ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

August 25, 2006

Certified Mail
7004 2510 0001 8593 4771
7004 2510 0001 8593 4788

Clean Harbors Services, Inc.
Attn: James R. Laubsted
11800 South Stony Island
Chicago, Illinois 60617

Illinois International Port District
Attn: Anthony G. Ianello
3600 East 95th Street
95th & The Lakefront
Chicago, Illinois 60617-5193

Re: 0316000051 -- Cook County
Clean Harbors Svcs, Inc.
ILD000608471
RCRA Log # B-16R-M-4
RCRA Part B -- Administrative Record

US EPA RECORDS CENTER REGION 5
1000484

Dear Gentlemen:

This letter is in response to your letter dated June 5, 2006, requesting a Class 1 modification to update the name, address, or phone numbers of coordinators, or other persons, or agencies as identified in the plan in accordance with 35 Ill Admin Code Part(s) 703, Appendices A(A)(1) and A(B)(6)(d). The Agency has approved this modification request.

Approval of this modification is based upon review of (1) the RCRA permit issued to Clean Harbors Svcs, Inc., (2) the regulations (35 Ill. Adm. Code Subtitle G), and (3) the information contained in your submittals. Since this modification did not result in any changes to the language of the Permit, only the cover page reflecting the approval of this modification is being sent to you. This letter and the enclosed cover page should be attached to the front of your Part B Permit. Operations must be conducted in accordance with the approved RCRA Part B Permit issued to Clean Harbors Svcs, Inc., and all subsequent modifications to the Part B Permit.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

The Permittee must complete the public notice requirements for the Class 1 modification as requested in Log # B-16R-M-4. Pursuant to 35 Ill. Adm. Code 703.281(a)(2), a notice of the

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
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ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE MANAGEMENT RCRA PART B PERMIT

IEPA 0316000051 -- Cook County
USEPA ILD000608471
Clean Harbors Svcs Inc
Permit Log No. B-16R-M-4
RCRA -- Part B – Permit File

Issue Date: November 4, 2005
Effective Date: December 9, 2005
Expiration Date: December 9, 2015
Modification Effective Date: August 25, 2006

Illinois International Port District
3600 East 95th Street
95th & the Lakefront
Chicago, Illinois 60617-5193

Clean Harbors Svcs Inc
11800 South Stony Island Avenue
Chicago, Illinois 60617

A Part B permit is hereby approved pursuant to the Resource Conservation and Recovery Act, Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code (I.A.C.) parts 702, 703, 705, and 720 through 729 to Clean Harbors Svcs Inc and the Illinois International Port District (herein known as the Permittee(s)), to construct, maintain and operate a waste management facility involved in the treatment and storage of hazardous waste. The site is located at 11800 South Stony Island Avenue in Chicago, Illinois.

This permit consists of the conditions contained herein (including those in any attachments and appendices) and applicable regulations contained in the Illinois Environmental Protection Act and Title 35 I.A.C. Parts 702, 703, 705 and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act (Ill. Rev. Stat., Chapter 111 1/2, Section 1039) grants the Illinois Environmental Protection Agency the authority to impose conditions on permits which are issued. This Permit contains 225 pages including Attachments A through I.

If you have any questions regarding this final permit, please contact Mark A. Schollenberger at 217/524-3307

Stephen F. Nightingale by TDV

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:MAS:bjh\051161s.doc

cc: USEPA: Region V

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NOTICE

August 14, 2006

To: Facility Mailing List Addresses

Re: Clean Harbors Services, Inc.
Notification of RCRA Class 2 Permit Modification

Clean Harbors Services, Inc. (CHSI) is a permitted hazardous waste treatment, storage and disposal (TSD) facility located at 11800 South Stony Island Avenue in Chicago, IL. CHSI currently operates under a RCRA Part B permit issued by the IEPA on November 4, 2005.

On August 14, 2006 CHSI requested a Class 2 permit modification with the IL Environmental Protection Agency to modify CHSI's flammable tank farm by relocating conservation vents and flame arrestors, adding level sensors, adding rupture disks and combining vent stacks. These changes will upgrade the technology for emission control.

Pursuant to 35 IAC 703.282(b), CHSI announces a 60-day comment period beginning August 14, 2006 and ending October 13, 2006 during which all interested parties have the opportunity to review the modification request and submit comments to the IEPA. CHSI will hold an informational public meeting open to all interested persons to discuss the proposed modification. The meeting will be held on September 20, 2006 from 7:00 – 8:00 PM at the Chicago Public Library – Hegewisch Branch, 3048 E. 130th Street, Chicago, IL.

Copies of the modification request are available for review during normal business hours at CHSI's business office at 11800 S. Stony Island Ave. in Chicago, IL, IEPA's office in Springfield, IL or the Chicago Public Library – Hegewisch Branch. The permittee's compliance history during the life of the permit is available from the Agency contact person. Information regarding application viewing time and place, CHSI's existing permit, applicable regulatory requirements, permit modification procedures and CHSI's compliance history may be obtained from Ms. Mara McGinnis, IEPA, 1021 North Grand Avenue East, Springfield, IL 62794 or at (217) 524-3300.

This notice is being sent to you in accordance with IEPA's Class 2 permit modification regulations in 35 IAC 703.282(b). A copy of the notice will appear in the Daily Southtown by August 21, 2006.

If you have any further questions regarding this notice, please contact Jim Laubsted at (773) 646-6202, x233.

NOTICE

August 14, 2006

To: Facility Mailing List Addresses

Re: Clean Harbors Services, Inc.
Notification of RCRA Class 1 Permit Modification

Clean Harbors Services, Inc. (CHSI) is a permitted hazardous waste treatment, storage and disposal (TSD) facility located at 11800 South Stony Island Avenue in Chicago, IL. CHSI currently operates under a RCRA Part B permit issued by the IEPA on September 30, 1993.

On June 5, 2006 CHSI requested a Class 1 permit modification to the facility's Contingency Plan to include a new address and phone numbers for the first alternate emergency coordinator. This Class 1 modification does not need prior approval by IEPA.

This notice is being sent to you in accordance with IEPA's Class 1 permit modification regulations in 35 IAC 703.281(a)(2) which require a notice of the modification be sent to all persons on the facility mailing list within 90 days after the change is put into effect or within 90 days of IEPA approval.

If you have any further questions regarding this notice, please contact Jim Laubsted at (773) 646-6202, x233.

NOTICE

February 20, 2006

To: Facility Mailing List Addresses

Re: Clean Harbors Services, Inc.
Notification of RCRA Class 2 Permit Modification

Clean Harbors Services, Inc. (CHSI) is a permitted hazardous waste treatment, storage and disposal (TSD) facility located at 11800 South Stony Island Avenue in Chicago, IL. CHSI currently operates under a RCRA Part B permit issued by the IEPA on November 4, 2005.

On February 20, 2006 CHSI requested a Class 2 permit modification with the U.S. & IL Environmental Protection Agencies to accept EPA hazardous waste K181. This newly listed waste became effective August 23, 2005. CHSI submitted a Class 1 modification to receive this waste March 8, 2005 which was approved by USEPA on March 16, 2005. A Class 1 was submitted to IEPA November 29, 2005.

Pursuant to 40 CFR 270.42, CHSI announces a 60-day comment period beginning February 20, 2006 and ending April 21, 2006 during which all interested parties have the opportunity to review the modification request and submit comments to the USEPA. CHSI will hold an informational public meeting open to all interested persons to discuss the proposed modification. The meeting will be held on March 16, 2006 from 7:00 – 8:00 PM at the Chicago Public Library – Hegewisch Branch, 3048 E. 130th Street, Chicago, IL.

Copies of the modification request are available for review during normal business hours at CHSI's business office at 11800 S. Stony Island Ave. in Chicago, IL, USEPA's office in Chicago, IL, IEPA's office in Springfield, IL or the Chicago Public Library – Hegewisch Branch. The permittee's compliance history during the life of the permit is available from the Agency contact person. Information regarding application viewing time and place, CHSI's existing permit, applicable regulatory requirements, permit modification procedures and CHSI's compliance history may be obtained from Mr. James Blough, USEPA, 77 W. Jackson Blvd., Chicago, IL 60604 or at (312) 886-2967, or Ms. Mara McGinnis, IEPA, 1021 North Grand Avenue East, Springfield, IL 62794 or at (217) 524-3300.

This notice is being sent to you in accordance with EPA's Class 2 permit modification regulations in 40 CFR 270.42. A copy of the notice will appear in the Daily Southtown by February 26, 2006.

If you have any further questions regarding this notice, please contact Jim Laubsted at (773) 646-6202, x233.

NOTICE

January 13, 2006

To: Facility Mailing List Addresses

Re: Clean Harbors Services, Inc.
Notification of RCRA Class 1* Permit Modification

Clean Harbors Services, Inc. (CHSI) is a permitted hazardous waste treatment, storage and disposal (TSD) facility located at 11800 South Stony Island Avenue in Chicago, IL. CHSI currently operates under a RCRA Part B permit issued by the IEPA on September 30, 1993.

On August 1, 2005 CHSI requested a Class 1* permit modification to the facility's Groundwater Monitoring Plan to add chloroform to the list of quarterly monitored groundwater parameters at the facility. This Class 1* modification was approved by IEPA on November 10, 2005.

This notice is being sent to you in accordance with IEPA's Class 1* permit modification regulations in 35 IAC 703.281(a)(2) which require a notice of the modification be sent to all persons on the facility mailing list within 90 days after the change is put into effect or within 90 days of IEPA approval.

If you have any further questions regarding this notice, please contact me at (773) 646-6202, x233.

Sincerely,

James R. Laubsted
Facility Compliance Manager

CleanHarbors®
ENVIRONMENTAL SERVICES, INC.

11800 South Stony Island Avenue
Chicago, IL 60617
773.646.6202
Fax 773-646-6381
www.cleanharbors.com

NOTICE

January 10, 2006

To: Facility Mailing List Addresses

Re: Clean Harbors Pecatonica, LLC.
Notification of RCRA Class 1 Permit Modification

Clean Harbors Pecatonica, LLC. (CHPL) is a permitted hazardous waste treatment, storage and disposal (TSD) facility located at 6125 North Pecatonica Road in Pecatonica, IL. CHPL currently operates under a RCRA Part B permit issued by the IEPA on July 17, 1995.

On November 11, 2005 CHSI requested a Class 1 permit modification to the facility's Contingency Plan including a new address and phone number for the primary emergency coordinator. This Class 1 modification does not require prior IEPA approval.

This notice is being sent to you in accordance with IEPA's Class 1 permit modification regulations in 35 IAC 703.281(a)(2) which require a notice of the modification be sent to all persons on the facility mailing list within 90 days after the change is put into effect or within 90 days of IEPA approval.

If you have any further questions regarding this notice, please contact me at (773) 646-6202, x233.

Sincerely,

James R. Laubsted
Facility Compliance Manager

USEPA

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

May 19, 2006

Certified Mail
7004 2510 0001 8654 9783
7004 2510 0001 8654 9790

Illinois International Port District
3600 East 95th Street
95th & the Lakefront
Chicago, Illinois 60617-5193

Clean Harbors Svcs Inc
11800 South Stony Island Avenue
Chicago, Illinois 60617

Re: 0316000051 -- Cook County
Clean Harbors Svcs Inc
ILD000608471
Log No. B-16R-M-2,-3
RCRA Permit File

Dear Mr. Laubsted:

This letter is in response to your Class I modification requested dated November 29, 2005 and Class II modification request dated February 20, 2006 to add K181 to the waste codes permitted for acceptance. The Illinois EPA has approved your modification requests.

This determination is based upon our review of (1) the RCRA Part B Permit issued to CHSI, (2) the regulations [35 Ill. Adm. Code, Subtitle G] and (3) the information contained in your submittals. Operations must be conducted in accordance with the approved RCRA Part B Permit originally issued to CHSI and all subsequent modifications to the Part B Permit.

The Illinois EPA portion of the Part B permit has been revised to incorporate the changes described above. Only the revised Illinois EPA permit is enclosed, since no modification portion to the USEPA portion of the permit was made. A summary of the revisions to the Part B Permit is included as Attachment 1 to this letter.

Within 35 days after the notification of a final decision, the permittee may petition the Illinois Pollution Control Board to contest the issuance of the permit. The petition shall include a statement of the reasons supporting a review, including demonstration that any issues raised in the petition, were previously raised during the public comment period. In all other aspects, the petition shall be in accordance with the requirements for permit appeals as set forth in 35 I.A.C. Part 105. Nothing in this paragraph is intended to restrict appeal rights under Section 40(b) of the Environmental Protection Act (35 I.A.C. 705.212(a)).

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing

Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Should you have any questions or comments regarding this permit, please contact Mark A. Schollenberger, P.E. of my staff 217/524-3307.

Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

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cc: USEPA

Attachment 1

1. Page A-29 in Attachment A was modified to add the waste code K181 to the waste codes permitted for acceptance for: "Storage and Transfer, Shredding, Crushing and/or Fuel Blending".

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE MANAGEMENT RCRA PART B PERMIT

IEPA 0316000051 -- Cook County
USEPA ILD000608471
Clean Harbors Svcs Inc
Permit Log No. B-16R-M-2,-3
RCRA -- Part B – Permit File

Issue Date: 11/04/05
Effective Date: 12/09/05
Expiration Date: 12/09/15
Modification Effective Date: 05/19/06

Illinois International Port District
3600 East 95th Street
95th & the Lakefront
Chicago, Illinois 60617-5193

Clean Harbors Svcs Inc
11800 South Stony Island Avenue
Chicago, Illinois 60617

A Part B permit is hereby approved pursuant to the Resource Conservation and Recovery Act, Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code (I.A.C.) parts 702, 703, 705, and 720 through 729 to Clean Harbors Svcs Inc and the Illinois International Port District (herein known as the Permittee(s)), to construct, maintain and operate a waste management facility involved in the treatment and storage of hazardous waste. The site is located at 11800 South Stony Island Avenue in Chicago, Illinois.

This permit consists of the conditions contained herein (including those in any attachments and appendices) and applicable regulations contained in the Illinois Environmental Protection Act and Title 35 I.A.C. Parts 702, 703, 705 and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act (Ill. Rev. Stat., Chapter 111 1/2, Section 1039) grants the Illinois Environmental Protection Agency the authority to impose conditions on permits which are issued. This Permit contains 225 pages including Attachments A through I.

If you have any questions regarding this final permit, please contact Mark A. Schollenberger at 217/524-3307

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

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cc: USEPA: Region V

0316000051
Clean Harbors Svcs Inc
RCRA Log No. B-16R-M-2,-3

RCRA HAZARDOUS WASTE MANAGEMENT PERMIT
CLEAN HARBORS SVCS INC

LPC 000608471

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0316000051
Clean Harbors Svcs Inc
RCRA Log No. B-16R-M-2,-3

LIST OF ATTACHMENTS

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Attachment H.4 – Corrective Action Efforts at the Former CWM Portion of the Facility H.4-1 – H.4.2

Attachment I - RCRA Corrective Measures Program Requirements I-1 – I-12

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DESCRIPTION OF THE FACILITY

The Clean Harbors Svcs Inc (CHSI) facility has been a RCRA regulated hazardous waste management facility since 1980. The facility receives containers of wastes in trucks. Bulk liquids are received in both tank truck and rail cars. Its present activities include the storage and treatment of aqueous based waste streams, fuel blending, venting of gas cylinders, treatment of black powder through the addition of water, treatment of containers containing FB5 (high BTU containing) wastes with dry ice, treatment of cyanide wastes in containers, treatment of peroxide wastes in containers, stabilization of wastes in containers, and the storage, consolidation, and transfer of containerized hazardous and nonhazardous wastes, including lab packs. The CHSI facility is located on approximately 56.6 acres in the City Services, Cook County, Illinois, at 11800 South Stony Island Avenue.

Modification Log No. B-16-M-2 to the facility's RCRA permit incorporated the adjacent CWM facility into the CHSI permit. Before it was shut down in 1991, CWM managed RCRA and TSCA (PCBs) wastes in containers, tanks, an incinerator and surface impoundments.

Pre-1980 activities at the CHSI facility included landfilling, injection of wastewaters into a well and neutralization of wastewaters in impoundments. Pre-1980 activities at the CWM facility included landfilling, biological treatment in piles, treatment in surface impoundments, incineration, and storage in tanks and containers.

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List of Plans and Documents
Contained in the Approved Permit Applications

Under Illinois solid and hazardous waste regulations, the Permittee(s) has prepared the following formal plans and documents covering various facets of the design, operation and monitoring of hazardous waste management units. The location of each plan or document in the Approved Permit Application is also identified below.

Plan or Document	Location in the Approved Permit Application
1. Waste Analysis Plan	Section C-2
2. Inspection Plan	Section F-2
3. Contingency Plan	Section G
4. Closure Plan	Section I
5. Training Program	Section H
6. Design Plans and Operating Specifications For Containers	Section D-1, Table D-7
7. Design Plans and Operating Specifications For Tank Systems	Section D-2, Table D-3 through D-6

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SECTION I: CONTAINER STORAGE

A. Summary

Containers of hazardous waste received at the facility will arrive in a variety of containers but typically in 55 gallon steel or plastic drums, 30 cubic yard roll-off boxes, or tanker trucks. Other containers may be accepted provided they are Department of Transportation ("DOT") approved, in good condition, compatible with the waste they contain and can be safely managed by facility. These containers shall only be stored in the areas designated in Condition I(B)(1).

B. Waste Identification

1. The storage of all hazardous waste containers shall be in the areas identified below:

a. Existing Units - Drums

i. Outside Storage Area (Unit R1)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Staging area	2,500 gallons	160 drums
Flammable Storage #1	4,693 gallons	160 drums
Flammable Storage #2	4,693 gallons	160 drums
Oxidizers Storage #1	2,767 gallons	96 drums
Reactives Storage #1	2,767 gallons	96 drums
Poisons Storage #1	2,767 gallons	96 drums
TOTAL		768 drums (42,240 gallons)

		Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
ii.	**Lab Pack Pour-Off Area (Unit F1)**	17,166 gallons	8 drums (440 gallons)

iii. Drum Storage Area Expansion (Unit R2)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Oxidizers Storage #2	2,767 gallons	96 drums
Reactives Storage #2	2,767 gallons	96 drums
Poisons Storage #2	2,767 gallons	96 drums
Staging (Outbound)	2608 80 drums	
	TOTAL	368 drums (20,240 gallons)

iv. Drum Storage Area (Unit G1)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Acidic-1	1,305 gallons	192 drums
Acidic-2	558 gallons	96 drums
Alkaline	1,084 gallons	192 drums
Staging	860 gallons	72 drums
TOTAL		552 drums (30,360 gallons)

v. **Container Storage Building (Unit 25)**

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Alkaline/Poisons/PCBs	7,189 gallons	248 drums
Acids	4,322 gallons	136 drums
Flammable	7,302 gallons	184 drums
Truck Pad	5,447 gallons	88 drums
TOTAL		656 drums (36,080 gallons)

Non-RCRA hazardous, atmospheric gases may be vented to the atmosphere in this area as described in the application identified as Log No. B-16R, Appendix D-38.

RCRA regulated oxygen may be vented to the atmosphere in Unit 25 as described in the application identified as Log No. B-16R, Appendix D-38. Operations shall cease if the oxygen concentration rises above 23.5%. Operations may continue once the concentration falls below 23.5%. Oxygen shall not be vented when flammable containers are open or in the process of being moved, consolidated or sampled.

The maximum amount of drums that may be in the alkaline bay is limited to 4,015 gallons (73 55-gallon drums) when the lamp crusher is in the unit.

	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
vi. **Ignitable Container Management Building (Unit 26)**	12,415 gallons	192 drums (10,560 gallons)

		Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
vii.	**Container Handling Dock (Unit 61)**	8,620 gallons	160 drums (8,800 gallons)

b. **Existing Units - Bulk Solids**

		Containment Volume	Maximum No. of 30 Cubic Yard Roll-Off Boxes
i.	**Bulk Container Storage Area (Unit Q1)**	26,391 gallons	3 Roll-off Boxes (90 cubic yards)
ii.	**Bulk Solids Storage Pad (Unit B)**	2,929 gallons per bay	8 Roll-Off Boxes (240 cu. yds.)

c. **Existing Units - Transporter Storage/Staging**

	Unit	Containment Volume	Maximum No. of 7200 Gallon Tank Trucks
i.	**Truck Unloading Area And Bulking Area (Unit Q)**	26,391 gallons	3 Trucks (21,600 gallons)
ii.	**Truck Unloading Dock (Unit V)**	35,311 gallons	3 trucks
iii.	**Truck Staging Area (Unit C)[2 containment systems]**	12,583 gallons each	3 trucks 3 trucks

iv.	**Truck Staging Area (Unit 59)**	17,185 gallons	3 trucks
v.	**Truck Unloading Platform (Unit 15)**	13,054 gallons	2 trucks
vi.	**Truck Pad (Unit 62)**	22,665 gallons	4 trucks
vii.	**Rail Car Unloading Area (Unit 13)**	33,151 gallons	2 rail cars (60,000 gallons)

d. Proposed Areas - Drums

i. Drum Storage Area Expansion (Unit R2)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Flammable Storage #3	4,693 gallons	160 drums
TOTAL		160 drums (8,800 gallons)

ii. The Lab Pack Repack and Consolidation Area (Unit U)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Acids Storage Area	63 gallons	5 drums
Bases Storage Area	63 gallons	5 drums
Organics Storage Area	63 gallons	5 drums
Oxidizers Storage Area	63 gallons	5 drums
Pesticides Storage Area	63 gallons	5 drums
Organics pour-off area	71 gallons	4 drums

	Flammables Storage Area	83 gallons	6 drums
TOTAL	35 drums		(1,925 gallons)

iii. **The Paint and Paint Related Processing Area (Building 42)**

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Westside Pad	776 gallons	24 drums
Building	1378 gallons	28 drums
Hopper (405)		1 64 cu. ft. hopper
		Total 52 drums (2860 gallons) - plus one 64 cu. ft. hopper

iv **Shredder Process Building - Unit 24/ Runway Between West Side Pad and Truck Pad - Unit 70**

Conveyor to Shredder	5834 gallons (Area 24)	16 drums
Drum (412)	548 gallons (Area 70)	1 drum
Tote (407)		1 64 cu. ft. hoper

v. **Metal Wash Pad - Unit 68**

Drum (434)	5278 gallons	1 drum

e. **Proposed Units - Bulk Solids**

Unit	Containment Volume	Maximum Number 30 Cubic Yard Roll-Off Drums Or Equivalents
i. **Listed Waste Roll-off (Unit Z1)**	14,697 gallons	1 Roll-Off Box (30 cu. yds.)

f. **Proposed Units - Transporter Storage/Staging**

	Unit	Containment Volume	Maximum Number of 7200 Gallon Trucks
i.	**Truck Loading/ Unloading Pad (Unit X)**	6,600 gallons	2 trucks
ii.	**Truck to Truck Transfer Pad (Unit W)**	45,708 gallons	4 trucks
iii.	**Truck Loading/Unloading Pad (Unit 69)**	14,740 gallons	2 trucks

2. The Permittee(s) may receive and store containerized hazardous waste identified in Attachment A and/or any nonhazardous waste which has been approved by the Illinois EPA. All waste must be evaluated through the waste analysis plan for compatibility.

3. The Permittee(s) is prohibited from storing a hazardous waste that has not been identified in Attachment A.

4. The Permittee(s) is prohibited from storing containers of waste in areas other than those specified in Condition I(B)(1) above without the appropriate permit modification in accordance with 35 Ill. Adm. Code 703 Appendix A.

5. The Permittee may store one 30 ft. van trailer in each individual bay in Unit B. The Permittee may also store two 20 ft. tandem trailers in Bay 5 and Bay 6 in lieu of a 30 ft. van trailer. No more than 80 55 gallon drums (4400 gallons) shall be placed in each truck.

6. Each tanker truck in Unit 69 may be substituted with a roll-off container, van trailer or other transportation vehicle. Containers may also be placed in this unit if the contents will be pumped to the proposed tank farm (Unit 22). The substitute unit may be placed in the unit in lieu of a 7200 gallon truck provided the total gallons does not exceed 7200.

C. Condition of Containers

1. If a container holding waste is not in good condition (e.g., severe rusting, apparent structural defect, etc.) or if it begins to leak (this includes waste which appears on the outside of the drum/box but has not spread to the containment base or other containers), the Permittee(s)

must immediately transfer the waste from this container to a container that is in good condition or manage the waste in accordance with the Approved Permit Application.

2. Any transfer of waste which was required to comply with I(C)(1), must be recorded in a separate log and maintained as part of the facilities operating record.

3. Packaging of all wastes accepted for storage in the container storage area shall meet the requirements of 49 CFR 172, 178 and 179 and all applicable D.O.T. and N.F.P.A. regulations. All containers must be marked and labeled in accordance with 49 CFR 172.

4. The contents of each container shall be clearly identified on the side of the container in accordance with 49 CFR 172 prior to being placed in the container storage area.

D. Compatibility of Waste With Containers

The Permittee(s) must use a container made of or lined with material which will not react with and is otherwise compatible with the waste to be stored so that the ability of the container to contain the waste is not impaired.

E. Management of Containers

The Permittee(s) shall comply with the following management practices:

1. A container holding waste must always be closed during storage, except when it is necessary to add or remove or sample waste.

2. A container holding waste must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

3. All aisles between each row of pallets and between pallets and a wall in a pile must be a minimum of two feet wide. This is necessary to provide adequate access for the inspection of each container.

4. Containers may be stacked provided that:

    a. Only the same size or smaller containers are stacked on top of the containers beneath.

b. 55-gallon or larger containers are separated by a pallet or other dunnage to provide stability.

c. A pallet for stability for smaller size containers shall be used when the height of the stack exceeds 42 inches unless the containers are shrink wrapped. 55-gallon or larger containers may be stacked 2-high with a pallet under each container. Smaller containers may be stacked as long as the height of the stack does not exceed the height of two 55 gallon containers on pallets (i.e. 84 inches).

d. 55-gallon or larger containers may not be stacked in the flammable storage areas. Smaller containers may be stacked so long as the height of the stack does not exceed the height of one 55-gallon drum on a pallet (i.e. 42 inches).

5. The containers shall be clearly marked with the date received prior to being placed into storage.

6. Containers shall be positioned such that the markings and labels are readable during inspections.

7. The following management practices apply to arrangements of containers that contain one or more containers of flammable or combustible liquids as defined in NFPA 30.

a. Each arrangement of containers (pile) as defined below shall be separated from other arrangements by a five foot aisle. The maximum volume of containers in each arrangement shall not exceed the following:

i. 1,100 gallons for arrangements with one or more containers of waste which have a flash point below 73°F and a boiling point below 100°F.

ii. 2,200 gallons for arrangements with one or more containers of waste having a flash point below 73°F and a boiling point above 100°F.

iii. 4,400 gallons for arrangements with one or more containers of waste having a flash point at or above 73°F and below 100°F.

iv. 8,800 gallons for arrangements with one or more containers of waste having a flash point at or above 100°F and below 140°F.

v. 22,000 gallons for arrangements which do not contain one or more containers of waste having a flash point below 140°F.

b. An aisle that is a minimum of two feet wide must be maintained within the arrangement between each row of pallets and between pallets and a wall in a pile. This is necessary to provide adequate access for the inspection of each container.

8 The permittee shall not stack drums higher than the height of a 55-gallon drum (3 ft.) in the following areas: Building 61, Building 26, Building U, Building 42 including the West Side Pad and Unit 24.

9. The permittee may only store bulk solids in Building 26 if the bottom dimensions of the DOT approved bulk container (ie. box, tote tank, flex bin, etc.) do not exceed 4 feet by 4 feet. The arrangement of pallets or bulk containers in Building 26 shall comply with drawing 4210 sheet 2 of 3. Tote tanks shall not be stacked. The permittee is prohibited from staging or storing roll off boxes in Building 26.

F. Inspection

The Permittee(s) shall inspect the container storage area in accordance with the inspection schedule specified in Attachment B to this Permit and Section F of the approved permit application. The inspection must be adequate to detect leaks and deterioration of containers and the containment system caused by corrosion or other factors. The procedures described in the approved permit application must be used with the following modifications:

1. Action shall be taken to immediately overpack a leaking or deteriorating drum or to transfer the waste to a container in good condition. Appropriate action to clean up any release of waste from a leaking or deteriorated drum shall be carried out immediately after the drum has been overpacked or the waste transferred to a container in good condition.

2. If a portion of the containment system is found to be in a deteriorated condition (cracks, gaps, spalling, failure of the coating, etc.) the Permittee(s) shall immediately remove all waste containers from the deteriorated area until the containment system has been repaired.

3. The container storage, staging and loading/unloading areas shall be inspected daily for spills and releases. If spills and releases are observed, such releases shall immediately be remediated in accordance with all applicable regulations and special conditions found herein. Results of this inspection and a description of the corrective action taken, if necessary, shall be documented in the inspection log.

4. The inspection shall include checking aisle space, height of stacks, proper labeling and marking of containers, and remaining capacity.

5. Results of all inspections and the activities undertaken to correct deficiencies shall be documented in the operating record for the facility.

G. Containment

The Permittee(s) shall construct, operate and maintain the containment system according to the design plans and operating specifications contained in the Approved Permit Application, subject to the following modifications.

1. Clean Harbors shall perform a complete inspection of the surface coating yearly and perform annual maintenance to insure the integrity of the coating. Clean Harbors shall document the date of the surface coating inspection and any maintenance of the surface coating. These inspections must be performed no later than August 31, of each year.

2. It shall not be an act of non-compliance if the coating has been installed properly but does not live up to the manufacturer's printed performance standards and fails due to excessive wear or chemical breakdown. The Permittee(s) shall notify the Illinois EPA within thirty days of becoming aware of the failure. The Permittee(s) shall reapply a different coating specified in the approved permit application or submit a modification of its permit to install a new coating within 180 days of the failure of the coating.

H. Special Requirements for Ignitable or Reactive Waste

1. a. The Permittee(s) shall not locate containers which hold ignitable or reactive waste within 50 feet of the facility's property line.

   b. Tank trucks containing ignitable liquids shall not be placed in Unit C.

2. The Permittee(s) shall take precautions to prevent accidental ignition or reaction of ignitable waste.

3. Ignitable wastes must be separated and protected from sources of ignition or reaction including but not limited to:

   a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.

   b. While ignitable waste is being handled, the Permittee(s) must confine smoking and open flame to specially designated locations.

c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

4. The following are allowed to be utilized for the container storage of flammable and combustible materials as defined by NFPA: Section VIII, Unit Storage Areas 61, Unit 26, Unit 25, Units R1/R2, Unit U, Unit 42, Unit 24/Unit 70, Unit 59, Unit 62, Unit 69, Unit B, Unit C, Unit Q, Unit V, Unit 13, Unit 15 and Unit W.

I. Special Requirements for Incompatible Waste

1. The Permittee(s) shall not store containers holding a material that is incompatible with any waste or other materials stored nearby, unless separated from other waste/materials or protected from them by means of a dike, berm or other devices. Incompatible materials are defined in Section VIII.(A)(4) to this permit.

J. General Operating Requirements

The Permittee(s) shall operate the container storage areas identified in Section B in accordance with the approved permit application, subject to the following modifications:

1. The Permittee(s) may receive hazardous waste for storage in containers provided the following requirements are met.

   a. The material must be a waste which has been identified in Attachment A to this permit.

   b. The waste must be analyzed in accordance with all applicable regulations, the approved waste analysis plan, and Conditions A.1 through A.8 in Section VIII of this Permit.

   c. The waste must be accompanied by a properly completed Illinois manifest.

2. Cleanup of all spills inside the secondary containment areas must begin immediately upon discovery and be completed within 24 hours. Secondary containment must be inspected immediately after cleanup for cracks, gaps or other defects (failure of the coating) which would allow waste to migrate to the underlying soil. If any deterioration is discovered, the permittee shall immediately remove all waste from the deteriorated area. All cleanup operations shall be documented in the facility's operating record.

3. The Permittee(s) shall remove any precipitation which accumulates in the secondary containment system within 24 hours of the time such accumulation is discovered, or before the area overflows, whichever comes first.

4. All hazardous and nonhazardous special wastes stored or generated by this facility which require further treatment or disposal off-site must be transported to the receiving facility in accordance with the applicable regulations in 35 Ill. Adm. Code Parts 709, 702, 723, 307 and 309, and the Illinois EPA's Manifest System.

5. Shipments of containers from off-site that are held in a truck for more than ten (10) days must be stored in accordance with the conditions of this permit (eg. they must meet the same aisle space and compatibility requirements as the other container storage units). Trucks loaded within ten days are only subject to the requirements of condition I.J.9 below when containers of waste are present in the truck.

6. The arrangement of the containers in a truck that is in storage at the site must meet the aisle space requirements of 35 IAC 724.135 and those specified in Sections I.E.3 and I.E.7 of this permit.

7. Lab packs shall not be opened, repackaged, poured-off or consolidated in the storage bays or staging areas except as specified below.

   The consolidation of lab packs can only occur under operating fume hoods in the following areas:

   the three fume hoods along the west wall in Building 25,

   the fume hood in the northeast corner of Building 26,

   the four fume hoods in the Lab Pack Repack and Consolidation Area in Unit U,

   the fume hood in the staging area in Unit G1, and

   the fume hoods in the staging area in Unit R1.

   The pouring-off of the containers that were in a lab pack can only occur under operating fume hoods in the following areas:

   the fume hood in the drum pumping enclosure along the north wall in Building 26,

   the fume hood at the Lab Pack Pour-Off Station in Unit F1, and

the four fume hoods in Building #25.

8. Wastes which are considered incompatible under US Department of Transportation (DOT) segregation requirements at 49 CFR Parts 171 - 179 shall not be managed in a container unloading dock at the same time.

9. a. Containers that are held in a truck for less than 10 days in area that has a common secondary containment system or drains to a single sump shall meet the DOT segregation and compatibility requirements at 49 CFR Parts 171 - 179. This condition applies to both the containers of wastes on a truck from either on-site or off-site as well as the area in which the trucks are parked.

   b. Containers that are held in a truck for greater than 10 days in area that has a common secondary containment system or drains to a single sump must be stored pursuant to Condition J.5 and shall meet the compatibility requirements of Condition A.4 in Section VIII. This condition applies to both the containers of wastes on a truck from either on-site or off-site as well as the area in which the trucks are parked.

   c. Vehicles (e.g., tank trucks or roll-of boxes) of bulk liquid, solid or sludge wastes that are parked in area that has a common secondary containment system or drains to a single sump shall meet the compatibility requirements of Condition A.4 in Section VIII, regardless of whether they are in storage as defined in Condition J.5 above.

10. The permittee shall inspect the containers from the Pegasus System according to the following schedule to insure that containers are RCRA empty before they are crushed. The permittee shall not crush containers that are not RCRA empty.

    The inspections shall be performed prior to the containers being crushed. If the Pegasus System fails an inspection, the permittee shall not crush containers in the Pegasus System until the source of the problem(s) is investigated and the problem(s) resolved.

    <u>Inspection Schedule for containers to be crushed in the Pegasus System:</u>

    <u>Phase 1.</u> Visually inspect 10 drums in a row, once per operating day, for four (4) consecutive weeks. If successful without exception (i.e., all drums are "RCRA empty" and/or all "non-RCRA empty" drums are automatically rejected by the system), the permittee shall follow the procedures in Phase 2. If unsuccessful, the permittee shall continue to follow the procedures in Phase 1 until successful.

Phase 2. Visually inspect 10 drums in a row, once per week, for four (4) consecutive weeks. If successful without exception (i.e., all drums are "RCRA empty" and/or all "non-RCRA empty" drums are automatically rejected by the system), the permittee shall use the procedures in Phase 3. If unsuccessful, the permittee shall use the procedures in Phase 1.

Phase 3. Visually inspect 10 drums in a row, once per week, for two (2) consecutive weeks. If successful without exception (i.e., all drums are "RCRA empty" and/or all "non-RCRA empty" drums are automatically rejected by the system), the permittee shall use the procedures in Phase 4. If unsuccessful, the permittee shall use the procedures in Phase 2.

Phase 4. Visually inspect 10 drums in a row, once per month. If successful without exception (i.e., all drums are "RCRA empty" and/or all "non-RCRA empty" drums are automatically rejected by the system), continue with monthly inspection schedule. If unsuccessful, the permittee shall use the procedures in Phase 3.

11. Hazardous waste transfer facility activities are limited to the areas identified on CHSI Drawing 4254, Revision A. The use of other areas as discussed in Note No. 4 on the drawing is limited to in-transit RCRA hazardous wastes only (eg. the transportation of wastes to a facility other than the Clean Harbors Svcs Inc facility). In-transit activities involving non-RCRA wastes is not permitted unless the permittee requests and is issued a solid waste transfer facility permit pursuant to 35 IAC 807 requirements.

12. The mobile waste compactor shall only be used in the staging area of unit R1.

13. The permittee may only treat Fuming Acids under the operating fume hood in the Outdoor Staging Area (Unit R1).

14. The treatment of cyanide wastes in containers shall only be conducted under the operating fume hood in the Outdoor Storage Area (Unit R1). The exhaust from the fume hood shall be bubbled through a 55 gallon drum containing a caustic solution as outlined in the approved permit application. Treatment of cyanide wastes in tank trucks shall be in accordance with the approved application as outlined on page D-15.

15. The treatment of peroxides in containers shall only be conducted under the operating fume hood in the Unit G1 or Unit F1. The exhaust from the fume hood shall be fed through a carbon absorption unit.

16. Phase separation of two or more liquid layers, as outlined in the application, is not permitted as a container management activity. The contents of a container may be pumped into the tank system for phase separation.

17. Stabilization of wastes in containers (e.g., a roll-off box) may be conducted in Process Building No. 3 (Unit Z). This is the only area currently permitted for this activity.

18. The permittee is prohibited from rinsing Non-bulk containers (e.g., drums) that contained acutely toxic wastes (P-codes).

19. The removal of residues from non RCRA-empty tank trucks shall only occur in the following transporter storage/staging units as identified in Section I.B.1 of this permit: Q, V, X, C, 59, 15, 62, and W. The removal of residues from trucks during off-loading into the RCRA-exempt Clean Water Act waste water treatment system in Units J1 and J2 are not subject to this condition.

20. The placement of dry ice into roll-off/intermodel containers of wastes to lower temperatures (to prevent spontaneous combustion) shall be conducted in Units B and Q1 in accordance with Appendix D – 61 of the approved renewal application subject to the following modifications:

    a. The requirement to add dry ice to containers applies only to those containers with waste identified by the permittee as FB5. That is, those solids that contain at least 5000 BTUs/lb but are not processable in the existing fuel blending system because they are either non-dispensable monolithic solids or contain non-processable debris. The dry ice must be added when:

        1. The expected high daytime temperature is at or above 90 degree Fahrenheit;

        2. The expected low nighttime temperature is at or above 70 degrees Fahrenheit; and

        3. The expected high dew point is at or above 70 degrees Fahrenheit.

    b. When dry ice is required by 20(a) above, the permittee shall visually inspect containers daily to ensure that there is at least 25 lbs. of dry ice present.

    c. The permittee shall monitor the temperature inside the containers required by 20(a) above to contain dry ice. If the temperature is above 150 degrees Fahrenheit within the container, additional dry ice shall be added to reduce the temperature below this level even if 25 lbs. or dry ice is present in the container.

21. The wetting of black powder in containers to prevent explosions prior to transportation may be conducted in area R1 only, and shall comply with the procedures in Appendix D – 62 of the approved renewal permit application as modified below:

a. The permittee shall wet all black powder received at this facility with an amount of water equal to 20% by weight of the black powder.

b. Where black powder is being treated as described above, a polyethylene cover must be placed under the container to collect spillage.

c. The cover shall be decontaminated after treatment is complete and disposed of as special waste.

d. The permittee is allowed to add virgin ethylene glycol based antifreeze to the water used to wet the black powder when outdoor temperatures are expected to go below 32 degrees Fahrenheit.

22. All containers managed in the designated bulk solids storage areas (e.g., Unit Q1 and Unit Z1) shall be tested for the presence of free liquids using EPA Method 9095 (Paint Filter Liquids Test) as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods (SW-846). No wastes containing free liquids shall be stored in these areas.

K. General Construction Requirements

1. The Permittee(s) is authorized to construct the proposed Container Management Units identified in Sections I.B.1.d., I.B.1,e. and I.B.1.f. of this permit. The container storage areas may only be constructed in accordance with the approved Permit Application, subject to the following modifications:

   a. Within thirty days after completing construction and prior to any container of waste being placed or stored in the container storage areas, the Permittee(s) shall submit to the Illinois EPA a Construction Certification Report from a qualified, registered professional engineer, demonstrating that the container storage area meets the requirements of 35 Ill. Adm. Code 724.275(b). This report shall contain the information required in Attachment C to this permit and a statement that the base slab is free of cracks or gaps.

   b. The Permittee(s) may not store wastes in these areas until the Construction Certification Report is approved.

L. Closure

At closure, all waste and waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with waste or waste

residue must be decontaminated or removed. Closure of the container storage areas shall be carried out in accordance with the closure plan in the approved renewal Permit Application, as modified below:

1. The Permittee(s) shall notify the Illinois EPA's Bureau of Land in writing of its intent to close the container storage areas at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee(s) shall submit the sampling and analysis plan to be used in demonstrating a storage area has been properly decontaminated. Closure shall not begin without written approval from the Illinois EPA's Bureau of Land. Illinois EPA review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and Section 40(a) of the Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for; and

   c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash and rinse water shall be collected and managed as a hazardous waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103. An independent, registered, professional engineer must certify that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. Otherwise, sampling in accordance with an approved sampling plan, shall be conducted to verify the underlying soil is uncontaminated.

3. Sweepings, washwaters and rinsates collected during closure of the container storage area shall be managed as a hazardous waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103.

4. The Permittee(s) shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724, Subpart G for the container storage areas in the event all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the approved closure plan identified in Condition I(L)(1). If it is determined that the closure requirements cannot be met and post-closure care is required, this Permit must be modified to require post-closure care for the container storage areas, in accordance with 35 Ill. Adm. Code Subtitle G, Part 724, Subparts G and H.

5. Should post-closure care, as described in Condition I(L)(4) above, become necessary, the Permittee(s) shall submit an application for modification to this permit, including an amended closure and post-closure care plan for this unit. The application must be submitted within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan for the container storage area, the modification request shall be made no later than sixty (60) days after the determination is made.

6. Financial assurance for closure and post-closure of the container storage areas, if required in accordance with Condition I(L)(4) and I(L)(5) above, shall be provided within thirty (30) days following modification of the permit.

7. Within sixty (60) days after closure of the container storage areas has been completed, the Permittee(s) shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan. The closure certification form in Attachment E to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer (registered in the State of Illinois) should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the area(s) until the Illinois EPA approves the closure certification for the unit. The Illinois EPA's review of closure certification for partial or final closure will be conducted in accordance with 35 Ill. Adm. Code 724.243.

   A Closure Documentation Report must be submitted with the closure certification which includes the following items, if applicable:

   a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities;

   b. A description of the method of waste handling and transport;

   c. Copies of the waste manifests;

   d. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information;

   e. A chronological summary of closure activities and the cost involved;

   f. Tests performed, methods and results;

g. Color photographs of closure activities which document conditions before, during and after closure; and

h. A scale drawing of all excavated or decontaminated areas and sample locations.

8. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The permit exemption (35 Ill. Adm. Code 722.134) only applies to containers and tanks.

9. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

10. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Act.

11. The Permittee shall analyze all samples individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment G to the Illinois EPA's closure plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

SECTION II: TANK SYSTEMS

A. Summary

The tanks at the Clean Harbors Svcs Inc facility are used for a variety of purposes, including wastewater treatment units (pursuant to 35 Ill. Adm. Code 310), and hazardous waste storage and treatment units (pursuant to 35 Ill. Adm. Code 724). Of these uses, the storage and treatment of hazardous waste are the only uses that are regulated under RCRA. Associated with these activities are twenty seven proposed above-ground tanks. All above-ground tanks will have secondary containment consisting of a concrete vault and an impermeable membrane or coating which has been applied to the concrete.

B. Waste Identification

1. The Permittee(s) may store a total volume (in gallons) of waste in the tanks listed below subject to the terms of this permit.

i. Listed Waste Storage Tanks (Unit Y) Proposed

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
121	(6)	Storage Tanks	11025	3/16	Carbon Steel
155	(2)	Storage Tanks	11025	3/16	Carbon Steel

ii. Listed Waste Treatment Tanks (Unit Z) Proposed

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
123	(1)	Reactor vessel	13,570	1/4	FRP
137	(1)	Lamella clarifier	1,200	1/4	Carbon Steel
138	(1)	Clarifier Waste Collection Tank	4,100	3/16	Carbon Steel

142	(1)	Sludge Conditioning Tank	1,270	3/16	Carbon Steel
149	(2)	Sand Filter	750	3/32	Carbon Steel
150	(1)	Backwash Collection Tank	3,770	3/16	Carbon Steel
152	(2)	Carbon Adsorption Unit	1,300	3/16	Carbon Steel
153	(1)	Treated Effluent Tank	2,640	3/16	Carbon Steel

iii. Hazardous Waste Fuel Blending Operation (Unit 43) Existing

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
161-21	(1)	Dispersion Tank	1,225	3/16	Carbon Steel
161-22	(1)	Overflow Tank	275	3/16	Carbon Steel

iv. Flammable Storage Tank Farm (Unit 16) Existing

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
158	(5)	Tanks TK-103, TK-104, TK-105, TK-106, TK-108. Hazardous Waste Fuel Storage Tanks	12,800	0.167	Carbon Steel
159	(1)	Tank TK-112. Neutral pH waters, lean waters and/or hazardous waste fuel storage tank.	19,600	0.167	Carbon Steel

177	(2)	Tanks TK-101 and TK-107. Mild acidic waters, lean waters, and/or hazardous waste fuel storage tanks.	12,800	0.158	Stainless Steel
180	(1)	Tank TK-102. Hazardous Waste Fuel and PCB Storage Tank.	12,800	0.167	Carbon Steel
183	(1)	Tank TK-110. Hazardous Waste Fuel and PCB Storage Tank.	12,800	0.167	Carbon Steel

v. Flammable Storage Tank Farm (Unit 22) Proposed

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
414	(1)	Hydropulpar	3490	0.05	carbon steel
415, 416	(2)	Blended Liquid Storage Tank	10,558	0.105	carbon steel
417	(1)	Diluent Feed Tank	15,547	0.167	carbon steel
418	(1)	Metalwash Solvent Storage Tank	6,136	0.054	carbon steel
424	(1)	Metal Wash Tank	3730	0.5	carbon steel
427	(1)	Rinse Tank	987	0.5	carbon steel

2. The Permittee(s) may store the wastes identified in Attachment A to this permit in the tanks specified above and any nonhazardous waste. All nonhazardous waste must be evaluated through the waste analysis plan for compatibility.

3. Storage of hazardous waste in tanks other than those specifically identified in II(B)(1) is prohibited.

C. **Containment and Detection of Releases**

1. The Permittee(s) shall provide secondary containment which meets the requirements of 35 Ill. Adm. Code 724.293 (as amended 7/16/87) for each tank identified above.

2. The Permittee(s) shall construct, operate, and maintain the tank system according to the detailed plans and reports contained in the approved permit application.

3. The Permittee shall perform a complete inspection of each secondary containment coating system yearly and perform annual maintenance to insure the integrity of the coating. It shall not be an act of non-compliance if the coating has been installed properly but does not live up to the manufacturer's printed performance standards and fails due to excessive wear or chemical breakdown. The Permittee(s) shall notify the Illinois EPA within thirty days of becoming aware of the failure. The Permittee(s) shall reapply a different coating specified in the approved permit application or submit a modification of its permit to install a new coating within 180 days of the failure of the coating. The Permittee shall document the date of the surface coating inspection and any maintenance of the surface coating. These inspections must be performed no later than August 31, of each year.

4. The Permittee(s) shall inspect all secondary containment sumps daily and remove all liquids contained in the sumps within 24 hours.

D. **General Construction Requirements**

1. The Permittee(s) are authorized to construct the listed waste storage tanks (Unit Y), the listed waste treatment tanks (Unit Z), and the flammable storage tank farm (Unit 22) as identified in Condition II(B)(1). Each unit includes all tanks, ancillary equipment and secondary containment. These tank farms may only be constructed in accordance with the approved permit application, subject to the following modifications:

   a. Within thirty days after completing construction and prior to any waste being placed or stored in a tank or its corresponding ancillary equipment, the Permittee(s) shall submit to the Illinois EPA's Bureau of Land, a Construction Certification Report from an independent qualified, registered professional engineer. The certification must demonstrate that the tank system meets the requirements of 35 Ill. Adm. Codes 724.292 and 724.293. The certification shall contain the information described in Attachment C and the additional information listed below:

      i. Documentation that the new tank systems were inspected for the presence of the following items:

         a) weld breaks;

         b) punctures;

c) scrapes of the protective coatings on the tank or secondary containment system;

d) cracks;

e) corrosion;

f) other structural damage or inadequate construction/installation; and

g) cracks or gaps in the base slab.

All defects noted during this inspection must be remedied prior to covering, enclosing or placing the tank system in use.

ii. A copy of the leak test performed on all of the new tanks and ancillary equipment, including a description of any repairs performed on the system to remedy the leak(s).

iii. Certification that the tanks and ancillary equipment were designed and installed in a manner that is supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction.

b. All tanks, pumps, piping, hoses, and manifolds used for PCBs wastes regulated under TSCA shall be physically separate from those tanks which only handle RCRA regulated wastes.

c. The Permittee(s) shall not store wastes in these areas until the Construction Certification Report is approved. The Agency shall review the Report described above to ensure the tank systems and their secondary containment meets the requirements of 35 Ill. Adm. Codes 724.292 and 724.293.

E. General Operating Requirements

1. The Permittee(s) shall not place hazardous wastes in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

2. The Permittee(s) shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems using the methods specified in the Approved Permit Application.

3. In the event of a leak or a spill in the tank system, the Permittee(s) shall comply with the practices and procedures described in the approved permit application and notify the Agency's Bureau of Land in according with Condition II(I)(1). All reported leaks or spills must be recorded in the Facility's Operating Record.

4. All hazardous wastes to be received at the tank storage area must be identified in Attachment A to this permit and have been analyzed per all applicable regulations and the requirements identified in the waste analysis plan. In addition, all hazardous and nonhazardous special wastes received at the facility must be accompanied by a properly completed Illinois manifest.

5. An employee of the facility shall be present and observe the transfer operation at all times when waste is being transferred between containers, tank trucks, rail cars and tanks.

6. Precipitation accumulating within the tank farm shall be removed within 24 hours after the precipitation event has ended.

7. Incoming waste, not subject to 35 Ill. Adm. Code 723.112 (e.g., CHSI at Chicago is the designated facility) must be placed in a permitted storage unit within 24 hours upon receipt of the waste.

F. **Tank System Certification**

1. The Permittee(s) shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system as required by 35 Ill. Adm. Code 724.292(g).

2. The Permittee(s) shall obtain and keep on file at the facility a written assessment of the new tank system's integrity (35 Ill. Adm. Code 724.292(a)). The assessment shall be certified by an independent, qualified Illinois registered professional engineer.

G. **Response to Leaks or Spills**

In the event of a leak or a spill from a tank system, from a secondary containment system, or if a system becomes unfit (i.e., failure of the coating) for continued use, the Permittee(s) shall remove the system from service immediately and complete the following actions: (35 Ill. Adm. Code 724.296(a)-(f)).

1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.

2. Remove all waste as necessary from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee(s) finds that it will be impossible to meet this time period, the Permittee(s) shall notify the Agency and demonstrate that the longer time period is required.

   If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of 35 Ill. Adm. Code Parts 722-724.

3. Contain visible releases to the environment. The Permittee(s) shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak of spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water.

4. Close the system in accordance with the Closure Plan, contained in the approved Permit Application, unless the following actions are taken:

   a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee(s) shall remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to the service.

   b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee(s) shall repair the primary system prior to returning it to service.

H. **Inspections**

1. The permittee shall inspect the tank systems in accordance with the inspection schedule in Attachment B to this Permit and Section F of the approved permit.

2. If a leak or spill is observed during the daily inspections, the Permittee(s) shall immediately remove the tank system in question from service and follow the procedures set forth in 35 Ill. Adm. Code 724.296.

3. Precipitation accumulating in the sumps of the secondary containment system at the loading dock shall be removed within 24 hours after the precipitation event has ended.

4. Releases of hazardous waste from spills and leaks which are observed in the secondary containment system shall also be removed within 24 hours and managed as a hazardous waste.

5. The bulk liquid unloading area shall be inspected in the following manner:

   a. The area shall be inspected for the presence of spills and releases after each truck has been unloaded. If observed, such releases shall be cleaned up immediately.

   b. Documentation of these inspections and any corrective actions taken shall be included in the operating record for the facility.

6. The Permittee(s) shall inspect each tank system to assess its condition. This inspection shall consist of a visual inspection, a pressure test and an ultrasonic thickness test in accordance with the following procedures:

   a. An ultrasonic thickness test of the tops, bottoms and sidewalls of the tank in accordance with the procedures in Appendix F-9 of the application shall be conducted annually on each tank. The ultrasound tests shall be conducted from the inside of the tank at least every fifth year concurrent with the internal inspection required in Condition H.6.c below. Corrective action as specified by the manufacturer of these tanks shall be taken if the test indicates that the materials of construction of a tank system have been detrimentally affected by the hazardous wastes which have been stored in it.

   b. A hydrostatic leak test or other integrity assessment as approved by the Agency shall be conducted annually on the tank ancillary equipment. Corrective action as specified by the manufacturer of the ancillary equipment shall be taken if the test indicates that the ancillary equipment has been detrimentally affected by the hazardous wastes which have been in it.

   c. A detailed visual inspection of the tank's interior shall be conducted at least every fifth year to ensure the tank's integrity. During this internal inspection, the internal surface shall be inspected for rust, cracks and thin areas. Corrective action as specified by a qualified registered professional engineer or corrosion technician shall be taken if the internal inspection indicates that the interior surface of a tank system has been detrimentally affected by the hazardous waste stored in it.

   d. If the testing conducted as required by Conditions II(H)(6)(a) or (c) above indicates the present rate of corrosion may cause reduction of the shell thickness

below the permitted minimum shell thickness within 5 years, internal inspections shall be conducted annually and corrosion monitoring coupons must be installed in the area where the most severe corrosion is occurring. The coupons shall be monitored every 60 days. If the coupon indicates the tank will fail in less than one year, the permittee shall verify the remaining shell thickness through ultrasonic testing or remove the tank from service. The tank shall be removed from service and repaired or replaced when the tank no longer meets the minimum shell thickness requirements specified in Condition II.B.

e. For all FRP Tanks; a detailed visual inspection of the tank's interior shall be conducted on an annual basis to ensure the tank's integrity. During this internal inspection, the interior surface shall be inspected for softening, indentations, cracks, exposed fibers, aging, checking, lack of surface resins, delamination, translucency/discoloration, air bubbles and thin areas.

f. Tanks shall be entered in accordance with 29 CFR 1910.94(d)(11). The first internal inspection shall be conducted within five years after a proposed tank becomes operational.

g. The inspection of each tank shall be certified by a qualified, registered professional engineer, or corrosion technician.

h. All waste and washwater generated during evacuation of the tanks shall be managed as a hazardous waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103.

i. Results of the tests and inspections shall be submitted to the Bureau of Land of this Agency within 60 days of the testing or inspection date, and shall also be included in the operating record of this facility.

j. If the results of these tests or inspections indicate a tank system is leaking, or unfit for use, the procedures set forth in 35 Ill. Adm. Code 724.296 (as amended July 16, 1987) shall be followed.

I. Reporting and Recordkeeping

1. The Permittee(s) shall report to the Agency's Bureau of Land Field Office within twenty-four (24) hours when a leak or spill occurs in the tank system or secondary containment system unless the spill or leak of hazardous waste is less than or equal to one pound in quantity and it is immediately contained and cleaned up.

2. Within thirty (30) days of detecting a release as described above to the environment from the tank system or secondary containment system, the Permittee(s) shall report the following information in writing to the Bureau of Land of this Agency:

   a. Likely route of migration of the release.

   b. Characteristics of surrounding soil (including soil composition, geology, hydrogeology, and climate).

   c. Results of any monitoring or sampling conducted in connection with the release.

   d. Proximity to downgradient drinking water, surface water, and populated areas.

   e. Description of response actions taken or planned.

3. The Permittee(s) shall submit to the Agency all certifications of major repairs to correct leaks within seven days from returning the tank system to use (35 Ill. Adm. Code 724.296(f)).

J. **Special Requirements for Ignitable or Reactive Wastes**

1. The Permittee(s) shall not place ignitable waste in a tank system, unless the procedures specified in the Approved Permit Application are followed.

