW CHART – FIGURE 1.1a

NYSDEC OHMS Document No. 201469232-00097

January 2014



AWTS FLOW CHART – FIGURE 1.16

NYSDEC OHMS Document No. 201469232-00097

January 2014