2. The Permittee(s) shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1990).

3. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

K. **Special Requirements For Incompatible Wastes**

1. The Permittee(s) shall not place incompatible wastes together in the same tank system. The facility shall not store waste in a tank which previously held an incompatible waste, unless the tank system has been decontaminated. Incompatible wastes are identified in Section VIII of this Permit.

L. **Closure**

At closure, all waste and waste residues must be removed from tanks, discharge control equipment and containment structures. Closure of the tank storage area shall be carried out in accordance with the closure plan in the approved permit application, as modified below:

1. The Permittee(s) shall notify the Agency's Bureau of Land in writing of its intent to close the tank system at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee(s) shall submit the sampling and analysis plan to be used in demonstrating a tank system has been properly decontaminated. The plan shall be approved by the Agency's Bureau of Land in writing prior to being implemented. Agency review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and Section 40(a) of the Act. The response from the Agency shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for; and

   c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash and rinse water shall be collected. For tank systems which include secondary containment systems which met the requirements of 35 Ill. Adm. Code 724.293 at the time of installation, the secondary containment must be certified by an independent, registered, professional engineer indicating that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. If such a certification cannot be made, soil sampling and analysis must be conducted to establish clean closure.

   Sweepings collected during closure of any tank system shall be managed as a hazardous waste. All washwater and rinsate generated during the closure of these units shall also be managed as a hazardous waste.

3. The Permittee(s) shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 for a tank system if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in this permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, the tank system

shall be considered to be a landfill and the post-closure care plan in the approved application will be modified as required to provide adequate post-closure care for the affected tank system(s) in accordance with 35 Ill. Adm. Code, Subtitle G, Part 724, Subparts G and H.

4. Should post-closure care, as described in Condition 3 above, become necessary, the Permittee(s) shall submit an application for modification to this permit, including an amended closure plan and post-closure care plan for the affected tank system within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made not to pursue clean closure prior to the implementation of the closure plan for the tank system, the modification request shall be made no later than sixty (60) days after the determination is made.

5. Financial assurance for closure and post-closure of any tank system being closed as a landfill, when required in accordance with Conditions 3 and 4 above, shall be updated within thirty (30) days following modification of the permit under the provisions of Condition 4 above.

6. Within sixty (60) days after closure of any tank system is complete, the Permittee(s) shall submit certification to the Agency that the unit has been closed in accordance with the approved closure plan.

   The closure certification form in Attachment E to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. This might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for each tank system identified in Condition B.1 above. Documents regarding financial assurance for closure of this facility may be modified after the Agency approves the closure certification for any or all of the tank systems. The Agency's review of closure certifications for partial or final closure will be reviewed in accordance with 35 Ill. Adm. Code 724.243.

   A Closure Documentation Report must be submitted with the closure certification which includes the following items, if applicable:

   a. The volume of waste and waste residue removed, including wastes generated during decontamination procedures.

   b. A description of the method of waste handling and transport.

c. Copies of the waste manifests.

d. A description of the sampling and analytical methods used.

e. A chronological summary of closure activities and the cost involved.

f. Tests performed, methods and results.

g. Color photographs of closure activities which document conditions before, during and after closure.

h. A scale drawing of all excavated or decontaminated areas and sample locations.

7. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. The permit exemption (35 Ill. Adm. 722.134) only applies to containers and tanks.

8. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

9. If the Agency determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code 724.211, the Agency reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Act.

10. The Permittee shall analyze all samples individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment G to the Illinois EPA's closure plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the same portion of the interval to be analyzed. To demonstrate a parameter is not

present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

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SECTION III: GROUNDWATER COMPLIANCE MONITORING PROGRAM

A. SUMMARY

Hazardous waste constituents have been detected in groundwater monitoring wells at the Clean Harbors Svcs Inc (CHSI) facility in the vicinity of the surface impoundments above the groundwater protection standard and background values. Therefore, a compliance monitoring program meeting the requirements of 35 Ill. Adm. Code 724.199 must be implemented at the CHSI facility. The compliance monitoring program currently consists of five (5) downgradient monitoring wells and four (4) upgradient monitoring wells. Groundwater in the vicinity of the unit has been determined to be 35 Ill. Adm. Code 620.220, Class II General Resource Groundwater.

B. DEFINITIONS

As used herein, the words or phrases set forth below shall have the following definitions:

1. "Uppermost Aquifer" refers to the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically connected with this aquifer in the vicinity of the facility. The uppermost aquifer in the vicinity of the CHSI facility has been identified as a heterogeneous mixture of fill materials composed of cement fragments, masonry, rubble, wood and metal scraps, slag, sludge, cinders and clay. The fill material varies in thickness from approximately seven (7) to eighteen (18) feet. The fill is underlain and hydraulically connected to peat and organic silt of the Holocene Grayslake Peat.

2. "Point of Compliance" refers to the vertical surface located at the hydraulically down-gradient limits of the waste management area (the closed surface impoundments) extending down into the uppermost aquifer underlying the regulated units.

3. "Ft – bgs" refers to the number of feet below the ground surface.

4. "Ft-MSL" refers to the number of feet below the ground surface referenced to mean sea level.

5. "Detected" shall mean a concentration equal to or above the PQL listed in USEPA's SW-846 (Third Edition) for the applicable analytical methods specified in the approved Sampling and Analysis Procedures, which are incorporated by reference in Condition III.H of the Permit.

6. "Progressive Increase" shall mean an increase in the concentration of a constituent in successive sampling events.

7. "Stick-up" refers to the height of the reference survey datum. This point is determined within ± 0.01 foot in relation to mean sea level, which in turn is established by reference to an established National Geodetic Vertical Datum.

C. IMPLEMENTATION

1. The Permittee shall implement the compliance groundwater monitoring program established in this permit upon the effective date of this permit to determine if the regulated units are in compliance with the groundwater protection standard listed in Condition III.E. On that date, the compliance monitoring requirements set forth in this permit shall supersede those established in the 35 Ill. Adm. Code 725 interim status post-closure and groundwater quality assessment programs, and 35 Ill. Adm. Code 724 compliance monitoring program previously approved by the Illinois EPA.

2. The Permittee shall carry out the compliance monitoring program in this permit on the groundwater present beneath the CHSI facility in Chicago, Illinois. The uppermost aquifer is defined as a heterogeneous mixture of fill materials underlain and hydraulically connected to peat and organic silt of the Holocene Grayslake Peat.

3. The point of compliance is defined as a vertical surface located at the hydraulically downgradient limit of the surface impoundments that extends down into the uppermost aquifer underlying the surface impoundments. The point of compliance is identified on Drawing No. 4202 of the Approved Permit Renewal Application. The point of compliance is monitored by the following monitoring wells:

   G14S, G15S, G16S, G17S, and G18S.

D. WELL LOCATIONS AND CONSTRUCTION

1. The Permittee shall maintain the groundwater monitoring wells identified in the table below to allow for the collection of groundwater samples. The location of these wells is specified in Drawing No. 4202 of the Approved Permit Renewal Application.

IEPA Well No.	Facility Well No.	Well Depth (ft BGS)	Well Depth Elevation (ft MSL)	Well Screen Interval (ft MSL)
G10S+	G123S	18.37	573.35	573.35-578.35
G11S+	G307S	13.34	575.70	575.70-585.70
G12S+	G334S	12.79	577.86	577.86-587.86
G13S+	G343S	12.91	577.60	577.60-587.60
G14S*	G120S	20.01	573.05	573.05-578.05
G15S*	G121SR	21.37	571.59	571.41-576.41
G16S*	G122S	18.71	573.71	573.54-578.54
G17S*	G124S	19.57	572.69	572.56-577.56
G18S*	G126S	15.92	576.20	576.20-581.20

Note:

+ Denotes Upgradient Well
* Denotes Point of Compliance Well

2. Construction of each new monitoring well/piezometer must be at a minimum in accordance with the diagram contained in Attachment G-1 to this Permit unless otherwise approved in writing by the Illinois EPA. Any new monitoring well/piezometer must be continuously sampled and logged on an Illinois EPA Field Boring Log contained in Attachment G-2. The construction of any new monitoring well/piezometer must be documented on an Illinois EPA Well Completion Report contained in Attachment G-3.

3. The Permittee shall notify the Illinois EPA in writing within thirty (30) days if any of the monitoring wells identified in Condition III.D.1 are damaged or the structural integrity has been compromised. A proposal for the plugging and abandonment of the defective well and the installation of a replacement well shall accompany this notification. Unless the defective well is extremely damaged and would create a potential route for groundwater contamination, the defective well shall not be plugged until the replacement well is on-line and groundwater monitoring data has been obtained and verified by Illinois EPA personnel. Prior to replacing the well, the Permittee shall obtain written approval from the Illinois EPA regarding the proposed installation procedures and construction of the replacement well.

4. Should any monitoring well become consistently dry or unserviceable a replacement well shall be provided within ten (10) feet of the existing well. This well shall monitor the same geologic formation as the existing well and be constructed in accordance with

current Illinois EPA groundwater monitoring well construction standards at the time the well is replaced. A replacement monitoring well which is located greater than ten (10) feet from the existing monitoring well, and which does not monitor the same geologic formation, must be approved by the Illinois EPA and designated as a new monitoring well.

5. The Permittee shall submit field boring logs, monitoring well/piezometer construction diagrams and monitoring well completion data sheets of new or replacement monitoring wells to the Illinois EPA at the address below within thirty (30) days of the date that installation of the monitoring well/piezometer is completed. The Permittee shall submit certification that plugging and abandonment of a monitoring well/piezometer was carried out in accordance with the approved procedures to the Illinois EPA at the address below within thirty (30) days of the date that the monitoring well/piezometer is plugged and abandoned. All information should be submitted to the appropriate State Agencies.

   Illinois Environmental Protection Agency
   Permit Section
   Bureau of Land -- #33
   Post Office Box 19276
   Springfield, Illinois 62794-9276

6. All monitoring wells/piezometers shall be equipped with protective caps and locks. Monitoring wells or piezometers located in a high traffic area must be protected with bumper guards.

7. All monitoring wells/piezometers not utilized in the approved groundwater monitoring system, but retained by the facility, must also be constructed and maintained in accordance with 77 Ill. Adm. Code, Part 920 regulations.

E. GROUNDWATER PROTECTION STANDARD

1. The following hazardous constituents and their concentration limits comprise the groundwater protection standard at the point of compliance. Total values shall be used for comparison with groundwater quality standards presented in 35 Ill. Adm. Code 620.420. Filtered samples collected for inorganic analysis shall be used for statistical evaluation. The Permittee shall monitor the groundwater at the monitoring wells as described in Condition III.D.1 for the following parameters:

Quarterly Parameter

Field Parameters	STORET	Reporting Units
pH (field measured)	00400	
Specific Conductance (field measured)	00094	micromos/cm
Temperature of Water Sample	00011	°F
Turbidity	45626	Ntus
Depth to Water (below land surface)	72019	Feet
Depth to Water (below measuring point)	72109	Ft - bgs
Elevation of Groundwater Surface	71993	Ft - MSL
Elevation of Bottom of Well #	72020	Ft - MSL
Elevation of Measuring Point (Top of casing) ##	72110	Ft - MSL

Shall be determined during the second sampling event each year

Shall be surveyed once every two (2) years, or at the request of the Illinois EPA, or whenever the elevation changes as required by Condition III.J.5.

Inorganic Parameters	STORET	Concentration Limit (mg/L)
Aluminum (tot)	01106	5.0
Aluminum (diss)	01105	ND
Arsenic (tot)	01002	0.2
Arsenic (diss)	01000	--
Cadmium (tot)	01027	0.05
Cadmium (diss)	01025	--
Chromium (tot)	01034	1.0
Chromium (diss)	01030	--
Cyanide (tot)	00720	0.6
Fluoride (tot)	00951	4.0
Fluoride (diss)	00950	--
Lead (tot)	01051	0.1
Lead (diss)	01049	--
Mercury (tot)	71900	0.01
Mercury (diss)	71890	--
Sodium (tot)	00929	20.0
Sodium (diss)	00930	--
Vanadium (tot)	01087	0.049
Vanadium (diss)	01085	--

Organic Parameters	STORET	Concentration Limits (mg/L)
Acetone	81552	[1]0.7
Acetonitrile	76997	[3]0.042
Aniline	77089	[2]0.023
Anthracene	34220	[1]10.5
Benzene	34030	0.025
p-chloroaniline	73529	[1]0.028
Chlorobenzene	34301	[1]0.5
Chloroform	32106	0.0002
2-chlorophenol	34586	[1]0.175
m-cresol	77151	[2]0.35
p-cresol	77146	[2]0.035
o-dichlorobenzene	34536	30.0
Dichlorodifluoromethane	34668	[2]7.0
1,1-dichloroethylene	34501	0.035
2,4-dichlorophenol	34601	[1]0.021
2,4-dimethylphenol	34606	[1]0.14
2,6-dichlorophenol	77541	ND
p-dioxane	81582	[2]0.001
Ethylbenzene	78113	1.0
Ethyl cyanide	77007	ND
Methylene chloride	34423	0.05
Methyl ethyl ketone	81595	[2]4.2
4-methyl-2-pentanone	78133	ND
Naphthalene	34696	[1]0.22
Phenols	32730	0.1
1,1,2-trichloroethane	34511	0.05
Toluene	34010	2.5
Vinyl chloride	39175	0.01
Xylene (total)	81551	10.0

ND: Not Determined. Insufficient data were available upon which to base a concentration limit. If the chemicals are still detected after all other concentration limits have been achieved, then the Illinois EPA will establish appropriate concentration limits at that time.

[1] The concentration limits are obtained from 35 Ill. Adm. Code 742 (TACO) Appendix B, Table E, Class II, Groundwater Standards.

[2] The concentration limits are obtained from the Illinois EPA provisional standards.

[3] The concentration limit for this value was provided by the Illinois EPA.

2. The compliance period (post-closure period) during which the groundwater protection standard applies shall be extended until the Permittee demonstrates that the groundwater protection standard has not been exceeded at the point of compliance for three consecutive years.

3. Hazardous constituents which have not been detected above the concentration limit for a period of one year (four consecutive quarterly monitoring events) can be deleted from the list with prior approval from the Illinois EPA pursuant to the Class I* permit modification procedure.

F. COMPLIANCE MONITORING PROGRAM

The Permittee shall conduct the Compliance Monitoring Program in accordance with Section E of the Approved Permit Renewal Application, in accordance with the following:

1. The Permittee shall determine the groundwater quality and field parameters at each monitoring well identified in Condition III.D.1 during the post-closure care period to determine whether the regulated units are in compliance the groundwater protection standard as identified in Condition III.E.1.

   a. Samples collected during the first, third and fourth quarters of the post-closure care period shall be analyzed for those hazardous constituents and field parameters identified in Condition III.E.1.

   b. Samples collected during the second quarter of the post-closure care period shall be analyzed for those hazardous constituents and field parameters identified in Condition III.E.1 and the entire list of 35 Ill. Adm. Code 724, Appendix I parameters.

2. The Permittee shall evaluate the results of the analysis required by Condition III.E.1 above and identify:

   a. The concentration of any constituent detected which was not detected in the previous sampling event.

b. The concentration of any constituent detected which exhibits a progressive increase over four (4) consecutive sampling events.

c. The concentration of any constituent detected which is equal to or greater than the groundwater protection standard listed in Condition III.E.1.

3. The Permittee, after following the requirements of 35 Ill. Adm. Code 724.199(g), shall add to the list of quarterly monitoring parameters, identified in Condition III.E.1, any constituent which has been found at a concentration above its respective PQL at any monitoring well at the point of compliance subsequent to the analyses required by Condition III.F.1.b.

4. The Permittee shall determine whether there is a statistically significant increase over background values for each constituent identified in Condition III.E.1 each time groundwater quality is determined at the point of compliance. In determining whether such an increase has occurred, the Permittee shall compare the groundwater quality at each monitoring well specified in Condition III.D.1 to background values derived in accordance with statistical procedures specified in Condition III.I.1.

5. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually from the monitoring wells listed in Condition III.D.1.

G. GROUNDWATER ELEVATIONS

1. The Permittee shall determine the groundwater surface elevation referenced to mean sea level (MSL) each time a groundwater sample is collected at a well.

2. The Permittee shall determine the surveyed elevation of the "stick-up" referenced to MSL when the well is installed (with as-built diagrams) and every two years, or at the request of the Illinois EPA, or whenever the elevation changes.

3. Elevation, as referenced to MSL, of the bottom of each monitoring well (STORET 72020), is to be reported at least annually. The mandatory measurements shall be taken during the second quarterly sampling event each year.

H. SAMPLING AND ANALYTICAL PROCEDURES

1. The Permittee shall use the techniques and procedures described in Section E of the Approved Permit Renewal Application except as modified below, when obtaining and

analyzing samples from the groundwater monitoring wells described in Condition III.D.1:

a. Samples shall be collected by the techniques described within Volume 2a, Section E; Appendix D within Volume II of Appendix 6 of the Approved Permit Renewal Application.

b. Samples shall be preserved, shipped, and handled in accordance with the procedures specified within Volume 2a, Section E; Appendix D within Volume II of Appendix 6 of the Approved Permit Renewal Application.

c. Samples shall be analyzed in accordance with the procedures specified within Volume 2a, Section E; Appendix D within Volume II of Appendix 6 of the Approved Permit Renewal Application.

d. Samples shall be tracked and controlled using the chain of custody procedures specified within Volume 2a, Section E; Appendix D within Volume II of Appendix 6 of the Approved Permit Renewal Application.

I. STATISTICAL PROCEDURES

1. The Permittee shall use the statistical procedures described in Volume 2a, Section E.5, and within Volume 2b, Section E; Appendix H within Volume III of Appendix 6 of the Approved Permit Renewal Application, which are in keeping with USEPA's Statistical Analysis of Groundwater/Monitoring Data at RCRA Facilities, Interim Final Guidance (1989), or Addendum to Interim Final Guidance (1992).

2. Prediction limits shall be updated annually in accordance with the approved procedure set forth in Condition III.I.1 above.

3. Prediction limits established in accordance with Condition III.I.2 above shall be reported by July 15th of each year and are subject to approval by the Illinois EPA.

J. REPORTING AND RECORDKEEPING

1. The Permittee shall enter all monitoring, testing, and analytical data obtained in accordance with Condition III.E, III.F, III.G, III.H, and III.I in the operating record.

2. Samples collected to meet the requirements of the groundwater monitoring program as described in Condition III.E and III.F shall be collected and reported as identified in the table below. All additional data collected for the groundwater monitoring program (as specified in Condition III.H and III.I) shall also be submitted in accordance with the following schedule.

Samples to be Collected During the Month of	Results Submitted to the Illinois EPA by the Following	Parameters
January - February	April 15	F.1.a
April - May	July 15	F.1.a, F.1.b
July - August	October 15	F.1.a
October - November	January 15	F.1.a

Reports submitted to the Illinois EPA must clearly identify (1) any statistically significant increases and (2) any exceedances of appropriate groundwater classification standards.

3. Groundwater surface elevation data, measured pursuant to Condition III.G.1 shall be collected quarterly and submitted to the Illinois EPA as identified in the above table.

4. The Permittee shall report the groundwater flow rate and direction in the uppermost aquifer, as required by Condition III.F.5, during the second sampling event of each year.

5. The Permittee shall report the surveyed elevation, as required by Condition III.G.2 of the top of the well casing ("stick-up"), referenced to MSL, in accordance with the following schedule:

   a. For the wells identified in Condition III.D.1. above, every two years (during the second sampling event), or at the request of the Illinois EPA, or whenever the elevation changes.

   b. For any new wells, at the time of installation and reported in the as-built diagrams. Subsequent measurements shall be made every two (2) years (during the second sampling event), or at the request of the Illinois EPA, or whenever the elevation changes.

6. Elevation of the bottom of each monitoring well identified in Condition III.D.1 referenced to MSL, is to be reported annually. This measurement shall be taken during the second quarterly sampling event each year in accordance with Condition III.G.3.

7. Information required by Conditions III.J.2, III.J.3, and III.J.6 must be submitted in an electronic format. The information is to be submitted as fixed-width text files, formatted as found in Attachment G.5 of this Permit, in accordance with the schedule found in Condition III.J.2 above. Additional guidance regarding the submittal of the information in an electronic format can be found at www.epa.state.il.us/land/waste-mgmt/ground-monitoring.html.

8. The Permittee shall submit a completed "RCRA Facility Groundwater, Leachate and Gas Reporting Form" (LPC 592) as a cover sheet for any notices or reports required by the facility's Permit for identification purposes. Only one copy of the LPC 592 must accompany your submittal. However, the Permitttee must submit one (1) original and (excluding the groundwater and leachate monitoring results submitted in an electronic format) a minimum of two (2) copies of each notice or report you submit to the Illinois EPA. The form is not to be used for Permit modification requests. A copy of the LPC 592 can be found in Attachment G.6 of this Permit. Additional copies can be found at www.epa.state.il.us/land/regulatory-programs/permits-and-management/forms/rcra-groundwater-leachate-form.doc.

9. The Permittee shall report all information to the Illinois EPA in a form which can be easily reviewed. All submittals must contain tables of data, drawings and text (as necessary) to accurately describe the information contained in the submittal.

10. If the Permittee determines pursuant to Condition III.F.3 that Appendix I constituents are present at the point of compliance monitoring wells at concentrations above their respective PQLs and are not already identified as quarterly monitoring constituents, it shall:

    a. Resample the well within one (1) month and repeat the Appendix I analysis. If the second analysis confirms the presence of new constituents the Permittee shall report the concentration of these additional constituents to the Illinois EPA within seven (7) days after the resample and add them to the monitoring list; or,

    b. Not resample the well and report the concentrations of these additional constituents to the Illinois EPA within seven (7) days after completion of the initial analysis, and add them to the monitoring list.

11. If the Permittee determines that there is a statistically significant increase for any of the parameters specified in Condition III.E.1 at any monitoring well at the point of compliance, the Permittee shall:

a. Notify the Illinois EPA in writing within seven (7) days indicating what parameters and wells have shown statistical increases and provide calculations.

b. Submit to the Illinois EPA an application for a permit modification to establish a corrective action program meeting the requirements of 35 Ill. Adm. Code 724.200 within 180 days.

12. If the Permittee determines that there is a statistically significant increase for any of the parameters specified in Condition III.E.1, the Permittee may demonstrate that a source other than a regulated unit caused the contamination, or that the detection is an artifact caused by an error in sampling, analysis or statistical evaluation, or natural variation in groundwater. To make this demonstration the Permittee shall:

a. Notify the Illinois EPA in writing within seven (7) days that it intends to make a demonstration under 35 Ill. Adm. Code 724.199(i);

b. Within ninety (90) days, submit a report to the Illinois EPA which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis or evaluation;

c. Within ninety (90) days, submit to the Illinois EPA an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and,

d. Continue to monitor in accord with the compliance monitoring program established under Condition III.H.

K. REQUEST FOR PERMIT MODIFICATION

1. If the Permittee determines that the compliance monitoring program no longer satisfies the requirements of 35 Ill. Adm. Code 724.199, then within ninety (90) days, the Permittee must submit an application for a permit modification to the Bureau of Land of the Illinois EPA to make any appropriate changes to the program which will satisfy the regulations.

2. Conditions in this Section of the Permit may be modified in accordance with 35 Ill. Adm. Code 705.128 if there is cause for such modification, as defined in 35 Ill. Adm. Code 702.184. Causes for modification as identified in this Section include, but are not limited to, alterations to the Permittee facility, additional information which would

have justified the application of different permit conditions at the time of issuance, and new regulations.

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SECTION IV: REPORTING AND NOTIFICATION REQUIREMENTS

The reporting and notification requirements of each section of the RCRA permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this permit.

Condition	Submittal	Due Date
SECTION I: CONTAINERS		
G(2)	Submit written notification to the Agency of failure of concrete surface coating	Within thirty days of becoming aware of the failure
G(2)	Submit application for modification of the permit	If necessary, no later than 180 days after failure of the coating
K(1)	Submit Construction Certification Report for proposed container storage units	30 days after completing the construction of the container storage area
L(1)	Submit written notification to the Agency of intent to close the container storage area	45 days prior to commencement of closure
L(1)	Submit sampling and analysis plan for review	45 days prior to commence to closure
L(5)	Submit application for modification of permit and post-closure care plan	No later than 30 days after determination that the container storage area cannot be clean closed
L(6)	Update financial assurance to include modification in Conditions I(K)(4) or I(K)(5)	30 days after permit is modified

Condition	Submittal	Due Date
L(7)	Submit certification for closure of the container storage area	Within 60 days after closure is completed

SECTION II: TANK SYSTEMS

C(3)	Submit written notification to the Agency of failure of the concrete coating system	Within thirty days of becoming aware of the failure
C(3)	Submit application for modification of the permit	If necessary, no later than 180 days after failure of the coating
D(1)(a)	Submit Construction Certification Report for the proposed tanks as required by 35 IAC 724.292 and 724.293	30 days after completing the construction of the tank systems
H(6)(i)	Submit results of tank integrity assessment	60 days after inspection
I(1)	Notify Agency of a leak or spill unless the spill or leak of hazardous waste is less than or equal to one pound and it is immediately container and cleaned up	24 hours after leak or spill occurs
I(2)	Submit report to the Agency on release and Permittee's response	30 days after leak or spill occurs
I(3)	Submit certification of major reports	Within seven days from returning tank system to service
L(1)	Submit written notification to the Agency of intent to close tank system(s)	45 days prior to commencement of closure

Condition	Submittal	Due Date
L(1)	Submit sampling and analysis plan	45 days prior to commencement of closure
L(4)	Submit application for permit modification and post-closure care	30 days after determination that a tank system must be closed as a landfill
L(5)	Update Financial Assurance for closure or post-closure	30 days after effective date of permit or modification of permit
L(6)	Submit certification of closure of tank system(s)	60 days after closure of tank systems(s) is complete

SECTION III: GROUNDWATER MONITORING

I(3)	Submit prediction limits	By July 15th of each year
J(2)	Groundwater monitoring results	Quarterly
J(3)	Groundwater surface elevation data	Quarterly
J(4)	Groundwater flow rate and direction	By July 15th of each year
J(5)(a)	Surveyed elevation of the top of the well casing	By July 15th biennially
J(5)(b)	Surveyed elevation of the top of the well casing	Upon installation and by July 15th biennially
J(6)	Bottom of well elevation	By July 15th of each year
J(10)	Notification of constituents above PQL	Within 7 days
J(11)(a)	Notification of statistically significant increase	Sample within 7 days of determination

Condition	Submittal	Due Date
J(11)(b)	Submit application to establish corrective action program	Within 180 days of determination
J(12)(a)	Submit notice of intent to perform a demonstration	Within 7 days of the date exceedance is discovered
J(12)(b)	Submit report of demonstration	Within 90 days of the date exceedance is discovered
J(12)(c)	Modification to the compliance monitoring program	Within 90 days of the date exceedance is discovered
K(1)	Modification to the compliance monitoring program	Within 90 days of determining the program no longer satisfies 724.199

SECTION V: CORRECTIVE ACTION

Condition	Submittal	Due Date
C(4)	Phase I CMP Report	Within 90 days of notification
D(1)	Cost Estimate	Within the submittal of each workplan
D(2)	Documentation of financial assurance	Within 60 days of approval of cost estimate
E(1)	Notification of newly-identified SWMU's	Within 30 days after discovery
E(3)	A SWMU assessment plan	Within 60 days of IEPA request for

Condition	Submittal	Due Date
40	Update arrangements with local authorities	At least annually
41	Implementation of Contingency Plan	As needed
	Notify appropriate state and local agencies with designated response roles	As needed
	Notify appropriate local officials	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable
	Notify the Agency (217/782-3637) or Illinois EMA (217/782-7860) if the emergency coordinator determines	Immediately after determination made
	there has been a release, fire or explosion which could threaten human health or the environment, outside the facility	
	Notify Agency and appropriate state and local authorities, in writing that facility is in compliance with 35 Ill. Adm. Code 724.156(h)	Prior to resuming operation in affected areas
	Written Report to Agency with details regarding the incident which required implementation of contingency plan	15 days after event
47	Submit annual report required by 35 Ill. Adm. Code 724.175	March 1 of each year
49	Submit Application for permit modification amending closure plan	Within 90 days of discovery of need for modification

Condition	Submittal	Due Date
50	Written notification to the Agency of closure	45 days prior to beginning closure
54(a)	Adjust closure cost estimate for inflation	Within 60 days prior to anniversary date of the establishment of the financial instrument
54(b)	Revision of closure cost estimate	As needed, within 90 days of discovery of revision
55	Change in financial assurance mechanism for closure	As needed
56	Change in coverage for sudden and non-sudden accidental occurrences	As needed
57	Written notification to the Agency of commencement of voluntary or involuntary bankruptcy proceedings	10 days after commencement of proceeding

SECTION VII: MISCELLANEOUS UNIT

Condition	Submittal	Due Date
K(1)	Submit Construction Certification Report for proposed Miscellaneous Units	30 days upon completing development and installation of the unit
L(1)	Submit written notification to the Agency of intent to close the container storage area	45 days prior to commencement of closure
L(1)	Submit sampling and analysis plan for review	45 days prior to commence to closure

SECTION IX: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

F(1)	Submit report semiannually	March 31st and September 30th

SECTION X: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS AND CONTAINERS

D(1)	Submit report semiannually	March 31st and September 30th

ATTACHMENT F: FINANCIAL ASSURANCE REQUIREMENTS

I(B)	Financial Assurance	60 days prior to placing waste in units listed in I.A.ii

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SECTION V
CORRECTIVE ACTION

A. INTRODUCTION

1. In accordance with Section 3004 of RCRA and 35 IAC 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any solid waste management unit (SWMU) at its facility in Chicago, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.

2. A substantial amount of corrective action work has already been completed at this facility under the provisions of : (1) a RCRA permit initially issued to Clean Harbors on September 30, 1993; and (2) a Consent Order between USEPA and a former owner of a portion of the facility. This section summarizes that work and identifies what must still be done by the Permittee to complete its corrective action responsibilities for the SWMUs of concern at this facility.

3. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.

4. The requirements of 35 Ill. Adm. Code 742 must be met, when applicable, in establishing remediation objectives for corrective action.

B. CORRECTIVE ACTION ACTIVITIES COMPLETED TO DATE

The current Clean Harbors facility is actually comprised of two former hazardous waste management facilities. The northern portion of the current facility (approximately 30.6 acres in size) was formerly an interim status hazardous waste treatment facility (which included an incinerator) last owned/operated by Chemical Waste Management (CWM). The southern portion of the facility (approximately 26 acres in size) has been owned/operated by Clean Harbors since 1989 and received a RCRA permit for hazardous waste storage/treatment on September 30, 1993. On June 30, 1995, a modified RCRA permit was issued to Clean Harbors allowing it to incorporate the CWM facility into its RCRA permit.

A brief summary of relevant interim status closure and corrective action efforts completed to date at this facility is as following:

1. Interim status closure plans have been approved for several hazardous waste management units at the former CWM Incinerator facility, including the incinerator itself

   a. These plans have been assigned Log Nos. C-742, C-759 and C-771 by Illinois EPA;

   b. Closure (and thus corrective action) of all these units will essentially be considered complete upon the establishment of an engineered barrier and associated institutional control required by Illinois EPA's December 4, 2004 letter. Once the engineered barrier and institutional control are established, Clean Harbors will be required to comply with the requirements in the institutional control.

   c. Additional remedial activities at these units shall be carried out under the provisions of their interim status closure plans.

   More details regarding these efforts are contained in Attachment H.1.

2. Clean Harbors conducted a major upgrading during 1994-5 at the former CWM incinerator facility.

   a. A pre-construction soil investigation was conducted at five of these units. Contaminated soil was encountered at the location of each proposed unit which required further evaluation under the facility's RCRA corrective action program;

   b. Additional investigations have been completed at these units;

   c. Each of these units is addressed in the Phase I Soils CMP submitted to Illinois EPA on May 7, 2004.

   More details regarding these efforts are contained in Attachment H.2.

3. RCRA corrective action efforts conducted at the original Clean Harbors facility under its RCRA permit are as follows:

   a. A total of 18 SWMUs were of concern

   b. RFI activities are complete

c. A Phase I CMP plan was submitted in May 2004 and is under review

More details regarding these efforts are contained in Attachment H.3.

4. RCRA corrective action efforts conducted at the former CWM incinerator facility under a 3008(h) order between CWM and USEPA and the RCRA permit for this facility are as follows:

a. A total of 10 SWMUs were of concern

b. RFI activities are complete

c. A Phase I Soils CMP was submitted in May 2004 and is under review

More details regarding these efforts are contained in Attachment H.4.

C. CORRECTIVE MEASURE REQUIREMENTS

1. Permittee must implement a Corrective Measures Program (CMP) in general accordance with the procedures set forth in Attachment I to this permit. The corrective measures implemented by the Permittee must be sufficient to ensure the appropriate requirements of 35 Ill. Adm. Code 302, 620, 724, and 742 are met.

2. The types of corrective measures which may be implemented include, but are not limited to:

a. Removal of the contaminants or the contaminated media so that the remaining media meet remediation objectives developed in accordance with 35 Ill. Adm. Code 742;

b. Closing the SWMU as a landfill by establishing a proper final cover over the SWMU and then providing proper long-term monitoring/maintenance/management of: (1) leachate; (2) subsurface gas: (3) final cover system; and (4) groundwater;

c. Establishing engineered barriers to restrict exposure to the contaminants remaining at the SWMU (necessary to certain remediation objectives developed in accordance with 35 Ill. Adm. Code 742);

d. Establishing institutional controls to restrict activities at the facility, as necessary, to support remediation objectives established in accordance with 35 Ill. Adm. Code 742.

3. The Corrective Measures Program described in Attachment I consists of five phases:

a. Phase I--conceptual design of the selected corrective measure;

b. Phase II--development of the final design plans for the corrective measure, including installation and operation/maintenance plans;

c. Phase III--actual construction/installation/implementation of the corrective measure;

d. Phase IV—operation/maintenance/monitoring, as necessary, of the corrective measure to ensure it is being properly implemented and is properly protecting human health and the environment.

e. Phase V--demonstration/verification that the corrective measure has been completed and that the established remediation objectives have been achieved.

f. Phases may be combined or skipped, depending on the actual corrective measure selected. The overall CMP implemented at a given SWMU must: (1) be logical in nature: and (2) allow for Illinois oversight and approval throughout the entire process. As such, it will be necessary for the Permittee to submit workplans/reports regarding all aspects of corrective measures for Illinois EPA review and approval prior to carrying out any corrective measure activity.

4. A Phase I CMP report, or its equivalent, must be submitted to Illinois EPA within ninety (90) days of the date that Illinois EPA notifies the Permittee of the need for a Corrective Measures Program.

5. Subsequent CMP reports must be submitted to Illinois EPA for review and approval in accordance with a schedule approved by Illinois EPA.

6. For units closed as landfills:

a. The Phase II report must include a plan for the construction of a final cover system as well as a post-closure care plan (the post-closure care plan must include provisions for (1) inspecting the final cover; (2) monitoring the groundwater and soil gas; and (3) taking corrective action if any problems are observed during the inspection/monitoring effort.

b. The Phase III report must document the construction of the approved final cover system.

c. During Phase IV, quarterly reports must be submitted documenting the results of the inspection/monitoring efforts as well as any corrective measures taken in response to problems observed during these efforts. It will be necessary to submit plans to Illinois EPA for review and approval to address any groundwater quality or gas migration problems.

d. The Phase V report will not be submitted until the post-closure care period has been completed. This report must demonstrate that all applicable post-closure requirements have been met and that the groundwater at the site meets the applicable standards.

7. Once all corrective measures have been completed, a report must be developed documenting all efforts and results associated with the completed measure, including, as appropriate, information demonstrating the approved remediation objectives for the project have been achieved.

8. Illinois EPA action on all Corrective Measures Program submittals shall be subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

9. Groundwater for all portions of this facility, except that groundwater subject to the requirements of Section III of this permit, must meet the requirements of: (1) previous Illinois EPA letters and actions regarding groundwater, and (2) 35 Ill. Adm. Code 620, 724 and 742. In order to meet these requirements, a proposal for the establishment of a Groundwater Management Zone at the facility must be submitted within sixty (60) days of the Illinois EPA's approval of the Phase II Corrective Measures Program (CMP). This application must address all groundwater at the facility which exceeds the groundwater quality standards of 35 Ill. Adm. Code 620, and must be developed in accordance with 35 Ill. Adm. Code 620.250. A guidance document to be utilized for establishing a GMZ can be found at www.epa.state.il.us/land/regulatory-programs/permits-and-management/establishing-groundwater-management-zone.html.

D. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

1. The Permittee shall prepare a cost estimate for the completion of any corrective action required under this permit, in order to provide financial assurance for completion of corrective action, as required under 35 IAC 724.201(b). Such a cost estimate will be based upon the cost of contamination investigations and assessments for the SWMU(s), and design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 IAC 724.201 and this permit. This cost estimate must be included in each workplan or report submitted to Illinois EPA.

2. The Permittee shall demonstrate continuous compliance with 35 IAC 724.201 by providing documentation of financial assurance using a mechanism specified in 35 IAC 724.243, in at least the amount of the cost estimate required under Condition V.D.1. The words "completion of corrective action" shall be substituted for "closure and/or post-closure," as appropriate in the financial instrument specified in 35 IAC 724.251. This documentation shall be submitted to the Illinois EPA's DLPC within 60 days after the Illinois EPA's approval of the initial or revised cost estimates required under Condition V.D.1. The Illinois EPA's DLPC may accept financial assurance for completion of corrective action in combination with another financial mechanism that acceptable under 35 IAC 724.246 at its discretion.

E. REQUIREMENTS FOR ADDRESSING NEWLY- IDENTIFIED SWMU(s)

1. The Permittee shall notify the Illinois EPA's DLPC in writing of any newly-identified SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall provide the following information, as available:

   a. The location of the newly-identified SWMU in relation to other SWMUs on a scaled map or drawing;

   b. The type and past and present function of the unit;

   c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);

   d. The period during which the unit was operated;

e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and

f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.

2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU, the Illinois EPA's DLPC may request in writing, that the Permittee prepare a Solid Waste Management Unit (SWMU) Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s) discovered subsequent to the issuance of this Permit. This SWMU Assessment plan must also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s) to the environment. Additional guidance regarding the requirements of the SWMU Assessment Plan will be provided in Illinois EPA's written request for such a plan.

3. Within 60 calendar days after receipt of the Illinois EPA's DLPC request for a SWMU Assessment Plan, the Permittee shall submit a SWMU Assessment Plan.

4. After the Permittee submits the SWMU Assessment Plan, the Illinois EPA's DLPC shall either approve, approve with conditions or disapprove the Plan in writing. If the plan is approved, the Permittee shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Illinois EPA's DLPC shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.

5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Illinois EPA's DLPC in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan. Additional assessment work may be needed to fully characterize any contamination present at the SWMU.

6. The Permittee must implement a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time Illinois EPA notifies the Permittee of the need for such a program.

F. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RFA which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Illinois EPA must be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition V.E.1 above. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedure set forth in Subsection E above. The results of all corrective action efforts required by this condition must meet the requirements of 35 Ill. Adm. Code 724.201.

G. INTERIM MEASURES/STABILIZATION

The Permittee shall carry out interim measures/stabilization activities in order to prevent or mitigate the migration of a release of hazardous substances into the environment, and to provide adequate protection of public health, welfare and the environment.

At any time during the RFI, the Permittee may initiate additional interim measures for the purpose of preventing continuing releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It shall not be necessary to conduct all phases of the RFI investigation prior to implementing an interim measure if the Illinois EPA's DLPC and the Permittee agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal CMS.

1. Prior to implementing any interim measures beyond those specified above, the Permittee must submit detailed information regarding the proposed interim measure to the Illinois EPA's DLPC for approval. This information shall include, at a minimum:

   a. Objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;

   b. Design, construction, and maintenance requirements;

c. Schedules for design and construction; and

d. Schedules for progress reports.

2. If the Illinois EPA's DLPC determines that a release cannot be addressed without additional study and/or a formal CMS, then the Illinois EPA's DLPC will notify the Permittee that these must be performed. Any proposal made under this provision or any other activity resulting from such proposal, including the invocation of dispute resolution, shall not affect the schedule for implementation of the RFI or of any other portion of the permit.

3. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment, the Permittee will be notified by way of a permit modification.

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SECTION VI: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. EFFECT OF PERMIT. The existence of a RCRA permit shall not constitute a defense to a violation of the Act or 35 Ill. Adm. Code Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 Ill. Adm. Code 702.181)

2. PERMIT ACTIONS. This permit may be modified, reissued or revoked for cause as specified in 35 Ill. Adm. Codes 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee(s) for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee(s) does not stay the applicability or enforceability of any permit condition. (35 Ill. Adm. Code 702.146)

3. SEVERABILITY. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 Ill. Adm. Code 700.107)

4. PERMIT CONDITION CONFLICT. In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 Ill. Adm. Code 702.160)

5. DUTY TO COMPLY. The Permittee(s) shall comply with all conditions of this permit except the extent and duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Act and is grounds for an enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 Ill. Adm. Code 702.141 and 703.242)

6. DUTY TO REAPPLY. If the Permittee(s) wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee(s) must apply for a new permit at least 180 days before this permit expires, unless written permission for a later date has been granted by the Agency. (35 Ill. Adm. Codes 702.142 and 703.125)

7. PERMIT EXPIRATION. This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee(s) has submitted a timely and complete application (see 35 Ill. Adm. Code 703.181-703.209) and through no fault of the Permittee(s) the Agency has not issued a new permit as set forth in 35 Ill. Adm. Code 702.125.

8. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for the Permittee(s) in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 Ill. Adm. Code 702.143)

9. DUTY TO MITIGATE. In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases of hazardous substances to the environment. The Permittee(s) shall carry out such measures as may be necessary to prevent significant adverse impacts on human health or the environment. (35 Ill. Adm. Code 702.144)

10. PROPER OPERATION AND MAINTENANCE. The Permittee(s) shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee(s) to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 Ill. Adm. Code 702.145)

11. DUTY TO PROVIDE INFORMATION. The Permittee(s) shall furnish to the Agency, within a reasonable time, but no later than thirty days, any relevant information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee(s) shall also furnish to the Agency, upon request, copies of records required to be kept by this permit. (35 Ill. Adm. Code 702.148)

    Furthermore, the Permittee(s) shall provide to the Agency any documentation that is required by the Act or regulations.

12. INSPECTION AND ENTRY. The Permittee(s) shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate statute, any substances or parameters at any location. (35 Ill. Adm. Code 702.149)

13. MONITORING AND RECORDS. (35 Ill. Adm. Code 702.150)

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 Ill. Adm. Code 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.

b. The Permittee(s) shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Agency at any time. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

c. Records of monitoring information shall include:

i. The date(s), exact place, and time of sampling or measurements;

ii. The individual(s) who performed the sampling or measurements;

iii. The date(s) analyses were performed;

iv. The individual(s) who performed the analyses;

v. The analytical technique(s) or method(s) used; and

vi. The result(s) of such analyses. (35 Ill. Adm. Code 702.150)

14. REPORTING PLANNED CHANGES. The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. For a new hazardous waste management facility, the permittee shall not commence treatment, storage or disposal of hazardous waste; and for a facility being modified the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, until:

    a. The permittee has submitted to the Agency by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

    b. 1. The Agency has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or

       2. If, within 15 days of the date of submission of the letter in paragraph (a), the permittee has not received notice from the Agency of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage or disposal of hazardous waste. (35 Ill. Adm. Codes 703.244 and 702.152(a))

15. ANTICIPATED NONCOMPLIANCE. The Permittee(s) shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements, regulations, or the Act. For a new facility, the permittee shall not treat, store or dispose of hazardous waste; and for a facility being modified, the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, except as provided in Section 703.280, until:

    i. The permittee has submitted to the Agency by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

    ii. Either:

       a. The Agency has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

       b. Within 15 days after the date submission of the letter in section i above, the permittee has not received notice from the Agency of its intent to inspect, the permittee may commence treatment, storage or disposal of hazardous waste.

    (35 Ill. Adm. Codes 702.152(b) and 703.247)

16. TRANSFER OF PERMITS. This permit is not transferable to any person except after notice to the Agency. The Agency may require modification of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the appropriate Act. (See 35 Ill. Adm. Codes 703.260 and 703.270, in some cases modification is mandatory.) (35 Ill. Adm. Code 702.152(c)) The transferree shall submit any information the Agency shall request. The Agency determines whether the transferree is of sufficient good character.

17. MONITORING REPORTS. Monitoring results shall be reported at the intervals specified in the permit. (35 Ill. Adm. Code 702.152(d))

18. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than specified in 35 Ill. Adm. Codes 702.162 and 702.152(e).

19. TWENTY-FOUR HOUR REPORTING.

    a. The Permittee(s) shall report to the Agency any noncompliance with the permit, regulations, the Act or any other matter which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee(s) becomes aware of the following circumstances. This report shall include the following:

        i. Information concerning the release of any hazardous substance, agrichemical or pesticide that may cause harm to public drinking water supplies.

        ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.

    b. The description of the occurrence and its cause shall include:

        i. Name, address, and telephone number of the owner or operator;

        ii. Name, address, and telephone number of the facility;

        iii. Date, time, and type of incident;

        iv. Name and quantity of material(s) involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within 5 days of the time the Permittee(s) becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Agency may waive the five day written notice requirement in favor of a written report within fifteen days. (35 Ill. Adm. Codes 702.152(f) and 703.245(b))

20. OTHER NONCOMPLIANCE. The Permittee(s) shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 17, 18, and 19, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 19. (35 Ill. Adm. Code 702.152(g))

21. OTHER INFORMATION. Where the Permittee(s) becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Agency, the Permittee(s) shall promptly submit such facts or information. (35 Ill. Adm. Code 702.152(h))

22. REPORTING REQUIREMENTS. The following reports required by 35 Ill. Adm. Code 724 shall be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):

a. Manifest discrepancy report: if a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee must immediately submit to the Agency a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 Ill. Adm. Code 724.172(b))

b. Unmanifested waste report: The permittee must submit to the Agency within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 Ill. Adm. Code 724.176)

c. Annual report: an annual report must be submitted covering facility activities during the previous calendar year. (35 Ill. Adm. Code 724.175)

23. SUBMITTAL OF REPORTS OR OTHER INFORMATION. All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

Illinois Environmental Protection Agency
Bureau of Land
Planning and Reporting Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

24. SIGNATORY REQUIREMENT. All permit applications, reports or information submitted to the Agency shall be signed and certified as required by 35 Ill. Adm. Code 702.126 and 702.151.

25. CONFIDENTIAL INFORMATION. Any claim of confidentiality must be asserted in accordance with 35 Ill. Adm. Code 702.103 and 161.

26. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE. The Permittee(s) shall maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:

a. Waste analysis plan as required by 35 Ill. Adm. Code 724.113(b) and this permit.

b. Personnel training documents and records as required by 35 Ill. Adm. Code 724.116(d) and this permit.

c. Contingency plan as required by 35 Ill. Adm. Code 724.153(a) and this permit.

d. Closure plan as required by 35 Ill. Adm. Code 724.212(a) and this permit.

e. Cost estimate for facility closure as required by 35 Ill. Adm. Code 724.242(d) and this permit.

f. Operating record as required by 35 Ill. Adm. Code 724.173 and this permit.

g. Inspection schedules as required by 35 Ill. Adm. Code 724.115(b) and this permit.

27. WASTE MINIMIZATION. The Permittee(s) shall certify at least annually that the Permittee(s) has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee(s) to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee(s) which minimizes the present and future threat to human health and the environment, in accordance with 35 Ill. Adm. Code 724.173(b)(9).

GENERAL FACILITY STANDARDS

28. NOTICE OF WASTE FROM A FOREIGN SOURCE. The permittee who has arranged to receive hazardous waste from a foreign source must notify the Agency in writing at least four weeks in advance of the date the waste is expected at the facility. (35 Ill. Adm. Code 724.112(a))

29. NOTICE OF WASTE FROM OFF-SITE. The Permittee(s) who receives hazardous waste from an off-site source (except where the Permittee(s) is also the generator), must inform the generator in writing that the permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee(s) must keep a copy of this written notice as part of the facility operating record. (35 Ill. Adm. Code 724.112(b))

30. GENERAL WASTE ANALYSIS. The Permittee(s) shall comply with the procedures described in the approved waste analysis plan. (35 Ill. Adm. Code 724.113)

31. SECURITY. The Permittee(s) shall comply with the security provisions of 35 Ill. Adm. Code 724.114(b) and (c).

32. GENERAL INSPECTION REQUIREMENTS. The Permittee(s) shall follow the approved inspection schedule. The Permittee(s) shall remedy any deterioration or malfunction discovered by an inspection as required by 35 Ill. Adm. Code 724.115(c). Records of inspections shall be kept at the facility as required by 35 Ill. Adm. Code 724.115(d).

33. PERSONNEL TRAINING. The Permittee(s) shall conduct personnel training as required by 35 Ill. Adm. Code 724.116 and shall maintain training documents and records as required by 35 Ill. Adm. Code 724.116(d) and (e).

34. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE. The Permittee(s) shall comply with the requirements of 35 Ill. Adm. Code 724.117.

PREPAREDNESS AND PREVENTION

35. DESIGN AND OPERATION OF FACILITY. The Permittee(s) shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous substance, agrichemical, or pesticide to air, soil, or surface water which could threaten human health or the environment. (35 Ill. Adm. Code 724.131) Additionally, the Permittee(s) shall remediate any release of a hazardous substance, agrichemical or pesticide.

36. REQUIRED EQUIPMENT. The Permittee(s) shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 Ill. Adm. Code 724.132.

37. TESTING AND MAINTENANCE OF EQUIPMENT. The Permittee(s) shall test and maintain the equipment specified in condition 36 as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 Ill. Adm. Code 724.133)

38. ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. The Permittee(s) shall maintain access to the communications or alarm system as required by 35 Ill. Adm. Code 724.134.

39. REQUIRED AISLE SPACE. The Permittee(s) shall maintain aisle space as required by 35 Ill. Adm. Code 724.135 and National Fire Protection Association (NFPA) requirements.

40. ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS. The Permittee(s) shall attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 Ill. Adm. Code 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee(s) must document this refusal in the operating record.

CONTINGENCY PLAN

41. IMPLEMENTATION OF PLAN. The provisions of the contingency plan must be carried out by the Permittee(s) immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 Ill. Adm. Code 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed) (35 IAC 703.241). Within 15 days of any incident that requires implementation

of the contingency plan, the owner or operator must submit a written report to the Agency as required by 35 Ill. Adm. Code 724.156(j).

42. COPIES OF PLAN. A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 Ill. Adm. Code 724.153.

43. AMENDMENTS TO PLAN. The Permittee(s) shall review and immediately amend, if necessary, the contingency plan, as required by 35 Ill. Adm. Code 724.154.

44. EMERGENCY COORDINATOR. A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 Ill. Adm. Code 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

45. MANIFEST SYSTEM. The Permittee(s) shall comply with the manifest requirements of 35 Ill. Adm. Code 724.171, 724.172 and 724.176.

46. OPERATING RECORD. The Permittee(s) shall maintain a written operating record at the facility in accordance with 35 Ill. Adm. Code 724.173.

47. ANNUAL REPORT. The Permittee(s) shall prepare and submit an annual report to the Agency prior to March 1st of each year in accordance with the requirements of 35 Ill. Adm. Code 724.175.

CLOSURE

48. PERFORMANCE STANDARD. The Permittee(s) shall close the facility as required by 35 Ill. Adm. Code 724.211 and in accordance with the approved closure plan.

49. AMENDMENT TO CLOSURE PLAN. The Permittee(s) must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 Ill. Adm. Code 724.212(c).

50. NOTIFICATION OF CLOSURE. The Permittee(s) shall notify the Agency at least 45 days prior to the date it expects to begin closure. (35 Ill. Adm. Code 724.212(d))

51. TIME ALLOWED FOR CLOSURE. After receiving the final volume of hazardous waste, the Permittee(s) shall treat or remove from the site all hazardous waste and complete closure

activities in accordance with the schedule(s) specified in the closure plan. (35 Ill. Adm. Code 724.213)

52. DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT. When closure is completed, the Permittee(s) shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 Ill. Adm. Code 724.214) plan.

53. CERTIFICATION OF CLOSURE. When closure is completed, the Permittee(s) shall submit certification to the Agency in accordance with 35 Ill. Adm. Code 724.215 that the facility has been closed as specified by the approved closure plans.

54. COST ESTIMATE FOR FACILITY CLOSURE. The Permittee's original closure cost estimate, prepared in accordance with 35 Ill. Adm. Code 724.242, must be:

    a. Adjusted for inflation either 60 days prior to each anniversary of the date on which the first closure cost estimate was prepared or if using the financial test or corporate guarantee, within 30 days after close of the firm's fiscal year.

    b. Revised whenever there is a change in the facility's closure plan increasing the cost of closure.

    c. Kept on record at the facility and updated. (35 Ill. Adm. Code 724.242)

    d. Made immediately available to Agency personnel upon Agency request.

55. FINANCIAL ASSURANCE FOR FACILITY CLOSURE. The Permittee(s) shall demonstrate compliance with 35 Ill. Adm. Code 724.243 by providing documentation of financial assurance, as required by 35 Ill. Adm. Code 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Agency pursuant to 35 Ill. Adm. Code 724.243.

56. LIABILITY REQUIREMENTS. The Permittee(s) shall demonstrate continuous compliance with the requirements of 35 Ill. Adm. Code 724.247 and the documentation requirements of 35 Ill. Adm. Code 724.251.

57. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS. The Permittee(s) shall comply with 35 Ill. Adm. Code 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

58. DISPOSAL PROHIBITION. Any waste identified in 35 Ill. Adm. Code Part 728, Subpart C, or any mixture of such a waste with non-restricted wastes, is prohibited from land disposal unless it meets the standards of 35 Ill. Adm. Code Part 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.

59. DILUTION PROHIBITION. The Permittee(s) shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 Ill. Adm. Code 728, Subpart D (35 Ill. Adm. Code 728.103).

60. WASTE ANALYSIS.

    a. The Permittee(s) must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR Part 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

    b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee(s) must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR Part 268, to assure that the treatment residues or extract meet the applicable treatment standard.

    c. If the treatment residues do not meet the treatment standards, or if the Permittee(s) ships any restricted wastes to a different facility, the Permittee(s) shall comply with the requirements applicable to generators in 35 Ill. Adm. Code 728.107 and 728.150(a)(1).

61. STORAGE RESTRICTIONS

    a. The Permittee(s) shall not store hazardous wastes restricted from land disposal under 35 Ill. Adm. Code Part 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins. In lieu of marking each tank with the required information, the Permitee may

maintain such information as part of the operating record of the facility (35 Ill. Adm. Code 728.150).

b. The Permittee(s) must comply with the operating record requirements of 35 Ill. Adm. Code 724.173.

62. NEW DETERMINATIONS OF PROHIBITED WASTES. Wastes which are prohibited from land disposal under 35 Ill. Adm. Code Part 728, Subpart C, or for which treatment standards have been established under 35 Ill. Adm. Code 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 58 through 61 above.

63. DEFINITIONS. Within the scope of this permit "days" refers to calendar days unless otherwise specified.

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SECTION VII: MISCELLANEOUS UNIT

A. Summary

The Permittee may treat waste paints (including coatings, sealants, turpentine and mineral spirits used as paint thinner) identified by the hazardous waste codes D001 (ignitable) for characteristic, D004 through D008 for specific heavy metal toxics and D018 through D040 and D043 for specific organic toxics in the compactor located in Building 42:

The Permittee may shred full or partially full containers of waste, separate out the resulting metal container fragments and blend the container contents into pumpable slurries or non-disperable solids. The Permittee is prohibited from treating a hazardous waste in the shredder that has not been identified in Attachment A.

The Permittee may crush lamps identified by the hazardous waste codes D003 (reactive) for characteristic, D005, D006, D008 and D009 for specific heavy metal toxics in the lamp crusher located in Unit 25.

The Permittee may either install and operate the compactor or the shredder but not both units. If the Permittee installs one of the previously mentioned units and wishes to remove the unit and replace with the other unit, the replaced unit must undergo closure.

Miscellaneous Unit	Permitted Capacity	Unit Description
Compactor in Building 42	2 drums/hour @ 55 gallon/drum ~18,000 lbs/day	Main compartment 44.25" x 27" x 57". The compacter is shown on DWG 4281 of the approved permit application.
Shredder in Unit 24	maximum capacity 48,000 lbs. per hour	The shredder is shown on DWGs 4286 and 4288, operating descriptions, manufacturer's literature are included in Appendix D-43 of the approved permit application.
Lamp Crusher in Unit 25	2300 lbs/hr or 4000 lamps/hr	12' x 30' x 11'. The unit is shown and operating procedures discussed in Appendix D-60 of the approved permit application.

B. Operating Conditions

i. The Permittee may operate the compactor identified in Condition VII.A under the following conditions:

1. The closed vent system and carbon adsorption system shall be operated at all times when the unit is in use.

2. The unit must be operated in compliance with the Clean Air Act and permit 96100095 issued by the Illinois EPA Bureau of Air, and any subsequent permits authorizing the operation of this unit.

3. The Permittee is prohibited from processing waste in the compactor, if processing of the waste would cause a fire or explosion in the unit or a release to the environment.

4. After completing development and installation of the unit and associated area (i.e., the compactor, the secondary containment system) the Permittee shall notify the Field Operation Section (FOS) and Permit Section prior to placing the unit into operation. Operation is allowed upon verbal approval from FOS or 15 days after notifying FOS the unit is operational unless deficiencies are noted during the inspection.

5. The compactor shall not be operated unless the fire system (sprinkler) is operable in Building 42.

ii. The Permittee may operate the shredder identified in Condition VII.A under the following conditions:

1. The unit shall not be operated unless the concentration of oxygen in the air within the unit is between 4 and 8%.

2. The unit shall not be operated when the carbon dioxide fire suppression system is not operable.

3. The unit shall not be operated when the deflagration system is not operable.

4. The unit shall not be operated when the carbon adsorption system is not operating or collection drums/hoppers are not in place beneath the shredder outlet.

5. The unit shall not be operated if the tank high level alarm on TK-414 has been activated and has not reset.

6. The closed vent system and carbon adsorption shall be operated at all times when the unit is in use.

7. The unit shall not be operated when the foam suppression system is inoperable.

8. The unit must be operated in compliance with the Clear Air Act and permit number 96100095 issued by the Illinois EPA Bureau of Air, and any subsequent permits authorizing the operation of this unit.

iii. The Permittee may operate the lamp crusher identified in Condition VII.A under the following conditions:

1. The unit must be operated in compliance with the Clean Air Act and the construction permit number 04060084 issued by the Illinois EPA Bureau of Air, and any subsequent permits authorizing the operation of this unit.

2. The contingency plan must be implemented unless the spill or leak is less than or equal to one pound in quantity and immediately contained and cleaned up.

3. The unit must run for 10 minutes following lamp processing.

4. Each drum of co-products shall be visually inspected daily for signs of cross-contamination to ensure the unit is operating correctly. The Permittee shall cease operation of the lamp crusher if signs of cross-contamination are present. Operation of the lamp crusher shall not resume until the cause of the cross-contamination is remediated.

5. The Permittee shall not operate the lamp crushing unit unless the mercury monitor for the workplace is operating.

6. The mercury concentration in stack emission shall be monitored daily and the work place air quality monitored continuously.

7. The Permittee shall determine the mercury concentration in the air at the inlet and outlet points of the carbon units, each operating day to ensure breakthrough has not occurred. The Permittee shall replace the activated carbon with new carbon within 24 hours if monitoring indicates the control device did not reduce the total mercury content of the inlet stream by 95%.

8. The Permittee shall not operate the lamp crushing unit unless the vapor collection system on the unit is operable. The Permittee shall operate the lamp crushing unit under negative pressure.

9. The Permittee shall not operate the lamp crushing unit in a manner that allows the ambient air mercury vapor concentration (work place) to exceed 0.05 mg/m^3 based on a 10-hour time weighted average [TWA].

10. The Permittee shall not operate the lamp crushing unit in a manner that allows the ambient air mercury vapor concentration (work place) to exceed 0.1 mg/m^3 at any time (based on an instantaneous reading).

11. The Permittee shall require personnel to wear at least a cartridge respirator (Mersob-P100 cartridges or equivalent) and ear protection when the unit is operating.

iv. The Permittee shall not operate the compactor and shredder if the unit does not comply with the following conditions:

1. The Permittee shall operate the closed vent system with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedures in 40 CFR 264.1034(b).

2. The Permittee shall replace the activated carbon with new carbon within 24 hours if monitoring indicates the control device did not reduce the total organic content of the inlet vapor stream by 95%.

3. The Permittee shall maintain negative pressure in the closed vent system during operation.

4. The Permittee shall limit periods of planned routine maintenance of the control device during which the control devices does not meet the performance standard, to less than 240 hours per year.

5. If the control device malfunctions, the Permittee shall correct the device as soon as practicable (no later than 24 hours) after the occurrences in order to minimize excess emissions of air pollutants.

6. Before the unit becomes operational the Permittee shall conduct an initial leak detection test in accordance with 40 CFR 264.1034(b).

C. Recording and Maintaining Data

1. The Permittee shall record monitoring and inspection data in the operating record and maintain those records for three years. The Permittee shall make this information available to the Illinois EPA upon request.

   i. The Permittee shall conduct monitoring on the Shredder and Compactor in accordance with the following conditions:

      1. The Permittee shall conduct hourly monitoring of the flow indicator sensor of the vent stream flow in the closed vent system. The information shall be recorded in the facilities operating record.

      2. The Permittee shall maintain records of the installation and replacement of the carbon filters.

      3 The Permittee shall maintain daily recordings of each flame ionization detector (FID) test to demonstrate compliance with the performance standard.

      4 The Permittee shall maintain the date and time of the periods of routine maintenance when routine maintenance of the control device does not meet the performance standard.

   ii. The Permittee shall monitor the Lamp Crusher in accordance with the following conditions:

      1. The Permittee shall maintain records of the date and time when carbon filters are installed and removed.

      2. The Permittee shall maintain records of the mercury concentration in the work place and in the stack.

D. Performance Standard

The Permittee shall not operate the units identified in Condition VII(A) unless the performance standard is met. The performance standard used to determine compliance is reduction of the total organic content or mercury content of the inlet stream by 95%.

E. Inspections

1. Closed-vent system joints, seams or other connections shall be visually inspected annually for defects which could result in air emissions.

2. The pressure measurement device shall be inspected daily, when the unit is in operation, to verify that negative pressure is being maintained in the closed vent system when operating.

3. The Permittee shall inspect the miscellaneous unit in accordance with the inspection schedule specified in Attachment B to this permit.

F. Response to Leaks or Spills (Liquid or Solid)

In the event of a leak or a spill from the miscellaneous units which is not immediately cleaned up, or if a unit becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions:

1. Appropriate action to clean up any release of waste from the miscellaneous unit shall be carried immediately after removing the system from system.

2. Remove all waste from the system within 24 hours of the detection of the leak or spill to prevent further releases and to allow inspection and repair of the system.

3. Determine the cause of the release.

4. Make any necessary repairs to fully restore the integrity of the system before returning the unit to service.

5. All wastes resulting from the cleanup of a spill or leak shall be managed as a hazardous waste.

G. Response to Leaks or Spills (Detectable Emissions) Organic

1. Detectable emissions, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, or, if applicable, as allowed by 35 Ill. Adm. Code 724.934(l)(3)(iii), no later than the scheduled routine maintenance.

2. A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

H. Special Requirements for Ignitable or Reactive Waste

1. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable waste.

   Ignitable wastes must be separated and protected from sources of ignition or reaction including but not limited to:

   a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.

   b. While ignitable waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.

   c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

I. Residues

1. A sample shall be taken of each drum of collected residue from the miscellaneous unit (compactor). A composite sample made from the individual samples collected from ten drums shall be analyzed for PCB's. If PCB's are detected, the individual drums shall be analyzed to discover the source of the PCB's. If the analysis shows that the concentration is greater than 50 ppm in a drum or drums, that waste must be handled as a TSCA waste. Otherwise, the waste must be handled under the RCRA regulations as a hazardous waste.

J. Waste Analysis

Compatibility of waste to be processed through the compactor shall be assessed by performing a liquid waste compatibility test as described in the letter dated September 17, 1993 from Paul Ahearn, CHCI. The compatibility of wastes received in Lab Packs may be assessed using EPA-600/2-80-076, "A Method for Determining the Compatibility of Hazardous Wastes".

K. General Construction Requirements

1. The Permittee(s) is authorized to construct the proposed Miscellaneous Units identified in Sections VII.A of this permit. The units may only be constructed in accordance with the approved Permit Application, subject to the following modifications.

   a. Within thirty days after completing construction and prior to the units being operated, the Permittee(s) shall submit to the Illinois EPA a Construction Certification Report from a qualified, registered professional engineer, stating that the unit meets the requirements of 35 Ill. Adm. Code 724.701. This report shall contain the information required in Attachment C to this permit.

   b. The Permittee(s) may not operate the unit until the Construction Certification Report is approved.

L. Closure

At closure, all waste and waste residues must be removed from the miscellaneous units. Closure of the miscellaneous units shall be carried out in accordance with the closure plan in the approved Permit Application, subject to the following modifications:

1. The Permittee(s) shall notify the Illinois EPA's Bureau of Land in writing of its intent to close these units at least 180 days prior to the date closure is expected to begin. Along with the notification, the Permittee(s) shall submit the sampling and analysis plan to be used in demonstrating that these areas have been properly decontaminated. The plan shall be approved by the Illinois EPA's Bureau of Land in writing prior to being implemented. Illinois EPA's review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and Section 40(a) of the Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for; and

   c. The level at which decontamination is considered complete.

2. The concrete surfaces underlying the miscellaneous units shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash water and rinse water shall be collected and managed as a hazardous

waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103. An independent, registered, professional engineer must certify that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. Otherwise, sampling in accordance with an approved sampling plan, shall be conducted to verify the underling soil is uncontaminated.

3. All sweepings, wash water and rinsate generated during the closure of these units shall also be managed as a hazardous waste, unless it can be shown to be exempt under 35 Ill. Adm. Code Part 721.

4. The Permittee shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in this permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, the miscellaneous units shall be considered to be a landfill and the post-closure care plan in the approved application will be modified as required to provide adequate post-closure care for the affected units in accordance with 35 Ill. Adm. Code, Subtitle G, Part 724, Subparts G and H.

5. Should post-closure care, as described in Condition 4 above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure plan and post-closure care plan for the affected units within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made not to pursue clean closure prior to the implementation of the closure plan for the miscellaneous units, the modification request shall be made no later than sixty (60) days after the determination is made.

6. Financial assurance for closure and post-closure of any miscellaneous unit being closed as a landfill, when required in accordance with Conditions 4 and 5 above, shall be updated within thirty (30) days following modification of the permit under the provisions of Condition 5 above.

7. Within sixty (60) days after closure of any miscellaneous unit is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan. The closure certification form in Attachment D to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 720.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover

placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for each tank system identified in Condition B.1 above. Documents regarding financial assurance for closure of this facility may be modified after the Illinois EPA approves the closure certification for any or all of the miscellaneous units. The Illinois EPA's review of closure certifications for partial or final closure will be reviewed in accordance with 35 Ill. Adm. Code 724.243.

A Closure Documentation Report is to be submitted with the closure certification which includes the following items, if applicable:

a. The volume of waste and waste residue remove, including wastes generated during documentation procedures;

b. A description of the method of waste handling and transport;

c. Copies of the waste manifest;

d. A description of the sampling and analytical methods used;

e. A chronological summary of closure activities and the cost involved;

f. Tests performed, methods and results;

g. Color photographs of closure activities which document conditions before, during and after closure; and

h. A scale drawing of all excavated or decontaminated areas and sample locations.

8. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The permit exemption (35 Ill. Adm. Code 722.134) only applies to container and tanks.

9. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or

potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

10. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Act.

11. The Permittee shall analyze all samples individually (i.e., no composting). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment G to the Illinois EPA's closure plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

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Section VIII: Special Conditions

A. WASTE ANALYSIS

1. All hazardous waste blended into a fuel to be burned for energy recovery must have a heating value of at least 5,000 BTU/lb. This requirement may be superseded if Clean Harbors provide documentation to the Agency that all facilities which receive the waste fuel have a certification of compliance based on Clean Harbor's specification.

2. The Permittee(s) shall document the receipt of each load of waste at that site in the operating record. The results of any analyses and any supplemental analyses performed on any received waste shall also be placed in the operating record.

   a. If manifest discrepancies are encountered, the procedures used to reconcile the discrepancy shall be included in the operating record;

   b. If a manifest discrepancy is not resolved within (15) days after receiving the waste, the Permittee(s) must immediately submit a letter to the Agency's Bureau of Land, describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue.

3. Used oil which is received at this facility for blending into a fuel program or re-refining is subject to a TCLP analysis unless an analysis (by EPA Method 9077) shows total halogens is less than 1000 ppm or an adequate rebuttal is made. Used oil destined for other uses besides a fuel program or re-refining (e.g., disposal, road application) are subject to the full TCLP requirements.

4. Storage

   Before any waste other than lab packs or wastes with no free liquids are placed into a storage unit, facility management will assess the compatibility of the waste with the storage unit materials of construction and with wastes already stored therein.

   a. Containerized storage compatibility will be assessed by performing a Liquid Waste Compatibility Test as described in Appendix C-6 of the approved permit renewal application.

   b. <u>Tank Farm Compatibility</u> will be assessed by performing a Liquid Waste Compatibility Test on the liquid received for bulk storage with a composite

sample of the tanks within the containment system to which the new waste will be added.

The referenced procedure, Liquid Waste Compatibility Test D5058A, is described in the following publication "Annual Book of ASTM Standards", American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19013, most recent edition.

The test shall be conducted in the following manner, a 100 ml. proportional composite shall be made of the existing inventory in the storage area. A 5 ml. sample of the composite shall be mixed with a 5 ml. sample of the incoming waste to determine a compatibility. If no reaction is observed, 5 ml. of the incoming waste is added to the larger (remaining 95 ml.) composite in preparation for testing the next sample.

5. Each bulk shipment will be visually inspected and sampled to verify that the contents match the pre-acceptance description of the waste.

   In the case of container shipments, each container in the shipment will be visually inspected by obtaining a full depth vertical sample to verify that the contents match the pre-acceptance physical description of the waste. Full vertical depth samples are not required in cases of hardened solids.

   The Permittee(s) shall determine visual characteristics (color, obvious viscosity or lack thereof, phase character, odor,...) which are appropriate to each stream to aid in determining if the physical appearance of the waste received conforms to the description of the waste when initially evaluated. Changes in the visually determined characteristics require contacting the generator to reconcile the discrepancies. If the discrepancies cannot be reconciled this is a new waste which requires performing a pre-qualification analysis to fully evaluate its compatibility to the facility's operation.

6. The permittee is prohibited from receiving the following types of wastes under this permit:

   a. radioactive material as defined by 49 CFR 173.403(y);

   b. source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954;

   c. Potentially Infectious Medical Waste (PIMW);

   d. Municipal waste;

   e. Construction or demolition waste; or

f. Asbestos waste unless the waste complies with 61 CFR 145(c)(6) or is non-friable asbestos waste.

7. All trucks and containers that are shipped to the CHSI facility shall be sampled within 14 days of the date that they arrive at the facility.

8. Waste prequalification procedures may be waived and the permittee is authorized to accept hazardous and non-hazardous waste materials generated from off-site emergency response actions when the following conditions have been met:

   a. an incident number has been issued for the emergency event,

   b. the Agency's Emergency Response Unit (ERU) has determined that the incident is an immediate threat to human health or the environment, and,

   c. ERU has approved the request to ship the waste to the permittee's facility.

   A full analysis of the waste pursuant to the facilities Waste Analysis Plan shall be conducted once the shipment reaches the permittee's facility.

B. REPORTING REQUIREMENTS

1. Any incident which requires implementation of the contingency plan shall be recorded in the facilities operating record in an incident log which is maintained separate from the facilities other operating records. The incident log must include a copy of each incident report. In addition to the information identified in the approved application, the incident report must include, at a minimum, the waste management units involved in the incident, the cause of the release, measures taken to correct the situation and prevent a reoccurrence.

C. GENERAL OPERATING REQUIREMENTS

1. The permittee is prohibited from conducting any waste management activities outside the permitted boundaries of this facility without a permit modification and proof of compliance with Section 3.32 and Section 39(c) of the Act. Waste management includes storage, staging, treatment, sampling or all other activities not associated with transportation of waste.

2. The permittee shall not accept waste which has not been properly characterized in accordance with 35 Ill. Adm. Code 722.111.

3. The permittee shall not vent oxygen in Building 25 when containers of flammable materials are open or in the process of being moved, consolidated or sampled.

4. The permittee is allowed to vent the following compressed gas cylinders in Building 25 which contain only Carbon Dioxide, Nitrogen, Oxygen, Krypton, Argon, Neon, Helium, Xenon or Air.

5. The permittee shall cease venting of inert gases, and carbon dioxide if the oxygen concentration drops below 19.5% in Building 25.

6. The permittee shall cease venting of oxygen if the oxygen concentration reaches 23.5% in Building 25.

D. CONSTRUCTION REQUIREMENTS

1. The proposed hazardous waste management units must be constructed in accordance with the approved permit application and the Part B permit. Modification to the tank systems or tank or container secondary containment systems, including changes to physical dimensions or materials of construction, are subject to the permit modification requirements prior to construction. Changes in structural members or foundation design which are completed prior to the operation of the hazardous waste management unit and have been certified by the Illinois licensed structural engineer of record are not subject to the permit modification requirements provided the changes are made solely to maintain the structural integrity of the unit.

2. The Permittee(s) shall provide the concrete slab, the curbs and the walls that are used as part of the containment for the unloading areas with an impermeable surface coating that:

   a. is compatible with the waste, or any other liquid, stored in the containment system; and

   b. will prevent migration of the waste into the concrete of the slab or wall.

   c. The Permittee(s) shall install a compatible caulking or sealant at each existing joint in the secondary containment system of the unloading areas to make the joint liquid tight. These joints include but are not limited to, all construction joints within the slab, walls and curbs and joints between the slab and curb, between two curbs, between the slab or curb and wall and joints between two walls. The caulking or sealant shall be compatible with the stored waste, or any other liquid, stored in the same containment system with the hazardous waste.

The coatings, caulking and/or sealant shall be applied prior to placing wastes in the units. Within thirty days after providing a coating/sealant to render the base impervious to wastes and precipitation, the Permittee(s) shall submit to the Agency a certification from an Illinois Registered Professional Engineer attesting to this fact. The certification shall contain the information described in Attachment C.

d. Clean Harbors shall perform a complete inspection of the surface coating yearly in the unloading areas and perform annual maintenance to insure the integrity of the coating.

E. CONTINGENCY PLAN

1. The Agency's Bureau of Land Field Office (Maywood) shall be notified within 24 hours of implementing the contingency plan unless the spill or leak is less than or equal to one pound in quantity and immediately contained and cleaned up. The contingency plan must be implemented whenever there is a fire, explosion or spill which involves hazardous waste or hazardous waste constituents which occurs in areas where hazardous waste is treated or stored. This includes spills within a containment system. A spill is any release of material outside the permitted unit, into or outside of the containment system. A spill shall not include controlled accumulation of hazardous waste in small containment devices (e.g., bucket, drip pan (but does not a include sump or the primary secondary containment unit)) used to collect and control the release of waste during routine processing or maintenance activities such as draining hoses or disassembling and repairing a pump.

2. The Permittee(s) shall contact the local emergency response entities immediately after implementation of the contingency plan unless the spill is less than quantity specified in the air modeling at 100 meters and it is immediately contained and cleaned up. The model spill volume may be adjusted without further modelling if an actual analyses of the waste on-hand is available. That is, the model spill volume may be multiplied by the inverse of the concentration (by weight percent) of the compound in question. This calculated spill volume would then be used to determine if the spill has a potential to impact areas off-site.

   a. The entities which must be notified include:

      1. Chicago Police Department;

      2. Chicago Fire Department;

3. The Agency Field Office (Maywood);

4. The Illinois Emergency Management Agency (IEMA);

5. The National Response Center;

6. The Local Emergency Planning Committee; and

7. The Metropolitan Water Reclamation District of Greater Chicago.

b. The information which must be initially relayed to each entity includes:

1. The type of emergency (release, fire or explosion);

2. The type of wastes involved in the emergency and the approximate quantity involved; and

3. An initial assessment of the conditions at the site; and whether outside help is needed to properly respond to the situation.

c. If the Permittee(s) is able to properly respond to the emergency without any aid from the entities identified in Condition 2.a above, the Permittee(s) shall notify each of these entities that the emergency situation no longer exists once all required emergency response and cleanup activities have been completed.

3. The Permittee shall provide applicable local emergency response entities with changes/modifications to the contingency plan and offer to meet and review the plan on an annual basis. Copies of the meeting notes and list with attendees shall be placed in the facility's operating record and be available to the Illinois EPA for review upon verbal or written request.

F. MISCELLANEOUS

1. The permittee is prohibited from performing hazardous waste management activities that are not specifically identified in this permit.

2. All used oil which contains greater than 1,000 ppm halogens and cannot be adequately rebutted are hazardous wastes and must be managed as a listed hazardous waste (i.e., the oil cannot be processed into an on-specification or off-specification used oil fuel).

3. All wastes dewatered by portable pumps must be analyzed by the paint filter test. Wastes which fail will still retain the characteristic of corrosivity.

4. Water reactive solids shall not be stored in the Bulk Solids Storage Area (Unit B).

5. The following activities are not permitted:

   a. The treatment of characteristic (D002 only) oil within Processing Building #2 (Unit G); and

   b. The bulking of hazardous wastes (which do not contain free liquids) within Process Building #2 (Unit G).

6. All waste stored in RCRA area must be managed as a RCRA waste. For example, it must be tested for compatibility and considered part of the volume limit.

G. LISTED WASTE TREATMENT

Stabilization

1. The stabilization area (Unit Z) cannot accept wastes containing over 2% (by weight) of mercury.

2. The stabilization area (Unit Z) cannot stabilize wastes containing parameters above land ban restrictions whose BDAT as identified in the Federal Register is not based on stabilization (i.e., cyanide, organics, etc.). Attachment A identifies acceptable codes of wastes which may be stabilized that have hazardous constituents above their maximum specified LDR limit.

3. Workers inside Process Building No. 3 (Unit Z) must wear respirators which are designs to remove particulates (HEPA) and organic compounds from the air they breathe. In addition, the workers must be equipped as necessary, to meet the applicable requirements of OSHA.

4. The following items shall be documented in the operating record for the Waste Stabilization Facility (Unit Z) regarding each load of waste received for stabilization/solidification:

   a. Time and date that each waste load is received;

   b. Permit number and manifest number associated with the waste;

b. The areas of concern shall be cleaned through use of a pressure washer or steam cleaner. Wastewater generated during this activity shall be directed to the collection sump.

c. All washwater which collects in the sump shall be removed prior to resuming operation; and

d. Documentation of the cleaning activities shall be placed in the operating record of this facility.

7. The mixing unit (i.e., the waste feed hoppers, the mixers, and all associated waste transfer appurtenances) or mixing boxes shall be completely emptied (i.e., as much waste as possible shall be removed) prior to placing a waste in the unit which is subject to different land disposal restrictions than the waste that was previously in the unit. The mixing unit mixing box will be considered empty when it contains no more than 3% (by weight) of the waste that was initially in the unit. Documentation of this cleaning effort shall be placed in the operating record for the facility.

8. Treated waste subject to the land disposal restrictions of 40 CFR 268 and/or 35 Ill. Adm. Code 728 shall be managed in accordance with the following procedures:

a. The treated waste shall not be placed in a landfill disposal unit until it has been demonstrated that the applicable restrictions are met.

b. Until such time as the analyses necessary to demonstrate compliance with these restrictions are completed, the treated waste shall be stored. Wastes subject to different land disposal restrictions shall be segregated from each other prior to, during and after treatment until it is demonstrated that the wastes have each passed the treatment standards applicable to that waste.

c. The container or tank may contain waste generated over more than one day of operation.

d. Once the samples required for the demonstration have been obtained, no new wastes may be added to the container(s) and a new container(s) for the waste of concern must be started.

e. The demonstration shall be carried out in accordance with the steps listed below:

i. To comply with the initial demonstration of documenting the facility's ability to treat a particular waste code. A representative sample shall be collected from the first twenty (20) roll-off boxes and an analyses performed to

demonstrate compliance with parameters specific to the Land Disposal Restrictions (LDR) for the pertinent waste code. The results of the sampling (before and after) shall be submitted to this Agency within 30 days after the completion of the analysis of the samples.

ii. Once a facility has demonstrated its ability to meet the LDR standards for a particular code, the Permittee(s) may reduce the sampling frequency to the first and last batches, respectively, in any group of containers for which compliance is to be determined.

iii. If the treatment standard for any of the constituents is exceeded:

a. Treated waste which fails to meet the requirements shall receive additional treatment (this may consist of additional curing time, reintroduction into the treatment facility for further stabilization or transfer to another facility for additional treatment).

b. In no event shall the waste be placed in a land disposal unit until the waste meets the applicable LDR standards.

9. All wastes which failed the gate control paint filter test shall be tested by the penetrometer test (after stabilization). No wastes which fails to possess a load bearing capacity of at least 2.0 tons per square foot (TSF) may be disposed.

H. CHEMICAL OXIDATION

1. Only the following waste codes may be processed in the listed waste treatment building utilizing the above method:

D018	Wastes containing less than 35 ppm benzene
D028	Wastes containing less than 10 ppm 1,2-Dichloroethane
D029	Wastes containing less than 100 ppm 1,1-Dichloroethylene
D030	Wastes containing less than 5 ppm 2,4-Dinitrotoluene
D032	Wastes containing less than 10 ppm Hexachlorobenzene
D033	Wastes containing less than 10 ppm Hexachlorobutadiene
D034	Wastes containing less than 5 ppm Hexachloroethane
D035	Wastes containing less than 400 ppm Methyl-Ethyl-Ketone
D036	Wastes containing less than 100 ppm Nitrobenzene
D039	Wastes containing less than 5 ppm Tetrachlorethylene
D040	Wastes containing less than 10 ppm Trichloroethylene

I. CARBON ADSORPTION

1. All wastes to be treated using carbon adsorption must be evaluated through a treatability study to determine if the carbon adsorption is effective in removing the organic constituents below MWRDGC's sewer discharge. Testing shall be conducted after actual treatment to verify treatment. For wastewater shipped off-site (in accordance with the LDR requirements), the Permittee(s) shall provide to the receiving facility a "certification" for all treatment standards that have been achieved, and/or a "notification" for all constituents which do not meet applicable LDR treatment standards. The results of each treatability study shall be retained as part of the operating record. This permit does not authorize the discharge of wastewater above MWRDGC's sewer discharge.

J. GENERIC WASTE STREAMS AUTHORIZATIONS PURSUANT TO SECTION 22.11 OF THE ENVIRONMENTAL PROTECTION ACT

1. The permittee is authorized to accept the wastes identified in Condition VIII(J)(2) below provided the generator complies with the following requirements:

   a. The waste is analyzed in accordance with the waste analysis plan submitted as part of the approved Part B permit application, Condition VIII(A) and all subsequent waste analysis requirements included in the approved Part B Permit; and it is determined that the waste complies with the acceptance criteria in the approved waste analysis plan;

   b. The waste is delivered in accordance with the "Non-hazardous Special Waste Hauling and the Uniform Program" as defined in 35 Ill. Adm. Code 809; and

   c. The waste is accompanied by a manifest, if required.

   The Agency has modified its procedures. As a result, an authorization number is no longer required. Therefore, the generator will no longer be required to identify the authorization number on the manifest when shipping waste as authorized by this permit.

2. The following categories of waste from more than one generator may be accepted:

   a. Nonhazardous waste, received for storage and transfer offsite.

   b. Nonhazardous waste, received for treatment.

c. Hazardous waste, received for treatment.

d. Hazardous waste, received for storage and transfer offsite.

K. Compliance Schedule

1. The following shall be completed and submitted to Illinois EPA by September 9, 2005:

   a. A survey plat (i) indicating the location and dimensions of disposal units/areas with respect to permanently surveyed benchmarks and the legal boundary of the facility; (ii) a note on the plat stating: (1) The land has been used to manage hazardous waste; and (2) It's use is restricted so that disturbance of the units containing hazardous waste is prevented.

   b. A certification of the plat by a professional land surveyor using the language specified by 35 Ill. Adm. Code 702.126(d)(1).

2. The following shall be completed and submitted to Illinois EPA by April 11, 2006:

   A statement signed by an independent fire control professional or the responsible fire department certifying that the facility has water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers or water sprays for Building(s) 42/24.

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Section IX. Air Emission Standards for Equipment Leaks

A. IDENTIFICATION OF REGULATED DEVICES

The permittee shall mark each piece of equipment to which Subpart BB applies with an equipment identification number and hazardous waste management unit identification.

B. LIGHT LIQUID SERVICE PUMPS

1. The permittee shall monitor each pump in light liquid services subject to Subpart BB as specified below:

   a. conduct monthly monitoring to detect leaks as required by 35 Ill. Adm. Code 724.963(b) and described in Section BB of the permit application.

   b. perform visual inspections each calendar week for indications of liquids dripping from the pump seal.

2. The permittee shall repair all pumps in light liquid service that are Subject to Subpart BB in accordance with the following:

   a. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. In the event more time is required, the permittee must submit a written explanation to the Illinois EPA. Such requests should be made in writing to the Bureau of Land's Field Operation Section within 10 calendar days of the leak detection.

   b. A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

   c. A leak is detected from pumps in light liquid service if:

      i) an instrument reading of 10,000 ppm or greater is measured, or

      ii) there are indications of liquids dripping from the pump seal

C. PRESSURE RELIEF DEVICES

1. Except during pressure releases, the permittee shall operate each pressure relief device in gas vapor service that is subject to Subpart BB with no detectable emissions. No detectable emissions is indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c).

2. The permittee shall take the following actions following a pressure release:

   a. After each pressure release, the pressure relief device must be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure releases.

   b. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. In the event more time is required, the permittee must submit a written explanation to the Illinois EPA. Such requests should be made in writing to the Bureau of Land's Field Operation Section within 10 calendar days of the leak detection.

   c. No later than 5 calendar days after the pressure release, the pressure relief device must be monitored to conform the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c) and Section BB of the permit application.

D. VALVES

1. The permittee shall monitor each valve in gas-vapor or light liquid service that is subject to Subpart BB monthly. Monitoring must be adequate to detect leaks by the methods specified in Section 724.963(b). The permittee shall implement procedures for leaks when an instrument reading of 10,000 ppm or greater is measured.

2. The permittee shall monitored and repair each valve in gas-vapor or light liquid service that is subject to Subpart BB in accordance with the following procedures:

   a. Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

b. If a leak is detected, the valve must be monitored monthly until a leak is not detected for two successive months.

c. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. In the event more time is required, the permittee must submit a written explanation to the Illinois EPA. Such requests should be made in writing to the Bureau of Land's Field Operation Section within 10 calendar days of the leak detection.

d. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

3. The permittee shall make first attempts at repair which include, but are not limited to the following best practices when practicable:

a. Tightening of bonnet bolts.

b. Replacement of bonnet bolts.

c. Tightening of packing gland nuts.

d. Injection of lubricant into lubricated packing.

E. RECORD KEEPING

1. The permittee shall record the following information in the facility operating record:

a. For each piece of equipment to which Subpart BB applies:

1) Equipment identification number and hazardous waste management unit identification.

2) Approximate locations within the facility (e.g. gas-vapor or liquid).

3) Type of equipment (e.g. a pump or pipeline valve).

4) Percent-by-weight total organics in the hazardous wastestream at the equipment.

5) Hazardous waste state at the equipment (e.g., gas-vapor or liquid).

e. "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

f. "Repair delayed" and the reason for the delay if a leak is not required with 15 calendar days after discovery of the leak.

g. A detailed description of the reasons that repair could not be effected without a hazardous waste management unit shutdown and the expected date of successful repair of the leak. If the leak is repaired within 15 calendar days, signed and certified by the facility operator in accordance with the procedures in 35 Ill. Adm. Code 702.126.

h. The date of successful repair of the leak.

4. The permittee shall record design documentation on monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960. The information shall be kept-up-to-date in the facility operating record as specified in Section 724.935(d)(1) and (2), and monitoring, operating and inspection information in Section 724.935(c)(3) through (8).

5. The permittee shall record information pertaining to all equipment subject to the requirements of Subpart BB. The following information shall be kept in a log as part of the facility operating record:

a. A list of identification numbers for equipment (except welding fittings) subject to the requirements of Subpart BB.

b. A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 724.952(e), 724.953(i) and 724.957(f). The designation of this equipment must be signed and certified by the permittee using the language identified in 35 Ill. Adm. Code 702.126.

c. A list of equipment identification numbers for pressure relief devices to comply with Section 724.954(a).

d. Compliance testing information including copies of:

1) The dates of each required compliance test.

2) The background level measured during each compliance test.

3) The maximum instrument reading measured at the equipment during each compliance test.

e. A list of identification numbers for equipment in vacuum service.

6. For valves complying with Section 724.962, the permittee shall record the following information in the facility operating record:

a. A schedule of monitoring.

b. The percent of valves found leaking during each monitoring period.

7. For each pump in light liquid service subject to Section 724.952, the permittee shall record the following information in a log that is kept in the facility operating record:

a. Criteria required in Section 724.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.

b. Any changes in these criteria and the reasons for the changes.

8. For facilities using the skip period for valves, the permittee shall comply with 35 IAC 724.957, except as described below:

a. After two consecutive quarterly leak detection periods with the percentages of valves leaking equal to or less than 2 percent, the permittee may begin to skip one of the quarterly leak detection periods for the valves subject to 35 Ill. Adm. Code 724.957.

b. After five consecutive quarterly leak detection periods with the percentages of valves leaking equal to or less than 2 percent, the permittee may begin to skip three of the quarterly leak detection periods for the valves subject to 35 Ill. Adm. Code 724.957.

c. If the percentage of valves leaking is greater than 2 percent, the permittee must conduct monitoring monthly in compliance with the requirements of 35 IAC 724.957 and must notify the Agency's Bureau of Land Field Operation section. The permittee may again elect to use the skip period alternative for valves after.

The report shall be sent to the following address:

Illinois EPA
BOL – Permit Section #33
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

SFN:MAS:bjh\051161s.doc

SECTION X: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS AND CONTAINERS

A. For tanks that vent to a control device

1. Whenever a waste is in the tank, the permittee shall not operate the fixed roof tanks identified in Unit 43, Unit 16 and Unit 22 unless each closure device has been secured in the closed position and the vapor headspace underneath the fixed roof has been vented to the control device except as follows:

   a. To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

   b. To remove accumulated sludge or other residue from the bottom of a tank.

   c. To open a safety device to avoid an unsafe condition.

2. The permittee shall inspect and monitor the air emission control equipment in accordance with the following procedure:

   a. The fixed roof and its closure devices must be visually inspected by the permittee to check for defects that could result in air pollutant emissions.

   b. The closed vent system and control device must be inspected and monitored by the permittee in accordance with the procedures specified in 35 Ill. Adm. Code 724.987.

   c. The permittee shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to Subpart CC. Thereafter, the permittee shall perform the inspections at least once every year except for the special conditions provided for in 35 Ill. Adm. Code 724.984(l).

   d. In the event a defect is detected, the permittee shall repair the defect in accordance with the requirements of condition B.

   e. The permittee shall maintain a record of the inspection in accordance with the requirements specified in 35 Ill. Adm. Code 724.989(b).

B. Repair Condition

The permittee shall repair each defect detected during an inspection as follows:

1. The permittee shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after a detection.

2. Repair of a defect may be delayed beyond 45 calendar days if the permittee determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the permittee shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

C. Containers

Level 1 and/or Level 2 containers

1. Whenever hazardous waste is in a container subject to controls, the permittee shall install all covers and closure devices for the container and secure and maintain each closure device in closed position except:

    a. Opening of a closure device or cover for a container is allowed for the purposes of adding/removing hazardous waste or material as follows:

        1. In the case where the container is filled to the intended final level in one continuous operation, the permittee shall promptly secure the closure devices in the closed position and install the covers upon conclusion of the filling operation.

        2. In the case where discrete quantities or batches of material intermittently are added to the container over a period of time, the permittee shall promptly secure the closure devices in the closed position and install covers upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

3. An empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time.

4. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the permittee shall promptly secure the closure devices in the closed position and install covers upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

b. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste.

c. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications.

d. Opening of a safety device is allowed at any time conditions require doing so to avoid an unsafe condition.

2. The permittee shall inspect the containers and their covers and closure devices as follows:

a. In the case when a hazardous waste already is in the container at the time the permittee first accepts possession of the container at the facility and the container in not emptied within 24 hours after the container is accepted at the facility, the permittee shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility.

b. In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the permittee shall visually

inspect the container and its cover and closure device initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position.

c. When a defect is detected for the container, cover, or closure devices, the permittee shall make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible butt no later than five calendar days after detection. If repair cannot be completed with five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

D. For control devices in 724.987

1. The permittee shall submit a semiannual written report to the Agency for control devices used in accordance with 35 Ill. Adm. Code 724.987, except as provided below. The report shall describe each occurrence during the previous 6-month period when either of the two following events occurs: a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in 35 Ill. Adm. Code 724.935(c)(4) or a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in 35 Ill. Adm. Code 724.933(d). The written report shall include the USEPA identification number, the facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the permittee. The permittee must submit the report to the Agency by the last day of March and September of each year.

2. A report to the Agency is not required for a 6-month period during which all control devices subject to Subpart CC are operated by the permittee so that both of the following conditions result: during no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in Section 724.935(c)(4) and no flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d).

ATTACHMENT A

WASTES WHICH CAN BE ACCEPTED AND
HAZARDOUS WASTE IDENTIFICATION NUMBERS

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16R

HAZARDOUS WASTE CODES ACCEPTABLE FOR THE RCRA EXEMPT WASTEWATER TREATMENT UNITS

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste (HN03 (>40%)).
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D003	Solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.
D023	Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.
D024	Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.
D025	Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.
D026	Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.
D027	Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.
D028	Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.
D029	Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.
D030	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D032	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.
D033	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.
D034	Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.
D035	Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.
D036	Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.
D039	Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.
D040	Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.
D041	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.
D042	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.
D043	Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous Wastes from Non-Specific Sources

K062	Spent pickle liquor generated by steel finishing operations of facility within the iron and steel industry (SIC Code 331 and 332, as defined in 35 Ill. Adm. Code 720.110).

HAZARDOUS WASTE CODES ACCEPTABLE FOR THE LISTED WASTE TREATMENT PROCESS (NEUTRALIZATION, PRECIPITATION, COAGULATION, OXIDATION, STRIPPING OR CARBON ADSORPTION)

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D003	Solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.
D023	Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.
D024	Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.
D025	Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.
D026	Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.
D027	Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.
D028	Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.
D029	Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D030	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.
D032	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.
D033	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.
D034	Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.
D035	Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.
D036	Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.
D037	Solid waste exhibiting the characteristic of TCLP toxicity for pentachlorophenol at 100 mg/l or more.
D038	Solid waste exhibiting the characteristic of TCLP toxicity for pyridine at 5.0 mg/l or more.
D039	Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.
D040	Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.
D041	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.
D042	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D043	Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous Wastes From Non-Specific Sources

F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons, spent solvent mixtures/blends used in degreasing, and still bottom from the recovery of these spent solvents and spent solvent mixtures.
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, 1,1,2-trichloroethane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-buryl alcohol, cyclohexanone, methanol, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non-halogenated solvents: cresols and cresylic acid, nitrobenzene, spent solvent mixtures and blends, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	Wastewater treatment sludges from electroplating operations.
F007	Spent cyanide plating baths from electroplating operations.

Hazardous Waste No.	Description of Hazardous Waste
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.
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.
F039	Multi-Source leachate.

C. Hazardous Wastes From Specific Sources

K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	Wastewater treatment sludge from the production of iron blue pigments.

Hazardous Waste No.	Description of Hazardous Waste
K008	Oven residue from the production of chrome oxide green pigments.
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead based initiating compounds.
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
K060	Ammonia still lime sludge from coking operations.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).
K069	Emission control dust/sludge from secondary lead smelting.
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.
K087	Decanter tank tar sludge from coking operations.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.

HAZARDOUS WASTE CODES ACCEPTABLE FOR STABILIZATION/FIXATION

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.
B. Hazardous Waste From Specific Sources	
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).

Hazardous Waste No.	Description of Hazardous Waste

C. Hazardous Waste From Non-Specific Sources

F006[1]	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 (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007[1]	Spent cyanide plating bath solutions from electroplating operations.
F008[1]	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009[1]	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010[1]	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011[1]	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012[1]	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.
F019[1]	Wastewater treatment sludges from the chemical conversion coating of aluminum.

(1) The facility cannot stabilize wastes containing parameters above land ban restrictions whose BDAT as identified in the Federal Register is not based on stabilization (i.e., cyanide).

HAZARDOUS WASTE CODES ACCEPTABLE FOR STORAGE AND TRANSFER, SHREDDING, CRUSHING AND/OR FUEL BLENDING

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D003[2]	Solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005[2]	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006[2]	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008[2]	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009[2]	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D012	Solid waste exhibiting the characteristic of TCLP Toxicity for Endrin at 0.02 mg/l or more.
D013	Solid Waste exhibiting the characteristic of TCLP Toxicity for Lindane at 0.4 mg/l or more.
D014	Solid Waste exhibiting the characteristic of TCLP Toxicity for Methoxychlor at 10.0 mg/l or more.
D015	Solid waste exhibiting the characteristic of TCLP Toxicity for Toxaphene at 0.5 mg/l or more.
D016	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4-D at 10.0 mg/l or more.
D017	Solid waste exhibiting the characteristic of TCLP Toxicity for 2,4,5-TP (Silvex) at 1.0 mg/l or more.
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D020	Solid waste exhibiting the characteristic of TCLP Toxicity for chlordane at 0.03 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.
D023	Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D024	Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.
D025	Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.
D026	Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.
D027	Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.
D028	Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.
D029	Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.
D030	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.
D031	Solid waste exhibiting the characteristic of TCLP Toxicity for heptachlor (and its epoxide) at 0.008 mg/l or more.
D032	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.
D033	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.
D034	Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.
D035	Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D036	Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.
D037	Solid waste exhibiting the characteristic of TCLP toxicity for pentachlorophenol at 100.0 mg/l or more.
D038	Solid waste exhibiting the characteristic of TCLP toxicity for pyridine at 5.0 mg/l or more.
D039	Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.
D040	Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.
D041	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.
D042	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.
D043	Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous Wastes From Non-Specific Sources

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 ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F002 The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene,

Hazardous Waste No.	Description of Hazardous Waste
	trichlorofluoromethane; and 1,1,2-trichloroethane; all spent solvent mixtures and blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non-halogenated solvents: xylene, acetone, ethylacetate, 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 non-halogenated solvents; and all spent solvent mixtures and blends containing, before use, one or more of the above non-halogenated solvents and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures and blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent non-halogenated solvents: toluene, methyl ethylketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol and 2-nitropropane; all spent solvent mixtures and blends, containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002 or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
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 (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.

Hazardous Waste No.	Description of Hazardous Waste
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum.
*F020[1]	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 tetrachlorphenol, 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.)
*F021[1]	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.
*F022[1]	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.
*F023[1]	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for

Hazardous Waste No.	Description of Hazardous Waste
	previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with Section 721.135 and where the generator does not resume or initiate 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.
F034	Wastewaters, process residuals, preservative drippage and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does nto include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.
F035	Wastewaters, 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.
F037	Petroleum refinery primary oil/water/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 doe not receive dry weather flow, sludges generated in aggressive biological treatment units as defined in subsection (b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.
F038	Petroleum refinery secondary (emulsified) oil/water/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 the physical or chemical separation of oil/water/solids in process wastewaters and oil cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF)

Hazardous Waste No.	Description of Hazardous Waste
	units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated in aggressive biological treatment units as defined in Subsection (b)(2) (including sludges generated in one or more additional units after wastewaters have ben treated in aggressive biological treatment units), F037, K048 and K051 wastes are not included in this listing.
F039	Leachate resulting from the treatment, storage or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D. (Leachate resulting from the management of one or more of the following USEPA hazardous wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027 or F028.)

C. Hazardous Wastes From Specific Sources

K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K009	Distillation bottoms from the production of acetaldehyde from ethylene.

Hazardous Waste No.	Description of Hazardous Waste
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.
K013	Bottom stream from the acetronitrile column in the production of acylonitrile.
K014	Bottoms from the acetontrile purification column in the production of acrylonitrile.
K015	Still bottoms from the distillation of benzyl chloride.
K016	Heavy ends or distillation residues from the production or carbon tetrachloride.
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.
K018	Heavy ends from the fractionation column in ethyl chloride production.
K019	Heavy ends of the distillation of ethylene dichloride in thylene dichloride production.
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.
K022	Distillation bottom tars from the production of phenol/acetone from cumene.
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.
K025	Distillation bottoms from the production of phthalic anhydride from naphthalene.

Hazardous Waste No.	Description of Hazardous Waste
K026	Stripping still tails from the production of methy ethyl pyridines.
K027	Centrifuge and distillation residues from toluene diisocyanate production.
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichlorethane.
K029	Waste from the product stream stripper in the production of 1,1,1-trichloroethane.
K030	Column bottoms or heavy ends from the combined production of trichlorethylene and perchloroethylene.
K031	By-product salts generated in the production of MSMA and cacodylic acid.
K032	Wastewater treatment sludge from the production of chlordane.
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.
K035	Wastewater treatment sludges generated in the production of creosote.
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.
K037	Wastewater treatment sludges from the production of disulfoton.
K038	Wastewater from the washing and stripping of phorate production.
K039	Filter cake from the filteration of diethylphosphorodithioic acid in the production of phorate.
K040	Wastewater treatment sludge from the production of phorate.

Hazardous Waste No.	Description of Hazardous Waste
K041	Wastewater treatment sludge from the production of toxaphene.
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.
K043	2,6-Dichlorophenol waste from the production of 2,4-D.
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.
K045	Spent carbon from the treatment of wastewater containing explosives.
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead based initiating compounds.
K047	Pink/red water from TNT operations.
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	API separator sludge from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
K060	Ammonia still lime sludge from coking operations.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).

Hazardous Waste No.	Description of Hazardous Waste
K064	Acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production.
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.
K066	Sludge from treatment of process wastewater or acid plant blowdown from primary zinc production.
K069	Emission control dust/sludge from secondary lead smelting.
K071	Brine purification muds from the mercury cell process in chlorine production, where separately pre-purified brine is not used.
K073	Chlorinated hydrocarbon waste from the purification step of the diaphram cell process using graphite anodes in chlorine production.
K083	Distillation bottoms from aniline production.
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.
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.
K087	Decanter tank tar sludge from coking operations.
K088	Spent potliners from primary aluminum reduction.
K090	Emission control dust or sludge from ferrochromiumsilicon production.
K091	Emission control dust or sludge from ferrochromium production.

Hazardous Waste No.	Description of Hazardous Waste
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.
K098	Untreated process wastewater from the production of toxaphene.
K099	Untreated wastewater from the production of 2,4-D.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic compounds.
K103	Process residues from aniline extraction from the production of aniline.
K104	Combined wastewater streams generated from nitrobenzene/aniline production.
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.

Hazardous Waste No.	Description of Hazardous Waste
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines.
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UMDH) from carboxylic acid hydrazines.
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UMDH) from carboxylic acid hydrazines.
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UMDH) from carboxylic acid hydrazines.
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.
K113	Condensed liquid light ends from the (T) purification of toluenediamine in the production of toluenediamine via hydrogenation dinitrotoluene.
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.
K118	Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

Hazardous Waste No.	Description of Hazardous Waste
K123	Process wastewater (including supernates, filtrates, and wash waters) from the production of ethylenebisdithiocarbamic acid and its salts.
K124	Reactor vent scrubber water from the production of ethylene-bisdithiobarbamic acid and its salts.
K125	Filtration, evaporation, and centrifugation of solids from the production of ethylenebisdithio carbonic acid and its salts.
K126	Baghouse dust and floor sweepings in milling and packaging operations from production or formulation of ethylenebisdithiocarbamic acid and its salts.
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.
K132	Spent absorbent and wastewater separator solids form the production of methyl bromide.
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K140	Floor sweepings, off-specification product and spent filter media from the production of 2,4,6-tribromophenol.
K141	Process residues from the recovery of coal tar, including, but not listed to, tar 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 (decanter tank tar sludge from coking operations).
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).
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.

Hazardous Waste No.	Description of Hazardous Waste
K144	Wastewater treatment sludges from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.
K145	Residues from napthalene collection and recovery operations from the recovery of coke by-products produced from coal.
K147	Tar storage tank residues from coal tar refining.
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.
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.]
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.
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.
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes).
K158	Bag house dust, and filter/separation solids from the production of carbamates and carbamoyl oximes.
K159	Organics from the treatment of thiocarbamate wastes.

Hazardous Waste No.	Description of Hazardous Waste
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust, and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126).
K169	Crude oil storage tank sediment from petroleum refining operations.
K170	Clarified slurry oil storage tank sediment and/or in-line filter/separation solids from petroleum refining operations.
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic units (not including inert support media).
K172	Spent hydrorefining catalyst from petroleum operations, including guard beds used to desulfurize feeds to other catalytic units (not including inert support media).
*K174	Wastewater treatment sludge from the production of ethylene dichloride or vinyl chloride monomer.
K175	Wastewater treatment sludge from the production of ethylene dichloride or vinyl chloride monomer.
K181	Non-wastewater from the production of dyes and/or pigments.

D. Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof:

Hazardous Waste No.	Description of Hazardous Waste
P001	Warfarin, when present at concentrations greater than 0.3%.
P002	1-Acetyl-2-thiourea
P003	Acrolein
P004	Aldrin
P005	Allyl alcohol
P006	Aluminum phosphide
P007	5-(Aminomethyl)-3-isoxazolol

Hazardous Waste No.	Description of Hazardous Waste
P008	4-Aminopyridine
P009	Ammonium picrate
P010	Arsenic acid
P011	Arsenic pentoxide
P012	Arsenic trioxide
P013	Barium cyanide
P014	Benzenethiol
P015	Beryllium dust
P016	Bis-chloromethyl) ether
P017	Bromoacetone
P018	Brucine
P020	Dinoseb
P021	Calcium cyanide
P022	Carbon bisulfide
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P026	1-(o-Chlorophenyl) thiourea
P027	3-Chloropropionitrile
P028	Benzyl chloride
P029	Copper cyanides
P030	Cyanides (soluble cyanide salts) not elsewhere specified.
P031	Cyanogen
P033	Cyanogen chloride
P034	4,6-Dinitro-o-cyclohexylphenol
P036	Dichlorophenylarsine
P037	Dieldrin
P038	Diethylarsine
P039	Disulfoton
P040	O,O-Diethyl O-pyrazinyl phosphoro-thioate
P041	Diethyl-p-nitrophenyl phosphate
P042	Epinephrine
P043	Diisopropyl fluorophosphate
P044	Dimethoate
P045	Thiofanox
P046	Ethanamine, 1,10dimethyl-2-phenyl-
P047	4,6-Dinitro-o-cresol and salts
P048	2,4-Dinitrophenol
P049	2,4-Dithiobiuret

Hazardous Waste No.	Description of Hazardous Waste
P050	Endosulfan
P051	Endrin
P054	Ethylenimine
P056	Fluorine
P057	Fluoroacetamide
P058	Fluoroacetic acid, sodium salt
P059	Heptachlor
P060	Hexachlorohexahydro-endo, endo-dimethanonaphthalene
P062	Hexaethyl tetraphosphate
P063	Hydrogen cyanide
P064	Methyl Isocyanate
P065	Mercury fulminate
P066	Methomyl
P067	2-Methylaziridine
P068	Methyl hydrazine
P069	2-Methyllactonitrile
P070	Aldicarb
P071	Methyl parathion
P072	alpha-Naphthylthiourea
P073	Nickel carbonyl
P074	Nickel cyanide
P075	Nicotine and salts
P076	Nitric oxide
P077	p-Nitroaniline
P078	Nitrogen dioxide
P081	Nitroglycerine
P082	N-Nitrosodimethylamine
P084	N-Nitrosomethylvinylamine
P085	Octamethylpyrophosphoramide
P087	Osmium oxide
P088	Endothall
P089	Parathion
P092	Phenylmercuric acetate
P093	N-Phenylthiourea
P094	Phorate
P095	Phosgene
P096	Phosphine

Hazardous Waste No.	Description of Hazardous Waste
P097	Pamphur
P098	Potassium cyanide
P099	Potassium silver cyanide
P101	Propanenitrile
P102	Propargyl alcohol
P103	Selenourea
P104	Silver cyanide
P105	Sodium azide
P106	Sodium cyanide
P108	Strychnine and salts
P109	Tetraethyldithiopyrophosphate
P110	Tetraethyl lead
P111	Tetraethylpyrophosphate
P112	Tetranitromethane
P113	Thallic oxide
P114	Thallium(l) selenide
P115	Thallium(l) sulfate
P116	Thiosemicarbazide
P118	Trichloromethanethiol
P119	Vanadic acid, ammonium salt
P120	Vanadium pentoxide
P121	Zinc cyanide
P122	Zinc phosphide
P123	Toxaphene
P127	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
P128	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P185	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-. 0-[(methylamino)carbonyl]oxime
P188	Benzoic acid, 2-hydroxy, compound with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b]indol-5-yl methylcarbamate ester (1:1)
P189	Carbamic acid, [(dibutylamino)thos]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P190	Carbamic acid, methyl-, 3-methylphenyl ester
P191	Carbamic acid, dimethyl-, 1-[(dimethylamino carbonyl]-5-methyl-1H-pyrazol-3-yl ester

Hazardous Waste No.	Description of Hazardous Waste
P192	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P194	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl)oxy]-2-oxo-, methyl ester
P196	Manganese, bis(dimethylcarbamodithioato-S,S=)-, Manganese dimethyldithiocarbamate
P197	Methanimidamide, N,N-dimethyl-N=-[2-methyl-4[[(methylamino)carbony]phenyl]-
P198	Methanimidamide, N,N-dimethyl-N=-[3-[[(methylamino) carbonyl]oxylphenyl]-, monohydrochloride
P199	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P202	Phenol, 3-(1-methylethyl)-, methyl carbamate 3-lsopropylphenyl N-meethylcarbamate orm-Cumenyl methylcarbamate
P203	Propanal, 2-methyl-2-(methysulfonyl)-, 0-[(methylamino)carbonyl] oxime
P204	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1, 3a,8-trimethyl-, methylcarbamate (ester), 3aS-cis)-
P205	Zinc, bis(dimethylcarbamodithioato-S,S=)-, (T-4)-

E. Commercial Chemical Products, Manufacturing Chemical Intermediates, or Off-Specification Commercial Chemical Products:

Hazardous Waste No.	Description of Hazardous Waste
U001	Acetaldehyde
U002	Acetone
U003	Acetonitrile
U004	Acetophenone
U005	2-Acetylaminofluorene
U006	Acetyl chloride
U007	Acrylamide
U008	Acrylic acid
U009	Acrylonitrile
U010	Mitomycin C

Hazardous Waste No.	Description of Hazardous Waste
U011	Amitrole
U012	Aniline
U014	Auramine
U015	Azaserine
U016	Benz(c)acridine
U017	Benzal chloride
U018	Benz(a)anthracene
U019	Benzene
U020	Benzenesulfonyl chloride
U021	Benzidine
U022	Benzo(a)pyrene
U023	Benzotrichloride
U024	Bis(2-chloroethyoxy) methane
U025	Dichloroethyl ether
U026	Chloronaphazine
U027	Bis(2-chloroisopropyl) ether
U028	Bis(2-ethylhexyl) phthalate
U029	Bethyl bromide
U030	Benzene, 1-bromo-4-phenoxy-
U031	N-Butyl alcohol
U032	Calcium chromate
U033	Carbonyl fluoride
U034	Chloral
U035	Chlorambucil
U036	Chlordane, technical
U037	Chlorobenzene
U038	Ethyl 4,4'-dichlorobenzilate
U039	4-Chloro-m-cresol
U041	1-Chloro-2,3-epoxypropane
U042	2-Chloroethyl vinyl ether
U043	Vinyl chloride
U044	Chloroform
U045	Methyl chloride
U046	Chloromethyl methyl ether
U047	beta-Chloronaphthalene
U048	o-Chlorophenol
U049	Benzenamine, 4-chloro-2-methyl-

Hazardous Waste No.	Description of Hazardous Waste
U050	Chrysene
U051	Creosote
U052	Cresols
U053	Crotonaldehyde
U055	Cumene
U056	Cyclohexane
U057	Cyclohexanone
U058	Cyclophosphamide
U059	Daunomycin
U060	DDD
U061	DDT
U062	Diallate
U063	Dibenz[a,h]anthracene
U064	Dibenz[a,i]pyrene
U066	1,2-Dibromo-e-chloropropane
U067	Ethylene dibromide
U068	Methylene bromide
U069	Dibutyl phthalate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U073	3-3'Dichlorobenzidine
U074	1,4-Dichloro-2-butene
U075	Dichlorodifluoromethane
U076	Ethylidene dichloride
U077	Ethylene dichloride
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U080	Methylene chloride
U081	2,4-Dichlorophenol
U082	2,6-Dichlorophenol
U083	1,2-Dichloropropane
U084	1,3-Dichloropropane
U085	1,2:3,4-Diepoxybutane
U086	N,N-Diethylhydrazine
U087	o,o-Diethyl-S-methyl-dithiophosphate
U088	Diethyl phthalate

Hazardous Waste No.	Description of Hazardous Waste
U089	Diethylstilbestrol
U090	Dihydrosafrole
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine
U093	Dimethylaminoazobenzene
U094	7,12-Dimethylbenz[a]anthracene
U095	3,3'-Dimethylbenzidine
U096	Alpha,alpha-Dimethylbenzyhlydro-peroxide
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U099	1,2-Dimethylhydrazine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U109	1,2-Diphenylhydrazine
U110	Dipropylamine
U111	Di-N-propylnitrosamine
U112	Ethyl acetate
U113	Ethyl acrylate
U114	Ethylenebis(dithiocarbamic acid), salts and esters
U115	Ethylene oxide
U116	Ethylene thiourea
U117	Ethyl ether
U118	Ethyl methacrylate
U119	Ethyl methanseulfonate
U120	Fluoranthene
U121	Metane, trichlorofluoro-
U122	Formaldehyde
U123	Formic acid
U124	Furan
U125	Furfural
U126	Glycidylaldehyde
U127	Hexachlorobenzene

Hazardous Waste No.	Description of Hazardous Waste
U128	Hexachlorobutadene
U129	Lindane
U130	Hexachlorcyclopentadene
U131	Hexachloroethane
U132	Hexachlorophene
U133	Hydrazine
U134	Hydrogen fluoride
U135	Hydrogen sulfide
U136	Cacodylic acid
U137	Indeno[1,2,3-cd]pyrene
U138	Iodomethane
U140	Isobutyl alcohol
U141	Isosafrole
U142	Kepone
U143	Lasiocarpine
U144	Lead acetate
U145	Lead phosphate
U146	Lead subacetate
U147	Maleic anhydride
U148	Maleic hydrazide
U149	Malononitrile
U150	Melphalan
U151	Mercury
U152	Methacrylonitrile
U153	Methanethiol
U154	Methanol
U155	Methapyrilene(T)
U156	Methyl chlorocarbonate
U157	3-Methylchlolanthrene
U158	4,4'-Methylenebis(2-chloroaniline)
U159	Methyl ethyl ketone
U160	Methyl ethyl ketone peroxide
U161	Methyl isobutyl ketone
U162	Methyl methacrylate
U163	N-methyl-N'nitro-N-nitrosoquanidine
U164	Methylthiouracil
U165	Napthalene

Hazardous Waste No.	Description of Hazardous Waste
U166	1,4-Naphthalenedione
U167	1-Naphthylamine
U168	2-Naphthylamine
U169	Nitrobenzene
U170	p-Nitrophenol
U171	2-Nitropropane
U172	N-Nitrosodi-n-butylamine
U173	N-Nitrosodiethanolamine
U174	N-Nitrosodiethylamine
U176	N-Nitroso-N-ethylurea
U177	N-Nitroso-N-methylurea
U178	N-Nitroso-N-methylurethane
U179	N-Nitrosopiperidine
U180	Nitrosopyrrolidine
U181	5-Nitro-o-toluidine
U182	Paraldehyde
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
U186	1,3-Pentadiene
U187	Phenacetin
U188	Phenol
U189	Phosphorous sulfide
U190	Phthalic anhydride
U191	Pyridine, 2-methyl-
U192	Pronamide
U193	1,3-Propane sultone
U194	1-Propanamine
U196	Pyridine
U197	p-Benzoquinon
U200	Reserpine
U201	Resorcinol
U202	Saccharin and salts
U203	Safrole
U204	Selenium dioxide
U205	Selenium disulfide
U206	Streptozotocin

Hazardous Waste No.	Description of Hazardous Waste
U207	1,2,4,5-Tetrachlorobenzene
U208	1,1,1,2,-Tetrachloroethane
U209	1,1,2,2,-Tetrachloroethane
U210	Tetrachloroethylene
U211	Carbon tetrachloride
U213	Tetrahydrofuran
U214	Thallium(l) acetate
U215	Thallium(l) carbonate
U216	Thallium(l) chloride
U217	Thallium(l) nitrate
U218	Thioacetamide
U219	Thiourea
U220	Toluene
U221	Toluenediamine
U222	o-Toluidine hydrochloride
U223	Toluene hydrochloride
U225	Bromoform
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene
U234	sym-Trinitrobenzene
U235	Tris(2,3-dibromopropyl) phosphate
U236	Trypan blue
U237	Uracil mustard
U238	Ethyl carbarmate (urethan)
U239	Xylene
U240	2,3-D, salts and esters
U243	Hexachloropropene
U244	Thiram
U246	Bromine cyanide
U247	Methoxychlor
U248	Warfarin, when present at concentrations of 0.3% or less
U249	Zinc phosphide, when present at concentrations of 10% or less
U271	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U278	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U279	1-Naphthalenol, methylcarbamate

Hazardous Waste No.	Description of Hazardous Waste
U280	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	o-Toluidine
U353	p-Toluidine
U359	Ethylene glycol monoethyl ether
U364	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U367	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U372	Carbamic acid, 1 H-benzimidazol-2-yl, methyl ester
U373	Carbamic acid, phenyi-, 1 -methylethyl ester
U387	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U389	Carbamothioic acid, bis(1-methylethyl)-S-(2,3,3-trichloro-2-propenyl) ester
U394	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U395	Ethanol, 2,2'-oxybis-, discarbamate
U404	Ethanamine, N,N-diethyl-
U409	Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis, dimethyl ester
U410	Ethanimidothioc acid, N,N=-[thiobis(methylimimo)carbonyloxy]bis-,dimethyl ester
U411	Phenol, 2-(1-methylethoxy)-, methylcarbamate

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*These hazardous waste codes are permitted only for storage and transfer, not fuel blending.
[1]These hazardous waste codes are not permitted for shredding.
[2]These hazardous waste codes are the only codes permitted for lamp crushing.

ATTACHMENT B

INSPECTION SCHEDULE

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. 16R

Table I: General Inspection Schedule Security Devices

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Fence	. Inspect entire perimeter for breaches or damage	Daily
Gates	. Check for proper gate lock function	Daily
Warning Signs	. Check for presence of warning signs	Daily
Lighting System (indoor/outdoor)	. Check lights for operability	Daily
Lighting System (Emergency)	. Check lights for operability	Monthly

Table II: General Inspection Schedule, Safety & Emergency Equipment

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Protective Gear (e.g., Helmets, Face Shields, Goggles, Boots, Gloves, Acid Resistant Clothing, Disposable Suits, Disposable Bags)	. Check accessibility	Daily
	. Check for adequate supply	Daily
	. Check for deterioration, damage	Daily
Breathing Apparatus	. Check for accessibility	Daily
	. Check for adequate supply, full charge on canisters, and all air tanks	Daily
	. Check for deterioration and damage	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Breathing Apparatus (continued)	. Check for function	Monthly
First Aid Kits	. Check accessibility	Daily
	. Check for adequate supply	Daily
Emergency Showers	. Check that units activate and shut off properly	Daily
	. Check accessibility	Daily
Water Lines	. Check for adequate pressure	Monthly
Internal (Phone or Radio)/External	. Check accessibility	Daily
(Phone) Communications Systems	. Check for operations	Daily
	. Test cellular phones	Monthly
Fire Extinguishers	. Check pressure gauge for full charge indication	Monthly
	. Check inspection tag to insure annual maintenance by outside fire service is up-to-date	Monthly
	. Check seal to ensure no one has used extinguisher	Monthly
	. Check to ensure access to units is not blocked	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Fire Suppression System (Monitors, Pull Stations, Alarms)	. Check for accessibility	Daily
	. Test fire alarm warning systems	Monthly
	. Test Foam Supply	Annually
Absorbent Supply	. Check for adequate supply	Daily
Recovery Drums	. Check for adequate supply	Daily
Other Emergency and Decontamination Equipment	. Check accessibility	Daily
	. Check for adequate supply	Daily
	. Check for deterioration/damage	Daily
Respirators and Cartridges	. Check for adequate supply	Daily
Fire Suppression System	. Verify lack of combustible material and arrangement of room (e.g. unobstructed aisles) in the following valve rooms: a. Shed west of truck scale; b. Shed at northeast corner of truck farm; and c. Shed east of Unit 61.	Daily
Water based fire suppression systems including sprinklers, monitors, foam water sprinkler systems, foam water deluge systems, foam maker suppression systems, fire pumps,	Inspect and test these items in accordance with the requirements, protocols, and frequencies specified in the current editions of NFPA 11, NFPA 16, NFPA 16A, NFPA 20, NFPA 22, NFPA 24 and NFPA 25	At Least Annually

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
water supply, storage tanks, underground piping, and foam concentrate supply and proportioning systems.		
Fire alarm and detection system, including all detection devices	Inspect and test these items in accordance with the requirements, protocols and frequencies specified in the current edition of NFPA72.	At Least Annually
Foam Proportioning System	The system must be inspected by manufacturer's representative in conjunction with form concentrate testing to verify that there is no unusual interaction between the form concentrate and foam proportioning equipment. The permittee must report any degradation of the system to IEPA. The permittee must make arrangements to resolve any deficiencies for both the short term and log term operation of the facility.	Annually
All fire protection Equipment and Systems	The permittee must compare future test results for all fire protection equipment and systems to the data obtained during the 1995 acceptance testing, and document the comparison. The permittee must report any discrepancies to IEPA. The permittee must resolve the discrepant condition or provide an explanation as to the nature of the discrepancy and proposed solution, and report to IEPA.	Annually

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Liquid Levels Monitors	. Check if operators log book is up to date	Daily
	. Check tank liquid level indicators for operability	Daily
	. Check containment sump liquid level indicators for operability	Daily
All Ancillary Equipment (e.g. pumps, filter baskets, manifolds)	. Visual inspection for leaks and corrosion	Daily
	. Conduct leak test or approved integrity assessment	Annually
Control/Monitoring Equipment	. Maintenance inspection - Tank Level Monitors - Containment Sump Floats - High/Low Level Alarms - High/Low Pressure Switches and Alarms - Nitrogen Blanket Supply System	Per mfg. recommen-dations, but at least monthly
Flame Arrestors, Conservation Vents, Emergency Vents	. Check for obstruction or other damage	Annually
Carbon Absorption Canisters	. Check that units are functional and that valves are properly positioned	Daily
	. Check carbon bed for organic breakthrough	Daily
Tank Truck Loading/ Unloading Area	. Check for evidence of spills or releases in unloading area	Daily
	. Check for removal of spill absorbent and cleanup materials	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Container Storage Area (continued)	. Check for condition and availability of overpack containers	Monthly
Stored Containers	. Check for drums being in good condition	Daily
	. Check that drums are not open	Daily
	. Check for proper placement	Daily
	. Check adequacy of aisle space	Daily
	. Check height of stacks	Daily
	. Check storage capacity not exceeded	Daily
	. Check for proper labeling	Daily
Container Loading/ Unloading Area	. Check for damaged containers	Daily
	. Check for evidence of spilled material on slab and ramps used	Daily
	. Check for removal of used absorbent and cleaning materials	Daily
	. Check for prompt container removal from receiving area	Daily
	. Inspect grounding system equipment for operability	Daily
	. Check forklifts for proper operation and accumulation of residue	Each Operating Shift

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Containers from the Pegasus System	• Inspect ten (10) consecutive containers prior to crushing to insure that they are RCRA empty	Monthly or per the schedule submitted as part of the comments on the draft permit dated 6/3/95

Table V: Miscellaneous Unit Area Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Miscellaneous Unit	Inspect unit for leaks visually	Daily when unit in use
	Inspect unit for leaks (emissions) visually (shredder and compactor only)	Annually
Control/Monitoring Equipment	Flow indicator sensor pressure measurement device (shredder and compactor only)	Per mfg. recommendations, but at least monthly
Carbon Absorption Canisters	Check that units are functional and that valves are properly positioned	Daily when unit in use
	Check carbon bed for breakthrough	Daily when unit in use
Lamp Crusher Only	Ensure fan is operational	Daily when unit in use, before operating

All receptacles are properly positioned And have secure connection rings	Daily when unit in use, before Operating
Each receptacle of co-products shall be Inspected for cross-contamination	Daily when unit in use

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ATTACHMENT C

CONSTRUCTION CERTIFICATION FORM
AND INSTRUCTIONS

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

CONSTRUCTION CERTIFICATION

This statement is to be completed by both the responsible officer and the registered professional engineer upon completion of construction in accordance with 35 IAC Section 702.126. Submit one copy of the certification with original signatures and two additional copies (four additional copies for UIC wells). Forward these certification statements and any information required by the permit to the following address:

Illinois Environmental Protection Agency
Bureau of Land - #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

FACILITY NAME: _____

IEPA SITE CODE: _____

U.S. EPA ID NO.: IL_____

PART B PERMIT LOG #/UIC PERMIT #: _____

PERMIT (OR MODIFICATION) ISSUANCE DATE: _____

PERMIT CONDITION NO. REQUIRING CERTIFICATION: _____

The _____ has been constructed in accordance with the specifications in the Part B/UIC Permit. Documentation that the construction was in accordance with the permit is contained in the enclosed report. 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 fine and imprisonment for knowing violations.

_____
Signature of Owner/Operator — Name and Title

_____
Signature of Registered P.E. — Name of Registered P.E. and Illinois Registration Number

_____
Date — (P.E. SEAL)

This Agency is authorized to require this information under Illinois Revised Statutes, 1979. Chapter 111 2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

DATE: February 23, 1996

TO: Facilities Permitted Under the IEPA RCRA and UIC Programs

FROM: DLPC Permit Section

SUBJECT: Certification Documentation for Construction Required by IEPA-Issued Permits

When submitting certification required by a Part B or UIC permit for construction of any newly developed areas or units, please complete the attached certification form. Modifications to the construction of UIC wells should be certified with this form, but the installation of groundwater monitoring wells does not require this certification (unless specifically required by the permit). This will help to ensure that the submittal reaches its proper destination and that the certification will meet the regulatory requirements. Sending the Field Operations Section (F.O.S.) copy directly to the Field Office is acceptable as long as all copies have a completed copy of the enclosed form attached and you advise the Permit Section, in writing, that a copy has been sent to F.O.S.

A documentation report and as-built drawings (sealed and signed by an Illinois Professional Engineer) must be included with this certification. Information necessary to document the construction of the unit or area and to support the certification must be contained within the report. This report should include a thorough description of all construction data and drawings and should be formatted in a logical and orderly manner. The construction documentation report must contain at least the following items:

1. An introduction and summary which describes the scope and purpose of the project;

2. A description of all construction activities, including quality assurance and quality control;

3. As-built drawings of the area or unit and a description of any deviations from the plans and specifications approved in the permit;

4. A description of the test methods used and justification for any deviations from standard test methods;

5. A summary of test results, identification of any samples which did not meet the specifications and the corrective action and retesting which was undertaken in response to any failing test results;

6. Any necessary information associated with construction of the area or unit to document that construction was in accordance with the plans and specifications approved by the permit;

7. Information specifically required by the permit; and

8. Any available photographs of the area or unit.

If you have any questions, please contact a member of the DLPC Permit Section at 217/782-6762.

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Enclosure

ATTACHMENT D

CLOSURE CERTIFICATION FORM

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

The hazardous waste management units at the facility described in this document have been closed in accordance with the specifications in the Agency approved closure plan. 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 fine and imprisonment for knowing violations.

USEPA ID Number	Facility Name
Signature of Owner/Operator	Name and Title
Signature of Registered P.E.	Name of Registered P.E. and Illinois Registration Number
Date	

ATTACHMENT E

APPROVED PERMIT SECTION IDENTIFICATION

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Permit Log No. B-16R

Title	Latest Revision Date
SECTION A -- RCRA PART A APPLICATION [EPA FORM 8700-23 (01-90)]	10/21/04
SECTION B -- FACILITY DESCRIPTION	
B-1 General Description	01/31/04
B-2 Topographic Map	04/19/03
B-3 Location Requirements	04/19/03
B-4 Traffic Information	04/19/03
B-5 Operating Record	01/31/04
B-6 Solid Waste Management Units	01/31/04
SECTION C - WASTE CHARACTERISTICS	
C-1 Chemical and Physical Analysis	04/19/03
C-1(i) Activities Exempt from RCRA	04/19/03
C-1(ii) Hazardous Waste Activities Regulated Under RCRA	03/15/04
C-1(iii) Detailed Description of RCRA Hazardous Wastes Activities	03/15/94
C-1a Containerized Waste	03/15/04
C-1b Waste in Tank Systems	03/15/04
C-1d Landfilled Waste	04/19/03

	Title	Latest Revision Date
C-1e	Wastes Incinerated and Used in Performance Tests	04/19/03
C-1f	Wastes to be Land Treated	04/19/03
C-2	Waste Analysis Plan	03/15/04
C-2a	Parameters and Rationale	03/15/04
C-2a(1)	Waste Pre-qualification Procedures	03/15/04
C-2a(2)	Conformance Testing	01/31/04
C-2a(3)	Process Operation and Compatibility Testing	01/31/04
C-2b	Test Methods	01/31/04
C-2c	Sampling Methods	10/07/04
C-2d	Frequency of Analysis	10/07/04
C-2e	Additional Requirements for Wastes Generated Off-Site	10/07/04
C-2e(1)	Bulk Transport Receiving Procedures	10/07/04
C-2e(2)	Container Receiving Procedures	04/19/03
C-2e(3)	Lab Packed Waste Receiving Procedures	04/19/03
C-2e(4)	General Waste Acceptance Criteria	04/19/03
C-2e(5)	Nonconformance	04/19/03
C-2e(6)	Rejected Loads	04/19/03

Title	Latest Revision Date
C-2f Additional Requirements for Ignitable, Reactive or Incompatible Wastes	04/19/03
C-2g Waste Analysis Requirements for Land Disposal Restrictions (LDR)	01/31/04
C-3 Quality Assurance	01/31/04

SECTION D -- PROCESS INFORMATION

Introduction

D-1 Containers	
D-1(i) Drum Container Storage Activities	03/15/04
D-1(ii) Bulk Solids (Rolf) Container Management Activities	04/19/03
D-1(iii) Hazardous Waste Transporter Storage/Staging	04/19/03
D-1(iv) Other RCRA-Regulated Container Management Activities	10/21/04
D-1(v) RCRA – Exempt Container Management Activities	04/19/03
D-1a Containers With Free Liquids	04/19/03
D-1a(1) Description of Containers	04/19/03
D-1a(2) Container Management Practices	01/31/04
D-1a(3) Secondary Containment System Design and Operation	04/19/03
D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids	01/31/04

Title	Latest Revision Date
D-1a(3)(b) Containment System Drainage	01/31/04
D-1a(3)(c) Containment System Capacity	04/19/03
D-1a(3)(d) Control of Run-On	01/31/04
D-1a(3)(e) Removal of Liquids from Containment System	04/19/03
D-1b Containers Without Free Liquids	04/19/03
D-2 Tank Systems	01/31/04
D-2a(1) Existing Tank System's	04/19/03
D-2b New Tank Systems	04/19/03
D-2c Dimensions and Capacity of Each Tank	04/19/03
D-2d Description of Feed Systems, Safety Cutoff, Bypass Systems and Pressure Controls	04/19/03
D-2e Diagram of Piping, Instrumentation and Process Flow for Each Tank System	04/19/03
D-2f Containment and Detection of Releases	04/19/03
D-2g Controls and Practices to Prevent Spills and Overflows	04/19/03
D-3 Waste Piles	04/19/03
D-4 Surface Impoundments	04/19/03
D-5 Trial Burns	04/19/03
D-6 Landfills	04/19/03

	Title	Latest Revision Date
D-7	Land Treatment	04/19/03
D-10	Miscellaneous Units	04/19/03

SECTION E -- GROUNDWATER MONITORING.....**11/11/04**

SECTION F -- PROCEDURES TO PREVENT HAZARDS

F-1	Security	
F-1a	Security Procedures and Equipment	04/19/03
F-1a(1)	24-hour Surveillance System	04/19/03
F-1a(2)	Barrier and Means to Control Entry	04/19/03
F-1a(2)(a)	Barrier	04/19/03
F-1a(2)(b)	Means to Control Entry	04/19/03
F-1a(3)	Warning Signs	04/19/03
F-1b	Waiver	04/19/03
F-2	Inspection Schedule	04/19/03
F-2a	General Inspection Requirements	07/15/94
F-2b	Specific Process Inspection Requirements	07/15/94
F-2b(1)	Container Inspection	07/15/94
F-2b(2)	Tank System Inspections	07/15/94
F-2b(2)(a)	Tank Construction Materials	01/19/95

Title	Latest Revision Date
F-2b(2)(b) Tank Surrounding Area	01/19/95
F-2b(2)(c) Tank Overfilling Control Equipment	01/19/95
F-2b(2)(d) Tank Monitoring Data	01/19/95
F-2b(2)(e) Tank Level of Waste	04/19/03
F-2b(2)(f) Tank Condition Assessment for Unretrofitted Tanks	04/19/03
F-2b(3) Waste Pile Liner Inspection	04/19/03
F-2b(4) Waste Pile Inspection	04/19/03
F-2b(5) Surface Impoundment Inspection	04/19/03
F-2b(6) Incinerator Inspection	04/19/03
F-2b(7) Landfill Inspection	04/19/03
F-2b(8) Land Treatment Facility Inspection	04/19/03
F-3 Waiver or Documentation of Preparedness and Prevention Requirements	
F-3a Equipment Requirements	
F-3a(1) Internal Communications	04/19/03
F-3a(2) External Communications	04/19/03
F-3a(3) Emergency Equipment	04/19/03
F-3a(4) Water for Fire Control	04/19/03
F-3b Aisle Space Requirements	04/19/03

	Title	Latest Revision Date
F-4	Preventive Procedures, Structures and Equipment	
F-4a	Unloading Operations	04/19/03
F-4b	Run-Off	04/19/03
F-4c	Water Supplies	04/19/03
F-4d	Equipment and Power Failure	04/19/03
F-4e	Personnel Protection Equipment	04/19/03
F-5	Prevention of Reaction of Ignitable, Reactive or Incompatible Wastes	
F-5a	Precautions to Prevent Ignition or or Reaction of Ignitable or Reactive Wastes	04/19/03
F-5b	General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste	01/19/95
F-5c	Management of Ignitable or Reactive Wastes in Containers	03/15/04
F-5d	Management of Incompatible Wastes in Containers	03/15/04
F-5e	Management of Ignitable or Reactive Wastes in Tank Systems	01/31/04
F-5f	Management of Incompatible Wastes in Tank Systems	01/19/95
F-5g	Management of Ignitable or Reactive Wastes Placed in Waste Piles	01/19/95
F-5h	Management of Incompatible Wastes Placed in Waste Piles	01/19/95

	Title	Latest Revision Date
F-5i	Management of Ignitable or Reactive Wastes in Surface Impoundments	01/19/95
F-5j	Management of Incompatible Wastes Placed in Surface Impoundments	01/19/95
F-5k	Management of Ignitable or Reactive Wastes in Landfills	01/19/95
F-5l	Management of Incompatible Wastes Placed in Landfills	01/19/95
F-5m	Management of Ignitable or Reactive Wastes in Land Treatment Units	01/19/95
F-5n	Management of Incompatible Wastes Placed in Land Treatment Units	01/19/95

SECTION G -- CONTINGENCY PLAN

G-1	General Information	03/15/04
G-2	Emergency Coordinators	12/23/99
G-3	Implementation	12/23/99
G-4	Emergency Response Procedures	
G-4a	Notification to Federal, State, and Local Officials	10/14/96
G-4b	Identification of Hazardous Materials	04/05/99
G-4c	Assessment	04/05/99
G-4d	Control Procedures	04/05/99

Title		Latest Revision Date
G-4d(1)	Fire and/or Explosion	07/15/94
G-4d(2)	Release to Air, Soil, or Surface Water	10/14/96
G-4d(3)	Equipment Failure or Power Outages	10/14/96
G-4e	Prevention of Recurrence or Spread of Fires, Explosions or Releases	10/14/96
G-4f	Storage and Treatment of Released Material	10/14/96
G-4g	Incompatible Waste	10/14/96
G-4h	Post Emergency Equipment Maintenance	10/14/96
G-4i	Container Spills and Leaks	10/14/96
G-4j	Tank System Spills and Leaks	10/14/96
G-4j(1)	Tank System Spills and Leakage	10/14/96
G-4j(2)	Spills and Leaks from Tanks Containing Particular Chlorinated Dioxins, Dibenzofurans, and Phenols	10/14/96
G-4k	Waste Pile Spills and Leakage	10/14/96
G-4l	Surface Impoundment Spills and Leakage	10/14/96
G-4m	Incinerator Spills and Leakage	10/14/96
G-4n	Landfill Leakage	04/05/99
G-5	Emergency Equipment	10/14/96
G-6	Coordination Agreement Requirements	10/14/96
G-7	Evacuation Plan	04/05/99

	Title	Latest Revision Date
G-8	Required Reports	10/14/96

SECTION H -- PERSONNEL TRAINING

H-1	Outline of the Training Program	04/19/03
H-1a	Job Title/Job Description	01/31/04
H-1b	Training Content	01/31/04
H-1c	Training Director	01/31/04
H-1d	Relevance of Training to Job Position	01/31/04
H-1e	Training for Emergency Response	01/31/04
H-2	Implementation of Training Program	04/19/03

SECTION I -- CLOSURE AND POST-CLOSURE REQUIREMENTS

I-1	Closure Plans	
I-1a	Closure Performance Standard	04/19/03
I-1b	Partial Closure Activities	04/19/03
I-1c	Maximum Waste Inventory	04/19/03
I-1d	Inventory Removal, Disposal, or Decontamination of Equipment, Structures, and Soils	04/19/03
I-1d(1)	Closure of Containers	04/19/03
I-1d(2)	Closure of Tank Systems	04/19/03

	Title	Latest Revision Date
I-1d(3)	Closure of Waste Piles	04/19/03
I-1d(4)	Closure of Surface Impoundments	04/19/03
I-1d(5)	Closure of Incinerators	04/19/03
I-1d(6)	Closure of Land Treatment Facilities	04/19/03
I-1e	Closure of Disposal Units	04/19/03
I-1f	Schedule for Closure	04/19/03
I-1g	Extensions of Closure Time	04/19/03
I-2	Post-Closure Plan	04/19/03
I-3	Notice in Deed and Certification	04/19/03
I-4	Closure Cost Estimate	04/19/03
I-5	Financial Assurance Mechanism for Closure	04/19/03
I-6	Post Closure Cost Estimate	04/19/03
I-7	Financial Assurance Mechanism for Post Closure	04/19/03
I-8	Liability Requirements	04/19/03
I-9	State Mechanism	04/19/03
SECTION J -- OTHER FEDERAL LAWS		04/19/03
SECTION K -- PART B CERTIFICATION		
K-1	Facility Certification	04/19/03

Title		Latest Revision Date
K-2	Engineering Certification	04/19/03

SECTION L -- CONTINUING RELEASES AT PERMITTED FACILITIES

L-1	Solid Waste Management Units	04/19/03
L-2	Releases	04/19/03

SECTION M -- RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS 04/19/03

SECTION N -- RCRA PART B CERTIFICATION 11/11/04

SECTION O -- PRIOR CONDUCT CERTIFICATIONS AND FACILITY COMPLIANCE HISTORY 04/19/03

Section AA	Air Emissions Standards For Process Vents	04/19/03
Section BB	Determination of Applicability to the CHSI Facility...	01/31/04
Section CC	Air Emission Standards for Tanks, Surface Impoundments and Containers	04/19/03

List of Tables		Latest Revision Date
B-1.	Map Requirements	07/15/94
C-1.	Primary Treatment Using Chemical Precipitation, Coagulation, and Filtration	07/15/94
C-2.	Pretreatment Using Neutralization	07/15/94

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C-3. Pretreatment Using Chemical Oxidation 07/15/94

C-4. Pretreatment Using Chemical Reduction 07/15/94

C-5. Pretreatment by Other Methods 07/15/94

C-1a. Primary Treatment of Non-Hazardous Wastes Using Chemical Precipitation,, Coagulation, and Filtration 07/15/94

C-2a. Pretreatment of Non-Hazardous Wastes Using Neutralization 07/15/94

C-3a. Pretreatment of Non-Hazardous Wastes Using Chemical Oxidation 07/15/94

C-4a. Pretreatment of Non-Hazardous Wastes Using Chemical Reduction 07/15/94

C-5a. Pretreatment of Non-Hazardous Wastes By Other Methods 07/15/94

C-6. Pretreatment Using Oil Recovery 07/15/94

C-7. Listed Waste Treatment Process 07/15/94

C-8. Stabilization/Fixation Prior to Off-Site Disposal 04/19/03

C-9. Wastes for Storage and Transfer 04/19/03

C-10. Hazardous Waste Fuel Blending 04/19/03

C-11. Hazardous Characteristics of Wastes in Tank Systems 04/19/03

C-12. Pre-acceptance and Conformance Testing Parameters 07/15/94

List of Tables **Latest Revision Date**

C-13. List of Supplemental Analyses 07/15/94

C-14. Analytical Methods 07/15/94

C-15. Sampling Methods 07/15/94

C-16. Hazardous Waste Shredding/Metal Washing 04/19/03

C-17. Hazardous Waste Lamp Crushing 03/15/04

D-1. Container Management Areas 03/15/04

D-2. Tank Management Areas 04/19/03

D-3. Physical Data for Existing Tanks 01/19/95

D-4. Operating Data for Existing Tanks 04/19/03

D-5. Physical Data for RCRA Resulted Tanks 04/19/03

D-6. Operating Data for Proposed Tanks 04/19/03

D-7. General Container Information 04/19/03

D-8. List of Reagents Used in Waste Treatment Processes 04/19/03

D-9. Container Handling Activities and Equipment 04/19/03

F-1. Inspection Schedule 04/19/03

F-2. General Facility Inspection -- Key Inspection Elements 04/19/03

F-3. Unit Specific Inspection -- Key Inspection Elements 04/19/03

F-4. Protective Equipment Guide 07/15/94

List of Tables		Latest Revision Date
G-1.	List of Emergency Coordinators	11/21/03
G-2.	List Of Coordination Agreements	01/19/95
G-3.	Emergency Equipment Capabilities	10/24/01
H-1.	Training Program Outline	01/31/04
H-2.	Training Topics	07/15/94
I-1.	Capacity of Existing/Proposed Hazardous Waste Storage/Treatment Units	03/15/04
I-2.	Closure Timeline	01/31/04
I-3	Frequency of Inspections and other Post-Closure Activities	04/19/03
I-4	Estimated Annual Soil Losses from Vegetated Final cap	04/19/03

List of Appendices		Latest Revision Date
B-1.	Legal Description and Survey, Clean Harbors of Chicago, Inc., Drawing No. N-116032, prepared by National Survey Services, Inc.	Undated
B-2.	City of Chicago Zoning Ordinance, Page Nos. 227B, 228B, 234B, and 235B.	01/01/72
B-3.	Seismic Survey	01/24/91
B-4.	Roadway Analysis	01/24/91
B-5.	Vicinity/Access Maps	Undated
B-6.	Stony Island Avenue Construction Upgrade	Undated
B-7.	Stony Island Avenue Construction Details	Undated

C-1.	Typical Waste Analyses	Undated
C-2.	Treatability Study Data for Oxidation of Organic Compounds	Undated
C-3.	Treatability of Organic Compounds Using Carbon Adsorption	Undated
C-4.	Treatability Study Data for Stabilization/Fixation of Wastes	05/28/92
C-5	Generator Waste Material Profile Sheet	Undated
C-6	Container Storage Compatibility Test Procedure [Revised 09/17/83]	Undated
C-7	Laboratory Capabilities	Undated
C-8	Land Disposal Restriction Forms	02/29/00
D-1	Process Description For Existing and Proposed Activities at Clean Harbors Svcs Inc	03/15/04
D-2	Container Management Guidelines	03/15/04
D-3	Manufacturer's Literature For Mobile Waste Compactor	Undated
D-4	SOP treatment of Acid Cyanides	02/09/94
D-5	SOP Wetting of Organic Peroxides	02/09/94
D-6	Sample Labels/Markings	04/19/03
D-7	P.E. Assessment and Certification of the Design of Existing and Approved/Not Yet Constructed Containers Storage Areas	12/11/92
D-8	P.E. Certification of the Construction of the Proposed/Modified Container Storage Areas	01/19/95

D-9	Subsurface Investigation Reports	06/21/90
D-10	Technical Specifications for Coating Systems	Undated
D-11	Pegasus Fuel Blending System Operations Manual	07/06/94
D-12	P.E. Assessment and Certification of the Design of Proposed/Modified Tank Storage System	07/18/94
D-13	Construction Details for Existing Waste Receiving Tanks	09/02/80
D-14	Construction Details for Existing Bulk Storage Tanks	11/18/80
D-15	Design Details – Existing Chemical Treatment Unit	04/18/81
D-16	Design Details – Existing Clarifier Internal Assembly	03/26/81
D-17	Design Details – Existing Secondary Treatment Tanks	Undated
D-18	Design Details – Existing Sludge Sump	09/02/80
D-19	Design Details – Existing Sludge Conditioning Tank	02/03/88
D-20	Existing Reactor Vessel Details	04/16/01
D-21	Modifications in Effluent Holding Tanks	09/12/88
D-22	Design Details – Waste Storage Tank	Undated
D-23	Tank Details Oily Waste Water Pretreatment	11/19/82
D-24	P.E. Certification of Assessment of the Existing RCRA – Exempt Inorganic Treatment System	06/10/91
D-25	P.E. Engineer Assessment and Certification of the Design of the Approved/Not Yet Contracted	06/03/91
D-26	P.E. Certification of Assessment of the Integrity of the Proposed/Modified Tank Containment System	07/21/94

D-27	P.E. Assessment and Certification of the Design of Pegasus System	03/12/93
D-28	Structural Design and Secondary Containment Calculations for Approved/Not Yet Constructed Tank Units	03/12/93
D-29	Structural Design and Secondary Containment Calculations for Proposed/Modified Tank Systems	07/21/94
D-30	Waste Codes and Treatment Standards of Process Waste Surface Impoundments	Undated
D-31	Surface Impoundment Closure Certification	12/30/93
D-32	IEPA Closure Certification Approval	06/30/94
D-33	Survey Plat	05/03/94
D-34	Surface Impoundment Post-Closure Notice	05/10/94
D-35	Mfg's Literature: Enpac Corporation "Poly-Spillpallet 3000" Self-Contained Pallets	Undated
D-36	Engineering Drawings and Design Specifications for Bulk Storage Tank Farm (Unit 16)	01/-/95
D-37	Engineering Certifications for Dock Extension (Unit Q) and Fire Suppression System (Unit Q1)	07/21/99
D-38	Compressed Gas SOPs for Venting and Downloading, Engineering Certifications	10/22/01
D-39	Construction Certification – Unit G1	10/29/02
D-40	Unit 25 Lab Pack Pour-Off Emission Calculations, Engineering Certification	08/26/99
D-41	Building 42 Subpart BB/CC Emission Calculations, Engineering Certification, Potential Pathways to Humans or Environmental Receptors	01/22/99

D-42	Shredding System Engineering Calculations	09/20/00
D-43	Shredder/Hydropuplar Operations Manual	05/02/96
D-44	Shredding System Subpart BB/CC Emission Calculations, Potential Pathways to Humans of Environmental Receptors	01/17/00
D-45	Engineering Certification Units 16 and 25	03/20/01
D-46	Engineering Certification Units B and E	09/01/95
D-47	Engineering Certification Unit 26	09/09/95
D-48	Engineering Certifications Units 43 and 60	09/15/95
D-49	Engineering Certifications Units 13, 15, 59, 61, 62	07/03/95
D-50	Information Concerning Stacking of Non-Metallic Containers	04/24/03
D-51	Demonstration of Stacking Heights and Pile Arrangement Meeting NFPA 30 Requirements	10/17/03
D-52	Compressed Gas Cylinder Program and Guidelines	08/-/95
D-53	Engineering Assessment for Modified Building 25 and Truck Pad	03/20/01
D-54	Engineering Assessment for Unit F1, Unit Q, Unit V and Unit R2 (new portion)	11/25/02
D-55	Internal Tank Inspection Reports for Existing Tanks	12/19/02
D-56	Containment System Calculations for Unit Q and Unit X	Undated
D-57	Evaluation Data Sheets for Lab Pack Pour-Off Hood Ventilations	10/01/04
D-58	Unit F-1 Drawing	10/04/04

D-59	Tank Thickness Testing and Corrosion Rates	Thru 03
D-60	Lamp Crushing Machine	09/09/04
D-61	SOP for the Addition of Dry Ice to Roll-offs/Intermodals	Undated
D-62	SOP for the Wetting of Black Powder	11/07/01
E-1	Borings Logs and Groundwater Monitoring Well Construction Summaries	09/28/95
E-2	Groundwater Assessment Program, Fourth Quarter 1991 Report	1994
E-2A	Groundwater Elevation Data	04/29/94
E-3	Historical Data by Sampling Location	04/03/91
E-4	WMI Manual for Groundwater Sampling	1991
E-5	Laboratory Explanation of Pesticide and Herbicide Detection in April 1987 Event	Undated
E-6	Groundwater Assessment Report	1987
E-7	Groundwater Monitoring Enhancements Work Plan Report	Undated
F-1	Confined Space Entry Procedures	Undated
F-2	25 Year, 24 Hour Rainfall Chart	Undated
F-3	Fire Control Analysis	02/13/92
F-4	Professional Fire Protection Engineer Certification of Foam Fire Protection System Upgrade	02/19/96
F-5	P.E. Assessment and Certification of the Design of Railcar Containment Basin	05/18/95
F-6	Secondary Containment Calculations for Loading/Unloading Areas	03/10/93

F-7	Personal Protective Equipment Program	03/-/90
F-8	Equipment and Procedures for Transfer of Flammable Liquids	Undated
F-9	Ultrasonic Tank Testing Procedures and Qualifications	Undated
F-10	Remedial Work Order and Reinspection Report	Undated
G-1	Site Plan Existing Approved, Modified and Proposed Facilities & Operation	04/15/03
G-2/ G-3	Hazards Evaluation Report	10/04/04
G-4	Anticipated Hazards at Clean Harbors Svcs Inc	03/15/94
G-5	Emergency and Safety Equipment Location Plan	04/18/01
G-6	Documentation of Emergency Coordination Agreements	04/15/91 and 05/03/91
G-7	Evacuation Plan	01/19/00
G-8	Products of Incomplete Combustion	Undated
H-1	Job Descriptions/Job Titles	10/-/90
H-2	Professional Resumes	Undated
H-3	CHSI Training Documentation Form	Undated
H-4	CHSI Personnel Training Summary	04/19/03
I-1	Survey Plat	05/03/94
I-2	Post-Closure Notice	05/19/94
I-3	Closure Cost Estimate	03/15/94
I-4	Closure Financial Assurance Mechanism	12/13/02

I-5	Post-Closure Cost Estimate	10/17/03
I-6	Post-Closure Financial Assurance Mechanism	01/09/03
I-7	Hazardous Waste Facility Certificate of Liability Insurance	Effective 05/01/03
J-1	Existing CHSI Air Pollution Control Permits	05/30/01
J-2	Existing CHSI Water Pollution Control Permits	01/10/03
K-1	Facility Certification	11/11/04
K-2	Certification by Professional Engineer	10/07/04
L-1	CHSI Operating Permit	06/04/01
L-2	Solid Waste Management Units and Past Releases at CWMCSI	06/29/02
L-3	CHSI Release Reports	04/10/03
O-1	Clean Harbors, Inc. Sec. 10K Form	05/05/03
O-2	Prior Conduct Certification Forms	05/15/03
O-3	Description of Violations of Federal, State or Local Laws, Regulations, Ordinances	Undated
BB-1	List of Subpart BB Regulated Equipment	as 05/07/03
BB-2	Leak Detection Monitoring	12/06/96
BB-3	Calibration Information	Undated
BB-4	Outline of Minimum Facility Compliance Record	12/06/96
BB-5	Inspection and Leak Repair Data Form	Undated
BB-6	RCRA Air Emissions Regulations Overview	Undated

CC-1 Closed Vent and Carbon Absorption Systems ..... Undated

CC-2 Subpart CC – Compliance Requirements for Affected Facilities . 12/06/96

CC-3 Subpart CC – Regulated Equipment and Processes 12/06/96

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Note: The portions of the approved permit application that were undated were received by the Illinois EPA on or before December 19, 2004.

ATTACHMENT F

FINANCIAL ASSURANCE REQUIREMENTS

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

I. FINANCIAL ASSURANCE FOR CLOSURE

The permittee shall maintain financial assurance for the closure of the units at the facility as described in the application and as identified below in accordance with 35 Ill. Adm. Code 724.242 and 724.243.

A. Description of Units

Unit	Financial Assurance Required for Unit (1995 dollars)
i. Existing Units to be Operated as of the Effective Date of this Permit	
Container Storage Units	
Drum Storage Area (Unit G1)	$ 40,506
Drum Storage Area (Unit R1)	$ 254,218
Lab Pack Pouroff Area (Unit F1)	$ 7,386
Drum Storage Area Expansion (Unit R2)	$ 183,231
Container Storage Building (Unit 25)	$ 169,827
Ignitable Container Storage Building (Unit 26)	$ 70,817
Container Handling Dock (Unit 61)	$ 44,644
Bulk Solids Storage Units	
Bulk Container Storage Area (Unit Q1)	$ 28,176
Bulk Solids Storage Pad (Unit B)	$ 63,273
Tank Storage/Processing Units	
Fuels Blending Operation (Unit 43)	$ 12,498
Tank Farm (Unit 16)	$ 490,179
Transportation Storage/Staging Units	
Truck Unloading Area and Bulking Area (Unit Q)	$ 74,616
Truck Loading Dock (Unit V)	$ 73,716
Truck Staging Area (Unit C)	$ 140,981
Railcar Unloading Area (Unit 13)	$ 196,595
Truck Unloading Platform (Unit 15)	$ 50,024
Truck Staging Area (Unit 59)	$ 72,857
Loading/Unloading Area (Unit 62)	$ 95,967
	$2,069,511

Unit		Financial Assurance Required for Unit (1995 dollars)
	Total for Existing/proposed Units Upon Effective Date Including 10% contingency.	**$2,276,462**
ii.	**Proposed Units to be Operated in the Future**	
	Proposed Container Storage Units	
	Drum Storage Area Expansion (Unit R2)	$ 34,160
	Lab Pack Repack and Consolidation Area (Unit U)	$ 20,294
	Proposed Bulk Solids Storage Units	
	Rolloff Container for Listed Waste (Unit Z1)	$ 12,104
	Proposed Tank Storage/Processing Units	
	Listed Waste Storage Tanks (Unit Y)	$ 548,819
	Process Building 3 (Unit Z)	$ 148,146
	Tank Farm Unit 22	$ 151,428
	Shredding Operation	$ 36,007
	Metal Washing Operation	$ 24,515
	Proposed Transportation Storage/Staging Units	
	Truck to Truck Transfer Pad (Unit W)	$ 97,669
	Listed Waste Loading/Offloading Area (Unit X) .	$ 49,491
	Unit 69	$ 50,073
	Proposed Miscellaneous Treatment Unit and Storage Area	
	Building 42	$ 17,977
	West Pad	(combined)
	TOTAL FOR FUTURE UNITS	**$1,190,683**
	TOTAL	**$3,259,810**
	Plus 10% contingency cost	**$3,585,791**

B. Conditions

1. The Permittee shall provide financial assurance for the amounts identified above plus a 10% contingency cost. The required financial assurance shall be adjusted for inflation to the current year. The permittee shall provide financial assurance for all existing units. Financial assurance for proposed units shall be submitted to the Agency 60 days prior to placing wastes in the units identified in Condition I.A.ii above. No wastes shall be placed in the proposed units until the requirements of this condition have been met.

II. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

The permittee shall maintain financial assurance for the post-closure care of the surface impoundments at the facility as described in the application in accordance with 35 Ill. Adm. Code 724.244 and 724.245.

A. Surface Impoundments

Surface Impoundments	**Financial Assurance Required for Unit (1995 dollars)**
Annual cost of post-closure care	$ 166,144
TOTAL cost of post-closure care	$4,984,317

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ATTACHMENT G

GROUNDWATER MONITORING

DIAGRAMS, REPORTS, TABLES

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

Attachment G.1

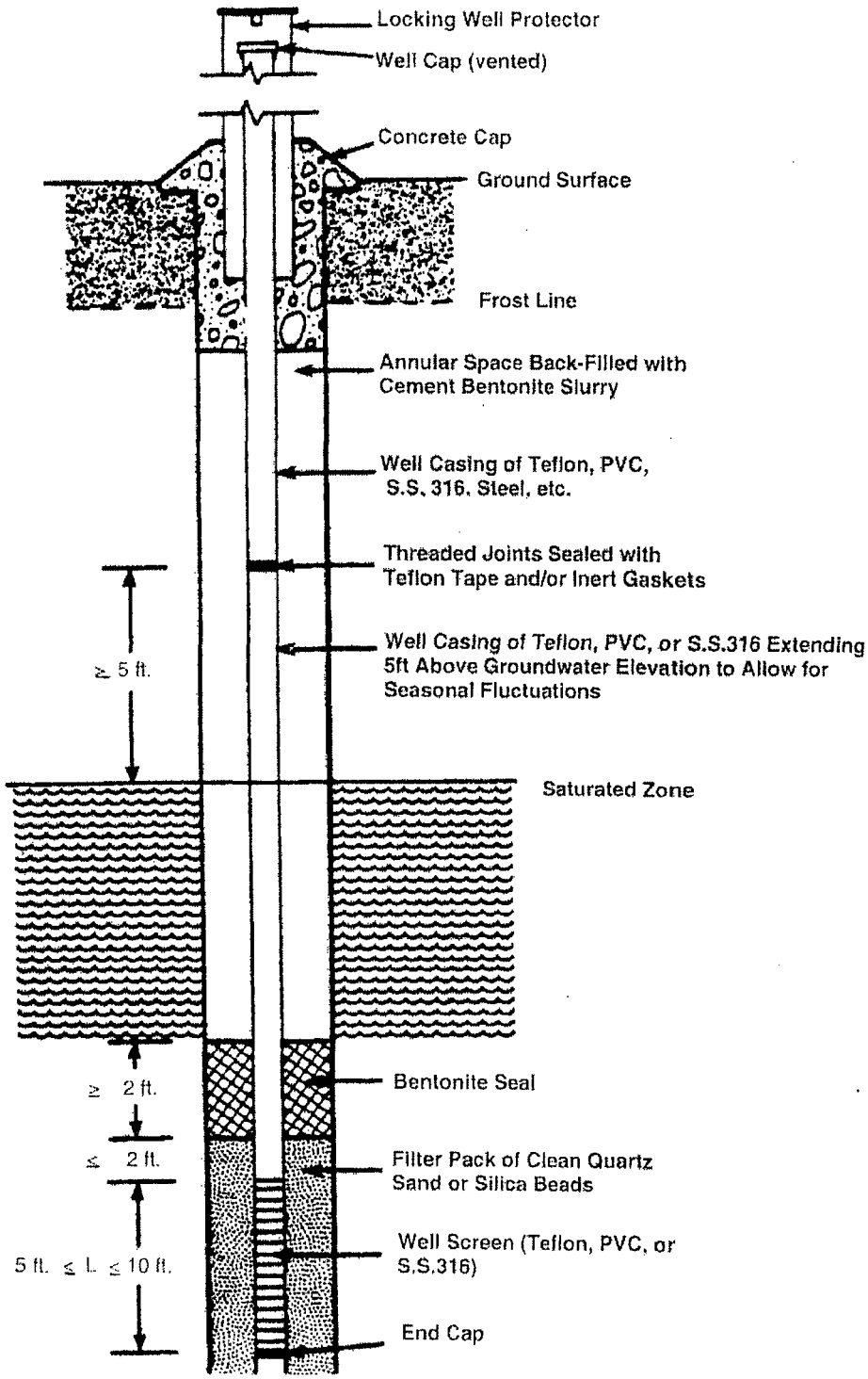
Monitor Well Construction Diagram

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

Monitoring Well Diagram



Illinois Environmental Protection Agency

Field Boring Log

Page ____ of ____

Site ID No. _____ Federal ID No. _____

Site Name: _____

Quadrangle: _____ Sec. _____ T. _____ R. _____

UTM (or State Plane) Coord. N. (X) _____ E. (Y) _____

Latitude: ____ ____ ____ (° ' ") Longitude: ____ ____ ____ (° ' ")

Boring Location: _____

Drilling Equipment: _____

County: _____

Boring No. _____ Monitoring Well No. _____

Surface Elevation: _____ Completion Depth: _____

Auger Depth: _____ Rotary Depth: _____

Date: Start: _____ Finish: _____

Elev.	Description of Material	Graphic Log	Depth In Feet	SAMPLES: Sample No.	Sample Type	Sample Recovery (X)	Penetrometer	N Values (Blow Counts)	OVA or HNU Readings	Personnel: G - D - H - H - / REMARKS

Attachment G.3

Well Completion Report

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

Illinois Environmental Protection Agency **Well Completion Report**

Site Number: _____ County: _____

Site Name: _____ Well #: _____

State Plane Coordinate: X _____ Y _____ (or) Latitude: ___ ___ ___ Longitude: ___ ___ ___ (° ' ")

Borehole #: _____

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: _____ Driller: _____

Consulting Firm: _____ Geologist: _____

Drilling Method: _____ Drilling Fluid (Type): _____

Logged By: _____ Date Started: _____ Date Finished: _____

Report Form Completed By: _____ Date: _____

ANNULAR SPACE DETAILS

Type of Surface Seal: _____

Type of Annular Sealant: _____

Installation Method: _____

Setting Time: _____

Type of Bentonite Seal - - Granular, Pellet, Slurry (Choose One)

Installation Method: _____

Setting Time: _____

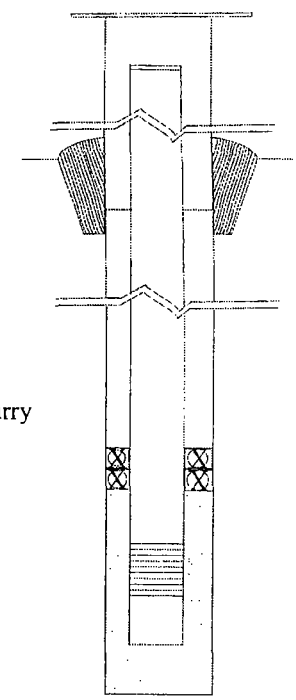
Type of Sand Pack: _____

Grain Size: _____ (Sieve Size)

Installation Method: _____

Type of Backfill Material: _____ (if applicable)

Installation Method: _____



Elevations (MSL)*	Depths (BGS)	(.01ft.)
_____	_____	Top of Protective Casing
_____	_____	Top of Riser Pipe
_____	_____	Ground Surface
_____	_____	Top of Annular Sealant
_____	_____	Static Water Level (After Completion)
_____	_____	Top of Seal
_____	_____	Top of Sand Pack
_____	_____	Top of Screen
_____	_____	Bottom of Screen
_____	_____	Bottom of Well
_____	_____	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	
ID of Riser Pipe (inches)	
Protective Casing Length (feet)	
Riser Pipe Length (feet)	
Bottom of Screen to End Cap (feet)	
Screen Length (1st slot to last slot) (feet)	
Total Length of Casing (feet)	
Screen Slot Size **	

**Hand-Slotted Well Screens are Unacceptable

Attachment G.4

IEPA Monitor Well Plugging Procedures

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

ILLINOIS EPA MONITOR WELL PLUGGING AND ABANDONMENT PROCEDURES

	Well Construction		Plugging Procedure
I. Unconsolidated Sediment Wells	I-A	...if backfilled with cement grout above bentonite seal and/or sandpack:	1. Cut casing off at desired depth. 2. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 3. Insert tremi pipe (1" i.d. pvc) into well and extend to bottom. 4. Slowly pump slurry under low pressure through temi pipe. 5. Slowly withdraw tremi pipe - making sure bottom of pipe remains below pure slurry. 6. Continue slow pumping until all formation water and the watery slurry mix is displaced from top of casing.
	I-B	...if backfilled with soft sediments (cuttings) above bentonite seal and/or sandpack:	1. Knock out and remove thin surface concrete plug, if present. 2. Re-auger entire length of well. 3. Remove well casing from re-augured borehole. 4. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 5. Insert tremi pipe (1" i.d. pvc) into augers and extend to bottom. 6. Slowly pump slurry under low pressure through tremi pipe. 7. Continue slow pumping until all formation water and the water slurry mix is displaced from top of casing. 8. Slowly withdraw tremi pipe - making sure bottom of pipe remains below pure slurry. 9. Pull a flight of augers (5" if in unstable materials and hole collapse is likely or 10" if in competent material and collapse is unlikely). 10. Top off cement slurry after each flight is removed.
	I-C	...if monitor well construciton is unknown:	1. Follow procedures in I-A.
II. Bedrock Wells	II-A	...All bedrock monitor wells:	1. Cut casing off at desired depth. 2. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 3. Insert tremi-pipe (1" i.d. pvc) into well and extend to bottom. 4. Slowly pump slurry under low pressure through tremi pipe. 5. Slowly withdraw pipe making sure bottom of pipe remains below pure slurry. 6. Continue slow pumping until all formation water and the watery slurry mix is displaced from top of casing.

Attachment G.5

Electronic Groundwater Submittal Forms

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

Formatting Requirements for the 01 Record of the Electronically Submitted Groundwater and Leachate Data (the 01 Record portion of the LPC-160 is included for example purposes)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of _____

RECORD CODE: L P C S M 0 1 (1–7) TRANS CODE: A (8)

REPORT DUE DATE __ __/__ __/__ __ (36 M D Y 41)

FEDERAL ID NUMBER _____

SITE INVENTORY NUMBER _____ (9–18)

MONITOR POINT NUMBER _____ (see Instructions) (19–22)

REGION _____ CO. _____

DATE COLLECTED __ __/__ __/__ __ (23 M D Y 28)

FACILITY NAME _____

FOR IEPA USE ONLY

LAB _____ (29)

DATE RECEIVED __ __/__ __/__ __ (42 M D Y 47)

BACKGROUND SAMPLE (X) _____ (54)

TIME COLLECTED (24 Hr. Clock) __ __:__ __ (55 11 M 58)

UNABLE TO COLLECT SAMPLE (see Instructions) _____ (59)

MONITOR POINT SAMPLED BY (see Instructions) _____ (60)

OTHER (SPECIFY) _____

SAMPLE FIELD FILTERED — INORGANICS (X) _____ (61) ORGANICS (X) _____ (62)

SAMPLE APPEARANCE _____ (63–102)

COLLECTOR COMMENTS _____ (103–142)

LAB COMMENTS _____ (150–199)

IL 532 1213
LPC 160 01/90

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 ½, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000 for each day the failure continues a fine up to $1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

All analytical procedures must be performed in accordance with the methods contained in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," SW-846, 3rd Edition, September 1986 or equivalent methods approved by the Agency. Proper sample chain of custody control and quality assurance/quality control procedures must be maintained in accordance with the facility sampling and analysis plan.

*Only Keypunch with Data in Column 35 or Columns 38-47

KEY:

Spaces Numbered	Description	Format
Spaces 1-7	Record Code	LPCSM01
Space 8	Trans Code	A
Spaces 9-18	Site ID	0000000000
Spaces 19-22	Mon Pt ID	G000
Spaces 23-28	Date Collected	000000
Space 29	Lab	
Spaces 30-35	Filler	
Spaces 36-41	Report Due Date	000000
Spaces 42-47	Date Received	000000
Spaces 48-53	Filler 2	
Space 54	Background Sample	
Spaces 55-58	Time Collected	0000
Space 59	Unable to Collect Sample	
Space 60	Monitoring Point Sampled By	
Space 61	Field Filtered – Inorganic	
Space 62	Field Filtered – Organic	
Spaces 63-102	Sample Appearance	
Spaces 103-142	Collector Comments	
Spaces 143-149	Filler 3	
Spaces 150-199	Lab Comments	

Formatting Requirements for the 02 Record of the Electronically Submitted Groundwater and Leachate Data (the 02 Record portion of the LPC-160 is included for example purposes)

RECORD CODE | L | P | C | S | M | 0 | 2 | (1–7) TRANS CODE | A | (8) (COLUMNS 9-29 FROM ABOVE)

	FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER (30–34)	Remarks See Inst. (35)	Replicate (36)	< or > (37)	VALUE (38–47)
Q	TEMP OF WATER (unfiltered °F)	00011				
Q	SPEC COND (unfiltered umhos)	00094				
Q	pH (unfilted units)	00400				
Q	ELEV OF GW SURF (ft ref MSL)	71993				
Q	DEPTH OF WATER (ft below LS)	72019				
A	BTM WELL ELEV (ft ref MSL)	72020				
Q	DEPTH TO WATER FR MEA PT (ft)	72109				

IL 532 1213
LPC 160 01/90

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 ½, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000 for each day the failure continues a fine up to $1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

All analytical procedures must be performed in accordance with the methods contained in "Test Methods for Evaluating Solid Wastes, *Physical/Chemical Methods," SW-846, 3rd Edition, September 1986 or equivalent methods approved by the Agency.* Proper sample chain of custody control and quality assurance/quality control procedures must be maintained in accordance with the facility sampling and analysis plan.

***Only Keypunch with Data in Column 35 or Columns 38-47**

KEY:

Spaces Numbered	Description	Format
Spaces 1-7	Record Code	LPCSM02
Space 8	Trans Code	A
Spaces 9-18	Site ID	0000000000
Spaces 19-22	Mon Pt ID	
Spaces 23-28	Date Collected	
Space 29	Lab	
Spaces 30-34	STORET Number	
Space 35	Remarks	
Space 36	Replicate	
Space 37	< or >	
Space 38-47	Value	

Attachment G.6

RCRA Facility Groundwater Leachate and Gas
Reporting Form (LPC 592)

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

Illinois
Environmental
Protection Agency

Bureau of Land
1021 North Grand Avenue East
Box 19276
Springfield, IL 62794-9276

RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

This form must be used as a cover sheet for the notices and reports, identified below as required by: (1) a facility's RCRA interim status closure plan; (2) the RCRA interim status regulations; or (3) a facility's RCRA permit. All reports must be submitted to the Illinois EPA's Bureau of Land Permit Section. This form is for use by Hazardous Waste facilities only. Reporting for Solid Waste facilities should be submitted on a separate form. All reports submitted to the Illinois EPA's Bureau of Land Permit Section must contain an original, plus a minimum of two copies.

Note: This form is not to be used with permit or closure plan modification requests. The facility's approved permit or closure plan will state whether the document you are submitting is required as a report or a modification request.

Facility Name: _____ Site ID #: _____
Facility Address: _____ Fed ID #: _____

Check the appropriate heading. Only one heading may be checked for each corresponding submittal. Check the appropriate sub-heading, where applicable. Attach the original and all copies behind this form.

___ LPC-160 Forms

Groundwater

___ Quarterly – Indicate one: 1 2 3 4
- ___ Semi-Annual
- ___ Annual
- ___ Biennial

Leachate

___ Quarterly – Indicate one: 1 2 3 4
- ___ Semi-Annual
- ___ Annual
- ___ Biennial

___ Groundwater Data (without LPC-160 Forms)

___ Quarterly – Indicate one: 1 2 3 4

___ Annual ___ Semi-Annual ___ Biennial

___ Well Construction Information
- ___ Well Construction Forms, Boring Logs and/or Abandonment Forms
- ___ Well Survey Data (e.g., Stick-up Elevation Data)

___ Notice of Statistically Significant Evidence of Groundwater Contamination (35 Ill. Adm. Code 724.198)

___ Notice of Exceedence of Groundwater Concentration Limit (35 Ill. Adm. Code 724.199(h))

___ Notice of Alternate Source or Error in Sampling Analysis or Evaluation of Groundwater (35 Ill. Adm. Code 724.199(i))

___ Gas Monitoring Reports

___ Other (identify) _____

ATTACHMENT H

STATUS OF CORRECTIVE ACTION AT FACILITY

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

ATTACHMENT H.1

INTERIM STATUS CLOSURE EFFORTS

AT THE FORMER CWM PORTION OF THE FACILITY

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

ATTACHMENT H.1

Interim Status Closure Effort at the Former CWM Portion of the Facility

Several units on the former CWM portion of this facility have been or are being closed in accordance with plans approved by Illinois EPA Log Nos. C-307, C-742, C-759 and C-771. A description of the closure activities and units undergoing closure for these four Log Numbers follows:

1. The IEPA approved a closure plan for four interim status hazardous waste surface impoundments under Log No. C-307. Eventually, these units were closed as landfills and Illinois EPA accepted certification of closure of these units on June 30, 1994. As a result of closing the impoundments as landfills, Clean Harbors is required to carry out post-closure care of these units in accordance with their RCRA permit.

2. A plan to complete closure of 16 former hazardous waste management units was initially approved by Illinois EPA on October 31, 1994 (Log No. C-742). A list of these units is provided in Table 1.

    a. A substantial amount of information relative to this closure effort was approved by IEPA on September 28, 1995.

    b. On August 20, 1996, IEPA determined that closure of all of these subject units with the exception of Unit 49 Outdoor Container Storage Areas was complete. However, this letter also indicates that the subject units as well as the Fire Suppression System may be subject to additional investigation and possible corrective measures under the corrective action provisions of the facility's RCRA permit. The Unit 49 Outdoor Container Storage Areas was subsequently closed under Log No. C-771, as described in Item 4, below.

    c. A review of Illinois EPA files found that these units are within the area to receive an engineered barrier as part of closure of the former incinerator and associated equipment (see Item 3 below). Establishment of this engineered barrier and associated institutional control will bring closure and corrective action responsibility for these units to completion.

3. On January 25, 1996 IEPA approved a closure plan for several hazardous waste management units present in the former incinerator process area at the former CWM incinerator facility (Log No. C-759).

a. A list of the units addressed in this plan is provided in Table 2.

b. A closure plan modification request for this project was approved by IEPA letter dated January 16, 2003. This modification proposed that additional soil samples be collected and analyzed to better define the extent of soil contamination in the area; it also indicates that Clean Harbors desires to use existing structures and pavement as engineered barriers as part of the overall closure effort.

c. The IEPA by letter dated December 21, 2004 approved a report submitted on the additional sampling required by its January 16, 2003 letter and made a No Further Action determination with respect to the former incinerator process area of the facility, subject to establishment of an engineered barrier ELUC.

4. On October 30, 1996, approved a combination closure plan and closure certification statement for two container storage areas (one west of the Bulk Storage Tank Farm and the other northwest of the Bulk Storage Tank Farm; the Bulk Storage Tank Farm is also referred to as Unit 49) (Log No. C-771).

a. Condition 1 of the October 30, 1996 approval letter indicates that these units may be subject to additional investigation and corrective measures under the corrective action portion of the facility's RCRA permit.

b. A review of Illinois EPA files found that these units are within the area to receive an engineered barrier as part of closure of the former incinerator and associated equipment (see Item 3 above). Establishment of this engineered barrier and associated institutional control will bring closure and corrective action responsibility for these units to completion.

Tables: Table 1 -- Units Closed Under C-742
Table 2 -- Units Closed Under C-759

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ATTACHMENT H.1

Table 1

Unit No.	Description
1	Bulk Storage Tank T108
2	Bulk Storage Tank T-111
3	The Bulk Storage Tank Farm Piping, Pumps and Ancillary Equipment
4	The Building 43 Primary Drum Shredder
5	The Building 43 Drum Crusher Unit
6	The Building 26 Secondary Shredder
7	Ancillary Equipment Associated with Units 1 through 6
8	The Building 26 Roller Conveyor Unit
9	Bulk Storage Tanks T-101 through T-107, T-109, T110 and T-112
10	The Tank Farm Secondary Containment Structure
11	Building 25
12	Building 26
13	Building 43
14	Area 38 - the Old CWM-CS Ash Pad
15	The Conveyor Between Buildings 26 and 43
16	Unit 49 Outdoor Container Storage Areas

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ATTACHMENT H.1
Table 2

The following units are addressed in the closure plan assigned Log No. C-759 by Illinois EPA:

a. Hazardous Waste Incineration System (T03 unit):
   (1) Rotary Kiln (Unit 19) and Ancillary Equipment;
   (2) Secondary Combustion Chamber (Unit 20);
   (3) Overhead Pipe Rack (Unit 18) running from:
      (a) the Secondary Combustion Chamber to the Tank Farm and
      (b) the Secondary Combustion Chamber to the Control Room;
   (4) Air Pollution Control System (Unit 21);
   (5) Stack Monitoring Building (Unit 34); and
   (6) Concrete/Asphalt Foundation and Structures Underlying the Incineration System Units Undergoing Closure;

b. Hazardous Waste Container Storage/Staging Areas (S01 units):
   (1) Kiln Staging Areas (Unit 45):
      (a) South of the Rotary Kiln and
      (b) South of the Secondary Combustion Chamber;
   (2) Truck Staging Area (Unit 48);
   (3) Outdoor Container Storage Areas (Unit 49):
      (a) North of the Air Pollution Control System and
      (b) East of Building 43; and
   (4) Ash Hopper Staging Area (Unit 54);

c. Underground Stormwater Collection System; and

d. Process Wastewater Treatment System:
   (1) Neutralizing Area (Unit 22);
   (2) Effluent Treatment Building (Unit 23);
   (3) Lamella Settlers (Unit 24); and
   (4) Filter Building (Unit 42).

ATTACHMENT H.2

1994-95 CONSTRUCTION EFFORTS AT THE FORMER

CWM PORTION OF THE FACILITY

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

ATTACHMENT H.2

1994-95 Construction Efforts at the Former CWM Portion of the Facility

Once Clean Harbors decided to incorporate the former CWM-CS Incinerator facility into its facility in Chicago, the company also decided that it needed to construct several new units on the former CWM-CS property. A summary of the activities associated with this construction effort which occurred in 1994 and 1995 follows:

1. On August 16, 1994, the Illinois EPA approved a plan to conduct a pre-construction investigation of soil contamination present at the following proposed units:

   a. Area 13—Rail Car Unloading Area

   b. Area 14—Truck Scale

   c. Area 59—Truck Staging Area

   d. Area 60—Roll-off Pad for Fuels Blending

   e. Area 61-Container Handling Area

   f. Area 62—Truck Pad

   The letter indicated this work was being carried out in accordance with an agreement between Clean Harbors and IEPA to investigate for potential soil contamination prior to conducting any construction efforts in these areas. The results of this investigation would allow the construction efforts to be coordinated with RCRA corrective action efforts in these areas.

2. On November 22, 1994, the Illinois EPA granted a temporary authorization to Clean Harbors to construct the following 11 units:

   a. Rail Car Unloading Area (Area 13);

   b. Ignitable Liquid Tank Farm (Area 16);

   c. Container Storage Building (Area 25);

   d. Ignitable Container Storage Building (Area 26);

e. Fuel Blending Area (Area 43);

f. Truck Staging Area (Area 59);

g. Roll-off Pad for Fuel Blending (Area 60);

h. Container Handling Dock (Area 61);

i. Truck Pad at the Container Handling Dock (Area 62);

j. Fire Suppression System;

k. Truck Staging Area (on old Clean harbors portion of the facility)

A non-regulated construction effort (Truck Scale Relocation—Area 14) was also approved in this action).

3. A July 7, 1995 IEPA letter responded to a report documenting the results of a pre-construction investigation conducted at the areas of the former CWM Incinerator Process Area identified in Item 1 above. The results showed that neither gross contamination nor buried drums and structures were present in any of the areas investigated. Contaminant levels were high enough that they needed to be further addressed as part of the RFI for the CWM-CS portion of the facility.

4. On September 20, 1995, IEPA approved a construction certification report for all the units identified in Item 1, except Area 60 (the construction certification report for Area 60 was subsequently approved on November 7, 1995). In addition, this report contained certification of construction for Unit 15—Tank Truck Loading/off-Loading Platform.

5. On October 5, 1995, IEPA approved a construction report of the Bulk Storage Pad (Unit B) and the Truck Staging Area (Unit C).

6. On November 7, 1995, IEPA approved the construction certification report for the Fuel Blending Operation (Unit 43) and the Roll-Off Pad for Fuel Blending (Unit 60). This in conjunction with the September 20, 1995 IEPA letter approving the construction completion report for the 5 units for which a pre-construction soils investigation was completed.

7. In a separate November 7, 1995 letter, IEPA approved the construction certification report for (2) Flammable Storage Tank Farm (Unit 16) and (2) Container Management Building (Unit 25).

8. In yet another separate November 7, 1995 letter, IEPA approved the construction certification report for the Ignitable Container Management Building (Unit 26), subject to the requirement that the permittee shall not place containers of waste on the ramps inside this unit.

9. As required by Illinois EPA's July 7, 1995 letter identified in Item 3 above, additional sampling for the units identified in Item 1 above was proposed by Clean Harbors in its Phase I Supplemental RCRA Facility Investigation Work Plan, submitted on December 4, 1995 and approved by IEPA letter dated March 20, 2002 (Log No. B-16-CA-1). The Illinois EPA deemed that Clean Harbors properly implemented this work plan by a letter dated April 9, 2003 (Log Nos. B-16-CA-1 and 3). This letter required the facility to incorporate this data into a comprehensive facility-wide TACO analysis and Phase I Soils CMP. The facility subsequently submitted the Phase I Soils CMP to the Agency on May 7, 2004 and is currently under review. This submittal contains a Tier 1 TACO analysis.

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ATTACHMENT H.3

CORRECTIVE ACTION EFFORTS AT THE

ORIGINAL CLEAN HARBORS FACILITY

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

ATTACHMENT H.3

Corrective Action Efforts at the Original Clean Harbors Facility

1. A RCRA permit was issued to Clean Harbors on September 30, 1993 which required the company to carry out corrective action, as necessary, on the SWMUs of concern on the original portion of the facility (this area is approximately 26 acres in size with both portions of the Clean Harbors facility comprising a total of 56.6 acres).

2. An RFI Phase I workplan to investigate potential soil contamination at 18 SWMUs was approved by IEPA on November 28, 1994. The SWMUs of concern are:

   SWMU 1 - Process Sewer System
   SWMU 2 - Outside Drum Storage Area No. 1
   SWMU 3 - Outside Drum Storage Area No. 2
   SWMU 4 - Carbon Absorption System Building
   SWMU 5 - the northern portion of Process Building No. 1
   SWMU 6 - Process Building No. 1
   SWMU 7 - Chlorobenzene Contaminated Area
   SWMU 8 - Auxiliary Basin No. 3
   SWMU 9 - Landfill
   SWMU 10 - Former Temporary Pickle Liquor Basin
   SWMU 11 - Former Permanent Pickle Liquor Disposal Sites
   SWMU 12 - Former Pickle Liquor Basins
   SWMU 13 - Former Oil Basin
   SWMU 14 - Former Liner Basin
   SWMU 15 - Oil Contaminated Storage Area
   SWMU 16 - Tanks 1-4
   SWMU 17 - 7,000-Gallon Concrete Receiving Tanks
   SWMU 18 - Truck Unloading Pad

   The Illinois EPA and Clean Harbors agreed to group nine of these SWMUs into two Areas of Concern, as detailed below:

   AOC 1 - Northern Portion of Process Building No. 1 - Comprised of SWMU Nos. 2, 4, and 5.

   AOC 2 - Southern Portion of Process Building No. 1 - Comprised of SWMU Nos. 1, 3, 6, 14, 17, and 18.

3. On January 31, 1996, IEPA approved the RFI Phase I report for the original portion of the facility (Log No. B-16-CA-1). Soil contamination was encountered at several SWMUs and a Phase II RFI workplan was required to be submitted to investigate for soil and, as necessary, groundwater contamination.

4. On March 6, 1997, IEPA approved a combined Phase II/III work plan for the original portion of the facility (Log No. B-16-CA-2). The approval letter states that the goals of these activities will be to determine: (1) the nature and potential extent of soil contamination identified during Phase I of the RFI; and (2) the nature of releases, if any, to both on-site and off-site groundwater.

5. On April 9, 2003, IEPA approved the soil-related aspects of the RFI Phase II/III report for the original portion of the facility (Log Nos. B-16-CA-1 and B-16-CA-3). This letter specified a limited amount of additional investigation necessary to bring soils characterization to completion for the corrective action program for the entire facility (both the original Clean Harbors portion and former CWM portion). Further, Clean Harbors is required to submit to the Illinois EPA a facility-wide TACO analysis, including both past and present soils data in a Phase I CMP Soils Report.

6. On May 7, 2004, Clean Harbors submitted the comprehensive facility-wide TACO analysis in a Phase I Soils CMP, required by Item 5 above, which is currently under review by the Agency.

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ATTACHMENT H.4

CORRECTIVE ACTION EFFORTS AT THE

FORMER CWM PORTION OF THE FACILITY

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

ATTACHMENT H.4

Corrective Action Efforts at the Former CWM Portion of the Facility

The northern portion of the Clean Harbors facility was once a separately operated facility used for the incineration of hazardous waste under a state permit and interim status. Some waste treatment also previously took place in this portion of the facility. The last entity to own and operate this area prior to Clean Harbors was Chemical Waste Management Chemical Services (CWM-CS). An overview of corrective action efforts completed to date at this facility is as follows:

1. USEPA and CWM entered into a 3008(h) order in 1987 requiring CWM to investigate/remediate the below10 SWMUs:

   SWMU 1 - Biochemical Filter Beds
   SWMU 2 - Activated Sludge Basins
   SWMU 3 - Drum Handling Area
   SWMU 4 - High Solids Area
   SWMU 5 - Wastewater Basin #1/Vault
   SWMU 6 - Wastewater Basin #2
   SWMU 7 - Chemical Treatment Area
   SWMU 8 - Biochemical Treatment Area
   SWMU 9 - Process Water Underground Pipe System
   SWMU 10 - Hyon Tank Farm

   Please note that SWMUs 7, 8, part of 9 and 10 are located within the process area, where in the past a hazardous waste incinerator operated. This incinerator has since been shut down, decontaminated, dismantled and transported off-site as part of an interim status closure project. A substantial amount of investigation was conducted at the SWMUs of concern under this order.

2. On June 30, 1995, IEPA issued a modified permit for the Clean Harbors facility allowing the CWM-CS facility to be incorporated into the Clean Harbors facility. Among other things, this permit required that Clean Harbors submit: (1) a Corrective Measures Plan for the SWMUs on the CWM-CS property (this plan was to contain a summary of investigative efforts to date; a GMZ application to address, among other things, lead and benzene contamination detected at some of the monitoring wells; proposed soil and groundwater cleanup objectives; and a general discussion of expected corrective measures to be taken); and (2) a plan to investigate for potential contamination in the Process Area and in the vicinity of Monitoring Well G121S associated with the 4 surface impoundments

which were closed as landfills (these impoundments are receiving post-closure care in accordance with the modified permit).

3. A limited soil investigation plan for the Process Area was approved by IEPA on March 20, 2002 (Log No. B-16-CA-1). The incineration process area has effectively undergone RCRA closure, subject to the ELUC requirement which includes an engineered barrier per the Illinois EPA letter dated December 21, 2004 (Log No. C-759-M-2).

4. Illinois EPA approved by letter dated April 9, 2003 (Log Nos. B-16-CA-1 and B-16-CA-3) the soil related aspects of the Initial Corrective Measures Program Final Report for the CWM-CS portion of the facility, which was submitted to the Agency on December 4, 1995. In addition, the RFI Phase II/III report for the original Clean Harbors portion of the facility was also approved at this time.

   The April 9, 2003 Illinois EPA approval letter specified a limited amount of additional investigation to bring soils characterization to completion at the entire facility (both the original Clean Harbors portion and former CWM portion). Further, Clean Harbors is required to submit to the Illinois EPA, by January 9, 2004 a facility-wide TACO analysis, including both past and present soils data in a Phase I CMP Soils Report.

5. Illinois EPA approved by letter dated November 3, 2003 (Log No. B-16-CA-4) a Supplemental Phase I document reporting the results of the limited soils investigation required by the IEPA Letter dated March 20, 2002.

6. On May 7, 2004, Clean Harbors submitted the comprehensive facility-wide TACO analysis in a Phase I Soils CMP (Log No. B-16-CA-5), which is currently under review by the Agency. Clean Harbors made their submittal in accordance with the Illinois EPA letter dated April 9, 2003.

In summary, SWMUs 7, 8, part of 9 and 10 are within the process area, shown on attached schematic which has effectively been remediated, subject to the establishment of an engineered barrier and associated institutional control required as part of the interim status closure of the former incinerator and associated units (these requirements are set forth in Illinois EPA's December 21, 2004 letter (Log No. C-759-M-2). The remainder of this portion of the facility is undergoing corrective action and the Illinois EPA is currently reviewing its May 7, 2004 Phase I Soils CMP submittal.

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ATTACHMENT I

RCRA CORRECTIVE MEASURES PROGRAM REQUIREMENTS
CLEAN HARBORS SVCS INC

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16R

ATTACHMENT I

RCRA Corrective Measures Program Requirements
Clean Harbors Svcs Inc
B-16R

1.0 BRIEF OVERVIEW OF A RCRA CORRECTIVE MEASURES PROGRAM

Typically, at the end of an RFI, the concentration of contaminants present in the soil/sediments/groundwater/surface waters at a SWMU or other area of concern is compared to remediation objectives developed in accordance with 35 Ill. Adm. Code 742. If the contaminant levels are above these objectives, then some type of corrective measure must be completed to achieve these objectives. In addition, certain corrective measures may need to be carried out to support the established remediation objectives (i.e., the establishment of engineered barriers and/or institutional controls). However, at a unit where waste or high levels of contamination remains, a decision may be made to close the unit as a landfill and then provide post-closure rather than removing the material and/or achieving remediation objectives developed in accordance with 35 Ill. Adm. Code 742.

To allow for a logical and orderly progression in developing and implementing necessary corrective measures, the Corrective Measures Program (CMP) being carried out in accordance with this RCRA permit should be carried out in five phases which build on each other. It is not necessary for a corrective measures program at a given SWMU or other areas of concern to follow these five phases step-by-step; rather, phases can be combined and/or skipped, depending on the actual remedial measure selected. The overall CMP implemented must set forth a logical path for its implementation and allow for Illinois EPA oversight and approval throughout the entire process.

A brief discussion of the five phases of a CMP is as follows:

1. Phase I is the conceptual design of the selected corrective measure(s).

2. Phase II is the development of final design plans for the corrective measure, including installation and operation/maintenance plans.

3. Phase III is the actual construction/installation of the selected corrective measure.

4. Phase IV is the operation, maintenance, and monitoring of the selected corrective measure to ensure it is properly protecting human health and the environment.

5. Phase V is the final demonstration/verification that the implemented corrective measure achieved the approved remedial objectives.

Sections 2.0 through 6.0 which follow provide a more detailed discussion of each of these five phases. Section 7.0 has been developed to describe the corrective measures program which may be used in lieu of the afore-mentioned five phase procedure when soil removal is the selected remedy. It must be noted that work plans, reports, etc. must be developed to document how the Permittee carries out the required corrective measures program at each SWMU or other areas of concern. All such documents must be reviewed and approved by Illinois EPA prior to their implementation.

2.0 PHASE I OF THE CMP

Phase I of the CMP includes selection of the corrective measure to be taken and developing a basis for completing the final design of the measure. This effort should be documented in a Conceptual Design Report which describes the proposed corrective measure for each SWMU and other areas of concern and provides a conceptual design for these measures. The main criteria for Illinois EPA review is whether the proposed corrective measures are able to achieve the final cleanup objectives previously established by the Permittee and the Illinois EPA and/or provide the necessary institutional controls to prevent the migration of contaminants from the SWMU of concern. Based upon a review of the Conceptual Design Report, the Illinois EPA may approve the corrective measures, require revisions to the proposed corrective measures, or require that a totally new corrective measures proposal be submitted to the Illinois EPA.

The Conceptual Design Report should contain the following sections:

1. Introduction/Purpose. This section should contain: (1) general background information regarding the project; (2) the purpose and goals of the submittal; and (3) the scope of the project.

2. Existing Site Conditions. This section should contain a summary of the investigative activities conducted for each of the units of concern. Investigation analytical results should be provided in tabular form, and maps depicting both the horizontal and vertical extent of contamination at the site should be provided.

3. Evaluation for Potential Future Migration. Based on the existing site conditions, a conceptual model of the site should be developed and presented in this section. The potential for additional future migration of contamination for each of the units of concern must then be evaluated, especially those units which have been determined to have released hazardous waste/hazardous constituents to the groundwater. It may be

helpful to develop conceptual models for contaminant migration. Of special concern in this evaluation are (1) the physical properties of the contaminants (solubility, volatility, mobility, etc.); and (2) existing site conditions (types of soil present, location of contamination, hydrology, geology, etc.).

4. Corrective Measures Objectives. This section should discuss the general objectives of the proposed corrective measure to be constructed/installed, and the ability of the proposed corrective measure to achieve the established remediation objectives (unless the selected corrective measure is closure as a landfill which will require proper establishment of a final cover and proper post-closure care of the closed unit.

5. Identification of Options Available. This section should contain a brief discussion of the various options available to achieve the corrective measures objectives for each unit. This discussion should identify: (1) a general overview of each option available, including how the option will achieve the stated objective; (2) the advantages associated with each option; (3) the disadvantages associated with each option and (4) an estimate of the cost associated with choosing each remedial option.

6. Description of Selected Corrective Measure. This section should contain a qualitative discussion of the corrective measure chosen, along with the rationale which was used to select this measure from all those identified initially. This discussion should include documentation that the selected corrective measure will be effective.

7. Identification of Design Criteria. This section should identify what information must be available to design the selected corrective measure.

8. Review of Available Information. This section should contain an evaluation of the existing information to ensure that it is sufficient to complete the design of the selected corrective measure. If insufficient information is available, then the report should contain procedures for collecting the required additional information.

9. Procedures for Completing the Design. This section should contain a description of the procedures which will be followed to complete the design of the corrective measure. This should include as appropriate:

   a. Identification of the references and established guidance which will be used in designing the selected corrective measure. Justification for the selection of this procedure should also be provided.

   b. A description of the procedures which will be used to complete the design of the corrective measure.

c. Identification of assumptions to be used in the design, and the impact these assumptions have on the overall corrective measure;

d. Significant data to be used in the design effort;

e. Identification and discussion of the major equations to be used in the design effort (including a reference to the source of the equations);

f. Sample calculations to be used in the design effort;

g. Conceptual process/schematic diagrams;

h. A site plan showing a preliminary layout of the selected corrective measure;

i. Tables giving preliminary mass balances;

j. Site safety and security provisions.

This information will form the technical basis for the detailed design of the remedial measure and the preparation of construction plans/specifications.

10. Identification of Required Permits. This section should identify and describe any necessary permits associated with the selected corrective measure, as well as the procedures which will be used to obtain these permits.

11. Long-lead Procurement Considerations. This section should identify any elements/components of the selected corrective measure which will require a large amount of time to obtain/install. The following issues should also be discussed: (1) the reason why it will take a large amount of time to obtain/install the item; (2) the length of time necessary for procurement and (3) recognized sources of such items.

12. Project Management. This section should contain information regarding the procedures and personnel which will be involved in completing the design of the selected corrective measure. A schedule for completing the design should also be provided.

3.0 PHASE II OF THE CMP

Once the Illinois EPA approves the Conceptual Design Report, the facility should complete the design of the approved corrective action (Phase II of the CMP). Upon final completion

of the design, a Final Design Report, consisting of final plans, specifications, construction work plan, etc., must be submitted to the Illinois EPA for review and approval.

Several documents must be submitted to the Illinois EPA as part of Phase II of the CMP. The following text describes the expected contents of the various documents which should be developed and submitted to the Illinois EPA as part of Phase II of the CMP.

1. Final Design Report and Construction Work Plan. The Final Design Report and Construction Work Plan must contain the detailed plans, specifications and drawings needed to construct the corrective measure. In addition, this document must contain (1) calculations, data etc., in support of the final design; and (2) a detailed description of the overall management strategy, construction quality assurance procedures and schedule for constructing the corrective measure. It must be noted that the approved Conceptual Design Report forms the basis for this final report. The information which should be provided in this document includes:

    a. Introduction/Purpose. This portion of the document should: (1) provide background information regarding the project, (2) describe the purpose and goals of the project, and (3) describe the scope of the project.

    b. Detailed Plans of the Design System, including the following:

        1. Plan views;

        2. Section and supplementary views which, together with the specifications and general layouts, facilitate construction of the designed system;

        3. Dimensions and relative elevations of structures;

        4. Location and outline form of the equipment;

        5. Ground elevations; and

        6. Descriptive notations, as necessary, for clarity.

    c. Technical Specifications. Complete technical specifications for the construction of the system, including, but are not limited to, the following:

        1. All construction information, not shown in the drawings, which is necessary to inform the contractor in detail as to the required quality of materials, workmanship, and fabrication of the project;

2. The type, size, strength, and operating characteristics of the equipment;

3. The complete requirements for all mechanical and electrical equipment, including machinery, valves, piping and jointing of pipe;

4. Electrical apparatus, wiring and meters;

5. Construction materials;

6. Chemicals, when used;

7. Miscellaneous appurtenances;

8. Instruction for testing materials and equipment as necessary; and

9. Availability of soil boring information.

d. Project Management. A description of the construction management approach, including the levels of authority and responsibility, lines of communication and qualifications if key personnel who will direct corrective measures construction/installation must be provided in the work plan.

e. Construction Quality Assurance/Quality Control. A construction quality assurance/quality control plan describing the procedures which will be followed to ensure the corrective measure is constructed/installed in accordance with the approved plans and specifications.

f. Schedule. The work plan must contain a schedule for completion of all major activities associated with construction/installation of the selected corrective measures. All major points of the construction/installation should be highlighted.

g. Waste Management Practices. This portion of the document should identify the wastes anticipated to be generated during the construction/installation of the corrective measures, and provide a description of the procedures for appropriate characterization and management of these wastes.

h. Required Permits. Copies of permit applications submitted to other Bureaus of the Illinois EPA for the selected corrective measure must be provided in the report. If it is determined that no permit is required for construction/installation and implementation of the corrective measures, rationale and justification must be provided to support this contention.

i. Cleanup Verification. The report must contain the procedures which will be followed that the approved remediation objectives have been achieved when operation of the system is completed.

2. Operation and Maintenance Plan. An Operation and Maintenance Plan must be developed and submitted as part of Phase II of the CMP. This plan should outline the procedures for performing operations, long term maintenance, and monitoring of the corrective measure.

a. Introduction and Purpose. This portion of the document should provide a brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.

b. System Description. This portion of the document should provide a description of the corrective measure and significant equipment, including manufacturer's specifications. This portion of the permit should also include a narrative of how the selected system equipment is capable of complying with the final engineered design of the corrective measure.

c. Operation and Maintenance Procedures. This portion of the document should provide a description of the normal operation and maintenance procedures for the corrective measures system, including:

1. Description of tasks for operation;
2. Description of tasks for maintenance;
3. Description of prescribed treatment or operation conditions; and
4. Schedule showing the frequency of each operation and maintenance task.

d. Inspection Schedule. This portion of the document should provide a description of the procedures for inspection of the corrective measures system, including problems to look for during the inspection procedure, specific inspection items, and frequency of the inspections.

e. Waste Management Practices. This portion of the document should provide a description of the wastes generated by the corrective measure, and the appropriate procedures for proper characterization/management of these wastes.

f. Contingency Procedures. This portion of the document should provide a description of the procedures which will address the following items:

1. System breakdowns and operational problems including a list of redundant and emergency backup equipment and procedures;

2. Alternative procedures (i.e., stabilization) which are to be implemented in the event that the corrective measure fails. The alternative procedures must be able to prevent release or threatened releases of hazardous wastes/hazardous constituents which may endanger human health and the environment, or exceed cleanup standards.

3. Notification of facility and regulatory personnel in the event of a breakdown in the corrective measures, including written notification identifying what occurred, what response action is being taken and any potential impacts on human health and the environment.

4.0 PHASE III OF THE CMP

Once the final design report is approved by the Illinois EPA, construction/installation of the approved corrective measure must commence. During this period, quarterly reports should be submitted which contain the following information:

1. Summary of activities completed during the reporting period;

2. An estimate of the percentage of the work completed;

3. Summaries of all actual or proposed changes to the approved plans and specifications or its implementation;

4. Summaries of all actual or potential problems encountered during the reporting period;

5. Proposal for correcting any problems; and

6. Projected work for the next reporting period.

Upon completion of construction/installation of the approved corrective measure, a Construction Completion Report must be submitted to the Illinois EPA documenting that these efforts were carried out in accordance with the Illinois EPA approved plans and specifications. This report should contain a thorough description of the efforts that went into constructing/installing the corrective measure and demonstrate that the procedures in the Illinois EPA-approved Final Design Report were followed during this effort. Such a report should be formatted in a logical and orderly manner and contain the following information:

1. An introduction discussing the background of the project and the purpose and scope of the corrective measure described in the report.

2. Identification of the plans, technical specifications and drawings which were used in constructing/installing the corrective measure. These specifications and drawings should have been approved by the Illinois EPA during Phase II.

3. Identification of any variations from the Illinois EPA approved plans, technical specifications and drawings used in construction/installing the corrective measure. Justification regarding the need to vary from the approved plans and specifications must also be provided.

4. A description of the procedures used to construct/install the corrective measure, including the procedures used for quality assurance and quality control.

5. As-built drawings, including identification of any variations from the approved plans, technical specifications and drawings.

6. A summary of all test results from the construction/installation effort, including quality assurance/quality control testing.

7. Actual test results, including quality assurance/quality control test results. These results should be located in an attachment/appendix and be well organized.

8. Identification of any test results which did not meet the specified value and a description of the action taken in response to this failure, including re-testing efforts.

9. Photographs documenting the various phases of construction.

10. A detailed discussion of how the construction/installation effort met the requirements of the approved Final Design Report.

11. A certification meeting the requirements of 35 Ill. Adm. Code 702.126 by an independent qualified, licensed professional engineer and by an authorized representative of the owner/operator.

5.0 PHASE IV OF THE CMP

Once the corrective measure has been constructed/installed, it must be operated, maintained and monitored in accordance with the approved plans and specifications (this is Phase IV of

the CMP). During this period, quarterly reports must be submitted to the Illinois EPA documenting the results of these efforts. These reports include the following:

1. Introduction. -- A brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.

2. System Description. -- A description of the corrective measures constructed/installed at the site, and identify significant equipment. Describe the corrective measure and identify significant equipment.

3. Monitoring Results. -- A description of the monitoring and inspection procedures to be performed on the corrective measures. A summary of the monitoring results for the corrective measures, including copies of any laboratory analyses which document system effectiveness, provide a description of the monitoring procedures and inspections performed, and include a summary of the monitoring results for the corrective measure. Copies of all laboratory analytical results which document system monitoring must be provided.

4. Effectiveness Determination. -- Calculations and other relevant documentation which demonstrates the effectiveness of the selected corrective measure in remediating/stabilizing contamination to the extent anticipated by the corrective measures final design. Copies of relevant analytical data should be provided to substantiate this determination.

5. System Effectiveness Recommendation. -- Based upon the results of the effectiveness determination required under Item 4 above, recommendations on continued operation of the corrective measure must be provided. If the corrective measure is not performing in accordance with the final design, a recommendation on revisions or expansion of the system should be provided.

6.0 PHASE V OF THE CMP

Once all corrective measures have been completed, a report must be developed documenting all the efforts which were carried out as part of implementing the corrective measure and demonstrating, as appropriate, that the approved remediation objectives have been achieved. This report should contain a compilation of all previous reports and also contain sufficient information to demonstrate that the approved remediation objectives have been achieved. It must be noted that such a report will not be developed for a unit closed as a landfill until the post-closure care period has been completed.

7.0 PROCEDURES WHICH SHOULD BE FOLLOWED WHEN SOIL REMOVAL IS THE SELECTED CORRECTIVE MEASURE

Sections 2.0 through 6.0 above describe the procedures which should be followed when it is necessary to design some type of physical corrective measure (e.g., a final cover system, some type of treatment system, etc.). However such detail is not necessary if excavation/removal is selected as the remedial action for the contaminated soil encountered at the site. In general, a work plan should be developed for this effort (for Illinois EPA review and approval) which fully describes each step to be used in removing the contaminated soil from the property. This includes a description of (1) the equipment utilized in the removal effort, (2) the pattern followed in removing the soil; (3) the depth to which the soil will be removed; (4) management of the soil on-site after it is removed from the ground; (5) loading areas; (6) the ultimate destination of the soil; and (7) any other steps critical to the removal effort.

One way to conduct a soil removal effort is to collect and analyze a sufficient number of soil samples to clearly determine the horizontal and vertical extent of soil contamination prior to conducting the soil removal effort. The boundaries of soil which must be removed are defined by the Illinois EPA established cleanup objectives for the project. Soil excavation must extend to sample locations where soil test results indicate that the remediation objectives are met. Closure verification sampling is not necessary in such cases, if a registered professional engineer oversees the soil removal effort and certifies that the remediation limits extend to these boundaries.

Another way to conduct a soil removal effort is to collect and analyze a limited number of soil samples prior to the soil removal effort and to rely mainly on field observation to determine the extent of the soil removal. In such cases closure verification sampling is necessary. Soil samples must be collected for analysis from the bottom and sidewalls of the final excavation. The following sampling/analysis effort is necessary to demonstrate that the remaining soil meets the established cleanup objectives:

1. A grid system should be established over the excavation.

2. Samples should be collected from the floor of the excavation at each grid intersection, including intersections along the perimeter of the excavation.

3. Samples should be collected at 6"-12" below the ground surface (bgs) along the excavation sidewalls at each grid intersection around the excavation perimeter. Samples must also be collected at the midpoint of the excavation wall at each grid intersection along the excavation perimeter.

4. Collection/analysis of all required samples must be in accordance with the procedures set forth in the approved plan.

5. Soil samples which must be analyzed for volatile organic compounds (VOCs) must be collected in accordance with the procedures set forth in Method 5035 of SW-846. In addition, such samples must be collected 6"-12" beneath the floor/sidewalls of the excavation to minimize the possibility of volatilization of the contaminants prior to the collection of the samples.

6. No random sampling may be conducted to verify achievement of cleanup objectives have been met.

7. Additional soil must be removed, as necessary, until it can be demonstrated that the remaining soil in and around the area of concern meets the established cleanup objectives. Additional samples must be collected and analyzed in accordance with the procedures described above from areas where additional soil has been removed.

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR

217/524-3300

November 10, 2005

Certified Mail
7002 3150 0000 1254 2316

Clean Harbors Services, Inc.
Attn: Jim Laubsted
11800 South Stony Island Avenue
Chicago, Illinois 60617

Re: 0316000051 -- Cook County
Clean Harbors Svcs Inc
ILD000608471
Log No. B-16-M-60
RCRA Permit

Dear Mr. Laubsted:

This letter is in response to your submittal entitled, "Class 1* Modification Request" dated August 1, 2005 and received by the Illinois EPA on August 2, 2005 requesting modification to the RCRA Part B Permit (Permit) for Clean Harbors Services, Inc. (Clean Harbors) Chicago facility. Specifically, the modification requested to add chloroform to the list of quarterly monitored groundwater parameters at the facility.

Your August 1, 2005 submittal, reviewed as a Class 1* permit modification request in accordance with 35 Ill. Adm. Code 703, Subpart G, is hereby approved. This determination is based upon our review of (1) the Permit issued to CHSI, (2) the regulations [35 Ill. Adm. Code, Subtitle G] and (3) the information contained in your submittal. Operations must be conducted in accordance with the approved Permit originally issued to CHSI and all subsequent modifications to the Permit. Condition III.D.1 of the Permit has been modified to reflect this change. Only the revised Illinois EPA permit is enclosed, since no modification to the USEPA portion of the permit was made.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Should you have any questions or comments regarding groundwater, please contact Amy Boley of my staff at 217/558-4716. Should you have any other questions regarding other portions of the Permit, please contact Mark A. Schollenberger of my staff at 217/524-3307.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

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cc: Harriet Croke, USEPA Region 5
Illinois International Port District

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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ROD R. BLAGOJEVICH, GOVERNOR

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE MANAGEMENT RCRA PART B PERMIT

IEPA 0316000051 -- Cook County
USEPA ILD 000608471
Clean Harbors Svcs Inc
Permit Log No. B-16-M-60
RCRA -- Part B - Permit File

Issue Date: September 30, 1993
Effective Date: November 4, 1993
Expiration Date: November 4, 2003
Modification Date: October 24, 2005

Illinois International Port District
3600 East 95th Street
95th & the Lakefront
Chicago, Illinois 60617-5193

Clean Harbors Svcs Inc
11800 South Stony Island Avenue
Chicago, Illinois 60617

A Part B Permit is hereby approved pursuant to the Resource Conservation and Recovery Act, (RCRA), Illinois Environmental Protection Act, and Title 35 Ill. Adm. Code Parts 702, 703, 705, and 720 through 729 to Clean Harbors Svcs Inc and the Illinois International Port District (herein known as the Permittee(s)), to modify their existing permit to construct, maintain and operate a waste management facility involved in the treatment and storage of hazardous waste. The site is located at 11800 South Stony Island Avenue in Chicago, Illinois.

This permit consists of the conditions contained herein (including those in any attachments and appendices) and applicable regulations contained in the Illinois Environmental Protection Act and Title 35 Ill. Adm. Code Parts 702, 703, 705 and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act ("Act") Ill. Rev. Stat., Chapter 111 1/2, par. 1039 grants the Illinois Environmental Protection Illinois EPA the authority to impose conditions on permits which are issued. This Permit contains 253 pages including Attachments A through K.

If you have any questions regarding this permit, please contact Amy Boley at 217/558-4716.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

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SECTION I: CONTAINER STORAGE

A. Summary

Containers of hazardous waste received at the facility will arrive in a variety of containers but typically in 55 gallon steel or plastic drums, 30 cubic yard roll-off boxes, or tanker trucks. Other containers may be accepted provided they are Department of Transportation ("DOT") approved, in good condition, compatible with the waste they contain and can be safely managed by facility. These containers shall only be stored in the areas designated in Condition I(B)(1).

B. Waste Identification

1. The storage of all hazardous waste containers shall be in the areas identified below:

a. Existing Units - Drums

i. Outside Storage Area (Unit R1)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Staging area	2,500 gallons	160 drums
Flammable Storage #1	4,693 gallons	160 drums
Flammable Storage #2	4,693 gallons	160 drums
Oxidizers Storage #1	2,767 gallons	96 drums
Reactives Storage #1	2,767 gallons	96 drums
Poisons Storage #1	2,767 gallons	96 drums
TOTAL		768 drums (42,240 gallons)

v. **Container Storage Building (Unit 25)**

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Alkaline/Poisons/PCBs	7,189 gallons	248 drums
Acids	4,322 gallons	136 drums
Flammable	7,302 gallons	184 drums
TOTAL		568 drums (31,240 gallons)

Non-RCRA hazardous, atmospheric gases may be vented to the atmosphere in this area as described in the applications identified as Log No. 16-M-34 and Log No. 16-M-47.

RCRA regulated oxygen may be vented to the atmosphere in Unit 25 as described in the application identified as Log No. 16-M-47.

vi. **Ignitable Container Management Building (Unit 26)**

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
TOTAL	12,751 gallons	192 drums (10,560 gallons)

vii. **Container Handling Dock (Unit 61)**

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
TOTAL	5,840 gallons	160 drums (8,800 gallons)

d. Proposed Areas - Drums

i. Drum Storage Area Expansion (Unit R2)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Flammable Storage #3	4,693 gallons	160 drums
Staging Area	3,031 gallons	80 drumsU
TOTAL		240 drums (13,200 gallons)

ii. The Lab Pack Repack and Consolidation Area (Unit U)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Acids Storage Area	63 gallons	5 drums
Bases Storage Area	63 gallons	5 drums
Organics Storage Area	63 gallons	5 drums
Oxidizers Storage Area	71 gallons	5 drums
Pesticides Storage Area	83 gallons	5 drums
Organics pour-off area	71 gallons	4 drums
Flammables Storage Area	83 gallons	6 drums
TOTAL		35 drums (1,925 gallons)

iii. The Paint and Paint Related Processing Area (Building 42)

Bay	Containment Volume	Maximum Number of 55 Gallon Drums Or Equivalents
Westside Pad	776 gallons	24 drums
Building	1378 gallons	28 drums
Hopper (405)		1 64 cu. ft. hopper
		Total 52 drums (2860 gallons) - plus one 64 cu. ft. hopper

iv Container Storage Building – Unit 25

Truck Loading/Unloading Pad	5447 gallons	88 drums (4840 gallons)

v. Shredder Process Building - Unit 24/ Runway Between West Side Pad and Truck Pad - Unit 70

Conveyor to Shredder	5834 gallons (Area 24)	16 drums
Drum (412)	548 gallons (Area 70)	1 drum
Tote (407)		1 64 cu. ft. hoper

vi. Metal Wash Pad - Unit 68

Drum (434)	5278 gallons	1 drum

e. Proposed Units - Bulk Solids

Unit	Containment Volume	Maximum Number 30 Cubic Yard Roll-Off Drums Or Equivalents
i. Listed Waste Roll-off (Unit Z1)	14,697 gallons	1 Roll-Off Box (30 cu. yds.)

f. **Proposed Units - Transporter Storage/Staging**

	Unit	Containment Volume	Maximum Number of 7200 Gallon Trucks
i.	**Truck Loading/ Unloading Pad (Unit X)**	6,420 gallons	2 trucks
ii.	**Truck to Truck Transfer Pad (Unit W)**	45,708 gallons	4 trucks
iii.	**Truck Loading/Unloading Pad (Unit 69)**	14,740 gallons	2 trucks

2. The Permittee(s) may receive and store containerized hazardous waste identified in Attachment A and/or any nonhazardous waste which has been approved by the Illinois EPA. All nonhazardous waste must be evaluated through the waste analysis plan for compatibility.

3. The Permittee(s) is prohibited from storing a hazardous waste that has not been identified in Attachment A.

4. The Permittee(s) is prohibited from storing containers of waste in areas other than those specified in Condition I(B)(1) above without the appropriate permit modification in accordance with 35 Ill. Adm. Code 703 Appendix A.

5. The Permittee may store up to six trucks in the place of the six roll/off boxes in Unit B. No more than 80 55 gallon drums (4400 gallons) shall be placed in each truck. Bulk liquid tank trucks shall not be placed in Unit B.

6. Each tanker truck in Unit 69 may be substituted with a roll-off container, van trailer or other transportation vehicle. Containers may also be placed in this unit if the contents will be pumped to the proposed tank farm (Unit 22). The substitute unit may be placed in the unit in lieu of a 7200 gallon truck provided the total gallons does not exceed 7200.

C. Condition of Containers

1. If a container holding waste is not in good condition (e.g., severe rusting, apparent structural defect, etc.) or if it begins to leak (this includes waste which appears on the outside of the drum/box but has not spread to the containment base or other

containers), the Permittee(s) must immediately transfer the waste from this container to a container that is in good condition or manage the waste in accordance with the Approved Permit Application.

2. Any transfer of waste which was required to comply with I(C)(1), must be recorded in a separate log and maintained as part of the facilities operating record.

3. Packaging of all wastes accepted for storage in the container storage area shall meet the requirements of 49 CFR 172, 178 and 179 and all applicable D.O.T. and N.F.P.A. regulations. All containers must be marked and labeled in accordance with 49 CFR 172.

4. The contents of each container shall be clearly identified on the side of the container in accordance with 49 CFR 172 prior to being placed in the container storage area.

D. Compatibility of Waste With Containers

The Permittee(s) must use a container made of or lined with material which will not react with and is otherwise compatible with the waste to be stored so that the ability of the container to contain the waste is not impaired.

E. Management of Containers

The Permittee(s) shall comply with the following management practices:

1. A container holding waste must always be closed during storage, except when it is necessary to add or remove or sample waste.

2. A container holding waste must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

3. All aisles between each row of pallets and between pallets and a wall in a pile must be a minimum of two feet wide. This is necessary to provide adequate access for the inspection of each container.

4. Containers may be stacked provided that:

   a. Only the same size or smaller containers are stacked on top of the containers beneath.

b. 55-gallon or larger containers are separated by a pallet or other dunnage to provide stability.

c. A pallet for stability for smaller size containers shall be used when the height of the stack exceeds 42 inches unless the containers are shrink wrapped. 55-gallon or larger containers may be stacked 2-high with a pallet under each container. Smaller containers may be stacked as long as the height of the stack does not exceed the height of two 55 gallon containers on pallets (i.e. 84 inches).

d. 55-gallon or larger containers may not be stacked in the flammable storage areas. Smaller containers may be stacked so long as the height of the stack does not exceed the height of one 55-gallon drum on a pallet (i.e. 42 inches).

5. The containers shall be clearly marked with the date received prior to being placed into storage.

6. Containers shall be positioned such that the markings and labels are readable during inspections.

7. The following management practices apply to arrangements of containers that contain one or more containers of flammable or combustible liquids as defined in NFPA 30.

a. Each arrangement of containers (pile) as defined below shall be separated from other arrangements by a five foot aisle. The maximum volume of containers in each arrangement shall not exceed the following:

i. 1,100 gallons for arrangements with one or more containers of waste which have a flash point below 73°F and a boiling point below 100°F.

ii. 2,200 gallons for arrangements with one or more containers of waste having a flash point below 73°F and a boiling point above 100°F.

iii. 4,400 gallons for arrangements with one or more containers of waste having a flash point at or above 73°F and below 100°F.

iv. 8,800 gallons for arrangements with one or more containers of waste having a flash point at or above 100°F and below 140°F.

v. 22,000 gallons for arrangements which do not contain one or more containers of waste having a flash point below 140°F.

b. An aisle that is a minimum of two feet wide must be maintained within the arrangement between each row of pallets and between pallets and a wall in a pile. This is necessary to provide adequate access for the inspection of each container.

8 With respect to the management of compressed gases, CHSI shall:

a. Follow existing standard operating procedures (SOP's) for the management of wastes which are compressed gases;

b. Within 30 days of the effective date of the permit submit the following:

i. A list of equipment and CHSI's SOP's for the management of wastes that are compressed gases. The information must address day-to-day operations, handling, inspections, training and emergency response procedures required to manage compressed gases.

ii. Revised drawings of the facility which identify the locations that compressed gas wastes are managed and stored, and

iii. A revised Contingency Plan which identifies the locations and types of compressed gases. The Contingency Plan must also identify emergency procedures for dealing with releases of compressed gases.

c. If the Illinois EPA fails to comment on the above information within 90 days of its receipt, the permittee shall continue to operate as described in the submittal. The Illinois EPA may approve the procedures with conditions or deny them. The Illinois EPA's decision is subject to the appeal provisions of 35 Ill. Adm. Code 705.212.

d. In the event that the Illinois EPA determines that the information submitted in response to 8(b) above is not adequate to meet the requirements of 35 Ill. Adm. Code Subtitle G, and denies the procedures, the Illinois EPA shall notify the permittee in writing that they are prohibited from receiving wastes that are compressed gases. The permittee shall remove all compressed gas waste from the facility within 30 days of the receipt of said notification. The permittee shall be prohibited from receiving future shipments of wastes which are compressed gases unless and until the permittee submits and receives Illinois EPA approval of a RCRA permit modification to receive this type of waste.

F. Inspection

The Permittee(s) shall inspect the container storage area in accordance with the inspection schedule specified in Attachment B to this Permit. The inspection must be adequate to detect leaks and deterioration of containers and the containment system caused by corrosion or other factors. The procedures described in the approved permit application must be used with the following modifications:

1. Action shall be taken to immediately overpack a leaking or deteriorating drum or to transfer the waste to a container in good condition. Appropriate action to clean up any release of waste from a leaking or deteriorated drum shall be carried out immediately after the drum has been overpacked or the waste transferred to a container in good condition.

2. If a portion of the containment system is found to be in a deteriorated condition (cracks, gaps, spalling, failure of the coating, etc.) the Permittee(s) shall immediately remove all waste containers from the deteriorated area until the containment system has been repaired.

3. The container storage, staging and loading/unloading areas shall be inspected daily for spills and releases. If spills and releases are observed, such releases shall immediately be remediated in accordance with all applicable regulations and special conditions found herein. Results of this inspection and a description of the corrective action taken, if necessary, shall be documented in the inspection log.

4. The inspection shall include checking aisle space, height of stacks, proper labeling and marking of containers, and remaining capacity.

5. Results of all inspections and the activities undertaken to correct deficiencies shall be documented in the operating record for the facility.

G. Containment

The Permittee(s) shall construct, operate and maintain the containment system according to the design plans and operating specifications contained in the Approved Permit Application, subject to the following modifications.

1. Clean Harbors shall perform a complete inspection of the surface coating yearly and perform annual maintenance to insure the integrity of the coating. Clean Harbors shall document the date of the surface coating inspection and any maintenance of the surface coating. These inspections must be performed no later than August 31, of each year.

2. It shall not be an act of non-compliance if the coating has been installed properly but does not live up to the manufacturer's printed performance standards and fails due to excessive wear or chemical breakdown. The Permittee(s) shall notify the Illinois EPA within thirty days of becoming aware of the failure. The Permittee(s) shall reapply a different coating specified in the approved permit application or submit a modification of its permit to install a new coating within 180 days of the failure of the coating.

H. Special Requirements for Ignitable or Reactive Waste

1. a. The Permittee(s) shall not locate containers which hold ignitable or reactive waste within 50 feet of the facility's property line.

   b. Tank trucks containing ignitable liquids shall not be placed in Unit C.

2. The Permittee(s) shall take precautions to prevent accidental ignition or reaction of ignitable waste.

3. Ignitable wastes must be separated and protected from sources of ignition or reaction including but not limited to:

   a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.

   b. While ignitable waste is being handled, the Permittee(s) must confine smoking and open flame to specially designated locations.

   c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

I. Special Requirements for Incompatible Waste

1. The Permittee(s) shall not store containers holding a material that is incompatible with any waste or other materials stored nearby, unless separated from other waste/materials or protected from them by means of a dike, berm or other devices. Incompatible materials are defined in Attachment D to this permit.

J. General Operating Requirements

The Permittee(s) shall operate the container storage areas identified in Section B in accordance with the approved permit application, subject to the following modifications:

1. The Permittee(s) may receive hazardous waste for storage in containers provided the following requirements are met.

    a. The material must be a waste which has been identified in Attachment A to this permit.

    b. The waste must be analyzed in accordance with all applicable regulations, the approved waste analysis plan, and Conditions A.1 through A.10 in Attachment D of this Permit.

    c. The waste must be accompanied by a properly completed Illinois manifest.

2. Cleanup of all spills inside the secondary containment areas must begin immediately upon discovery and be completed within 24 hours. Secondary containment must be inspected immediately after cleanup for cracks, gaps or other defects (failure of the coating) which would allow waste to migrate to the underlying soil. If any deterioration is discovered, the permittee shall immediately remove all waste from the deteriorated area. All cleanup operations shall be documented in the facility's operating record.

3. The Permittee(s) shall remove any precipitation which accumulates in the secondary containment system within 24 hours of the time such accumulation is discovered, or before the area overflows, whichever comes first.

4. All hazardous and nonhazardous special wastes stored or generated by this facility which require further treatment or disposal off-site must be transported to the receiving facility in accordance with the applicable regulations in 35 Ill. Adm. Code Parts 709, 702, 723, 307 and 309, and the Illinois EPA's Manifest System.

5. Shipments of containers from off-site that are held in a truck for more than ten (10) days are considered to be in storage (eg. they must meet the same aisle space and compatibility requirements as the other container storage units). However, trucks being loaded at the site are not considered to be in storage so long as this activity is conducted within ten days. Trucks within this ten day window are subject to the requirements of condition I.J.9 below.

6. The arrangement of the containers in a truck that is in storage at the site must meet the aisle space requirements of 35 Ill. Adm. Code 724.135 and those specified in Sections I.E.3 and I.E.7 of this permit.

7. The permittee is only authorized to perform the following container management activities as described on page D-21A of the application: decanting, solids bulking, pouring off, and consolidation. The permittee is only authorized to perform these activities in the units identified in Table D-9 of the application subject to the following modifications:

   a. Lab packs shall not be opened, repackaged, poured-off or consolidated in the storage bays or staging areas except as specified in conditions J.7.b and J.7.c below.

   b. The consolidation of lab packs can only occur under operating fume hoods in the following areas:

      i. the three fume hoods along the west wall in Building 25,

      ii. the fume hood in the northeast corner of Building 26,

      iii. the four fume hoods in the Lab Pack Repack and Consolidation Area in Unit U,

      iv. the fume hood in the staging area in Unit G1, and

      v. the fume hoods in the staging area in Unit R1.

   c. The pouring-off of the containers that were in a lab pack can only occur under operating fume hoods in the following areas:

      i. the fume hood in the drum pumping enclosure along the north wall in Building 26, and

      ii. the fume hood at the Lab Pack Pour-Off Station in Unit F1.

      iii. the four fume hoods in Building #25.

   d. Except for the consolidation of solids from lab packs under the fume hood, solids bulking or stabilization of wastes in roll-off boxes or other containers is prohibited in the Container Storage Building (Unit 25). If CHCI wishes to pursue these operations in the future, a separate permit modification must be submitted.

e. Bulk solids may be stored in Building 26 so long as the bottom of the DOT approved bulk container (i.e., box, tote tank, flex bin, etc.) does not exceed 3 feet by 3 feet. The arrangement of pallets or bulk containers in Building 26 shall be as identified in drawing 4210 sheet 2 of 3. Tote tanks shall not be stacked. Roll off boxes shall not be staged or stored in Building 26.

8. Wastes which are considered incompatible under US Department of Transportation (DOT) segregation requirements at 49 CFR Parts 171 - 179 shall not be managed in a container unloading dock at the same time.

9. a. Containers that are held in a truck for less than 10 days in area that has a common secondary containment system or drains to a single sump shall meet the DOT segregation and compatibility requirements at 49 CFR Parts 171 - 179. This condition applies to both the containers of wastes on a truck from either on-site or off-site as well as the area in which the trucks are parked.

   b. Containers that are held in a truck for greater than 10 days in area that has a common secondary containment system or drains to a single sump are considered to be in storage pursuant to Condition J.5 and shall meet the compatibility requirements of Condition A.4 in Attachment D. This condition applies to both the containers of wastes on a truck from either on-site or off-site as well as the area in which the trucks are parked.

   c. Vehicles (e.g., tank trucks or roll-of boxes) of bulk liquid, solid or sludge wastes that are parked in area that has a common secondary containment system or drains to a single sump shall meet the compatibility requirements of Condition A.4 in Attachment D, regardless of whether they are in storage as defined in Condition J.5 above.

10. The permittee shall inspect the containers from the Pegasus System according to the following schedule to insure that containers are RCRA empty before they are crushed. The permittee shall not crush containers that are not RCRA empty.

    The inspections shall be performed prior to the containers being crushed. If the Pegasus System fails an inspection, the permittee shall not crush containers in the Pegasus System until the source of the problem(s) is investigated and the problem(s) resolved.

    <u>Inspection Schedule for containers to be crushed in the Pegasus System:</u>

    <u>Phase 1.</u> Visually inspect 10 drums in a row, once per operating day, for four (4) consecutive weeks. If successful without exception (i.e., all drums are "RCRA empty"

and/or all "non-RCRA empty" drums are automatically rejected by the system), go to Phase 2. If unsuccessful, continue with Phase 1 until successful.

Phase 2. Visually inspect 10 drums in a row, once per week, for four (4) consecutive weeks. If successful without exception (i.e., all drums are "RCRA empty" and/or all "non-RCRA empty" drums are automatically rejected by the system), go to Phase 3. If unsuccessful, go to Phase 1.

Phase 3. Visually inspect 10 drums in a row, once per week, for two (2) consecutive weeks. If successful without exception (i.e., all drums are "RCRA empty" and/or all "non-RCRA empty" drums are automatically rejected by the system), go to Phase 4. If successful, go to Phase 2.

Phase 4. Visually inspect 10 drums in a row, once per month. If successful without exception (i.e., all drums are "RCRA empty" and/or all "non-RCRA empty" drums are automatically rejected by the system), continue with monthly inspection schedule. If unsuccessful, go to Phase 3.

11. Hazardous waste transfer facility activities are limited to the areas identified on CHSI Drawing 4254, Revision A. The use of other areas as discussed in Note No. 4 on the drawing is limited to in-transit RCRA hazardous wastes only (eg. the transportation of wastes to a facility other than the Clean Harbors Svcs Inc facility). In-transit activities involving non-RCRA wastes is not permitted unless the permittee requests and is issued a solid waste transfer facility permit pursuant to 35 Ill. Adm. Code 807 requirements.

12. The mobile waste compactor shall only be used in the staging area of unit R1.

13. Fuming Acids must be treated under the operating fume hood in the Outdoor Staging Area (Unit R1).

14. The treatment of cyanide wastes in containers shall only be conducted under the operating fume hood in the Outdoor Storage Area (Unit R1). The exhaust from the fume hood shall be bubbled through a 55 gallon drum containing a caustic solution. Treatment of cyanide wastes in tank trucks shall be in accordance with the approved application as outlined on page D-16.

15. The treatment of peroxides in containers shall only be conducted under the operating fume hood in the Outdoor Storage Area (Unit R1). The exhaust from the fume hood shall be fed through a carbon absorption unit.

16. Phase separation of two or more liquid layers, as outlined in the application, is not permitted as a container management activity. The contents of a container may be pumped into the tank system for phase separation.

17. Stabilization of wastes in containers (e.g., a roll-off box) may be conducted in Process Building No. 3 (Unit Z). This is the only area currently permitted for this activity.

18. Non-bulk containers (e.g., drums) that contained acutely toxic wastes (P-codes) shall not be rinsed out at the facility.

19. The removal of residues from non RCRA-empty tank trucks shall only occur in the following transporter storage/staging units as identified in Section I.B.1 of this permit: Q, V, X, C, 59, 15, 62, and W. The removal of residues from trucks undergoing off-loading into the RCRA-exempt Clean Water Act waste water treatment system in Units J1 and J2 are not subject to this condition.

20. The permittee is not permitted to construct or operate a drum crusher at the facility. Any permit modification request for construction or operation of a drum crusher shall address the HAZOO recommendations R225 through R234 as identified in the Final HAZOP Report dated November 23, 1993 by Technical by CWM.

21. The placement of dry ice into roll-off/intermodel containers of wastes to lower temperatures (to prevent spontaneous combustion) shall be conducted in Units B and Q1 in accordance with the approved renewal application, Log No. B-16-M-47, subject to the following modifications:

    a. The requirement to add dry ice to containers applies only to those containers with waste identified by Clean Harbors as FB5. That is, those solids that contain at least 5000 BTUs/lb but are not processable in the existing fuel blending system because they are either non-dispensable monolithic solids or contain non-processable debris. The dry ice must be added when:

        1. The expected high daytime temperature is at or above 90 degree Fahrenheit;

        2. The expected low nighttime temperature is at or above 70 degrees Fahrenheit; and

        3. The expected high dew point is at or above 70 degrees Fahrenheit.

    b. When dry ice is required by 21(a) above, the permittee shall visually inspect containers daily to ensure that there is at least 25 lbs. of dry ice present.

c. The permittee shall monitor the temperature inside the containers required by 210(a) above to contain dry ice. If the temperature is above 150 degrees Fahrenheit within the container, additional dry ice shall be added to reduce the temperature below this level even if 25 lbs. or dry ice is present in the container.

21. The wetting of black powder in containers to prevent explosions prior to transportation may be conducted in area R1 in accordance with the approved permit application, Log No. B-16-M-47 subject to the following modifications:

a. The permittee shall wet all black powder received at this facility with an amount of water equal to 20% by weight of the black powder.

b. Where black powder is being treated as described above, a polyethylene cover must cover the area to college spillage.

c. The cover shall be decontaminated after treatment is complete and disposed of as special waste.

d. The permittee is allowed to add virgin ethylene glycol based antifreeze to the water used to wet the black powder when temperatures are expected to go below 32 degrees Fahrenheit.

K. General Construction Requirements

1. The Permittee(s) is authorized to construct the proposed Container Management Units identified in Sections I.B.1.d., I.B.1,e. and I.B.1.f. of this permit. The container storage areas may only be constructed in accordance with the approved Permit Application, subject to the following modifications:

a. Within thirty days after completing construction and prior to any container of waste being placed or stored in the container storage areas, the Permittee(s) shall submit to the Illinois EPA a Construction Certification Report from a qualified, registered professional engineer, demonstrating that the container storage area meets the requirements of 35 Ill. Adm. Code 724.275(b). This report shall contain the information required in Attachment C to this permit and a statement that the base slab is free of cracks or gaps.

b. The Permittee(s) may not store wastes in these areas until the Construction Certification Report is approved.

c. CHSI shall provide detailed engineering design calculations of the units listed below with the Construction Certification Report. These calculations must consider pressure gradients above and below the system, failure due to settlement, compaction or uplift, climatic conditions, and the stress of daily operations (including stresses from nearby vehicular traffic). The calculations must be adequate to demonstrate that the structural integrity of the proposed hazardous waste management units is adequate for their intended purposes. This information must be provided for the following units in order to support the P.E. certifications fro these units:

   i. Truck Staging Area (Unit 59)

   ii. Roll-Off Pad for Fuels Blending (Unit 60)

   iii. Container Handling Dock (Unit 61)

   iv. Truck Pad at Container Handling Dock (Unit 62)

d. The secondary containment systems for the following units shall be sealed with a minimum 30 to 40 mil. coat of Protecto-Coat 900, or equivalent in accordance with the manufacturer's recommendations:

   i. Rail Car Unloading Area (Unit 13)

   ii. Truck Unloading Platform (Unit 15)

   iii. Truck Staging Area (Unit 59)

   iv. Roll-Off Pad for Fuels Blending (Unit 60)

   v. Truck Pad at the Container Handling Dock (Unit 62)

   vi. Bulk Solids Storage Pad (Unit B)

   vii. Truck Staging Area (Unit C)

   viii. Truck Unloading and Bulking Area (Unit Q)

   ix. Truck Unloading Dock (Unit V)

   x. Truck to Truck Transfer Pad (Unit W)

xi. Truck Loading/Unloading Pad (Unit X)

The permittee shall document the procedure used to complete this activity as part of the Construction Certification Report.

e. The secondary containment systems for the following units shall be sealed with a minimum 3/16 inch coat of Protecto-Crete 900, or equivalent in accordance with the manufacturer's recommendations:

i. Container Management Building (Unit 25)

ii. Ignitable Container Management Building (Unit 26)

iii. Fuels Blending Building (Unit 43)

iv. Container Handling Dock (Unit 61)

v. Drum Storage Area (Unit G1)

vi. Drum Storage Area Expansion (Unit R2)

vii. Lab Pack Repack and Consolidation Area (Unit U)

viii. Listed Waste Roll-Off Area (Unit Z1)

The permittee shall document the procedure used to complete this activity as part of the Construction Certification Report.

2. The permittee shall install a CO2 fire protection system in the northeast corner of Building 26 at the lab pack consolidation area. Installation of the system shall conform to NFPA and the City of Chicago requirements. The permittee shall submit documentation of compliance with these requirements prior to conducting lab pack consolidation activities in this area.

L. Closure

At closure, all waste and waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with waste or waste residue must be decontaminated or removed. Closure of the container storage areas shall be carried out in accordance with the closure plan in the approved renewal Permit Application, as modified below:

1. The Permittee(s) shall notify the Illinois EPA's Bureau of Land in writing of its intent to close the container storage areas at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee(s) shall submit the sampling and analysis plan to be used in demonstrating a storage area has been properly decontaminated. Closure shall not begin without written approval from the Illinois EPA's Bureau of Land. The Illinois EPA review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and Section 40(a) of the Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for; and

   c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash and rinse water shall be collected and managed as a hazardous waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103. An independent, registered, professional engineer must certify that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. Otherwise, sampling in accordance with an approved sampling plan, shall be conducted to verify the underlying soil is uncontaminated.

3. Sweepings, washwaters and rinsates collected during closure of the container storage area shall be managed as a hazardous waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103.

4. The Permittee(s) shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724, Subpart G for the container storage areas in the event all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the approved closure plan identified in Condition I(L)(1). If it is determined that the closure requirements cannot be met and post-closure care is required, this Permit must be modified to require post-closure care for the container storage areas, in accordance with 35 Ill. Adm. Code Subtitle G, Part 724, Subparts G and H.

5. Should post-closure care, as described in Condition I(L)(4) above, become necessary, the Permittee(s) shall submit an application for modification to this permit, including an amended closure and post-closure care plan for this unit. The application must be submitted within thirty (30) days following discovery that clean closure cannot be

accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan for the container storage area, the modification request shall be made no later than sixty (60) days after the determination is made.

6. Financial assurance for closure and post-closure of the container storage areas, if required in accordance with Condition I(L)(4) and I(L)(5) above, shall be provided within thirty (30) days following modification of the permit.

7. Within sixty (60) days after closure of the container storage areas has been completed, the Permittee(s) shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan. The closure certification form in Attachment E to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer (registered in the State of Illinois) should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the area(s) until the Illinois EPA approves the closure certification for the unit. The Illinois EPA's review of closure certification for partial or final closure will be conducted in accordance with 35 Ill. Adm. Code 724.243.

   A Closure Documentation Report must be submitted with the closure certification which includes the following items, if applicable:

   a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities;

   b. A description of the method of waste handling and transport;

   c. Copies of the waste manifests;

   d. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information;

   e. A chronological summary of closure activities and the cost involved;

   f. Tests performed, methods and results;

   g. Color photographs of closure activities which document conditions before, during and after closure; and

h. A scale drawing of all excavated or decontaminated areas and sample locations.

8. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The permit exemption (35 Ill. Adm. Code 722.134) only applies to containers and tanks.

9. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

10. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Act.

11. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 Ill. Adm. Code 722.134, those units are subject to the closure requirements incorporated by reference in 35 Ill. Adm. Code 722.134.

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SECTION II: TANK SYSTEMS

A. Summary

The tanks at the Clean Harbors Svcs Inc facility are used for a variety of purposes, including wastewater treatment units (pursuant to 35 Ill. Adm. Code 310), and hazardous waste storage and treatment units (pursuant to 35 Ill. Adm. Code 724). Of these uses, the storage and treatment of hazardous waste are the only uses that are regulated under RCRA. Associated with these activities are twenty seven proposed above-ground tanks. All above-ground tanks will have secondary containment consisting of a concrete vault and an impermeable membrane or coating which has been applied to the concrete.

B. Waste Identification

1. The Permittee(s) may store a total volume (in gallons) of waste in the tanks listed below subject to the terms of this permit.

   i. Listed Waste Storage Tanks (Unit Y) Proposed

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
121	(6)	Storage Tanks	11025	3/16	Carbon Steel
155	(2)	Storage Tanks	11025	3/16	Carbon Steel

   ii. Listed Waste Treatment Tanks (Unit Z) Proposed

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
123	(1)	Reactor vessel	13,570	3/16	FRP
137	(1)	Lamella clarifier	1,200	3/16	Carbon Steel
138	(1)	Clarifier Waste Collection Tank	4,100	3/16	Carbon Steel

142	(1)	Sludge Conditioning Tank	1,270	3/16	Carbon Steel
149	(2)	Sand Filter	750	3/32	Carbon Steel
150	(1)	Backwash Collection Tank	3,770	3/16	Carbon Steel
152	(2)	Carbon Adsorption Unit	1,300	3/16	Carbon Steel
153	(1)	Treated Effluent Tank	2,640	3/16	Carbon Steel

iii. Hazardous Waste Fuel Blending Operation (Unit 43) Existing

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
161-21	(1)	Dispersion Tank	1,225	3/16	Carbon Steel
161-22	(1)	Overflow Tank	275	3/16	Carbon Steel

iv. Flammable Storage Tank Farm (Unit 16) Existing

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
158	(5)	Tanks TK-103, TK-104, TK-105, TK-106, TK-108. Hazardous Waste Fuel Storage Tanks	12,800	3/16	Carbon Steel
159	(1)	Tank TK-112. Neutral pH waters, lean waters and/or hazardous waste fuel storage tank.	19,600	3/16	Carbon Steel

177	(2)	Tanks TK-101 and TK-107. Mild acidic waters, lean waters, and/or hazardous waste fuel storage tanks.	12,800	3/16	Stainless Steel
180	(1)	Tank TK-102. Hazardous Waste Fuel and PCB Storage Tank.	12,800	3/16	Carbon Steel
183	(1)	Tank TK-110. Hazardous Waste Fuel and PCB Storage Tank.	12,800	3/16	Carbon Steel

v. Flammable Storage Tank Farm (Unit 22) Proposed

Tank Numbers	No. of Units	Description	Maximum Capacity In Gallons	Minimum Shell Thickness of Tank (inches)	Material of Construction
414	(1)	Hydropulpar	3490	0.05	carbon steel
415, 416	(2)	Blended Liquid Storage Tank	10,558	0.105	carbon steel
417	(1)	Diluent Feed Tank	15,547	0.167	carbon steel
418	(1)	Metalwash Solvent Storage Tank	6,136	0.054	carbon steel
424	(1)	Metal Wash Tank	3730	0.5	carbon steel
427	(1)	Rinse Tank	987	0.5	carbon steel

2. The Permittee(s) may store the wastes identified in Attachment A to this permit in the tanks specified above and any nonhazardous waste. All nonhazardous waste must be evaluated through the waste analysis plan for compatibility.

3. Storage of hazardous waste in tanks other than those specifically identified in II(B)(1) is prohibited.

C. Containment and Detection of Releases

1. The Permittee(s) shall provide secondary containment which meets the requirements of 35 Ill. Adm. Code 724.293 (as amended 7/16/87) for each tank identified above.

2. The Permittee(s) shall construct, operate, and maintain the tank system according to the detailed plans and reports contained in the approved permit application.

3. The Permittee shall perform a complete inspection of each secondary containment coating system yearly and perform annual maintenance to insure the integrity of the coating. It shall not be an act of non-compliance if the coating has been installed properly but does not live up to the manufacturer's printed performance standards and fails due to excessive wear or chemical breakdown. The Permittee(s) shall notify the Illinois EPA within thirty days of becoming aware of the failure. The Permittee(s) shall reapply a different coating specified in the approved permit application or submit a modification of its permit to install a new coating within 180 days of the failure of the coating. The Permittee shall document the date of the surface coating inspection and any maintenance of the surface coating. These inspections must be performed no later than August 31, of each year.

4. The Permittee(s) shall inspect all secondary containment sumps daily and remove all liquids contained in the sumps within 24 hours.

D. **General Construction Requirements**

1. Modification Log B-16-M-2 authorizes the Permittee(s) to construct the listed waste storage tanks (Unit Y), the listed waste treatment tanks (Unit Z), the hazardous waste fuel blending tanks (Unit 43), and the flammable storage tank farm (Unit 16) as identified in Condition II(B)(1). Each unit includes all tanks, ancillary equipment and secondary containment. These tank farms may only be constructed in accordance with the approved permit application, subject to the following modifications:

   a. Within thirty days after completing construction and prior to any waste being placed or stored in a tank or its corresponding ancillary equipment, the Permittee(s) shall submit to the Illinois EPA's Bureau of Land, a Construction Certification Report from an independent qualified, registered professional engineer. The certification must demonstrate that the tank system meets the requirements of 35 Ill. Adm. Codes 724.292 and 724.293. The certification shall contain the information described in Attachment C and the additional information listed below:

      i. Documentation that the new tank systems were inspected for the presence of the following items:

         a) weld breaks;

         b) punctures;

c) scrapes of the protective coatings on the tank or secondary containment system;

d) cracks;

e) corrosion;

f) other structural damage or inadequate construction/installation; and

g) cracks or gaps in the base slab.

All defects noted during this inspection must be remedied prior to covering, enclosing or placing the tank system in use.

ii. A copy of the leak test performed on all of the new tanks and ancillary equipment, including a description of any repairs performed on the system to remedy the leak(s).

iii. Certification that the tanks and ancillary equipment were designed and installed in a manner that is supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction.

iv. As-built drawings which identify the approximate locations and elevations and dimensions of all new concrete, all piping, manifolds, loading/unloading equipment and all other ancillary equipment in the Tank Farm (Unit 16), Tank Truck Unloading Area (Unit 15), Rail Car Unloading Area (Unit 13), Container Storage Building (Unit 26) and Fuel Blending Building (Unit 43). The piping drawings must be schematics drawn in a manner which identifies the units the pipe is capable of transporting wastes to/from and which identifies the following:

a) the locations of all mechanical equipment and piping relative to each unit and the secondary containment systems;

b) the approximate elevations of long pipe runs,

c) the pipe dimensions, types of joints (eg, welded or flanged); and

d) the materials of construction of the pipes, pumps, manifolds, seals and connections.

v. As-built P&IDs for all piping and manifolds in the Flammable Storage Tank Farm (Unit 16).

vi. The layout of the Tank Farm Operations Center (e.g. as-built drawings that show all of the switches and alarms on the pump control panel, tank monitoring instrumentation panel, and emergency alarm system).

vii. As-built diagrams of the leak detectors for the tank farm discussed in Section D-2g of the permit application.

viii. The range, precision and accuracy of the instruments used to monitor the liquid levels, temperature, pressure, etc. at the site.

ix. The electric heat tracing system(s) and the ground fault interruption circuits shall be shown on P&IDs of the tank system(s) and any other unit in which they are used.

x. Grinnell Drawing FP9-E shall be revised to indicate the installation of high and low pressure alarms on Tank T-250.

xi. The permittee shall perform a tank assessment on the tank system (Unit 16) in accordance with 35 Ill. Adm. Code 724.292. In addressing the compatibility of the wastes to the materials construction, the assessment must compare the design and operation of the unit to Table 4-3 in the USEPA guidance manual on tank storage EPA/530-SW-86-044.

xii. The secondary containment systems for the Ignitable Liquid Tank Farm (Unit 16) shall be sealed with Protecto-Coat 900 in accordance with the manufacturer's recommendations. The permittee shall document the procedure used to complete this activity as part of the construction Certification Report.

xiii. CHSI must provide detailed engineering design calculations of the Ignitable Liquid Tank Farm (Unit 16) with the Construction Certification Report. These calculations must consider pressure gradients above and below the system, failure due to settlement, compaction or uplift, climatic conditions, and the stress of daily operations (including stresses from nearby vehicular traffic). The calculations must be adequate to demonstrate that the structural integrity of the proposed hazardous waste management unit is adequate for its intended purposes. This information must be provided in order to support the P.E. certification for this unit.

b. All tanks, pumps, piping, hoses, and manifolds used for PCBs wastes regulated under TSCA shall be physically separate from those tanks which only handle RCRA regulated wastes.

c. The Permittee(s) shall not store wastes in these areas until the Construction Certification Report is approved. The Illinois EPA shall review the Report described above to ensure the tank systems and their secondary containment meets the requirements of 35 Ill. Adm. Codes 724.292 and 724.293.

E. **General Operating Requirements**

1. The Permittee(s) shall not place hazardous wastes in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

2. The Permittee(s) shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems using the methods specified in the Approved Permit Application.

3. In the event of a leak or a spill in the tank system, the Permittee(s) shall comply with the practices and procedures described in the approved permit application and notify the Agency's Bureau of Land in according with Condition II(I)(1). All reported leaks or spills must be recorded in the Facility's Operating Record.

4. All hazardous wastes to be received at the tank storage area must be identified in Attachment A to this permit and have been analyzed per all applicable regulations and the requirements identified in the waste analysis plan. In addition, all hazardous and nonhazardous special wastes received at the facility must be accompanied by a properly completed Illinois manifest.

5. An employee of the facility shall be present and observe the transfer operation at all times when waste is being transferred between containers, tank trucks, rail cars and tanks.

6. Precipitation accumulating within the tank farm shall be removed within 24 hours after the precipitation event has ended.

F. **Tank System Certification**

1. The Permittee(s) shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system as required by 35 Ill. Adm. Code 724.292(g).

2. The Permittee(s) shall obtain and keep on file at the facility a written assessment of the new tank system's integrity (35 Ill. Adm. Code 724.292(a)). The assessment shall be certified by an independent, qualified Illinois registered professional engineer.

G. **Response to Leaks or Spills**

In the event of a leak or a spill from a tank system, from a secondary containment system, or if a system becomes unfit (i.e., failure of the coating) for continued use, the Permittee(s) shall remove the system from service immediately and complete the following actions: (35 Ill. Adm. Code 724.296(a)-(f)).

1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.

2. Remove all waste as necessary from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee(s) finds that it will be impossible to meet this time period, the Permittee(s) shall notify the Illinois EPA and demonstrate that the longer time period is required.

   If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of 35 Ill. Adm. Code Parts 722-724.

3. Contain visible releases to the environment. The Permittee(s) shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak of spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water.

4. Close the system in accordance with the Closure Plan, contained in the approved Permit Application, unless the following actions are taken:

   a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee(s) shall remove the released waste and make any necessary repairs

to fully restore the integrity of the system before returning the tank system to the service.

b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee(s) shall repair the primary system prior to returning it to service.

H. **Inspections**

1. The permittee shall inspect the tank systems in accordance with the inspection schedule in Attachment B to this Permit.

2. If a leak or spill is observed during the daily inspections, the Permittee(s) shall immediately remove the tank system in question from service and follow the procedures set forth in 35 Ill. Adm. Code 724.296.

3. Precipitation accumulating in the sumps of the secondary containment system at the loading dock shall be removed within 24 hours after the precipitation event has ended.

4. Releases of hazardous waste from spills and leaks which are observed in the secondary containment system shall also be removed within 24 hours and managed as a hazardous waste.

5. The bulk liquid unloading area shall be inspected in the following manner:

   a. The area shall be inspected for the presence of spills and releases after each truck has been unloaded. If observed, such releases shall be cleaned up immediately.

   b. Documentation of these inspections and any corrective actions taken shall be included in the operating record for the facility.

6. The Permittee(s) shall inspect each tank system to assess its condition. This inspection shall consist of a visual inspection, a pressure test and an ultrasonic thickness test in accordance with the following procedures:

   a. An ultrasonic thickness test of the tops, bottoms and sidewalls of the tank in accordance with the procedures in Appendix F-9 of the application shall be conducted annually on each tank. The ultrasound tests shall be conducted from the inside of the tank at least every fifth year concurrent with the internal inspection required in Condition H.6.c below. Corrective action as specified by

the manufacturer of these tanks shall be taken if the test indicates that the materials of construction of a tank system have been detrimentally affected by the hazardous wastes which have been stored in it.

b. A hydrostatic leak test or other integrity assessment as approved by the Illinois EPA shall be conducted annually on the tank ancillary equipment. Corrective action as specified by the manufacturer of the ancillary equipment shall be taken if the test indicates that the ancillary equipment has been detrimentally affected by the hazardous wastes which have been in it.

c. A detailed visual inspection of the tank's interior shall be conducted at least every fifth year to ensure the tank's integrity. During this internal inspection, the internal surface shall be inspected for rust, cracks and thin areas. Corrective action as specified by a qualified registered professional engineer or corrosion technician shall be taken if the internal inspection indicates that the interior surface of a tank system has been detrimentally affected by the hazardous waste stored in it.

d. If the testing conducted as required by Conditions II(H)(6)(a) or (c) above indicates the present rate of corrosion may cause reduction of the shell thickness below the permitted minimum shell thickness within 5 years, internal inspections shall be conducted annually and corrosion monitoring coupons must be installed in the area where the most severe corrosion is occurring. The coupons shall be monitored every 60 days. If the coupon indicates the tank will fail in less than one year, the permittee shall verify the remaining shell thickness through ultrasonic testing or remove the tank from service. The tank shall be removed from service and repaired or replaced when the tank no longer meets the minimum shell thickness requirements specified in Condition II.B.

e. For all FRP Tanks; a detailed visual inspection of the tank's interior shall be conducted on an annual basis to ensure the tank's integrity. During this internal inspection, the interior surface shall be inspected for softening, indentations, cracks, exposed fibers, aging, checking, lack of surface resins, delamination, translucency/discoloration, air bubbles and thin areas.

f. Tanks shall be entered in accordance with 29 CFR 1910.94(d)(11). The first internal inspection shall be conducted within five years after a proposed tank becomes operational.

g. The inspection of each tank shall be certified by a qualified, registered professional engineer, or corrosion technician.

h. All waste and washwater generated during evacuation of the tanks shall be managed as a hazardous waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103.

i. Results of the tests and inspections shall be submitted to the Bureau of Land of this Illinois EPA within 60 days of the testing or inspection date, and shall also be included in the operating record of this facility.

j. If the results of these tests or inspections indicate a tank system is leaking, or unfit for use, the procedures set forth in 35 Ill. Adm. Code 724.296 (as amended July 16, 1987) shall be followed.

I. Reporting and Recordkeeping

1. The Permittee(s) shall report to the Illinois EPA's Bureau of Land Field Office within twenty-four (24) hours when a leak or spill occurs in the tank system or secondary containment system unless the spill or leak of hazardous waste is less than or equal to one pound in quantity and it is immediately contained and cleaned up.

2. Within thirty (30) days of detecting a release as described above to the environment from the tank system or secondary containment system, the Permittee(s) shall report the following information in writing to the Bureau of Land of this Agency:

   a. Likely route of migration of the release.

   b. Characteristics of surrounding soil (including soil composition, geology, hydrogeology, and climate).

   c. Results of any monitoring or sampling conducted in connection with the release.

   d. Proximity to downgradient drinking water, surface water, and populated areas.

   e. Description of response actions taken or planned.

3. The Permittee(s) shall submit to the Illinois EPA all certifications of major repairs to correct leaks within seven days from returning the tank system to use (35 Ill. Adm. Code 724.296(f)).

J. **Special Requirements for Ignitable or Reactive Wastes**

1. The Permittee(s) shall not place ignitable waste in a tank system, unless the procedures specified in the Approved Permit Application are followed.

2. The Permittee(s) shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1990).

3. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

K. **Special Requirements For Incompatible Wastes**

1. The Permittee(s) shall not place incompatible wastes together in the same tank system. The facility shall not store waste in a tank which previously held an incompatible waste, unless the tank system has been decontaminated. Incompatible wastes are identified in Attachment D of this Permit.

L. **Closure**

At closure, all waste and waste residues must be removed from tanks, discharge control equipment and containment structures. Closure of the tank storage area shall be carried out in accordance with the closure plan in the approved permit application, as modified below:

1. The Permittee(s) shall notify the Illinois EPA's Bureau of Land in writing of its intent to close the tank system at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee(s) shall submit the sampling and analysis plan to be used in demonstrating a tank system has been properly decontaminated. The plan shall be approved by the Illinois EPA's Bureau of Land in writing prior to being implemented. Illinois EPA review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and Section 40(a) of the Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for; and

c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash and rinse water shall be collected. For tank systems which include secondary containment systems which met the requirements of 35 Ill. Adm. Code 724.293 at the time of installation, the secondary containment must be certified by an independent, registered, professional engineer indicating that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. If such a certification cannot be made, soil sampling and analysis must be conducted to establish clean closure.

   Sweepings collected during closure of any tank system shall be managed as a hazardous waste. All washwater and rinsate generated during the closure of these units shall also be managed as a hazardous waste.

3. The Permittee(s) shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 for a tank system if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in this permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, the tank system shall be considered to be a landfill and the post-closure care plan in the approved application will be modified as required to provide adequate post-closure care for the affected tank system(s) in accordance with 35 Ill. Adm. Code, Subtitle G, Part 724, Subparts G and H.

4. Should post-closure care, as described in Condition 3 above, become necessary, the Permittee(s) shall submit an application for modification to this permit, including an amended closure plan and post-closure care plan for the affected tank system within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made not to pursue clean closure prior to the implementation of the closure plan for the tank system, the modification request shall be made no later than sixty (60) days after the determination is made.

5. Financial assurance for closure and post-closure of any tank system being closed as a landfill, when required in accordance with Conditions 3 and 4 above, shall be updated within thirty (30) days following modification of the permit under the provisions of Condition 4 above.

6. Within sixty (60) days after closure of any tank system is complete, the Permittee(s) shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan.

   The closure certification form in Attachment E to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. This might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for each tank system identified in Condition B.1 above. Documents regarding financial assurance for closure of this facility may be modified after the Illinois EPA approves the closure certification for any or all of the tank systems. The Agency's review of closure certifications for partial or final closure will be reviewed in accordance with 35 Ill. Adm. Code 724.243.

   A Closure Documentation Report must be submitted with the closure certification which includes the following items, if applicable:

   a. The volume of waste and waste residue removed, including wastes generated during decontamination procedures.

   b. A description of the method of waste handling and transport.

   c. Copies of the waste manifests.

   d. A description of the sampling and analytical methods used.

   e. A chronological summary of closure activities and the cost involved.

   f. Tests performed, methods and results.

   g. Color photographs of closure activities which document conditions before, during and after closure.

   h. A scale drawing of all excavated or decontaminated areas and sample locations.

7. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site

disposal, do so only in containers or tanks for less than ninety (90) days. The permit exemption (35 Ill. Adm. 722.134) only applies to containers and tanks.

8. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

9. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Act.

10. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 Ill. Adm. Code 722.134, those units are subject to the closure requirements incorporated by reference in 35 Ill. Adm. Code 722.134.

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SECTION III: GROUNDWATER MONITORING, COMPLIANCE MONITORING

A. SUMMARY

1. Clean Harbors Svcs Inc (CHSI) operates a liquid industrial waste pretreatment facility in Chicago, Illinois. CHSI purchased the former Chemical Waste Management Chemical Service/Chicago Incinerator (CWMCS) facility upon which four (4) surface impoundments are located. The surface impoundments are no longer in active use, and have been certified as closed in accordance with RCRA closure requirements. The surface impoundments remain a regulated hazardous waste disposal unit throughout the 30-year post-closure period. Hazardous waste constituents have been detected at monitoring wells in the vicinity of the four (4) surface impoundments. CHSI must conduct a groundwater monitoring and response program for the surface impoundments located at its Chicago, Illinois facility. Five (5) downgradient monitoring wells and four (4) upgradient monitoring wells will be sampled throughout the post-closure period. Groundwater samples will be analyzed for parameters based on regulatory requirements, waste characteristics and groundwater characteristics. The groundwater sampling will be conducted pursuant to an established compliance monitoring program throughout the compliance period. This section presents permit conditions for compliance monitoring in accordance with the regulatory requirements of 35 Ill. Adm. Code 724.199. The locations of the surface impoundments are delineated in Figures 3-1A and 3-1B of Section E, Groundwater Monitoring, of the Approved Permit Application.

2. The requirements set forth in this Section and Section V of this permit will resolve the apparent violations set forth in the Agency's December 20, 1994 Compliance Inquiry Letter.

B. IMPLEMENTATION

1. The Permittee shall implement the compliance groundwater monitoring program established in this permit upon the effective date of this permit to determine if the regulated units are in compliance with the groundwater protection standard listed in Condition II.D. On that date, the compliance monitoring requirements set forth in this permit shall supersede those established in the 35 Ill. Adm. Code 725 interim status post-closure and groundwater quality assessment programs previously approved by the Agency.

2. The Permittee shall carry out the compliance monitoring activities in this permit on the groundwater present beneath the CHSI facility in Chicago, Illinois. The uppermost

aquifer is defined as a heterogeneous mixture of fill materials composed of cement fragments, masonry, rubble, wood and metal scraps, slag, sludge, cinders and clay. The fill material varies in thickness from approximately seven (7) to eighteen (18) feet. The fill is underlain and hydraulically connected to peat and organic silt at the Holocene Grayslake Peat.

The Grayslake Peat is underlain by approximately twenty (20) feet of lacustrine clays of the Equality Formation. The Equality Formation has been identified as the confining unit beneath the uppermost aquifer. The Equality Formation is underlain by Wisconsin age glacial deposits of the Wedron Formation consisting primarily of clay and silt and which is approximately seventy (70) feet thick in the site area. The Wisconsin glacial deposits unconformably overlie the Racine dolomite of the Niagaran Series, which is Silurian in age.

3. The point of compliance is defined as a vertical surface located at the hydraulically downgradient limit of the surface impoundments that extends down into the uppermost aquifer underlying the surface impoundments. The point of compliance is identified on Figures 3- 1A and 3-1B of Section E, Groundwater Monitoring of the Approved Permit Application. This point of compliance extends from the northeast corner of surface impoundment No. 3, runs west-southwesterly to the northwest corner of surface impoundment No. 1, extends south-southeasterly to the southwest corner of surface impoundment No. 2, and then east-northeast to the southeast corner of surface impoundment No. 4. The point of compliance is monitored by the following monitoring wells: G20S, G21S, G22S, G24S, and G26S.

C. WELL LOCATIONS AND CONSTRUCTION

1. The Permittee shall maintain the following monitoring wells to allow for the collection of groundwater samples from the uppermost aquifer. Compliance monitoring well locations are identified in Figures 3-1A and 3-1B of Section E, Groundwater Monitoring, of the Approved Permit Application.

Upgradient Wells

IEPA Well No.	Facility Well No.	Well Depth (ft BGS)	Well Depth Elevation (ft MSL)	Well Screen Interval (ft MSL)
G10S	G123S	18.37	573.35	573.35-578.35
G11S	G307S	13.34	575.70	575.70-585.70
G12S	G334S	12.79	577.86	577.86-587.86
G13S	G343S	12.91	577.60	577.60-587.60

Compliance Point Wells

IEPA Well No.	Facility Well No.	Well Depth (ft BGS)	Well Depth Elevation (ft MSL)	Well Screen Interval (ft MSL)
G14S	G120S	20.01	573.05	573.05-578.05
G15S	G121SR	24.98	571.41	571.41-576.41
G16S	G122S	19.71	573.54	573.54-578.54
G17S	G124S	19.29	572.56	572.56-577.56
G18S	G126S	15.92	576.20	576.20-581.20

2. Construction of each new monitoring well/piezometer must be in accordance with the Illinois EPA's monitoring well construction diagram (Attachment I-1) or details and diagrams approved by the Agency's DLPC. Each new monitoring well/piezometer must be continuously sampled and logged on an Illinois EPA Field Boring Log (Attachment I-2) unless otherwise approved by the Illinois EPA. The construction of any new monitoring well/piezometer must be documented on an Illinois EPA Well Completion Report (Attachment I-3).

3. The Permittee shall notify the Illinois EPA in writing within thirty (30) days if any of the monitoring wells identified in Condition II.C.1 are damaged or the structural integrity has been compromised. A proposal for the plugging and abandonment of the defective well and the installation of a replacement well shall accompany this notification. Unless the defective well is extremely damaged and would create a potential route for groundwater contamination, the defective well shall not be plugged until the replacement well is on-line and groundwater monitoring data has been obtained and verified by Illinois EPA personnel. Prior to replacing the defective well, the Permittee shall obtain written approval from the Illinois EPA regarding the proposed installation procedures and construction of the replacement well.

4. Should any monitoring well become consistently dry or unserviceable a replacement well shall be provided within ten (10) feet of the existing well. This well shall monitor the same geologic formation as the existing well and be constructed in accordance with current Illinois EPA groundwater monitoring well construction guidance. A replacement monitoring well which is located greater than ten (10) feet from the existing monitoring well, and which does not monitor the same geologic formation, must be approved by the Illinois EPA and designated as a new monitoring well.

5. The Permittee shall submit field boring logs, monitoring well/piezometer construction diagrams and monitoring well completion data sheets of new or replacement monitoring wells to the Illinois EPA at the following address within thirty (30) days of

the date that installation of the monitoring well/piezometer is completed. The Permittee shall submit certification that plugging and abandonment of a monitoring well/piezometer was carried out in accordance with Illinois EPA Monitor Well Plugging Procedures (Attachment I-4) to the following address within thirty (30) days of the date that the monitoring well/piezometer is plugged and abandoned. Other State agencies (e.g., Illinois Department of Public Health) have specific reporting requirements as well.

Illinois Environmental Protection Agency
Bureau of Land -- #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

6. Each monitoring well/piezometer shall be equipped with a protective casing and locking cap. A monitoring well or piezometer located in a high traffic area must be protected with brightly colored bumper guards.

7. Each monitoring well/piezometer not utilized in the approved groundwater monitoring system, but retained by the facility, must also be constructed and maintained in accordance with 77 Ill. Adm. Code, Part 920 regulations.

D. GROUNDWATER PROTECTION STANDARD

1. The following hazardous constituents and their concentration limits comprise the groundwater protection standard at the point of compliance. Total values shall be used for comparison with groundwater quality standards presented in 35 Ill. Adm. Code 620.420. Filtered samples collected for inorganic analysis shall be used for statistical evaluation. The Permittee shall monitor the groundwater at the monitoring wells as described in Condition II.C.1 for the following parameters:

Quarterly Parameter

Field Parameters	STORET	Reporting Units
TEMP OF WATER (unfiltered °F)	00011	
SPEC COND (unfiltered umhos)	00094	
pH	00400	[1,2]6.5-9.0
ELEV OF GW SURF (ft ref MSL)	71993	
DEPTH TO WATER FR MEA PT (ft)	72019	
TOTAL WELL DEPTH (ft below LS)	72008	

Inorganic Parameters	STORET	Concentration Limit (mg/L)	ADL (mg/L)
aluminum (tot)	01106	ND	
aluminum (diss)	01105	ND	
arsenic (tot)	01002	[2]0.2	--
arsenic (diss)	01000	--	--
barium (tot)	01007	[1,2]2.0	--
barium (diss)	01005	--	--
cadmium (tot)	01027	[2]0.05	--
cadmium (diss)	01025	--	--
chloride (tot)	00940	[1,2]200	--
chloride (diss)	00941	--	--
chromium (tot)	01034	[2]1.0	--
chromium (diss)	01030	--	--
copper (tot)	01042	[1,2]0.65	--
copper (diss)	01040	--	--
cyanide (tot)	00720	[2]0.6	--
fluoride (tot)	00951	[2]4.0	--
fluoride (diss)	00950	--	--
iron (tot)	01045	[1,2]5.0	--
iron (diss)	01046	--	--
lead (tot)	01051	[2]0.1	--
lead (diss)	01049	--	--
mercury (tot)	71900	[2]0.01	--
mercury (diss)	71890	--	--
nickel (tot)	01067	[1,2]2.0	--
nickel (diss)	01065	--	--
sodium (tot)	00929	20.0	--
sodium (diss)	00930	--	--
sulfate (tot)	00745	400	--
vanadium (tot)	01087	0.049	--
vanadium (diss)	01085	--	--
zinc (tot)	01092	[1,2]10	--
zinc (diss)	01090	--	--

Organic Parameters	STORET	Concentration Limits (mg/L)	ADL (mg/L)
acetone	81552	0.7	--
acetonitrile	76997	0.042	0.1
aniline	77089	ND	--
anthracene	34220	210	--
benzene	34030	[2]0.025	--
p-chloroaniline	73529	0.028	--
chlorobenzene	34301	0.5	--
chloroform	32106	0.0002	--
2-chlorophenol	34586	0.035	--
m-cresol	77151	0.35	--
p-cresol	77146	0.035	--
o-dichlorobenzene	34536	[2]30.0	--
dichlorodifluoromethane	34668	7.0	--
1,1-dichloroethylene	34501	[2]0.035	--
2,4-dichlorophenol	34601	0.021	--
2,4-dimethylphenol	34606	0.14	--
2,6-dichlorophenol	77541	ND	--
p-dioxane	81582	ND	--
ethylbenzene	78113	[2]1.0	--
ethyl cyanide	77007	ND	--
methylene chloride	34423	0.05	--
methyl ethyl ketone	81595	4.2	--
4-methyl-2-pentanone	78133	ND	--
naphthalene	34696	0.039	--
phenols	32730	[2]0.1	--
1,1,2-trichloroethane	34511	[2]0.05	--
toluene	34010	[2]2.5	--
vinyl chloride	39175	[2]0.01	--
xylene (meta, para, ortho)	81551	[2]10.0	--

ADL: Acceptable Detection Limit; lowest Practical Quantitation Limit (PQL) from SW-846 reflecting the latest versions adopted or proposed by the USEPA in the Federal Register. Dash indicates that the ADL is lower than the soil cleanup objective.

ND: Not Determined. Insufficient data were available upon which to base a cleanup objective. If the chemicals are still detected after all other cleanup objectives

have been achieved, then OCS should be consulted to further address appropriate cleanup objectives at that time.

[1] Pursuant to 35 Ill. Adm. Code 620.420(a)(3)(A) the Concentration Limit does not apply to groundwater within fill material or the upper 10 feet of parent material under such fill material.

[2] Concentration Limits based on 35 Ill. Adm. Code 620.420, Class II General Resource Groundwater quality standards.

The compliance period during which the groundwater protection standard applies shall be extended until the Permittee demonstrates that the groundwater protection standard has not been exceeded for three consecutive years.

Hazardous constituents which have not been detected above the concentration limit for a period of one year (four consecutive quarterly monitoring events) can be deleted from the list with prior approval from the Illinois EPA pursuant to the Class I permit modification procedure.

E. COMPLIANCE MONITORING PROGRAM

In accordance with 35 Ill. Adm. Code 724.191(a)(1), whenever hazardous constituents under Section 724.193 from a regulated unit are detected at a compliance point under Section 724.195, the Permittee shall institute a compliance monitoring program under Section 724.199.

The Permittee shall follow the Compliance Monitoring Program in accordance with Section E of the Approved Permit Application as modified below.

1. The Permittee shall determine the groundwater quality and physical parameters at each monitoring well identified in Condition II.C.1 during the post closure care period to determine whether the regulated units are in compliance the groundwater protection standard as identified in Condition II.D.

    a. Samples collected during the first, third and fourth quarters of the post closure care period shall be analyzed for those hazardous constituents and field parameters identified in Condition II.D.1.

    b. Samples collected during the second quarter of the post closure care period shall be analyzed for those hazardous constituents and field parameters identified in

Condition II.D.1 and the entire list of 35 Ill. Adm. Code 724, Appendix I parameters.

2. The Permittee shall collect groundwater quality samples and conduct the statistical analysis to determine the statistically significant evidence of increased contamination required by Condition II.E.1 above and identify:

   a. The concentration of any constituent detected at any monitoring well at the point of compliance which was not detected in the previous sampling event.

   b. The concentration of any constituent detected at any monitoring well at the point of compliance which exhibits a progressive increase over four (4) consecutive sampling events.

   c. The concentration of any constituent detected at any monitoring well at the point of compliance which is equal to or greater than the groundwater protection standard listed in Condition II.D.1.

3. The Permittee, after following the requirements of 35 Ill. Adm. Code 724.199(g), shall add to the list of quarterly monitoring parameters, identified in Condition II.E.1, any constituent which has been found at a concentration above its respective PQL at any monitoring well at the point of compliance subsequent to the analyses required by Condition II.E.1.b.

4. The Permittee shall determine the groundwater surface elevation referenced to mean sea level (MSL) each time a groundwater sample is collected from a well.

5. Any exceedances of the groundwater quality standards set forth in 35 Ill. Adm. Code 620 shall be addressed under the corrective action requirements set forth in Section V of this permit.

F SAMPLING AND ANALYTICAL PROCEDURES

1. The Permittee shall use the following sampling procedures, except as modified below, when obtaining and analyzing samples from the groundwater monitoring wells described in Condition II.C.1:

   a. Samples shall be collected by the techniques described in Volume 1, Section E.5 and Volume 5, Section E, Appendix 4 of the Approved Permit Application.

b. Samples shall be preserved, shipped, and handled in accordance with the procedures specified in Volume 1, Section E.5 and Volume 5, Section E, Appendix 4 of the Approved Permit Application.

c. Samples shall be analyzed in accordance with the procedures specified in Volume 1, Section E.5 and Volume 5, Section E, Appendix 4 of the Approved Permit Application.

d. Samples shall be tracked and controlled using the chain of custody procedures specified in Volume 1, Section E.5 and Volume 5, Section E, Appendix 4 of the Approved Permit Application.

G. STATISTICAL PROCEDURES

1. The Permittee shall use the statistical procedures described in Volume 1, Section E.5 and Volume 5, Section E, Appendix 4 of the Approved Permit Application, which are in keeping with USEPA's Statistical Analysis of Groundwater/Monitoring Data at RCRA Facilities, Interim Final Guidance (1989), or Addendum to Interim Final Guidance (1992).

2. The prediction limits for as many constituents as possible shall be established in the report due October 15, 1995. The prediction limits for all remaining constituents of concern shall be established as soon as eight (8) quarters of data are available.

3. Prediction limits shall be updated annually in accordance with the approved procedure set forth in Condition III.G.1 above.

3. The Permittee shall determine the groundwater surface elevation referenced to mean sea level (MSL) each time a groundwater sample is collected from a well.

H. REPORTING AND RECORDKEEPING

1. The Permittee shall enter all monitoring, testing, and analytical data obtained in accordance with Condition II.D, II.E, II.F and II.G in the operating record.

2. Samples collected to meet the requirements of the groundwater monitoring program as described in Condition II.D and II.E shall be collected and reported as identified in the table below. The results of the analyses conducted on the groundwater quality samples and all additional data collected for the groundwater monitoring program (as specified

in Condition II.F and II.G) shall be submitted in accordance with the following schedule.

Samples to be collected during the month of	Results submitted to the Illinois EPA by the Following	Constituents
January - February	April 15	E.1.a
April - May	July 15	E.1.a, E.1.b
July - August	October 15	E.1.a
October - November	January 15	E.1.a

Reports submitted to the Illinois EPA must clearly identify (1) any statistically significant increases and (2) any exceedances of appropriate groundwater classification standards.

3. The following information must be determined as indicated and reported by July 15 of each year:

   a. Groundwater surface elevation (STORET No. 71993), measured pursuant to Condition II.E.4, shall be determined at least quarterly.

   b. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually using the measurements determined in Condition II.E.4 for the monitoring wells listed in Condition II.C.1.

   c. The Permittee shall determine the surveyed elevation (referenced to MSL) of the top of each well well casing ("stick-up") identified in Condition II.C.1, every five years, or whenever the elevation changes.

   d. The elevation (referenced to MSL) of the bottom of each monitoring well is to be determined at least annually.

4. The Permittee shall report all information to the Illinois EPA in a form which can be easily reviewed. All submittals must contain tables of data, drawings and text (as necessary) to accurately describe the information contained in the submittal.

5. If the Permittee determines that Appendix I constituents are present at the point of compliance monitoring wells at concentrations above their respective PQLs and are not already identified as quarterly monitoring constituents, he shall:

a. Resample the well within one (1) month and repeat the Appendix I analysis. If the second analysis confirms the presence of new constituents the Permittee shall report the concentration of these additional constituents to the Illinois EPA within seven (7) days after the resample and add them to the monitoring list; or,

b. Not resample the well and report the concentrations of these additional constituents to the Illinois EPA within seven (7) days after completion of the initial analysis, and add them to the monitoring list.

6. If the Permittee determines that there is a statistically significant increase or that the groundwater protection standard of a hazardous constituent listed under Condition II.D is being exceeded at any monitoring well at the point of compliance, the Permittee shall:

   a. Notify the Illinois EPA in writing within seven (7) days of the hazardous constituents and their respective concentration limits which have been exceeded; and

   b. Submit to the Illinois EPA an application for a permit modification to establish a corrective action program meeting the requirements of 35 Ill. Adm. Code 724.200 within 180 days.

7. If the Permittee determines that the concentration limits specified in Condition II.D are being exceeded at any monitoring well at the point of compliance the Permittee may demonstrate that a source other than a regulated unit caused the contamination, or that the detection is an artifact caused by an error in sampling, analysis or statistical evaluation, or natural variation in groundwater. To make this demonstration the Permittee shall:

   a. Notify the Illinois EPA in writing within seven (7) days that it intends to make a demonstration under 35 Ill. Adm. Code 724.199(i);

   b. Within ninety (90) days, submit a report to the Illinois EPA which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis or evaluation;

   c. Within ninety (90) days, submit to the Illinois EPA an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and,

d. Continue to monitor in accord with the compliance monitoring program established under Condition E.

8. If the Permittee determines that the compliance monitoring program no longer satisfies the requirements of Section E, within ninety (90) days the Permittee must submit an application for a permit modification to make any appropriate changes to the program.

I. COMPLIANCE SCHEDULE

1. Within sixty (60) days of the effective date of this permit, the Permittee shall replace monitoring wells G121S in accordance with the procedures set forth in III.C. above.

2. The October 15, 1995 groundwater monitoring report shall include an evaluation/interpretation of the groundwater monitoring data associated with the closed surface impoundments collected to date regarding benzene and lead.

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SECTION IV: REPORTING AND NOTIFICATION REQUIREMENTS

The reporting and notification requirements of each section of the RCRA permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this permit.

Condition	Submittal	Due Date
SECTION I: CONTAINERS		
E(8)	Submit management practices for compressed gas cylinders	Within 30 days of the effective date of the permit
G(2)	Submit written notification to the Illinois EPA of failure of concrete surface coating	Within thirty days of becoming aware of the failure
G(2)	Submit application for modification of the permit	If necessary, no later than 180 days after failure of the coating
K(1)	Submit Construction Certification Report for proposed container storage units	30 days after completing the construction of the container storage area
K(2)	Documentation that the CO_2 fire protection system in Building 26 is properly installed	Prior to consolidating lab packs in the area
L(1)	Submit written notification to the Illinois EPA of intent to close the container storage area	45 days prior to commencement of closure
L(1)	Submit sampling and analysis plan for review	45 days prior to commence to closure

Condition	Submittal	Due Date
L(5)	Submit application for modification of permit and post-closure care plan	No later than 30 days after determination that the container storage area cannot be clean closed
L(6)	Update financial assurance to include modification in Conditions I(K)(4) or I(K)(5)	30 days after permit is modified
L(7)	Submit certification for closure of the container storage area	Within 60 days after closure is completed

SECTION II: TANK SYSTEMS

C(3)	Submit written notification to the Illinois EPA of failure of the concrete coating system	Within thirty days of becoming aware of the failure
C(3)	Submit application for modification of the permit	If necessary, no later than 180 days after failure of the coating
D(1)(a)	Submit Construction Certification Report for the proposed tanks as required by 35 Ill. Adm. Code 724.292 and 724.293	30 days after completing the construction of the tank systems
H(6)(h)	Submit results of tank integrity assessment	60 days after inspection
I(1)	Notify Illinois EPA of a leak or spill unless the spill or leak of hazardous waste is less than or equal to one pound and it is immediately container and cleaned up	24 hours after leak or spill occurs

Condition	Submittal	Due Date
I(2)	Submit report to the Illinois EPA on release and Permittee's response	30 days after leak or spill occurs
I(3)	Submit certification of major reports	Within seven days from returning tank system to service
L(1)	Submit written notification to the Illinois EPA of intent to close tank system(s)	45 days prior to commencement of closure
L(1)	Submit sampling and analysis plan	45 days prior to commencement of closure
L(4)	Submit application for permit modification and post-closure care	30 days after determination that a tank system must be closed as a landfill
L(5)	Update Financial Assurance for closure or post-closure	30 days after effective date of permit or modification of permit
L(6)	Submit certification of closure of tank system(s)	60 days after closure of tank systems(s) is complete

SECTION III: GROUNDWATER MONITORING

C(1)	Facility Monitoring well information	Within 60 days of effective date of this permit
I(1)	Replace well G121S	Within 60 days of the effective date of this permit

SECTION V: CORRECTIVE ACTION

Condition	Submittal	Due Date
B(1)	Phase I RFI Report	By July 1, 1995
B(2)	Supplemental Phase I RFI Work Plan for the process area of the old CMW facility	Within 120 days of the effective date of this permit
V(D)	Initial Corrective Action Plan	Within 120 days of the effective date of this permit
V(F)	Initial Cost Estimate (with the RFI Phase I Work Plan)	120 days after the effective date of this permit
V(F)	Revised Cost estimate (with the initial submittal of each RFI Report)	Upon written Agency request

SECTION VI: STANDARD CONDITIONS

6	Complete application for new permit.	180 days prior to permit expiration.
11	Information requested by Illinois EPA and copies of records required to be kept by this permit.	Submittal date to be determined by Illinois EPA, but no later than 30 days from dated request.
14	Written notification to the Agency of planned physical alterations or additions.	15 days prior to planned change.
15	Written notification to the Illinois EPA of changes which may result in permit noncompliance.	Within 15 days of change.

Condition	Submittal	Due Date
16	Application for permit modification indicating permit is to be transferred	At least 90 days prior to transfer date.
18	Submission of any information required in a compliance schedule	14 days after each schedule date
19	Report to Illinois EPA any non-compliance which may endanger health or environment	
	by telephone	24 hours after discovery
	in writing	5 days after discovery
20	Report all other instances of noncompliance	March 1 of each year along with Annual Report
27	Waste minimization certification	At least annually
28	Notify the Illinois EPA in writing of expected receipt of hazardous waste from a foreign source	4 weeks prior to receipt of waste
40	Update arrangements with local authorities	At least annually
41	Implementation of Contingency Plan	As needed
	Notify appropriate state and local agencies with designated response roles	As needed
	Notify appropriate local officials	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable

Condition	Submittal	Due Date
	Notify the Illinois EPA (217/782-3637) or Illinois EMA (217/782-7860) if the emergency coordinator determines there has been a release, fire or explosion which could threaten human health or the environment, outside the facility	Immediately after determination made
	Notify Illinois EPA and appropriate state and local authorities, in writing that facility is in compliance with 35 Ill. Adm. Code 724.156(h)	Prior to resuming operation in affected areas
	Written Report to Illinois EPA with details regarding the incident which required implementation of contingency plan	15 days after event
47	Submit annual report required by 35 Ill. Adm. Code 724.175	March 1 of each year
49	Submit Application for permit modification amending closure plan	Within 90 days of discovery of need for modification
50	Written notification to the Illinois EPA of closure	45 days prior to beginning closure
54(a)	Adjust closure cost estimate for inflation	Within 60 days prior to anniversary date of the establishment of the financial instrument
54(b)	Revision of closure cost estimate	As needed, within 90 days of discovery of revision
55	Change in financial assurance mechanism for closure	As needed

Condition	Submittal	Due Date
56	Change in coverage for sudden and non-sudden accidental occurrences	As needed
57	Written notification to the Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings	10 days after commencement of proceeding

SECTION VII: MISCELLANEOUS UNIT

Condition	Submittal	Due Date
B(9)	Notify FOS, Permit Section	Upon completing development and installation of the unit

ATTACHMENT D: SPECIAL CONDITIONS

C(1)	Submit closure plan	45 days prior to closure of any hazardous waste management unit
C(2)	Closure Plan for incinerator and process area	Within 60 days of the effective date of the permit
C(3)	Submit notice in deed for closed surface impoundments	Within 30 days of effective date of of permit
F(1)	Notify Illinois EPA's BOL Field Office	Within 24-hours of implementation of Contingency Plan
F(2)	Notify Emergency Response Teams	Immediately upon implementation of contingency plan

F(3)	Documentation of submittal of required information to Emergency Response entities	Within 90 days of the effective date of this permit
F(4)	Documentation of agreements/ arrangements with local units	Within 60 days of the effective date of this permit
G(8)	Locations of all satellite and accumulation areas	Within 14 days of the effective date of the permit
G(9)	Preventative maintenance program	Within 6 months of the effective date of the permit
G(12)	Notification of test date of Fire Protection System	14 days prior to test date
G(12)	Test results of Fire Protection System for review and approval	Prior to operation of the system
G(14)	Approvals/review of Fire Protection System by local, city, state fire protection agencies	Prior to operation
H(8)	LDR treatment demonstration	Within 30 days after completion of the analysis

ATTACHMENT F: SCOPE OF WORK FOR RFI

(V)	<u>RFI Implementation Schedule</u>	
	Submission of RFI Phase I Workplan.	Within 120 days after effective date of the permit
	Completion of RFI Phase I investigation and submission of Phase I Report and Summary	Within timeframes established by the Illinois EPA following review of the RFI Phase I Workplan

Submission of RFI Phase II Workplan.		Within 90 days after notification of the need of Phase II by Agency's BOL
Completion of RFI Phase II investigation and submission of Phase II Report and Summary.		To be negotiated with the Illinois EPA's BOL during review of Phase II workplan
Quarterly Progress Reports	For months of	Report to the Illinois EPA by the following
	January-March	May 1
	April-June	August 1
	July-September	November 1
	October-December	February 1
Submission of Implementation Interim Measures Report		Within 30 days from the date interim measures were determined by the Illinois EPA to be necessary
Submission of RFI Phase III Workplan.		Within 90 days after notification of the need of Phase III by Illinois EPA's BOL
Completion of RFI Phase III Investigation and Submission of Phase III Report and Summary		To be negotiated with the Illinois EPA's BOL during review of Phase III Workplan

ATTACHMENT H: FINANCIAL ASSURANCE REQUIREMENTS

I(B)(2)	Financial Assurance	60 days prior to placing waste in units listed in I.A.ii

Condition	Submittal	Due Date
I(B)(3)	Closure Cost Estimates and financial assurance for CWM units not certified closed	Within 6 months of the effective date of this permit
I(B)(4)	Closure cost estimates and financial assurance for corrective action activities	At the time the Phase II corrective measures program report is submitted
II(B)(1)	Financial Assurance for post-closure care of the surface impoundments	Within 6 months of effective date of this permit

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SECTION V: CORRECTIVE ACTION

A. Introduction

In accordance with Section 3004 of RCRA and 35 Ill. Adm. Code 724.201, the Permittee(s) shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or constituents, from any of solid waste management unit (SWMU) at its facility in Chicago, Illinois. This shall be accomplished by:

1. Conducting a RCRA Facility Investigation (RFI) to determine whether releases of hazardous wastes or constituents have occurred from any solid waste management unit (SWMU) at its Chicago facility listed in Condition V.B.1 and V.B.2 and any newly identified SWMUs which require assessment pursuant to Condition V.G or V.H, and if so, the nature and extent of the release(s).

2. Based upon the results of the RFI briefly described in condition V.A.1 above, developing and implementing a Corrective Measures Program which describes the necessary corrective actions which will be taken. The required corrective actions shall be those actions necessary to protect human health and the environment from all releases of hazardous wastes or constituents from any of the SWMUs determined to pose a potential threat to the environment as determined by the RFI required under the terms and conditions of this permit.

3. Developing and implementing a Corrective Measures Program describing the necessary corrective actions which will be taken at the SWMUs investigated in accordance with the requirements set forth in the Consent Judgment between Chemical Waste Management, Inc. et. al. and the United States Environmental Protection Agency, et. al. (Civil Action 87-2411-S). The required corrective actions shall be those actions necessary to protect human health and the environment from all releases of hazardous wastes or constituents from the SWMUs investigated in accordance with the consent order which pose a potential threat to the environment.

    a. Paragraph G of Section IV of this consent judgment will cease if a RCRA permit relating to corrective action is issued for the facility before USEPA makes a final determination under the judgment that a Corrective Measures Study is necessary.

    b. It must be noted that in a letter dated May 3, 1995, USEPA made a final written determination that a Corrective Measures Study must be conducted for all SWMUs investigated under this consent judgment.

c. In a May 31, 1995 letter, USEPA agreed to temporarily hold in abeyance the requirement that a Corrective Measures Study be implemented at the facility under the requirements of this consent judgment. This letter goes on to state:

> "If, at the end of the ninety (90) day period after the public comment period, the State of Illinois RCRA Part B permit regarding corrective action does become final and includes the CWM facility, and Part IV Part G [of the judgment] does go into effect, the CWMS shall have no obligation to perform a CMS pursuant to the terms of the Consent Decree."

d. This permit requires corrective action at the SWMUs investigated as part of the subject Consent Judgment. As such, the requirements of the Judgment will cease upon the effective date of this permit, provided that the effective date is on or about August 31, 1995 at the latest.

B. Conducting The RCRA Facility Investigation

The Permittee(s) must conduct a RCRA Facility Investigation to determine the nature and extent of releases of hazardous wastes or constituents from certain SWMUs at the subject facility. This RFI shall be carried out in three phases. Each phase will provide for a more detailed evaluation of each Solid Waste Management Unit identified. The requirements for the RFI are provided in Attachment F to the permit.

1. A workplan for Phase I of the RFI for certain SWMUs at the subject facility was approved by the Illinois EPA November 28, 1994. This workplan was to investigate for potential releases to the soil from the following SWMUs:

SWMU No.	Name
1	Process Sewer System
2	Outside Drum Storage Area 1
3	Outside Drum Storage Area 2
4	Carbon Absorption System
5	Process Building No. 1
6	Process Building No. 2
7	Chlorobenzene Contaminated Area
8	Auxiliary Basin #3
9	Landfill
10	Former Temporary Pickle Liquor Basins
11	Former Pickle Liquor Disposal Sites
12	Former Permanent Pickle Liquor Basins

13	Former Oil Basin
14	Former Lime Basin
15	Oil Contaminated Soil Storage Area
16	Tank 1-4
17	7,000 Gallon Concrete Receiving Tanks
18	Truck Unloading Pad

A report documenting the results of this Phase I investigation is to be submitted by July 1, 1995. This report is to be developed in accordance with the requirements set forth in the Agency's November 28, 1994 letter.

2. The Permittee(s) shall submit to the Illinois Environmental Protection Agency's Bureau of Land (Agency's BOL) Permit Section, within 120 days after the effective date of this permit, a written supplemental RCRA Facility Investigation (RFI) Phase I Workplan for the process area in the newly added portion of the facility. This process area is defined as the approximately 400' by 500' area in the southeast portion of that facility where the majority of the site's former operational activities were carried out, including the sewers present in this area. In addition, this Phase I workplan must provide for the investigation of the contaminated material found at Monitoring Well G121S located near the four closed RCRA surface impoundments at the former CWM-Incinerator property.

   In general, this supplemental Phase I RFI Workplan must contain the following:

   a. General information regarding the newly added portion of the Clean Harbors facility (commonly referred to as the former CWM-Incinerator property) in Chicago, Illinois;

   b. Information, as it is available, regarding the process area which (1) characterizes the area, (2) describes its history of operations and (3) identifies subareas within the area where waste was managed in the past.

   c. Proposed procedures, including field activities, to determine the absence or presence of releases of hazardous waste or hazardous constituents to the soil from the area which is determined.

   This supplemental Phase I workplan must be developed in accordance with the requirements set forth in Attachment F to this permit for a Phase I workplan. In providing the required information in this workplan, the Permittee may make reference to previous reports or documents submitted to the U.S. EPA or the IEPA which contain the requested information. Any such reference must identify: the name of the document, the author of the document, the date it was submitted to the Agency,

the person within the Illinois EPA to whom it was submitted and the exact pages within the document on which the desired information is located. It is respectfully requested that the Permittee be prepared to provide copies of these documents to the Illinois EPA if they are not readily accessible.

3. The Illinois EPA will approve, approve with modifications, or disapprove the supplemental Phase I Workplan in writing and provide comments regarding the necessary corrections or modifications.

   a. Within 60 days of receipt of such comments, the Permittee(s) must modify the plan or submit a new plan for the Agency's BOL approval.

   b. Within 30 days of the Agency's BOL approval of the supplemental RFI Phase I Workplan, the Permittee(s) shall begin implementing the supplemental Workplan according to the terms and schedule in the Workplan.

   c. Illinois EPA action on the supplemental Phase I Workplan will be subject to the appeal provisions of Section 39(a) and Section 40(a) of the Act.

4. The Permittee must submit reports documenting the efforts carried out as set forth in the approved RFI Phase I Work Plans in accordance with the schedule established in the approved Workplans. These reports must:

   a. Be organized so as to present a comprehensive and coherent description of the sources, nature and extent of soil contamination discovered at each SWMU during the RFI Phase I.

   b. Be prepared in accordance with (1) the Data Management Plan which is to be a part of the RFI Phase I Workplan and (2) any conditions imposed by the Illinois EPA as part of its approval of the Phase I workplan.

   c. Contain an evaluation of the data collected during the Phase I investigation and a recommendation regarding the need for a Phase 2 investigation at each SWMU. As such, the Phase I report should contain preliminary objectives which will be used to determine if there is a need to conduct a Phase 2 investigation at each SWMU.

      i. These preliminary objectives must be fairly conservative numbers below which, the Illinois EPA and Clean Harbors are fairly certain there will be no impact to human health or the environment. The goal in using these objectives is to eliminate from further consideration: (1) those constituents not detected or only detected at low concentrations below objectives

typically established by the Illinois EPA and (2) those SWMUs from which there has been no release or from which there has been a minor release which still meets the objectives typically established by the Agency.

ii. Detection of constituents above these preliminary objectives does not necessarily mean that corrective action must occur. Rather it only means that a Phase II investigation must be conducted to better determine the extent and amount of contamination present at a given SWMU.

iii. The procedures set forth in the draft USEPA document entitled Soil Screening Guidance, December 1994 (EPA/540/R-94/101, NTIS No. PB95-963529 may be used in developing these objectives (the routes of concern would be inhalation, ingestion and potential contamination of groundwater (using a dilution/attenuation factor of 10)).

iv. These preliminary soil cleanup objectives may not be the final corrective measures target which will be used in determining the final need for and extent of remediation.

v. The final soil values established for each SWMU will typically be a higher value than these preliminary soil cleanup objectives.

d. Contain a brief general discussion of the procedures which will be used in carrying out, as necessary, Phase II of the RFI.

5. Following the submittal of the RFI Phase I reports, the Agency's BOL will review the submitted data and notify the Permittee(s) in writing of the results of the review. This notification will discuss the status of each of the SWMUs evaluated as part of Phase I of the RFI.

a. If the Illinois EPA determines, based upon the data provided within and obtained from the Phase I Workplan for each SWMU investigated, that (1) there is no potential for release from that SWMU to the environmental media of concern and (2) there has been no release of hazardous wastes or constituents to the environmental media of concern from that SWMU, then no further action will be required for that SWMU.

b. If the Illinois EPA determines, based on the data from the Phase I RFI for each SWMU investigated, that (1) there has been a release to any environmental media of concern, (2) there currently is a release to any environmental media of concern, or (3) the data associated with a given SWMU is inconclusive, then the Permittee(s) shall be required to conduct additional investigation of the SWMU

as part of Phase II and, if the RFI Phase I investigation indicates contamination extends to groundwater, Phase III of the RFI.

c. The final letter sent to the facility conveying the results of the review will:

i. Identify those SWMUs for which no further investigation is needed;

ii. Identify which SWMUs which must be further investigated to determine the rate and extent of migration of hazardous waste or hazardous constituents and the concentrations of the hazardous waste or hazardous constituents in the environmental media potentially impacted by the SWMU;

iii. Identify, for each SWMU requiring further investigation, the associated environmental media which must be further investigated; and

iv. Indicate whether the permittee must perform a Phase II and/or a Phase III RFI Investigation for those SWMUs requiring further investigation. Unless sufficient information is provided to the Illinois EPA as a result of additional investigation in the Phase II investigation, units which have the possibility of releasing hazardous waste or hazardous constituents to groundwater must be evaluated as part of Phase III of the RFA.

d. Illinois EPA action on the final Phase I RFI reports will be subject to the appeal provisions of Sections 39(a) and Section 40(a) of the Act.

6. If the Permittee(s) is notified in writing in accordance with Condition V.B.5 that certain SWMUs must be included in Phase II of the RFI, then the Permittee(s) must develop and submit a Phase II RFI Workplan. Phase II of the RFI shall focus on determining the rate and extent of migration of hazardous waste or constituents and the concentrations of the hazardous waste or constituents in the soil potentially impacted by the SWMU. Such a workplan must be submitted no more than 90 days after the facility is notified in writing in accordance with Condition V.B.5 above. The requirements for a Phase II of the RFI are contained in Attachment F to the permit.

7. The Agency's BOL will approve, modify and approve, or disapprove the Phase II workplan in writing and provide comments regarding the required corrections or modifications.

a. Within 60 days of the receipt of such comments, the Permittee(s) must modify the plan or submit a new plan for the Agency's BOL approval.

b. Within 30 days of the Agency's BOL approval of the RFI Phase II Workplan, the Permittee(s) shall begin implementing the plan according to the terms and schedule established in the Phase II Workplan.

c. Illinois EPA action on the Phase II workplan will be subject to the appeal provisions of Section 39(a) and Section 40(a) of the Act.

8. The Permittee(s) must submit a report documenting the efforts carried out in accordance with the approved RFI Phase II Workplan in accordance with the schedule established with in the Phase II Workplan. This report must be prepared in a manner which is similar to that specified in Condition V.B.4 above.

9. Following submittal of the RFI Phase II report, the Agency's BOL will review the data obtained from the RFI Phase II investigation and shall notify the Permittee(s) in writing of the results.

a. If the Illinois EPA determines that there is a potential that groundwater has been impacted by a release of hazardous wastes or hazardous constituents from any SWMU evaluated during the Phase II investigation, then the Permittee(s) must conduct Phase III of the RFI for such SWMUs. The purpose of the Phase III investigation of the RFI will be to define the extent of releases, both on-site and off-site, to the groundwater from SWMUs for which the results of the Phase II investigation indicate a release to groundwater. The requirements associated with a Phase III Investigation are contained in Attachment F to this permit.

b. If the Agency's BOL determines that a RFI Phase III investigation is not required, based on data obtained from the RFI Phase II investigation, the Illinois EPA reserves the right to require that corrective measures be conducted for the SWMU(s) of concern to address releases identified through the Phase I and Phase II investigations.

c. The Agency's response to the Phase II report will:

i. Identify those SWMUs and associated environmental media for which Phase III of the RFI must be conducted; and

ii. Identify those SWMUs and associated environmental media for which corrective action is required, although no Phase III investigation is required.

d. Illinois EPA action on the final RFI Phase II report will be subject to the appeal provisions of Section 39(a) and Section 40(a) of the Act.

10. Within 90 days of notification of the need for a Phase III investigation, the Permittee(s) shall submit a plan for conducting Phase III of the RFI. The Illinois EPA will approve, modify and approve, or disapprove and provide comments to the Permittee(s) as to the corrections or modifications needed for the RFI Phase III Workplan.

    a. Within 60 days of receipt of such comments, the Permittee(s) must modify the plan or submit a new plan for the Agency's BOL approval.

    b. Within 30 days of the Illinois EPA approval of the RFI Phase III Workplan, the Permittee(s) shall begin implementing the plan according to the terms and schedule established within the Workplan.

    c. Illinois EPA action on the Phase III workplan will be subject to the appeal provisions of Section 39(a) and Section 40(a) of the Act.

11. The Permittee(s) must submit a report documenting the efforts carried out in accordance with the approved RFI Phase III Workplan in accordance with the schedule set forth in that workplan. This report must be prepared in a manner which is similar to that specified in Condition V.B.4 above.

12. Following submittal of the RFI Phase III report, the Agency's BOL will review the data contained in the report and notify the Permittee(s) in writing of the results.

    a. If the Illinois EPA determines that there has been a release of hazardous waste or hazardous constituents from a SWMU to the groundwater, then the Permittee(s) must perform corrective action, as necessary, to protect human health and the environment.

    b. If the Illinois EPA determines that there (1) has not been a release of hazardous waste or constituents from a SWMU to the groundwater <u>and</u> (2) is no potential for releases of hazardous waste or hazardous constituents from a SWMU to the groundwater, then no corrective action will be required at that SWMU relating to groundwater.

    c. If the Illinois EPA determines (1) that there has not been a release of hazardous waste or hazardous constituents from a SWMU to the groundwater and (2) that there is a potential for future releases of hazardous waste or hazardous constituents from a SWMU to the groundwater, then the Illinois EPA <u>may</u> require a longer term groundwater monitoring program at any SWMU where substantial soil contamination exists (as determined by the Agency), or at any SWMU which would meet the definition of a land disposal unit.

d. The Agency's response to the Phase III report will:

i. Identify those SWMUs investigated as part of Phase III of the RFI from which there has been a release of hazardous waste or hazardous constituents to groundwater that requires corrective action;

ii. Identify those SWMUs investigated as part of Phase III of the RFI for which no corrective action is required for groundwater at this time; and

iii. Identify those land-based SWMUs investigated as part of the Phase III RFI for which a longer term groundwater monitoring program must be established. "Land-based SWMUs" are SWMUs where waste, contaminated soil and/or contaminated groundwater are allowed to remain in-place.

e. Illinois EPA action on the Phase III Workplan will be subject to the appeal provisions of Section 39(a) and 40(a) of the Act.

13. If the Agency's notification identified in Condition V.B.12.d above requires that a longer term groundwater monitoring program be established for certain SWMUs, then the Permittee(s) must submit such a plan within 120 days after receiving this notification. This plan must be developed in accordance with the general procedures set forth in Section III.D.4 of Attachment F. The Illinois EPA will approve, modify and approve or disapprove and provide comments to the Permittee(s) as to corrections or modifications needed for the program.

a. Within sixty (60) days of receipt of such comments, the Permittee(s) must modify the plan or submit a new plan for the Agency's approval.

b. Within thirty (30) days of the approval of the plan, the Permittee(s) shall begin implementing the plan in accordance with the terms and schedule established in the plan.

c. Illinois EPA action on the groundwater monitoring plan will be subject to the appeal provisions of Section 39(a) and Section 40(a) of the Act.

C. Final Corrective Measures Target Levels

1. Final soil cleanup objectives shall be established after the Phase II investigation is complete. These final target levels will determine the need for and extent of soil

remediation (soil corrective measures) at each SWMU where a Phase II investigation was completed. The procedures which will be used by the Permittee to develop the final soil target levels must be described in a work plan developed after the Phase II report has been approved by the Agency.

a. The procedures utilized to develop the final soil cleanup objectives must take into consideration:

   i. The volume and physical and chemical characteristics of the contaminants of concern;

   ii. The effectiveness and reliability of containment, confinement and collection systems and structures in preventing contaminant migration;

   iii. The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;

   iv. The patterns of precipitation in the region;

   v. The existing quality of surface soils, including other sources and their cumulative impacts on surface soils;

   vi. The potential for contaminant migration and impact to the underlying groundwater;

   vii. The land use patterns in the region;

   viii. The potential for health risks caused by human exposure to the waste constituents; and

   ix. The potential for damage to domestic animals, wildlife, food chains, crops, vegetation, and physical structures caused by exposure to waste constituents.

b. The Permittee and the Illinois EPA should have a meeting prior to the time that the Permittee begins developing these objectives. The goal of this meeting will be to provide the Permittee with guidance regarding the procedure which should be followed in developing and proposing these final target levels.

c. The Illinois EPA will establish final target levels if none are proposed by the Permittee.

d. The Illinois EPA will provide the Permittee with guidance regarding the development of target levels along with its approval of the Phase II Report.

e. The USEPA draft guidance document entitled Soil Screening Guidance may be used in the development of these values as they relate to the protection of human health.

f. Final Illinois EPA action taken on the development of and establishment of these final target levels will be subject to the appeal provisions of Section 39(a) of the Illinois Environmental Protection Act.

2. For certain SWMUs, it may not be appropriate to establish final target soil levels. This will be the case for those SWMUs where the selected corrective action is capping of the area followed by long-term monitoring.

3. Final corrective measures groundwater target levels shall be established after the Phase III investigation is complete. These final target levels will determine the need for and extent of groundwater remediation (groundwater corrective measures) at each SWMU where a Phase III investigation was completed. The procedures which will be used by the Permittee to develop the final groundwater target levels must be described in a workplan developed after the Phase III report is approved by the Agency. These procedures must be in general accordance with the procedures described above for final soil target levels and must also meet the requirements set forth in 35 IAC 620.

   a. The Permittee and the Illinois EPA should have a meeting prior to the time that the Permittee begins developing these target levels. The goal of this meeting will be to provide the Permittee with guidance regarding the procedure which should be followed in developing and proposing these final groundwater target levels;

   b. The Illinois EPA will establish final target levels if none are proposed by the Permittee.

   c. Final Illinois EPA action taken on the development of an establishment of these final objectives will be subject to the appeal provisions of Section 39(a) of the Illinois Environmental Protection Act.

4. An ecological assessment must be carried out as part of the development of cleanup objectives to determine if there will be any adverse impact on the ecology resulting from the proposed cleanup objectives. Ecological assessments must also be carried out if institutional controls (such as capping, etc.) are the selected corrective measures. This assessment should be developed in accordance with USEPA guidance and address the following issues:

a. Physical, chemical and ecological characterization of site area;

b. Formulation of potential ecological problem

   i. Determination of contaminants of concern

   ii. Identification of potential ecological receptors

c. Analysis of potential ecological problems

   i. Characterization of exposure

   ii. Assessment of exposure

   iii. Characterization of ecological effects

   iv. Characterization of ecotoxicological effects

   v. Assessment of ecological effects

   vi. Assessment of ecotoxicological effects

d. Characterization of risk

   i. Estimation of risk

   ii. Uncertainty analysis

   iii. Interpretation of ecological significance

e. Risk management

D. Requirement for an Initial Corrective Measures Program

In a letter dated May 3, 1995, USEPA made a final determination that a corrective measures study was necessary for the following SWMUs present at the former CWM Incinerator facility which were investigated during the Consent Judgment required RFI [it must be noted that a May 31, 1995 letter temporarily held this final determination in abeyance]:

SWMU No.	Name
1	Biochemical Filter Beds
2	Activated Sludge Basins
3	Drum Storage Area
4	High Solids Basis
5	Wastewater Holding Basin #1/Vault
6	Wastewater Holding Basin #2
7	Chemical Treatment Area
8	Biochemical Treatment Area
9	Process Water Underground Pipe System
10	Hyon Tank Farm

As such, the Permittee must begin a corrective measures program for these SWMUs. The first phase in this program is a report evaluating the data collected to data and providing a recommendation for the corrective measure which should be taken to protect human health and the environment from releases of hazardous wastes/hazardous constituents from these SWMUs to the soil, groundwater, sediments and surface water. This report must be submitted to the Illinois EPA within 120 days of the effective date of this permit and contain the following information:

1. A response to the comments made by USEPA in letters dated January 5, 1995 and May 3, 1995;

2. An overview of the investigations undertaken at the subject facility;

3. A summary of the RFI Phase I and Phase II investigations results, including a summary of all laboratory analytical results in tabular form. This summary should include individual tables summarizing analytical results for samples taken at each SWMU. These tables should list levels of individual parameters detected in each sample instead of listing results by chemical groups as was done with the organic constituents in Tables 4-24 through 4-27 of the RFI report. Such tables will make it easier to determine the amount and extent of contamination at each SWMU;

4. A discussion of the results of the RFI;

5. A discussion of the ability of the Permittee to comply with 35 Ill. Adm. Code Part 620 Groundwater Quality Standards;

6. An application for the establishment of a groundwater management zone at the former CWM-Incinerator facility. This application must address all groundwater at this facility which exceeds the applicable groundwater quality standards of 35 Ill. Adm.

Code 620 and be developed in accordance with 35 Ill. Adm. Code 620.250. At a minimum, this application must address the lead and benzene contamination detected in several groundwater monitoring wells at the facility.

7. Proposed soil and groundwater clean-up objectives;

8. A general discussion of the expected corrective measure to be taken, including a discussion of the goals of such corrective measure. Of special concern is whether the goal of the measure is to (1) remove the contamination or (2) control the contamination through some type of engineered solution and/or institutional control.

The above-referenced report is the first step in the overall corrective measures process for these SWMUs. A description of the additional steps which must be completed as part of the corrective measures activities for these SWMUs is provided as Attachment K to this permit.

E. Corrective Measures Program Requirements

If, in accordance with Conditions V.B.9 and/or V.B.13 the Illinois EPA determines that corrective measures must be taken in response to releases, then the Permittee(s) shall develop a Phase I Corrective Measures Workplan. This plan must be submitted within 120 days after receipt of the notification from the Illinois EPA that corrective actions are necessary to protect human health and the environment from observed releases from releases of solid waste to the environment. This workplan must be developed in accordance with the requirements set forth in Attachment K. Subsequent phases of the corrective measures program must be carried out in accordance with the procedures set forth in Attachment K.

The Illinois EPA may approve, modify and approve, or disapprove and provide comments to the Permittee(s) as to the corrections or modifications needed for the Phase I CMP Workplan. Within 60 days of receipt of such comments, the Permittee(s) must modify the CAP or submit a new Phase I CMP Workplan to the Agency's BOL staff for Illinois EPA approval. The Illinois EPA approval of one or more of the corrective measure(s) may consider, at a minimum, performance, reliability, implementability, safety, human health and the environmental impact of the measure(s). The formal approval and incorporation of the selected corrective measure(s) into the Part B permit will be through the Class 2 Permit Modification procedures identified in 35 Ill. Adm. Code 703.282. The Permittee(s) shall begin implementing the selected corrective measure(s) according to the terms and schedule identified in the modified permit.

F. Financial Assurance for Corrective Action

1. The Permittee(s) shall prepare a cost estimate for the completion of any corrective measure(s) required under this permit, in order to provide financial assurance for completion of corrective action, as required under 35 Ill. Adm. Code 724.201(b). Such a cost estimate will be based upon the cost of contamination investigations and assessments for the SWMU(s), and design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 Ill. Adm. Code 724.201, Attachment F and this permit. This cost estimate must be submitted to the Agency's BOL and revised according to the following schedule:

Facility Submission	Due Date
Initial Cost Estimate (with the RFI Phase I Workplan)	120 days after the effective date of this permit
Revised Cost Estimate (with the initial submittal of each RFI Report)	Upon written Agency request

2. The Permittee(s) shall demonstrate continuous compliance with 35 Ill. Adm. Code 724.201 by providing documentation of financial assurance using a mechanism specified in 35 Ill. Adm. Code 724.243, in at least the amount of the cost estimate required under Condition V.F.1 the words "completion of corrective action" shall be substituted for "closure and/or post-closure", as appropriate in the financial instrument specified in 35 Ill. Adm. Code 724.251. The documentation shall be submitted to the Agency's BOL within 60 days after the submittal of the initial or revised cost estimates required under Condition V.F.1. The Illinois EPA's BOL may accept financial assurance for completion of corrective action in combination with another financial mechanism that is acceptable under 35 Ill. Adm. Code 724.246 at its discretion.

G. Future Releases From SWMUs

Whenever the Permittee(s) becomes aware that any SWMU, that was not found to be releasing hazardous waste or constituents during the RFI, or was not addressed under the corrective action requirements of this permit, may have started to release hazardous waste or constituents, the Permittee(s) shall report this information to the Illinois EPA's BOL in writing within thirty (30) days of discovery. Upon the Illinois EPA's written request, the Permittee(s) shall determine the nature and extent of the contamination by following the

procedures set forth in Conditions V.B through V.D, beginning on the date of notification, rather than on the effective date of the permit.

H. Notification Requirements for an Assessment of Newly-Identified Solid Waste Management Unit(s)

1. The Permittee(s) shall notify the Illinois EPA's BOL in writing of any newly-identified SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than sixty (60) calendar days after discovery. For the purposes of this permit, "newly-identified SWMUs" shall mean all SWMUs located at the subject facility for which corrective actions have not previously been required by this permit, or which have not been previously listed in the RFA for this facility. The notification shall provide the following information, if available:

   a. The location of the newly-identified SWMU in relation to other SWMUs on a scaled map or drawing;

   b. The type and past and present function of the SWMU;

   c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);

   d. The period during which the unit was operated;

   e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and

   f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.

2. If the submitted information demonstrates a potential for a release of hazardous waste or constituents from the newly identified SWMU, the Illinois EPA may request in writing, that the Permittee(s) prepare a Solid Waste Management Unit (SWMU) Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s) discovered subsequent to the issuance of this Permit.

3. Within 120 calendar days after receipt of an Illinois EPA request for a SWMU Assessment Plan, the Permittee(s) shall prepare a SWMU Assessment Plan consistent with the requirements of V.B through V.D above. This SWMU Assessment plan must also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s) to the environment.

4. After the Permittee(s) submits the SWMU Assessment Plan, the Illinois EPA shall either approve, approve with conditions or disapprove the Plan in writing. If the plan is approved, the Permittee(s) shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Illinois EPA shall notify the Permittee(s) in writing of the Plan's deficiencies specify a due date for submittal of a revised plan.

5. The Permittee(s) shall submit a report documenting the results of the approved SWMU Assessment Plan to the Illinois EPA in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan.

I. Completion of Corrective Action

1. The Permittee(s) shall complete those corrective actions contained in the Corrective Action Plan approved in accordance with Condition V.E above. The Permittee(s) may request the Illinois EPA to consider corrective action complete at any point during compliance with this permit. The petition should include a demonstration of the following:

   a. The Permittee(s) shall demonstrate that there have been no releases of hazardous waste or hazardous constituents to any media from the SWMUs; or

   b. The Permittee(s) shall demonstrate that all releases of hazardous waste or hazardous constituents to all media targeted within the RFI for investigation have been remediated to the target cleanup objectives specified within the approved Corrective Measures Plan, and shall also describe how releases will be prevented in the future; or

   c. Some combination of the above demonstrations.

Appropriate documentation and certification must accompany such a demonstration.

The Permittee(s) shall be notified in writing if the Illinois EPA approves the request that the corrective actions can be considered complete. The notification from the Illinois EPA's BOL to the Permittee(s) may include a release from the financial requirements of Condition V.F above.

2. A determination of no further action shall not preclude the Illinois EPA's BOL from requiring continued or periodic inspections of the SWMU(s) or continued or periodic monitoring of the specified environmental media when site-specific circumstances indicate that releases of hazardous wastes including constituents are likely to occur, if necessary to protect human health and the environment. Any requirement for long-term groundwater monitoring may only be required at SWMU where substantial soil contamination exists (as determined by the Agency) or at any SWMU which would meet the definition of a land disposal unit.

3. A determination of no further action shall not preclude the Illinois EPA from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release at the facility that is likely to pose a threat to human health of the environment. In such a case, the Illinois EPA's BOL shall initiate a permit modification to rescind the determination no further action.

J. Interim Measures

At any time during the RFI the permittee may initiate interim measures for the purpose of preventing continuing releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It may not be necessary to conduct all phases of the RFI investigation if the Illinois EPA's BOL and the Permittee(s) agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal corrective measures study ("CMS").

1. Prior to implementing any interim measures beyond those specified above, the Permittee must submit detailed information regarding the proposed interim measure to the Illinois EPA's BOL for approval. This information shall include, at a minimum:

    a. Objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;

    b. Design, construction, and maintenance requirements;

c. Schedules for design and construction; and

d. Schedules for progress reports.

2. If the Illinois EPA's BOL determines that a release cannot be addressed without additional study and/or a formal CMS, then the Illinois EPA's BOL will notify the Permittee that these must be performed. Any proposal made under this provision or any other activity resulting from such proposal, including the invocation of dispute resolution, shall not affect the schedule for implementation of the RFI or of any other portion of the permit.

3. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment, the Permittee will be notified by way of a permit modification.

K. Reports and Signatories to Reports

All reports shall be certified in accordance with 35 Ill. Adm. Code 702.126(d) and signed by a person as identified in 35 Ill. Adm. Code 702.126(b).

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SECTION VI: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. EFFECT OF PERMIT. The existence of a RCRA permit shall not constitute a defense to a violation of the Act or 35 Ill. Adm. Code Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 Ill. Adm. Code 702.181)

2. PERMIT ACTIONS. This permit may be modified, reissued or revoked for cause as specified in 35 Ill. Adm. Codes 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee(s) for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee(s) does not stay the applicability or enforceability of any permit condition. (35 Ill. Adm. Code 702.146)

3. SEVERABILITY. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 Ill. Adm. Code 700.107)

4. PERMIT CONDITION CONFLICT. In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 Ill. Adm. Code 702.160)

5. DUTY TO COMPLY. The Permittee(s) shall comply with all conditions of this permit except the extent and duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Act and is grounds for an enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 Ill. Adm. Code 702.141 and 703.242)

6. DUTY TO REAPPLY. If the Permittee(s) wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee(s) must apply for a new permit at least 180 days before this permit expires, unless written permission for a later date has been granted by the Agency. (35 Ill. Adm. Codes 702.142 and 703.125)

7. PERMIT EXPIRATION. This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee(s) has submitted a timely and complete application (see 35 Ill. Adm. Code 703.181-703.209) and through no fault of the Permittee(s) the Illinois EPA has not issued a new permit as set forth in 35 Ill. Adm. Code 702.125.

8. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for the Permittee(s) in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 Ill. Adm. Code 702.143)

9. DUTY TO MITIGATE. In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases of hazardous substances to the environment. The Permittee(s) shall carry out such measures as may be necessary to prevent significant adverse impacts on human health or the environment. (35 Ill. Adm. Code 702.144)

10. PROPER OPERATION AND MAINTENANCE. The Permittee(s) shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee(s) to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 Ill. Adm. Code 702.145)

11. DUTY TO PROVIDE INFORMATION. The Permittee(s) shall furnish to the Agency, within a reasonable time, but no later than thirty days, any relevant information which the Illinois EPA may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee(s) shall also furnish to the Agency, upon request, copies of records required to be kept by this permit. (35 Ill. Adm. Code 702.148)

    Furthermore, the Permittee(s) shall provide to the Illinois EPA any documentation that is required by the Act or regulations.

12. INSPECTION AND ENTRY. The Permittee(s) shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate statute, any substances or parameters at any location. (35 Ill. Adm. Code 702.149)

13. MONITORING AND RECORDS. (35 Ill. Adm. Code 702.150)

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 Ill. Adm. Code 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.

b. The Permittee(s) shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

c. Records of monitoring information shall include:

i. The date(s), exact place, and time of sampling or measurements;

ii. The individual(s) who performed the sampling or measurements;

iii. The date(s) analyses were performed;

iv. The individual(s) who performed the analyses;

v. The analytical technique(s) or method(s) used; and

vi. The result(s) of such analyses. (35 Ill. Adm. Code 702.150)

14. REPORTING PLANNED CHANGES. The permittee shall give notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. For a new hazardous waste management facility, the permittee shall not commence treatment, storage or disposal of hazardous waste; and for a facility being modified the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, until:

    a. The permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

    b. 1. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or

       2. If, within 15 days of the date of submission of the letter in paragraph (a), the permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage or disposal of hazardous waste. (35 Ill. Adm. Codes 703.244 and 702.152(a))

15. ANTICIPATED NONCOMPLIANCE. The Permittee(s) shall give advance notice to the Illinois EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements, regulations, or the Act. For a new facility, the permittee shall not treat, store or dispose of hazardous waste; and for a facility being modified, the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, except as provided in Section 703.280, until:

    i. The permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

    ii. Either:

       a. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

       b. Within 15 days after the date submission of the letter in section i above, the permittee has not received notice from the Illinois EPA of its intent to inspect, the permittee may commence treatment, storage or disposal of hazardous waste.

    (35 Ill. Adm. Codes 702.152(b) and 703.247)

16. TRANSFER OF PERMITS. This permit is not transferable to any person except after notice to the Agency. The Illinois EPA may require modification of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the appropriate Act. (See 35 Ill. Adm. Codes 703.260 and 703.270, in some cases modification is mandatory.) (35 Ill. Adm. Code 702.152(c)) The transferree shall submit any information the Illinois EPA shall request. The Illinois EPA determines whether the transferree is of sufficient good character.

17. MONITORING REPORTS. Monitoring results shall be reported at the intervals specified in the permit. (35 Ill. Adm. Code 702.152(d))

18. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than specified in 35 Ill. Adm. Codes 702.162 and 702.152(e).

19. TWENTY-FOUR HOUR REPORTING.

    a. The Permittee(s) shall report to the Illinois EPA any noncompliance with the permit, regulations, the Act or any other matter which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee(s) becomes aware of the following circumstances. This report shall include the following:

        i. Information concerning the release of any hazardous substance, agrichemical or pesticide that may cause harm to public drinking water supplies.

        ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.

    b. The description of the occurrence and its cause shall include:

        i. Name, address, and telephone number of the owner or operator;

        ii. Name, address, and telephone number of the facility;

        iii. Date, time, and type of incident;

        iv. Name and quantity of material(s) involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within 5 days of the time the Permittee(s) becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five day written notice requirement in favor of a written report within fifteen days. (35 Ill. Adm. Codes 702.152(f) and 703.245(b))

20. OTHER NONCOMPLIANCE. The Permittee(s) shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 17, 18, and 19, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 19. (35 Ill. Adm. Code 702.152(g))

21. OTHER INFORMATION. Where the Permittee(s) becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Agency, the Permittee(s) shall promptly submit such facts or information. (35 Ill. Adm. Code 702.152(h))

22. REPORTING REQUIREMENTS. The following reports required by 35 Ill. Adm. Code 724 shall be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):

a. Manifest discrepancy report: if a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 Ill. Adm. Code 724.172(b))

b. Unmanifested waste report: The permittee must submit to the Illinois EPA within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 Ill. Adm. Code 724.176)

c. Annual report: an annual report must be submitted covering facility activities during the previous calendar year. (35 Ill. Adm. Code 724.175)

23. SUBMITTAL OF REPORTS OR OTHER INFORMATION. All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

    Illinois Environmental Protection Agency
    Bureau of Land
    Permit Section
    1021 North Grand Avenue East
    Post Office Box 19276
    Springfield, Illinois 62794-9276

24. SIGNATORY REQUIREMENT. All permit applications, reports or information submitted to the Illinois EPA shall be signed and certified as required by 35 Ill. Adm. Code 702.126 and 702.151.

25. CONFIDENTIAL INFORMATION. Any claim of confidentiality must be asserted in accordance with 35 Ill. Adm. Code 702.103 and 161.

26. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE. The Permittee(s) shall maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:

    a. Waste analysis plan as required by 35 Ill. Adm. Code 724.113(b) and this permit.

    b. Personnel training documents and records as required by 35 Ill. Adm. Code 724.116(d) and this permit.

    c. Contingency plan as required by 35 Ill. Adm. Code 724.153(a) and this permit.

    d. Closure plan as required by 35 Ill. Adm. Code 724.212(a) and this permit.

    e. Cost estimate for facility closure as required by 35 Ill. Adm. Code 724.242(d) and this permit.

    f. Operating record as required by 35 Ill. Adm. Code 724.173 and this permit.

    g. Inspection schedules as required by 35 Ill. Adm. Code 724.115(b) and this permit.

27. WASTE MINIMIZATION. The Permittee(s) shall certify at least annually that the Permittee(s) has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee(s) to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee(s) which minimizes the present and future threat to human health and the environment, in accordance with 35 Ill. Adm. Code 724.173(b)(9).

GENERAL FACILITY STANDARDS

28. NOTICE OF WASTE FROM A FOREIGN SOURCE. The permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four weeks in advance of the date the waste is expected at the facility. (35 Ill. Adm. Code 724.112(a))

29. NOTICE OF WASTE FROM OFF-SITE. The Permittee(s) who receives hazardous waste from an off-site source (except where the Permittee(s) is also the generator), must inform the generator in writing that the permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee(s) must keep a copy of this written notice as part of the facility operating record. (35 Ill. Adm. Code 724.112(b))

30. GENERAL WASTE ANALYSIS. The Permittee(s) shall comply with the procedures described in the approved waste analysis plan. (35 Ill. Adm. Code 724.113)

31. SECURITY. The Permittee(s) shall comply with the security provisions of 35 Ill. Adm. Code 724.114(b) and (c).

32. GENERAL INSPECTION REQUIREMENTS. The Permittee(s) shall follow the approved inspection schedule. The Permittee(s) shall remedy any deterioration or malfunction discovered by an inspection as required by 35 Ill. Adm. Code 724.115(c). Records of inspections shall be kept at the facility as required by 35 Ill. Adm. Code 724.115(d).

33. PERSONNEL TRAINING. The Permittee(s) shall conduct personnel training as required by 35 Ill. Adm. Code 724.116 and shall maintain training documents and records as required by 35 Ill. Adm. Code 724.116(d) and (e).

34. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE. The Permittee(s) shall comply with the requirements of 35 Ill. Adm. Code 724.117.

PREPAREDNESS AND PREVENTION

35. DESIGN AND OPERATION OF FACILITY. The Permittee(s) shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous substance, agrichemical, or pesticide to air, soil, or surface water which could threaten human health or the environment. (35 Ill. Adm. Code 724.131) Additionally, the Permittee(s) shall remediate any release of a hazardous substance, agrichemical or pesticide.

36. REQUIRED EQUIPMENT. The Permittee(s) shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 Ill. Adm. Code 724.132.

37. TESTING AND MAINTENANCE OF EQUIPMENT. The Permittee(s) shall test and maintain the equipment specified in condition 36 as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 Ill. Adm. Code 724.133)

38. ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. The Permittee(s) shall maintain access to the communications or alarm system as required by 35 Ill. Adm. Code 724.134.

39. REQUIRED AISLE SPACE. The Permittee(s) shall maintain aisle space as required by 35 Ill. Adm. Code 724.135 and National Fire Protection Association (NFPA) requirements.

40. ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS. The Permittee(s) shall attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 Ill. Adm. Code 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee(s) must document this refusal in the operating record.

CONTINGENCY PLAN

41. IMPLEMENTATION OF PLAN. The provisions of the contingency plan must be carried out by the Permittee(s) immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 Ill. Adm. Code 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed) (35 Ill. Adm. Code 703.241). Within 15 days of any incident that requires

implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 Ill. Adm. Code 724.156(j).

42. COPIES OF PLAN. A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 Ill. Adm. Code 724.153.

43. AMENDMENTS TO PLAN. The Permittee(s) shall review and immediately amend, if necessary, the contingency plan, as required by 35 Ill. Adm. Code 724.154.

44. EMERGENCY COORDINATOR. A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 Ill. Adm. Code 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

45. MANIFEST SYSTEM. The Permittee(s) shall comply with the manifest requirements of 35 Ill. Adm. Code 724.171, 724.172 and 724.176.

46. OPERATING RECORD. The Permittee(s) shall maintain a written operating record at the facility in accordance with 35 Ill. Adm. Code 724.173.

47. ANNUAL REPORT. The Permittee(s) shall prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 Ill. Adm. Code 724.175.

CLOSURE

48. PERFORMANCE STANDARD. The Permittee(s) shall close the facility as required by 35 Ill. Adm. Code 724.211 and in accordance with the approved closure plan.

49. AMENDMENT TO CLOSURE PLAN. The Permittee(s) must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 Ill. Adm. Code 724.212(c).

50. NOTIFICATION OF CLOSURE. The Permittee(s) shall notify the Illinois EPA at least 45 days prior to the date it expects to begin closure. (35 Ill. Adm. Code 724.212(d))

51. TIME ALLOWED FOR CLOSURE. After receiving the final volume of hazardous waste, the Permittee(s) shall treat or remove from the site all hazardous waste and complete closure

activities in accordance with the schedule(s) specified in the closure plan. (35 Ill. Adm. Code 724.213)

52. DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT. When closure is completed, the Permittee(s) shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 Ill. Adm. Code 724.214) plan.

53. CERTIFICATION OF CLOSURE. When closure is completed, the Permittee(s) shall submit certification to the Illinois EPA in accordance with 35 Ill. Adm. Code 724.215 that the facility has been closed as specified by the approved closure plans.

54. COST ESTIMATE FOR FACILITY CLOSURE. The Permittee's original closure cost estimate, prepared in accordance with 35 Ill. Adm. Code 724.242, must be:

    a. Adjusted for inflation either 60 days prior to each anniversary of the date on which the first closure cost estimate was prepared or if using the financial test or corporate guarantee, within 30 days after close of the firm's fiscal year.

    b. Revised whenever there is a change in the facility's closure plan increasing the cost of closure.

    c. Kept on record at the facility and updated. (35 Ill. Adm. Code 724.242)

    d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.

55. FINANCIAL ASSURANCE FOR FACILITY CLOSURE. The Permittee(s) shall demonstrate compliance with 35 Ill. Adm. Code 724.243 by providing documentation of financial assurance, as required by 35 Ill. Adm. Code 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 Ill. Adm. Code 724.243.

56. LIABILITY REQUIREMENTS. The Permittee(s) shall demonstrate continuous compliance with the requirements of 35 Ill. Adm. Code 724.247 and the documentation requirements of 35 Ill. Adm. Code 724.251.

57. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS. The Permittee(s) shall comply with 35 Ill. Adm. Code 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

58. DISPOSAL PROHIBITION. Any waste identified in 35 Ill. Adm. Code Part 728, Subpart C, or any mixture of such a waste with non-restricted wastes, is prohibited from land disposal unless it meets the standards of 35 Ill. Adm. Code Part 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.

59. DILUTION PROHIBITION. The Permittee(s) shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 Ill. Adm. Code 728, Subpart D (35 Ill. Adm. Code 728.103).

60. WASTE ANALYSIS.

    a. The Permittee(s) must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR Part 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

    b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee(s) must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR Part 268, to assure that the treatment residues or extract meet the applicable treatment standard.

    c. If the treatment residues do not meet the treatment standards, or if the Permittee(s) ships any restricted wastes to a different facility, the Permittee(s) shall comply with the requirements applicable to generators in 35 Ill. Adm. Code 728.107 and 728.150(a)(1).

61. STORAGE RESTRICTIONS

    a. The Permittee(s) shall not store hazardous wastes restricted from land disposal under 35 Ill. Adm. Code Part 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins. In lieu of marking each tank with the required information, the Permitee may

maintain such information as part of the operating record of the facility (35 Ill. Adm. Code 728.150).

b. The Permittee(s) must comply with the operating record requirements of 35 Ill. Adm. Code 724.173.

62. NEW DETERMINATIONS OF PROHIBITED WASTES. Wastes which are prohibited from land disposal under 35 Ill. Adm. Code Part 728, Subpart C, or for which treatment standards have been established under 35 Ill. Adm. Code 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 58 through 61 above.

63. DEFINITIONS. Within the scope of this permit "days" refers to calendar days unless otherwise specified.

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SECTION VII: MISCELLANEOUS UNIT

A. Summary

The Permittee may treat waste paints (including coatings, sealants, turpentine and mineral spirits used as paint thinner) identified by the hazardous waste codes D001 (ignitable) for characteristic, D004 through D008 for specific heavy metal toxic's and D018 through D040 and D043 for specific organic toxics in the compactor located in Building 42:

The Permittee may shred full or partially full containers of waste, separate out the resulting metal container fragments and blend the container contents into pumpable slurries or non-disperable solids. The Permittee is prohibited from treating a hazardous waste in the shredder that has not been identified in Attachment A.

Miscellaneous Unit	Permitted Capacity	Unit Description
Compactor in Building 42	2 drums/hour @ 55 gallon/drum ~ 18,000 lbs/day	See Attachment 5 of the August 7, 1997 application, main compartment 44.25" x 27" x 57".
Shredder in Unit 24	maximum capacity 48,000 lbs. per hour	As depicted in Attachment 16 and described in Attachment 17 of the February 18, 2000 application.

B. Operating Conditions

Specific For the Compactor

1. The closed vent system and carbon adsorption system shall be operated at all times when the unit is in use.

2. The unit must be operated in compliance with the Clean Air Act and permit no. 98030007 and any subsequent permits authorizing the operation of this unit.

3. The Permittee is prohibited from processing waste in the compactor, if processing of the waste would cause a fire or explosion in the unit or a release to the environment.

4. After completing development and installation of the unit and associated area (i.e., the compactor, the secondary containment system) the Permittee shall notify the Field

Operation Section (FOS) and Permit Section prior to placing the unit into operation. Operation is allowed upon verbal approval from FOS or 15 days after notifying FOS the unit is operational unless deficiencies are noted during the inspection.

5. The compactor shall not be operated unless the fire system (sprinkler) is operable in Building 42.

The Permittee may operate the shredder identified in Condition VII.A under the following conditions:

Specific For the Shredder

1. The unit shall not be operated unless the percentage of oxygen in the air within the unit is between 4 to 8%.

2. The unit shall be operated if the carbon dioxide fire suppression system is not operable.

3. The unit shall not be operated if the deflagration system is not operable.

4. The unit shall not be operated if the carbon adsorption system is not operating or collection drums/hoppers are not in place.

5. The unit shall not be operated if the tank high level alarm on TK-414 has been activated and has not reset.

6. The closed vent system and carbon adsorption shall be operated at all times when the unit is in use.

7. The unit shall not be operated if the foam suppression system is inoperable.

General

1. The closed vent system shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedures in 40 CFR 264.1034(b).

2. The activated carbon shall be replaced with new carbon within 24 hours of when monitoring indicates the control device did not reduce the total organic content of the inlet vapor stream by 95%.

3. Negative pressure shall be maintained in the closed vent system when operating.

4. Period of planned routine maintenance of the control device during which the control devices does not meet the performance standard, shall not exceed 240 hours per year.

5. If the control device malfunctions, it shall be corrected as soon as practicable (no later than 24 hours) after the occurrences in order to minimize exceed emissions of air pollutants.

6. Before the unit becomes operational, an initial leak detection shall be conducted in accordance with 40 CFR 264.1034(b).

C. Recording and Maintaining Data

1. The Permittee shall record monitoring and inspection data in the operating record and maintain those records for three years. The Permittee shall make this information available to the Illinois EPA upon request.

2. the flow indicator sensor shall be monitored to provide a record of the vent stream flow in the closed vent system at least hourly.

3. Records of the management of carbon (time in operation) including carbon changes shall be maintained.

4. Daily recordings of the FID test to demonstrate compliance with the performance standard shall be maintained.

5. Records of routine maintenance (time) during which the control devices does not meet the performance standard shall be maintained.

D. Performance Standard

The performance standard used to determine compliance is reduction of the total organic content of the inlet stream by 95%.

E. Inspections

1. Closed-vent system joints, seams or other connections shall be visually inspected annually for defects which could result in air emissions.

2. The pressure measurement device shall be inspected daily, when the unit is in operation, to verify that negative pressure is being maintained in the closed vent system when operating.

3. The Permittee shall inspect the miscellaneous unit in accordance with the inspection schedule specified in Attachment B to this permit.

F. Response to Leaks or Spills (Liquid)

In the event of a leak or a spill from the miscellaneous units which is not immediately cleaned up, or if a unit becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions:

1. Appropriate action to clean up any release of waste from the miscellaneous unit shall be carried immediately after removing the system from system.

2. Remove all waste from the system within 24 hours of the detection of the leak or spill to prevent further releases and to allow inspection and repair of the system.

3. Determine the cause of the release.

4. Make any necessary repairs to fully restore the integrity of the system before returning the unit to service.

5. All wastes resulting from the cleanup of a spill or leak shall be managed as a hazardous waste.

G. Response to Leaks or Spills (Detectable Emissions)

1. Detectable emissions, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, or, if applicable, as allowed by 35 Ill. Adm. Code 724.934(l)(3)(iii), no later than the scheduled routine maintenance.

2. A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

H. Special Requirements for Ignitable or Reactive Waste

1. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable waste.

   Ignitable wastes must be separated and protected from sources of ignition or reaction including but not limited to:

   a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.

   b. While ignitable waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.

   c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

I. Residues

1. A sample shall be taken of each drum of collected residue from the miscellaneous unit. A composite sample made from the individual samples collected from ten drums shall be analyzed for PCB's. If PCB's are detected, the individual drums shall be analyzed to discover the source of the PCB's. If the analysis shows that the concentration is greater than 50 ppm in a drum or drums, that waste must be handled as a TSCA waste. Otherwise, the waste must be handled under the RCRA regulations as a hazardous waste.

J. Waste Analysis

Compatibility of waste to be processed through the compactor shall be assessed by performing a liquid waste compatibility test as described in the letter dated September 17, 1993 from Paul Ahearn, CHCI. The compatibility of wastes received in Lab Packs may be assessed using EPA-600/2-80-076, "A Method for Determining the Compatibility of Hazardous Wastes".

K. Closure

At closure, all waste and waste residues must be removed from the miscellaneous units. Closure of the miscellaneous units shall be carried out in accordance with the closure plan in the approved Permit Application, subject to the following modifications:

1. The Permittee(s) shall notify the Illinois EPA's Bureau of Land in writing of its intent to close these units at least 180 days prior to the date closure is expected to begin. Along with the notification, the Permittee(s) shall submit the sampling and analysis plan to be used in demonstrating that these areas have been properly decontaminated. The plan shall be approved by the Illinois EPA's Bureau of Land in writing prior to being implemented. Illinois EPA's review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and Section 40(a) of the Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for; and

   c. The level at which decontamination is considered complete.

2. The concrete surfaces underlying the miscellaneous units shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash water and rinse water shall be collected and managed as a hazardous waste, unless the Permittee(s) can document that the waste is not hazardous as defined in 35 Ill. Adm. Code 721.103. An independent, registered, professional engineer must certify that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. Otherwise, sampling in accordance with an approved sampling plan, shall be conducted to verify the underling soil is uncontaminated.

3. All sweepings, wash water and rinsate generated during the closure of these units shall also be managed as a hazardous waste, unless it can be shown to be exempt under 35 Ill. Adm. Code Part 721.

4. The Permittee shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in this permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, the miscellaneous units

shall be considered to be a landfill and the post-closure care plan in the approved application will be modified as required to provide adequate post-closure care for the affected units in accordance with 35 Ill. Adm. Code, Subtitle G, Part 724, Subparts G and H.

5. Should post-closure care, as described in Condition 4 above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure plan and post-closure care plan for the affected units within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made not to pursue clean closure prior to the implementation of the closure plan for the miscellaneous units, the modification request shall be made no later than sixty (60) days after the determination is made.

6. Financial assurance for closure and post-closure of any miscellaneous unit being closed as a landfill, when required in accordance with Conditions 4 and 5 above, shall be updated within thirty (30) days following modification of the permit under the provisions of Condition 5 above.

7. Within sixty (60) days after closure of any miscellaneous unit is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan. The closure certification form in Attachment D to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 720.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for each tank system identified in Condition B.1 above. Documents regarding financial assurance for closure of this facility may be modified after the Illinois EPA approves the closure certification for any or all of the miscellaneous units. The Illinois EPA's review of closure certifications for partial or final closure will be reviewed in accordance with 35 Ill. Adm. Code 724.243.

   A Closure Documentation Report is to be submitted with the closure certification which includes the following items, if applicable:

   a. The volume of waste and waste residue remove, including wastes generated during documentation procedures;

   b. A description of the method of waste handling and transport;

c. Copies of the waste manifest;

d. A description of the sampling and analytical methods used;

e. A chronological summary of closure activities and the cost involved;

f. Tests performed, methods and results;

g. Color photographs of closure activities which document conditions before, during and after closure; and

h. A scale drawing of all excavated or decontaminated areas and sample locations.

8. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The permit exemption (35 Ill. Adm. Code 722.134) only applies to container and tanks.

9. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

10. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Act.

11. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 Ill. Adm. Code

722.134, those units are subject to the closure requirements incorporated by referenced in 35 Ill. Adm. Code 722.134.

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ATTACHMENT A

WASTES WHICH CAN BE ACCEPTED AND
HAZARDOUS WASTE IDENTIFICATION NUMBERS

LPC 0316000051

Clean Harbors Svcs Inc
RCRA Log No. B-16

HAZARDOUS WASTE CODES ACCEPTABLE FOR THE RCRA EXEMPT WASTEWATER TREATMENT UNITS

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste (HN03 (>40%)).
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D003	Solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.
D023	Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.
D024	Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.
D025	Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.
D026	Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.
D027	Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.
D028	Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.
D029	Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.
D030	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D032	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.
D033	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.
D034	Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.
D035	Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.
D036	Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.
D039	Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.
D040	Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.
D041	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.
D042	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.
D043	Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous Wastes from Non-Specific Sources

K062	Spent pickle liquor generated by steel finishing operations of facility within the iron and steel industry (SIC Code 331 and 332, as defined in 35 Ill. Adm. Code 720.110).

HAZARDOUS WASTE CODES ACCEPTABLE FOR THE LISTED WASTE TREATMENT PROCESS (NEUTRALIZATION, PRECIPITATION, COAGULATION, OXIDATION, STRIPPING OR CARBON ADSORPTION)

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D003	Solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.
D023	Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.
D024	Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.
D025	Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.
D026	Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.
D027	Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.
D028	Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.
D029	Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D030	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.
D032	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.
D033	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.
D034	Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.
D035	Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.
D036	Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.
D037	Solid waste exhibiting the characteristic of TCLP toxicity for pentachlorophenol at 100 mg/l or more.
D038	Solid waste exhibiting the characteristic of TCLP toxicity for pyridine at 5.0 mg/l or more.
D039	Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.
D040	Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.
D041	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.
D042	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D043	Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous Wastes From Non-Specific Sources

F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons, spent solvent mixtures/blends used in degreasing, and still bottom from the recovery of these spent solvents and spent solvent mixtures.
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, 1,1,2-trichloroethane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-buryl alcohol, cyclohexanone, methanol, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non-halogenated solvents: cresols and cresylic acid, nitrobenzene, spent solvent mixtures and blends, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	Wastewater treatment sludges from electroplating operations.
F007	Spent cyanide plating baths from electroplating operations.

Hazardous Waste No.	Description of Hazardous Waste
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.
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.
F039	Multi-Source leachate.

C. Hazardous Wastes From Specific Sources

K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	Wastewater treatment sludge from the production of iron blue pigments.

Hazardous Waste No.	Description of Hazardous Waste
K008	Oven residue from the production of chrome oxide green pigments.
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead based initiating compounds.
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
K060	Ammonia still lime sludge from coking operations.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).
K069	Emission control dust/sludge from secondary lead smelting.
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.
K087	Decanter tank tar sludge from coking operations.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.

HAZARDOUS WASTE CODES ACCEPTABLE FOR STABILIZATION/FIXATION

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.
B. Hazardous Waste From Specific Sources	
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).

Hazardous Waste No.	Description of Hazardous Waste

C. Hazardous Waste From Non-Specific Sources

F006[1]	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 (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007[1]	Spent cyanide plating bath solutions from electroplating operations.
F008[1]	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009[1]	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010[1]	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011[1]	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012[1]	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.
F019[1]	Wastewater treatment sludges from the chemical conversion coating of aluminum.

(1) The facility cannot stabilize wastes containing parameters above land ban restrictions whose BDAT as identified in the Federal Register is not based on stabilization (i.e., cyanide).

HAZARDOUS WASTE CODES ACCEPTABLE FOR STORAGE AND TRANSFER, SHREDDING, CRUSHING AND/OR FUEL BLENDING

Hazardous Waste No.	Description of Hazardous Waste
A. Characteristically Hazardous Waste	
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D003	Solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D012	Solid waste exhibiting the characteristic of TCLP Toxicity for Endrin at 0.02 mg/l or more.
D013	Solid Waste exhibiting the characteristic of TCLP Toxicity for Lindane at 0.4 mg/l or more.
D014	Solid Waste exhibiting the characteristic of TCLP Toxicity for Methoxychlor at 10.0 mg/l or more.
D015	Solid waste exhibiting the characteristic of TCLP Toxicity for Toxaphene at 0.5 mg/l or more.
D016	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4-D at 10.0 mg/l or more.
D017	Solid waste exhibiting the characteristic of TCLP Toxicity for 2,4,5-TP (Silvex) at 1.0 mg/l or more.
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D020	Solid waste exhibiting the characteristic of TCLP Toxicity for chlordane at 0.03 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.
D023	Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D024	Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.
D025	Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.
D026	Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.
D027	Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.
D028	Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.
D029	Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.
D030	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.
D031	Solid waste exhibiting the characteristic of TCLP Toxicity for heptachlor (and its epoxide) at 0.008 mg/l or more.
D032	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.
D033	Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.
D034	Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.
D035	Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.

Hazardous Waste No.	Description of Hazardous Waste
D036	Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.
D037	Solid waste exhibiting the characteristic of TCLP toxicity for pentachlorophenol at 100.0 mg/l or more.
D038	Solid waste exhibiting the characteristic of TCLP toxicity for pyridine at 5.0 mg/l or more.
D039	Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.
D040	Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.
D041	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.
D042	Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.
D043	Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous Wastes From Non-Specific Sources

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 ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

Hazardous Waste No.	Description of Hazardous Waste
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane; and 1,1,2-trichloroethane; all spent solvent mixtures and blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non-halogenated solvents: xylene, acetone, ethylacetate, 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 non-halogenated solvents; and all spent solvent mixtures and blends containing, before use, one or more of the above non-halogenated solvents and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures and blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent non-halogenated solvents: toluene, methyl ethylketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol and 2-nitropropane; all spent solvent mixtures and blends, containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002 or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
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 (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

Hazardous Waste No.	Description of Hazardous Waste
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum.
*F020[1]	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 tetrachlorphenol, 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.)
*F021[1]	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.
*F022[1]	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.

Hazardous Waste No.	Description of Hazardous Waste
*F023[1]	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.)
F024	Process wastes including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout 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 one to and including five with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysis and wastes listed in this Section 721.132.)
F025	Condensed light ends, spent filters and filter aids, 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 one to and including five, with varying amounts and positions of chlorine substitution.
*F026[1]	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.
*F027[1]	Discarded unused formulations containing tri-,tetra- or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from pre-purified 2,4,5-trichlorophenol as the sole component.
*F028[1]	Residues resulting from the incineration or thermal treatment of soil contaminated with Hazardous Waste Numbers F020, F021, F023, F026 and F027.

Hazardous Waste No.	Description of Hazardous Waste
*F032	Wastewaters, 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 waste code deleted in accordance with Section 721.135 and where the generator does not resume or initiate 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.
F034	Wastewaters, process residuals, preservative drippage and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does nto include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.
F035	Wastewaters, 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.
F037	Petroleum refinery primary oil/water/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 doe not receive dry weather flow, sludges generated in aggressive biological treatment units as defined in subsection (b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.

Hazardous Waste No.	Description of Hazardous Waste
F038	Petroleum refinery secondary (emulsified) oil/water/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 the physical or chemical separation of oil/water/solids in process wastewaters and oil cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated in aggressive biological treatment units as defined in Subsection (b)(2) (including sludges generated in one or more additional units after wastewaters have ben treated in aggressive biological treatment units), F037, K048 and K051 wastes are not included in this listing.
F039	Leachate resulting from the treatment, storage or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D. (Leachate resulting from the management of one or more of the following USEPA hazardous wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027 or F028.)

C. Hazardous Wastes From Specific Sources

K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).

Hazardous Waste No.	Description of Hazardous Waste
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K009	Distillation bottoms from the production of acetaldehyde from ethylene.
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.
K013	Bottom stream from the acetronitrile column in the production of acylonitrile.
K014	Bottoms from the acetontrile purification column in the production of acrylonitrile.
K015	Still bottoms from the distillation of benzyl chloride.
K016	Heavy ends or distillation residues from the production or carbon tetrachloride.
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.
K018	Heavy ends from the fractionation column in ethyl chloride production.
K019	Heavy ends of the distillation of ethylene dichloride in thylene dichloride production.
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.
K022	Distillation bottom tars from the production of phenol/acetone from cumene.
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.

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Waste No.	Description of Hazardous Waste
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.
K025	Distillation bottoms from the production of phthalic anhydride from naphthalene.
K026	Stripping still tails from the production of methy ethyl pyridines.
K027	Centrifuge and distillation residues from toluene diisocyanate production.
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichlorethane.
K029	Waste from the product stream stripper in the production of 1,1,1-trichloroethane.
K030	Column bottoms or heavy ends from the combined production of trichlorethylene and perchloroethylene.
K031	By-product salts generated in the production of MSMA and cacodylic acid.
K032	Wastewater treatment sludge from the production of chlordane.
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.
K035	Wastewater treatment sludges generated in the production of creosote.
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.
K037	Wastewater treatment sludges from the production of disulfoton.
K038	Wastewater from the washing and stripping of phorate production.

Hazardous

Waste No.	Description of Hazardous Waste
K039	Filter cake from the filteration of diethylphosphorodithioic acid in the production of phorate.
K040	Wastewater treatment sludge from the production of phorate.
K041	Wastewater treatment sludge from the production of toxaphene.
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.
K043	2,6-Dichlorophenol waste from the production of 2,4-D.
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.
K045	Spent carbon from the treatment of wastewater containing explosives.
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead based initiating compounds.
K047	Pink/red water from TNT operations.
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	API separator sludge from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
K060	Ammonia still lime sludge from coking operations.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.

Hazardous Waste No.	Description of Hazardous Waste

K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).
K064	Acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production.
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.
K066	Sludge from treatment of process wastewater or acid plant blowdown from primary zinc production.
K069	Emission control dust/sludge from secondary lead smelting.
K071	Brine purification muds from the mercury cell process in chlorine production, where separately pre-purified brine is not used.
K073	Chlorinated hydrocarbon waste from the purification step of the diaphram cell process using graphite anodes in chlorine production.
K083	Distillation bottoms from aniline production.
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.
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.
K087	Decanter tank tar sludge from coking operations.
K088	Spent potliners from primary aluminum reduction.
K090	Emission control dust or sludge from ferrochromiumsilicon production.
K091	Emission control dust or sludge from ferrochromium production.

Hazardous Waste No.	Description of Hazardous Waste
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.
K098	Untreated process wastewater from the production of toxaphene.
K099	Untreated wastewater from the production of 2,4-D.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic compounds.
K103	Process residues from aniline extraction from the production of aniline.
K104	Combined wastewater streams generated from nitrobenzene/aniline production.
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.

Hazardous Waste No.	Description of Hazardous Waste
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines.
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UMDH) from carboxylic acid hydrazines.
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UMDH) from carboxylic acid hydrazines.
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UMDH) from carboxylic acid hydrazines.
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.
K113	Condensed liquid light ends from the (T) purification of toluenediamine in the production of toluenediamine via hydrogenation dinitrotoluene.
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.
K118	Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

Hazardous Waste No.	Description of Hazardous Waste
K123	Process wastewater (including supernates, filtrates, and wash waters) from the production of ethylenebisdithiocarbamic acid and its salts.
K124	Reactor vent scrubber water from the production of ethylene-bisdithiobarbamic acid and its salts.
K125	Filtration, evaporation, and centrifugation of solids from the production of ethylenebisdithio carbonic acid and its salts.
K126	Baghouse dust and floor sweepings in milling and packaging operations from production or formulation of ethylenebisdithiocarbamic acid and its salts.
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.
K132	Spent absorbent and wastewater separator solids form the production of methyl bromide.
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K140	Floor sweepings, off-specification product and spent filter media from the production of 2,4,6-tribromophenol.
K141	Process residues from the recovery of coal tar, including, but not listed to, tar 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 (decanter tank tar sludge from coking operations).
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).
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.

Hazardous Waste No.	Description of Hazardous Waste
K144	Wastewater treatment sludges from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.
K145	Residues from napthalene collection and recovery operations from the recovery of coke by-products produced from coal.
K147	Tar storage tank residues from coal tar refining.
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.
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.]
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.
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.
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes).
K158	Bag house dust, and filter/separation solids from the production of carbamates and carbamoyl oximes.
K159	Organics from the treatment of thiocarbamate wastes.

Hazardous Waste No.	Description of Hazardous Waste
K160	Solids (including filter waste, separation solids, and spent catalysts) from the production of thiocarbamates and solids from the treatment of thiocarbamate wastes.
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust, and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126).
K169	Crude oil storage tank sediment from petroleum refining operations.
K170	Clarified slurry oil storage tank sediment and/or in-line filter/separation solids from petroleum refining operations.
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic units (not including inert support media).
K172	Spent hydrorefining catalyst from petroleum operations, including guard beds used to desulfurize feeds to other catalytic units (not including inert support media).
*K174	Wastewater treatment sludge from the production of ethylene dichloride or vinyl chloride monomer.
K175	Wastewater treatment sludge from the production of ethylene dichloride or vinyl chloride monomer.

D. Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof:

Hazardous Waste No.	Description of Hazardous Waste
P001	Warfarin, when present at concentrations greater than 0.3%.
P002	1-Acetyl-2-thiourea
P003	Acrolein
P004	Aldrin
P005	Allyl alcohol

Hazardous Waste No.	Description of Hazardous Waste
P006	Aluminum phosphide
P007	5-(Aminomethyl)-3-isoxazolol
P008	4-Aminopyridine
P009	Ammonium picrate
P010	Arsenic acid
P011	Arsenic pentoxide
P012	Arsenic trioxide
P013	Barium cyanide
P014	Benzenethiol
P015	Beryllium dust
P016	Bis-chloromethyl) ether
P017	Bromoacetone
P018	Brucine
P020	Dinoseb
P021	Calcium cyanide
P022	Carbon bisulfide
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P026	1-(o-Chlorophenyl) thiourea
P027	3-Chloropropionitrile
P028	Benzyl chloride
P029	Copper cyanides
P030	Cyanides (soluble cyanide salts) not elsewhere specified.
P031	Cyanogen
P033	Cyanogen chloride
P034	4,6-Dinitro-o-cyclohexylphenol
P036	Dichlorophenylarsine
P037	Dieldrin
P038	Diethylarsine
P039	Disulfoton
P040	O,O-Diethyl O-pyrazinyl phosphoro-thioate
P041	Diethyl-p-nitrophenyl phosphate
P042	Epinephrine
P043	Diisopropyl fluorophosphate
P044	Dimethoate
P045	Thiofanox
P046	Ethanamine, 1,10dimethyl-2-phenyl-
P047	4,6-Dinitro-o-cresol and salts

Hazardous Waste No.	Description of Hazardous Waste
P048	2,4-Dinitrophenol
P049	2,4-Dithiobiuret
P050	Endosulfan
P051	Endrin
P054	Ethylenimine
P056	Fluorine
P057	Fluoroacetamide
P058	Fluoroacetic acid, sodium salt
P059	Heptachlor
P060	Hexachlorohexahydro-endo, endo-dimethanonaphthalene
P062	Hexaethyl tetraphosphate
P063	Hydrogen cyanide
P064	Methyl Isocyanate
P065	Mercury fulminate
P066	Methomyl
P067	2-Methylaziridine
P068	Methyl hydrazine
P069	2-Methyllactonitrile
P070	Aldicarb
P071	Methyl parathion
P072	alpha-Naphthylthiourea
P073	Nickel carbonyl
P074	Nickel cyanide
P075	Nicotine and salts
P076	Nitric oxide
P077	p-Nitroaniline
P078	Nitrogen dioxide
P081	Nitroglycerine
P082	N-Nitrosodimethylamine
P084	N-Nitrosomethylvinylamine
P085	Octamethylpyrophosphoramide
P087	Osmium oxide
P088	Endothall
P089	Parathion
P092	Phenylmercuric acetate
P093	N-Phenylthiourea
P094	Phorate
P095	Phosgene

Hazardous Waste No.	Description of Hazardous Waste
P096	Phosphine
P097	Pamphur
P098	Potassium cyanide
P099	Potassium silver cyanide
P101	Propanenitrile
P102	Propargyl alcohol
P103	Selenourea
P104	Silver cyanide
P105	Sodium azide
P106	Sodium cyanide
P108	Strychnine and salts
P109	Tetraethyldithiopyrophosphate
P110	Tetraethyl lead
P111	Tetraethylpyrophosphate
P112	Tetranitromethane
P113	Thallic oxide
P114	Thallium(l) selenide
P115	Thallium(l) sulfate
P116	Thiosemicarbazide
P118	Trichloromethanethiol
P119	Vanadic acid, ammonium salt
P120	Vanadium pentoxide
P121	Zinc cyanide
P122	Zinc phosphide
P123	Toxaphene
P127	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
P128	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P185	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-. 0-[(methylamino)carbonyl]oxime
P188	Benzoic acid, 2-hydroxy, compound with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b]indol-5-yl methylcarbamate ester (1:1)
P189	Carbamic acid, [(dibutylamino)thos]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P190	Carbamic acid, methyl-, 3-methylphenyl ester
P191	Carbamic acid, dimethyl-, 1-[(dimethylamino carbonyl]-5-methyl-1H-pyrazol-3-yl ester

Hazardous Waste No.	Description of Hazardous Waste
P192	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P194	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl)oxy]-2-oxo-, methyl ester
P196	Manganese, bis(dimethylcarbamodithioato-S,S=)-, Manganese dimethyldithiocarbamate
P197	Methanimidamide, N,N-dimethyl-N=-[2-methyl-4[[(methylamino)carbony]phenyl]-
P198	Methanimidamide, N,N-dimethyl-N=-[3-[[(methylamino) carbonyl]oxylphenyl]-, monohydrochloride
P199	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P202	Phenol, 3-(1-methylethyl)-, methyl carbamate 3-lsopropylphenyl N-meethylcarbamate orm-Cumenyl methylcarbamate
P203	Propanal, 2-methyl-2-(methysulfonyl)-, 0-[(methylamino)carbonyl] oxime
P204	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1, 3a,8-trimethyl-, methylcarbamate (ester), 3aS-cis)-
P205	Zinc, bis(dimethylcarbamodithioato-S,S=)-, (T-4)-

E. Commercial Chemical Products, Manufacturing Chemical Intermediates, or Off-Specification Commercial Chemical Products:

Hazardous Waste No.	Description of Hazardous Waste
U001	Acetaldehyde
U002	Acetone
U003	Acetonitrile
U004	Acetophenone
U005	2-Acetylaminofluorene
U006	Acetyl chloride
U007	Acrylamide
U008	Acrylic acid
U009	Acrylonitrile
U010	Mitomycin C

Hazardous Waste No.	Description of Hazardous Waste
U011	Amitrole
U012	Aniline
U014	Auramine
U015	Azaserine
U016	Benz(c)acridine
U017	Benzal chloride
U018	Benz(a)anthracene
U019	Benzene
U020	Benzenesulfonyl chloride
U021	Benzidine
U022	Benzo(a)pyrene
U023	Benzotrichloride
U024	Bis(2-chloroethyoxy) methane
U025	Dichloroethyl ether
U026	Chloronaphazine
U027	Bis(2-chloroisopropyl) ether
U028	Bis(2-ethylhexyl) phthalate
U029	Bethyl bromide
U030	Benzene, 1-bromo-4-phenoxy-
U031	N-Butyl alcohol
U032	Calcium chromate
U033	Carbonyl fluoride
U034	Chloral
U035	Chlorambucil
U036	Chlordane, technical
U037	Chlorobenzene
U038	Ethyl 4,4'-dichlorobenzilate
U039	4-Chloro-m-cresol
U041	1-Chloro-2,3-epoxypropane
U042	2-Chloroethyl vinyl ether
U043	Vinyl chloride
U044	Chloroform
U045	Methyl chloride
U046	Chloromethyl methyl ether
U047	beta-Chloronaphthalene
U048	o-Chlorophenol
U049	Benzenamine, 4-chloro-2-methyl-

Hazardous Waste No.	Description of Hazardous Waste
U050	Chrysene
U051	Creosote
U052	Cresols
U053	Crotonaldehyde
U055	Cumene
U056	Cyclohexane
U057	Cyclohexanone
U058	Cyclophosphamide
U059	Daunomycin
U060	DDD
U061	DDT
U062	Diallate
U063	Dibenz[a,h]anthracene
U064	Dibenz[a,i]pyrene
U066	1,2-Dibromo-e-chloropropane
U067	Ethylene dibromide
U068	Methylene bromide
U069	Dibutyl phthalate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U073	3-3'Dichlorobenzidine
U074	1,4-Dichloro-2-butene
U075	Dichlorodifluoromethane
U076	Ethylidene dichloride
U077	Ethylene dichloride
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U080	Methylene chloride
U081	2,4-Dichlorophenol
U082	2,6-Dichlorophenol
U083	1,2-Dichloropropane
U084	1,3-Dichloropropane
U085	1,2:3,4-Diepoxybutane
U086	N,N-Diethylhydrazine
U087	o,o-Diethyl-S-methyl-dithiophosphate
U088	Diethyl phthalate

Hazardous Waste No.	Description of Hazardous Waste
U089	Diethylstilbestrol
U090	Dihydrosafrole
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine
U093	Dimethylaminoazobenzene
U094	7,12-Dimethylbenz[a]anthracene
U095	3,3'-Dimethylbenzidine
U096	Alpha,alpha-Dimethylbenzyhlydro-peroxide
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U099	1,2-Dimethylhydrazine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U109	1,2-Diphenylhydrazine
U110	Dipropylamine
U111	Di-N-propylnitrosamine
U112	Ethyl acetate
U113	Ethyl acrylate
U114	Ethylenebis(dithiocarbamic acid), salts and esters
U115	Ethylene oxide
U116	Ethylene thiourea
U117	Ethyl ether
U118	Ethyl methacrylate
U119	Ethyl methanseulfonate
U120	Fluoranthene
U121	Metane, trichlorofluoro-
U122	Formaldehyde
U123	Formic acid
U124	Furan
U125	Furfural
U126	Glycidylaldehyde
U127	Hexachlorobenzene

Hazardous Waste No.	Description of Hazardous Waste
U128	Hexachlorobutadene
U129	Lindane
U130	Hexachlorcyclopentadene
U131	Hexachloroethane
U132	Hexachlorophene
U133	Hydrazine
U134	Hydrogen fluoride
U135	Hydrogen sulfide
U136	Cacodylic acid
U137	Indeno[1,2,3-cd]pyrene
U138	Iodomethane
U140	Isobutyl alcohol
U141	Isosafrole
U142	Kepone
U143	Lasiocarpine
U144	Lead acetate
U145	Lead phosphate
U146	Lead subacetate
U147	Maleic anhydride
U148	Maleic hydrazide
U149	Malononitrile
U150	Melphalan
U151	Mercury
U152	Methacrylonitrile
U153	Methanethiol
U154	Methanol
U155	Methapyrilene(T)
U156	Methyl chlorocarbonate
U157	3-Methylchlolanthrene
U158	4,4'-Methylenebis(2-chloroaniline)
U159	Methyl ethyl ketone
U160	Methyl ethyl ketone peroxide
U161	Methyl isobutyl ketone
U162	Methyl methacrylate
U163	N-methyl-N'nitro-N-nitrosoquanidine
U164	Methylthiouracil
U165	Napthalene

Hazardous Waste No.	Description of Hazardous Waste
U166	1,4-Naphthalenedione
U167	1-Naphthylamine
U168	2-Naphthylamine
U169	Nitrobenzene
U170	p-Nitrophenol
U171	2-Nitropropane
U172	N-Nitrosodi-n-butylamine
U173	N-Nitrosodiethanolamine
U174	N-Nitrosodiethylamine
U176	N-Nitroso-N-ethylurea
U177	N-Nitroso-N-methylurea
U178	N-Nitroso-N-methylurethane
U179	N-Nitrosopiperidine
U180	Nitrosopyrrolidine
U181	5-Nitro-o-toluidine
U182	Paraldehyde
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
U186	1,3-Pentadiene
U187	Phenacetin
U188	Phenol
U189	Phosphorous sulfide
U190	Phthalic anhydride
U191	Pyridine, 2-methyl-
U192	Pronamide
U193	1,3-Propane sultone
U194	1-Propanamine
U196	Pyridine
U197	p-Benzoquinon
U200	Reserpine
U201	Resorcinol
U202	Saccharin and salts
U203	Safrole
U204	Selenium dioxide
U205	Selenium disulfide
U206	Streptozotocin

Hazardous Waste No.	Description of Hazardous Waste
U207	1,2,4,5-Tetrachlorobenzene
U208	1,1,1,2,-Tetrachloroethane
U209	1,1,2,2,-Tetrachloroethane
U210	Tetrachloroethylene
U211	Carbon tetrachloride
U213	Tetrahydrofuran
U214	Thallium(l) acetate
U215	Thallium(l) carbonate
U216	Thallium(l) chloride
U217	Thallium(l) nitrate
U218	Thioacetamide
U219	Thiourea
U220	Toluene
U221	Toluenediamine
U222	o-Toluidine hydrochloride
U223	Toluene hydrochloride
U225	Bromoform
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene
U234	sym-Trinitrobenzene
U235	Tris(2,3-dibromopropyl) phosphate
U236	Trypan blue
U237	Uracil mustard
U238	Ethyl carbarmate (urethan)
U239	Xylene
U240	2,3-D, salts and esters
U243	Hexachloropropene
U244	Thiram
U246	Bromine cyanide
U247	Methoxychlor
U248	Warfarin, when present at concentrations of 0.3% or less
U249	Zinc phosphide, when present at concentrations of 10% or less
U271	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U277	Carbamodithioic acid, diethyl-,2-chloro-2-propenyl ester
U278	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U279	1-Naphthalenol, methylcarbamate

Hazardous Waste No.	Description of Hazardous Waste
U280	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	o-Toluidine
U353	p-Toluidine
U359	Ethylene glycol monoethyl ether
U364	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U365	1H-Azepine-1-carbothiotic acid, hexahydro-, S-ethyl ester
U366	2H-1,3,5-Thiadiazine-2-thione, tetrahydro-3,5-dimethyl-
U367	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U372	Carbamic acid, 1 H-benzimidazol-2-yl, methyl ester
U373	Carbamic acid, phenyi-, 1 -methylethyl ester
U375	Carbamic acid, butyl-, 3-iodo-2 prophynl ester
U376	Carbamodithiotic acid, dimethyl-, tetrannhydrosulfide with orthothioselenious acid
U377	Carbamodithioic acid, methyl, -monopotassium salt
U378	Carbamodithioic acid, (hydroxyl methyl) methyl-, monopotassium salt
U379	Carbamodithioic acid, dibutyl sodium salt
U381	Carbamodithioic acid, diethyl-, sodium salt
U382	Carbamodithioic acid, dimethyl-, sodium salt
U383	Carbamodithioic acid, dimethyl-, potassium salt
U384	Carbamodithioic acid, methyl-, monosodium ester
U385	Carbamodithioic acid, dipropyl-, S-propyl ester
U386	Carbamodithioic acid, cyclohexylethyl-, S-ethyl ester
U387	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U389	Carbamothioic acid, bis(1-methylethyl)-S-(2,3,3-trichloro-2-propenyl) ester
U390	Carbamodithioic acid, dipropyl-, S-ethyl ester
U391	Carbamodithioic acid, butyl ethyl-, S-ethyl ester
U392	Carbamodithioic acid, bis(2-methyl propyl-), S-ethyl ester
U393	Copper, bis(dimethylcarbamodithioato-S,S=), Copper dimethyldithiocarbamate
U394	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U395	Ethanol, 2,2'-oxybis-, discarbamate
U396	Iron, tris (dimethylcarbamodithioato-S,S),
U400	Piperdine, 1,1'-(tetrathiodicarbonothioyl)-bis-
U401	Bis(dimethyl thiocarbamoyl), sulfide
U402	Thioperoxydicarbonic diamide, tetrabutyl
U403	Thioperoxydicarbonic diamide, tetraethyl
U404	Ethanamine, N,N-diethyl-

U407	Zinc, bis(diethyl carbamodithioato-S,S=)-
U408	2,4,-tribromophenol discarded commercial chemical product, off-specification species, container residues and spill debris thereof
U409	Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis, dimethyl ester
U410	Ethanimidothioc acid, N,N=-[thiobis(methylimimo)carbonyloxy]bis-,dimethyl ester
U411	Phenol, 2-(1-methylethoxy)-, methylcarbamate

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*These hazardous waste codes are permitted only for storage and transfer, not fuel blending.
[1]These hazardous waste codes are not permitted for shredding.

ATTACHMENT B

INSPECTION SCHEDULE

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

Table I: General Inspection Schedule Security Devices

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Fence	. Inspect entire perimeter for breaches or damage	Daily
Gates	. Check for proper gate lock function	Daily
Warning Signs	. Check for presence of warning signs	Daily
Lighting System (indoor/outdoor)	. Check lights for operability	Daily
Lighting System (Emergency)	. Check lights for operability	Monthly

Table II: General Inspection Schedule, Safety & Emergency Equipment

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Protective Gear (e.g., Helmets, Face Shields, Goggles, Boots, Gloves, Acid Resistant Clothing, Disposable Suits, Disposable Bags)	. Check accessibility	Daily
	. Check for adequate supply	Daily
	. Check for deterioration, damage	Daily
Breathing Apparatus	. Check for accessibility	Daily
	. Check for adequate supply, full charge on canisters, and all air tanks	Daily
	. Check for deterioration and damage	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Breathing Apparatus (continued)	. Check for function	Monthly
First Aid Kits	. Check accessibility	Daily
	. Check for adequate supply	Daily
Emergency Showers	. Check that units activate and shut off properly	Daily
	. Check accessibility	Daily
Water Lines	. Check for adequate pressure	Monthly
Internal (Phone or Radio)/External	. Check accessibility	Daily
(Phone) Communications Systems	. Check for operations	Daily
	. Test cellular phones	Monthly
Fire Extinguishers	. Check pressure gauge for full charge indication	Monthly
	. Check inspection tag to insure annual maintenance by outside fire service is up-to-date	Monthly
	. Check seal to ensure no one has used extinguisher	Monthly
	. Check to ensure access to units is not blocked	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Fire Suppression System (Monitors, Pull Stations, Alarms)	. Check for accessibility	Daily
	. Test fire alarm warning systems	Monthly
	. Test Foam Supply	Annually
Absorbent Supply	. Check for adequate supply	Daily
Recovery Drums	. Check for adequate supply	Daily
Other Emergency and Decontamination Equipment	. Check accessibility	Daily
	. Check for adequate supply	Daily
	. Check for deterioration/damage	Daily
Respirators and Cartridges	. Check for adequate supply	Daily
Fire Suppression System	. Verify lack of combustible material and arrangement of room (e.g. unobstructed aisles) in the following valve rooms: a. Shed west of truck scale; b. Shed at northeast corner of truck farm; and c. Shed east of Unit 61.	Daily
Water based fire suppression systems including sprinklers, monitors, foam water sprinkler systems, foam water deluge systems, foam maker suppression systems, fire pumps,	Inspect and test these items in accordance with the requirements, protocols, and frequencies specified in the current editions of NFPA 11, NFPA 16, NFPA 16A, NFPA 20, NFPA 22, NFPA 24 and NFPA 25	At Least Annually

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
water supply, storage tanks, underground piping, and foam concentrate supply and proportioning systems.		
Fire alarm and detection system, including all detection devices	Inspect and test these items in accordance with the requirements, protocols and frequencies specified in the current edition of NFPA72.	At Least Annually
Foam Proportioning System	The system must be inspected by manufacturer's representative in conjunction with form concentrate testing to verify that there is no unusual interaction between the form concentrate and foam proportioning equipment. The permittee must report any degradation of the system to IEPA. The permittee must make arrangements to resolve any deficiencies for both the short term and log term operation of the facility.	Annually
All fire protection Equipment and Systems	The permittee must compare future test results for all fire protection equipment and systems to the data obtained during the 1995 acceptance testing, and document the comparison. The permittee must report any discrepancies to IEPA. The permittee must resolve the discrepant condition or provide an explanation as to the nature of the discrepancy and proposed solution, and report to IEPA.	Annually

Table III: Tank Farm Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Storage Tanks Containment Area	. Check for evidence of spilled materials on floor and collection sump	Daily
	. Check for cracks and gaps in, or damage to containment base, sumps and drains, and their coatings.	Daily
	. Check for evidence of seepage outside containment (e.g. discoloration)	Daily
	. Check for debris, cleanup residue, improperly stored equipment	Daily
Storage Tanks	. Inspect tank exterior for cracks, leaks, discoloration, and obvious deformation	Daily
	. Check tank integrity	Annually
Access Hatches, Vents, and Sampling Ports	. Check for leaks	Daily
	. Check for damage	Daily
Fill/Drain and Overflow Piping	. Inspect piping, elbows, sampling ports, gauge taps, etc. for leaks and corrosion	Daily
	. Inspect valve seals for leaks	Daily
	. Check that handles are not bent or damaged	Daily
	. Inspect heat tracing lines for signs of deterioration or damage	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Liquid Levels Monitors	. Check if operators log book is up to date	Daily
	. Check tank liquid level indicators for operability	Daily
	. Check containment sump liquid level indicators for operability	Daily
All Ancillary Equipment (e.g. pumps, filter baskets, manifolds)	. Visual inspection for leaks and corrosion	Daily
	. Conduct leak test or approved integrity assessment	Annually
Control/Monitoring Equipment	. Maintenance inspection - Tank Level Monitors - Containment Sump Floats - High/Low Level Alarms - High/Low Pressure Switches and Alarms - Nitrogen Blanket Supply System	Per mfg. recommen-dations, but at least monthly
Flame Arrestors, Conservation Vents, Emergency Vents	. Check for obstruction or other damage	Annually
Carbon Absorption Canisters	. Check that units are functional and that valves are properly positioned	Daily
	. Check carbon bed for organic breakthrough	Daily
Tank Truck Loading/ Unloading Area	. Check for evidence of spills or releases in unloading area	Daily
	. Check for removal of spill absorbent and cleanup materials	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Tank Truck Loading/ Unloading Area (continued)	. Check sump, grating and curbs for cracks or other damage	Daily
	. Inspect hoses for deterioration or leakage	Daily
	. Inspect hose couplings and valves for leakage	Daily
	. Inspect containment system for deterioration	Daily
	. Inspect grounding system equipment for operability	Daily

Table IV: Container Storage Area Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Container Storage Area	. Check for evidence of spilled material on slab, ramps, drains, sumps	Daily
	. Check for removal of absorbent materials and cleanup rags	Daily
	. Check for, cracks and gaps in, or damage to, containment bases, sump and drains and coatings	Daily
	. Check for erosion, uneven settlement, etc.	Daily
	. Check for corrosion of grating over drains and sumps	Daily

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Container Storage Area (continued)	. Check for condition and availability of overpack containers	Monthly
Stored Containers	. Check for drums being in good condition	Daily
	. Check that drums are not open	Daily
	. Check for proper placement	Daily
	. Check adequacy of aisle space	Daily
	. Check height of stacks	Daily
	. Check storage capacity not exceeded	Daily
	. Check for proper labeling	Daily
Container Loading/ Unloading Area	. Check for damaged containers	Daily
	. Check for evidence of spilled material on slab and ramps used	Daily
	. Check for removal of used absorbent and cleaning materials	Daily
	. Check for prompt container removal from receiving area	Daily
	. Inspect grounding system equipment for operability	Daily
	. Check forklifts for proper operation and accumulation of residue	Each Operating Shift

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Containers from the Pegasus System	. Inspect ten (10) consecutive containers prior to crushing to insure that they are RCRA empty	Monthly or per the schedule submitted as part of the comments on the draft permit dated 6/3/95

Table V: Miscellaneous Unit Area Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Miscellaneous Unit	Inspect unit for leaks visually	Daily when unit in use
	Inspect unit for leaks (emissions) visually (shredder and compactor only)	Annually
Control/Monitoring Equipment	Flow indicator sensor pressure measurement device (shredder and compactor only)	Per mfg. recommendations, but at least monthly
Carbon Absorption Canisters	Check that units are functional and that valves are properly positioned	Daily when unit in use
	Check carbon bed for breakthrough	Daily when unit in use

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ATTACHMENT C

CONSTRUCTION CERTIFICATION FORM
AND INSTRUCTIONS

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

CONSTRUCTION CERTIFICATION

This statement is to be completed by both the responsible officer and the registered professional engineer upon completion of construction in accordance with 35 Ill. Adm. Code Section 702.126. Submit one copy of the certification with original signatures and two additional copies (four additional copies for UIC wells). Forward these certification statements and any information required by the permit to the following address:

Illinois Environmental Protection Agency
Bureau of Land - #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

FACILITY NAME: _____

IEPA SITE CODE: __ __ __ __ __ __ __ __ __ __

U.S. EPA ID NO.: IL__ __ __ __ __ __ __ __ __ __

PART B PERMIT LOG #/UIC PERMIT #: _____

PERMIT (OR MODIFICATION) ISSUANCE DATE: _____

PERMIT CONDITION NO. REQUIRING CERTIFICATION: _____

The _____ has been constructed in accordance with the specifications in the Part B/UIC Permit. Documentation that the construction was in accordance with the permit is contained in the enclosed report. 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 fine and imprisonment for knowing violations.

_____
Signature of Owner/Operator — Name and Title

_____
Signature of Registered P.E. — Name of Registered P.E. and Illinois Registration Number

_____
Date — (P.E. SEAL)

This Illinois EPA is authorized to require this information under Illinois Revised Statutes, 1979. Chapter 111 2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

DATE: February 23, 1996

TO: Facilities Permitted Under the IEPA RCRA and UIC Programs

FROM: DLPC Permit Section

SUBJECT: Certification Documentation for Construction Required by IEPA-Issued Permits

When submitting certification required by a Part B or UIC permit for construction of any newly developed areas or units, please complete the attached certification form. Modifications to the construction of UIC wells should be certified with this form, but the installation of groundwater monitoring wells does not require this certification (unless specifically required by the permit). This will help to ensure that the submittal reaches its proper destination and that the certification will meet the regulatory requirements. Sending the Field Operations Section (F.O.S.) copy directly to the Field Office is acceptable as long as all copies have a completed copy of the enclosed form attached and you advise the Permit Section, in writing, that a copy has been sent to F.O.S.

A documentation report and as-built drawings (sealed and signed by an Illinois Professional Engineer) must be included with this certification. Information necessary to document the construction of the unit or area and to support the certification must be contained within the report. This report should include a thorough description of all construction data and drawings and should be formatted in a logical and orderly manner. The construction documentation report must contain at least the following items:

1. An introduction and summary which describes the scope and purpose of the project;

2. A description of all construction activities, including quality assurance and quality control;

3. As-built drawings of the area or unit and a description of any deviations from the plans and specifications approved in the permit;

4. A description of the test methods used and justification for any deviations from standard test methods;

5. A summary of test results, identification of any samples which did not meet the specifications and the corrective action and retesting which was undertaken in response to any failing test results;

6. Any necessary information associated with construction of the area or unit to document that construction was in accordance with the plans and specifications approved by the permit;

7. Information specifically required by the permit; and

8. Any available photographs of the area or unit.

If you have any questions, please contact a member of the DLPC Permit Section at 217/782-6762.

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Enclosure

ATTACHMENT D

SPECIAL CONDITIONS

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

A. WASTE ANALYSIS

1. All hazardous waste blended into a fuel to be burned for energy recovery must have a heating value of at least 5,000 BTU/lb. This requirement may be superseded if Clean Harbors provide documentation to the Illinois EPA that all facilities which receive the waste fuel have a certification of compliance based on Clean Harbor's specification.

2. The Permittee(s) shall document the receipt of each load of waste at that site in the operating record. The results of any analyses and any supplemental analyses performed on any received waste shall also be placed in the operating record.

   a. If manifest discrepancies are encountered, the procedures used to reconcile the discrepancy shall be included in the operating record;

   b. If a manifest discrepancy is not resolved within (15) days after receiving the waste, the Permittee(s) must immediately submit a letter to the Agency's Bureau of Land, describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue.

3. Used oil which is received at this facility for blending into a fuel program or re-refining is subject to a TCLP analysis unless an analysis (by EPA Method 9077) shows total halogens is less than 1000 ppm or an adequate rebuttal is made. Used oil destined for other uses besides a fuel program or re-refining (e.g., disposal, road application) are subject to the full TCLP requirements.

4. Storage

   Before any waste other than lab packs or wastes with no free liquids are placed into a storage unit, facility management will assess the compatibility of the waste with the storage unit materials of construction and with wastes already stored therein.

   a. Containerized storage compatibility will be assessed by performing a Liquid Waste Compatibility Test as described in the letter dated September 17, 1993 from Paul Ahearn, CHCI.

   b. <u>Tank Farm Compatibility</u> will be assessed by performing a Liquid Waste Compatibility Test on the liquid received for bulk storage with a composite sample of the tanks within the containment system to which the new waste will be added.

The referenced procedure, Liquid Waste Compatibility Test D5058A, is described in the following publication "Annual Book of ASTM Standards", American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19013, most recent edition.

The test shall be conducted in the following manner, a 100 ml. proportional composite shall be made of the existing inventory in the storage area. A 5 ml. sample of the composite shall be mixed with a 5 ml. sample of the incoming waste to determine a compatibility. If no reaction is observed, 5 ml. of the incoming waste is added to the larger (remaining 95 ml.) composite in preparation for testing the next sample.

5. Each bulk shipment will be visually inspected and sampled to verify that the contents match the pre-acceptance description of the waste.

   In the case of container shipments, each container in the shipment will be visually inspected by obtaining a full depth vertical sample to verify that the contents match the pre-acceptance physical description of the waste. Full vertical depth samples are not required in cases of hardened solids.

   The Permittee(s) shall determine visual characteristics (color, obvious viscosity or lack thereof, phase character, odor,...) which are appropriate to each stream to aid in determining if the physical appearance of the waste received conforms to the description of the waste when initially evaluated. Changes in the visually determined characteristics require contacting the generator to reconcile the discrepancies. If the discrepancies cannot be reconciled this is a new waste which requires performing a pre-qualification analysis to fully evaluate its compatibility to the facility's operation.

6. The permittee is prohibited from receiving the following types of wastes under this permit:

   a. radioactive material as defined by 49 CFR 173.403(y);

   b. source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954; or

   c. Potentially Infectious Medical Waste (PIMW);

7. All trucks and containers that are shipped to the CHSI facility shall be sampled within 14 days of the date that they arrive at the facility.

8. Waste prequalification procedures may be waived and the permittee is authorized to accept hazardous and non-hazardous waste materials generated from off-site emergency response actions when the following conditions have been met:

a. an incident number has been issued for the emergency event,

b. the Agency's Emergency Response Unit (ERU) has determined that the incident is an immediate threat to human health or the environment, and,

c. ERU has approved the request to ship the waste to the permittee's facility.

A full analysis of the waste pursuant to the facilities Waste Analysis Plan shall be conducted once the shipment reaches the permittee's facility.

B. REPORTING REQUIREMENTS

1. Any incident which requires implementation of the contingency plan shall be recorded in the facilities operating record in an incident log which is maintained separate from the facilities other operating records. The incident log must include a copy of each incident report. In addition to the information identified in the approved application, the incident report must include, at a minimum, the waste management units involved in the incident, the cause of the release, measures taken to correct the situation and prevent a reoccurrence.

C. CLOSURE

1. At least 45 days prior to closure of any hazardous waste management unit at this facility the permittee shall submit its closure plan to insure it complies with the current Illinois EPA standards in effect at the time of closure. This submittal shall include a revised closure performance standard that accounts for all of the hazardous constituents that were managed in a unit, not just the hazardous characteristics of the wastes in the unit.

2. Within 60 days of the effective date of this permit, the permittee shall submit a closure plan for the units at the CWM site which are not included in this permit. The Illinois EPA considers the entire process area at the CWM site to be regulated as a container storage area. The closure plan shall include the following units/areas:

   i. the incinerator and the soils under it.

   ii. the outdoor container storage/staging areas specified in the second amended consent decree that were not included in the partial closure plan C-742,

iii. the kiln staging area as described on Figure B.1-2 of the CWM RCRA permit application Revision Ha dated August 1992, and

iv. the process area where several permitted (interim status only) and unpermitted storage areas are present. This includes all of the CWM site located south of the old biobeds and west of the office building.

The closure plan must follow the same general procedures described in the "Decontaminated/Closure Plan" dated August 24, 1994 and approved by the Illinois EPA in a letter dated October 31, 1994. To date, the Illinois EPA has not set cleanup objectives for the facility. Additional investigation and, as necessary, remediation of any contaminated soil/groundwater at the units being closed shall be coordinated with the corrective action activities for the entire facility.

3. The owner of the property shall document that the requirements of 35 Ill. Adm. Code 725.219(b) have been met within 30 days of the effective date of this permit. Specifically, the owner must place a notice in the deed that restricts the use of the closed surface impoundments. The permittee must submit a copy of the notice in the deed and a certification that the requirements of 35 Ill. Adm. Code 725.219(b) have been met to the Agency's Bureau of Land.

4. The permittee shall maintain financial assurance as specified in Attachment H to this permit.

D. GENERAL OPERATING REQUIREMENTS

1. The permittee is prohibited from conducting any waste management activities outside the permitted boundaries of this facility without a permit modification and proof of compliance with Section 3.32 and Section 39(c) of the Act. Waste management includes storage, staging, treatment, sampling or all other activities not associated with transportation of waste.

2. The permittee shall not accept waste which has not been properly characterized in accordance with 35 Ill. Adm. Code 722.111.

3. The permittee shall not vent oxygen in Building 25 when containers of flammable materials are open or in the process of being moved, consolidated or sampled.

4. The permittee is allowed to vent the following compressed gas cylinders in Building 25 which contain only Carbon Dioxide, Nitrogen, Oxygen, Krypton, Argon, Neon, Helium, Xenon or Air.

5. The permittee shall cease venting of inert gases, and carbon dioxide if the oxygen concentration drops below 19.5% in Building 25.

6. The permittee shall cease venting of oxygen if the oxygen concentration reaches 23.5% in Building 25.

E. CONSTRUCTION REQUIREMENTS

1. The proposed hazardous waste management units must be constructed in accordance with the approved permit application and the Part B permit. Modification to the tank systems or tank or container secondary containment systems, including changes to physical dimensions or materials of construction, are subject to the permit modification requirements prior to construction. Changes in structural members or foundation design which are completed prior to the operation of the hazardous waste management unit and have been certified by the Illinois licensed structural engineer of record are not subject to the permit modification requirements provided the changes are made solely to maintain the structural integrity of the unit.

2. The Permittee(s) shall provide the concrete slab, the curbs and the walls that are used as part of the containment for the unloading areas with an impermeable surface coating that:

   a. is compatible with the waste, or any other liquid, stored in the containment system; and

   b. will prevent migration of the waste into the concrete of the slab or wall.

   c. The Permittee(s) shall install a compatible caulking or sealant at each existing joint in the secondary containment system of the unloading areas to make the joint liquid tight. These joints include but are not limited to, all construction joints within the slab, walls and curbs and joints between the slab and curb, between two curbs, between the slab or curb and wall and joints between two walls. The caulking or sealant shall be compatible with the stored waste, or any other liquid, stored in the same containment system with the hazardous waste.

   The coatings, caulking and/or sealant shall be applied prior to placing wastes in the units. Within thirty days after providing a coating/sealant to render the base impervious to wastes and precipitation, the Permittee(s) shall submit to the Illinois EPA a certification from an Illinois Registered Professional Engineer attesting to this fact. The certification shall contain the information described in Attachment C.

d. Clean Harbors shall perform a complete inspection of the surface coating yearly in the unloading areas and perform annual maintenance to insure the integrity of the coating.

F. CONTINGENCY PLAN

1. The Agency's Bureau of Land Field Office (Maywood) shall be notified within 24 hours of implementing the contingency plan unless the spill or leak is less than or equal to one pound in quantity and immediately contained and cleaned up. The contingency plan must be implemented whenever there is a fire, explosion or spill which involves hazardous waste or hazardous waste constituents which occurs in areas where hazardous waste is treated or stored. This includes spills within a containment system. A spill is any release of material outside the permitted unit, into or outside of the containment system. A spill shall not include controlled accumulation of hazardous waste in small containment devices (e.g., bucket, drip pan (but does not a include sump or the primary secondary containment unit)) used to collect and control the release of waste during routine processing or maintenance activities such as draining hoses or disassembling and repairing a pump.

2. The Permittee(s) shall contact the local emergency response entities immediately after implementation of the contingency plan unless the spill is less than quantity specified in the air modeling at 100 meters and it is immediately contained and cleaned up. The model spill volume may be adjusted without further modelling if an actual analyses of the waste on-hand is available. That is, the model spill volume may be multiplied by the inverse of the concentration (by weight percent) of the compound in question. This calculated spill volume would then be used to determine if the spill has a potential to impact areas off-site.

   a. The entities which must be notified include:

      1. Chicago Police Department;

      2. Chicago Fire Department;

      3. The Illinois EPA Field Office (Maywood);

      4. The Illinois Emergency Management Illinois EPA (IEMA);

      5. The National Response Center;

      6. The Local Emergency Planning Committee; and

7. The Metropolitan Water Reclamation District of Greater Chicago.

b. The information which must be initially relayed to each entity includes:

1. The type of emergency (release, fire or explosion);

2. The type of wastes involved in the emergency and the approximate quantity involved; and

3. An initial assessment of the conditions at the site; and whether outside help is needed to properly respond to the situation.

c. If the Permittee(s) is able to properly respond to the emergency without any aid from the entities identified in Condition 2.a above, the Permittee(s) shall notify each of these entities that the emergency situation no longer exists once all required emergency response and cleanup activities have been completed.

3. Within 90 days of the effective date of this permit, the Permittee(s) shall demonstrate to the Illinois EPA that the following information has been provided to the local fire department, the local pole department and all other agencies identified in 35 Ill. Adm. Code 724.153(b) (Note: This information must be provided to these entities to ensure the requirements of 35 Ill. Adm. Code 724.137 are met):

a. A list of all hazardous waste to be managed at the facility (generic name) including the USEPA hazardous waste number.

b. A scaled drawing showing the location of all hazardous waste management units at the facility and all other areas where waste is managed at the facility (such as loading/unloading areas, etc.). This scaled drawing must also identify the entrances to the facility, roads within the facility and possible evacuation routes;

c. A description of the types of waste managed at each hazardous waste management unit at the facility;

d. A description of the procedures used to handle waste at the facility; and

e. An estimate of the quantity of the various types of waste which may be present at the facility and an estimate of the typical inventory of wastes at the facility.

f. The following information regarding the properties of the waste managed at the facility:

Name
USEPA Hazardous Waste Number
CAS Number
IDLH
TLVs (TLV-TWA, TLV-STEL, TLV-C)
Boiling Point (if applicable)
Vapor pressure at two temperatures
NFPA Designation (flammable or combustible)
Material Safety Data Sheets
Other appropriate characteristics (such as reactive class, etc.)
USDOT classification

If the Permittee(s) can provide documentation that the local police department, fire department and HAZMAT Unit do not want this information and that the information which has been provided to them is adequate, the Permittee(s) may submit a Class I modification to modify this condition.

g. The results of the air modeling conducted at the facility.

4. Within sixty (60) days of the effective date of this permit, the Permittee(s) shall provide documentation to the Illinois EPA that the agreements and arrangements identified below have been made. Where necessary, documentation must be provided that any Illinois EPA identified in 35 Ill. Adm. Code 724.153(b) declinded to enter an agreement or arrangement. The specific arrangements and agreements which must be made include:

   a. Arrangements to familiarize the local police department, local fire departments and other local emergency response teams with the layout of the facility, properties of hazardous wastes handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility and possible evacuation routes.

   b. Agreements designating primary emergency authority to a specific police department and a specific fire department, where more than one police department and fire department might respond to an emergency. Agreements should also be made with the other surrounding police and force departments to provide support to the primary emergency authorities.

   c. Agreements with state emergency response teams, emergency response contractors and equipment suppliers.

d. Arrangements to familiarize local hospitals with the properties of the hazardous wastes handled at the facility and the types of injuries or illnesses, which could result from fires, explosions or releases at the facility.

e. Arrangements to identify a single local emergency response agency as the primary agency which will coordinate activities required by these agencies during an emergency at the facility.

The facility shall also attempt to develop emergency plans and coordination agreements with the state and local emergency entities identified above. The detail of the arrangements made with the local and state emergency entities may be dependent upon the types of wastes handled at the facility and the potential need for the services of the various entities.

5. The Permittee shall provide applicable local emergency response entities with changes/modifications to the contingency plan and offer to meet and review the plan on an annual basis. Copies of the meeting notes and list with attendees shall be placed in the facility's operating record and be available to the Illinois EPA for review upon verbal or written request.

F. MISCELLANEOUS

1. The permittee is prohibited from performing hazardous waste management activities that are not specifically identified in this permit.

2. All used oil which contains greater than 1,000 ppm halogens and cannot be adequately rebutted are hazardous wastes and must be managed as a listed hazardous waste (i.e., the oil cannot be processed into an on-specification or off-specification used oil fuel).

3. All wastes dewatered by portable pumps must be analyzed by the paint filter test. Wastes which fail will still retain the characteristic of corrosivity.

4. Water reactive solids shall not be stored in the Bulk Solids Storage Area (Unit B).

5. The following activities are not permitted:

   a. The treatment of characteristic (D002 only) oil within Processing Building #2 (Unit G); and

   b. The bulking of hazardous wastes (which do not contain free liquids) within Process Building #2 (Unit G).

6. All waste stored in RCRA area must be managed as a RCRA waste. For example, it must be tested for compatibility and considered part of the volume limit.

7. Within 14 days of the effective date of this permit the permittee shall submit revised scale drawings of the facility which clearly identify the boundaries of all Satellite & Accumulation areas. If the size, number, location, or operation of a satellite or accumulation area changes, the permittee shall indicate the change on the drawing. An updated and current scale drawing of all satellite and accumulation areas shall be maintained at the facility at all times as part of the operating record for inspection by the Agency.

8. Within six (6) months of the effective date of this permit, the permittee shall develop a maintenance tracking system and implement a preventative maintenance program that includes all mechanical equipment at the facility. The recommended maintenance intervals shall be based upon (a) the manufacturer's recommended practice, (b) actual operating experience, which may indicate that more or less frequent maintenance is appropriate, (c) the consequences of an equipment malfunction. A copy of the preventative maintenance (PM) program shall be submitted to the Agency's Bureau of Land within six months of the effective date of this permit. If the Illinois EPA fails to comments on the PM Plan within 90 days of its receipt, the permittee shall follow the plan as described in the submittal. The Illinois EPA may approve the PM Plan with conditions or deny it. The Agency's decision is subject to the appeal provisions of 35 Ill. Adm. Code 705.212.

   The permittee shall submit proposed changes to the initial PM Plan to the Agency's BOL for review. If the Illinois EPA fails to comment on the submittal within 90 days of its receipt, the permittee may modify the PM Plan as described in the submittal. The Illinois EPA may approve the changes with conditions or deny them. The Agency's decision is subject to the appeal provisions of 35 Ill. Adm. Code 705.212.

9. The requirements of the facility Preventative Maintenance Program shall be reviewed for completeness following installation of new equipment and prior to start-up of that equipment. This review must address the following elements: (a) adequacy of resourcing, (b) adequacy of supervision, (c) selection and oversight of contractor maintenance personnel, (d) development of "critical equipment" list, (e) corrosion monitoring program for the tanks and ancillary equipment, (f) procedures for defining situations in which maintenance can/cannot be safely deferred, (g) avilalbe of spares for critical equipment items.

10. Except as modified by the conditions in this permit, the permittee shall construct, maintain and opeate the Phase II Fire Protection System as described in the final approval design based on the drawings, hydraulic calculations, cut-sheets and

specifications certified by Grinnell Fire Protection and submitted by Clean Harbors with cover letter dated December 22, 1994 and as amended based on comments by C. March and Assoc. and the responses to comments by Clean Harbors and their consultant Gage-Babcock. The final design of the system shall be approved by the Illinois EPA prior to start-up.

11. After construction is compelte, the Phase II Fire Protection System shall be tested in accordance with the requirements of:

    NFA 25, "Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems" 1992 Edition for all water and AFFF foam based systems and equipment, including but not limited to sprinkler systems, foam-water sprinkler systems, foam concentration supply system, fire pumps, underground piping, hydrants, monitors, dike suppression systems, etc.

    NFPA 72, "National Fire Alarm Code," 1993 Edition for all Fire Alarm and Detection Systems.

    Additional manufacturer's recommended tests.

    Additional specific tests that may be described in the Agency's approval of the Phase II Fire Protection System.

12. The Illinois EPA and C. March & Associates shall be notified at least 14 days prior to any system testing, including the acceptance test date. The Illinois EPA may witness any testing. As part of the notification for the acceptance test, Clean harbors shall submit:

    Calculations to demonstrate that sufficient NPSH is available to prevent cavitation of the booster pump P-254A and the new diesel fire pump, when both pumps are operating at maximum capacity (2250 gpm for the fire pump).

    The completed "Contractor's Material and Test Certificate" for all underground piping (foam concentrate and water), aboveground suppression system piping, and an "Inspection and Test Form" for the Fire Alram and Detection System.

    A detailed test plan identifying each individual test on each system to be performed, including pass/fail criteria. The systems shall include but not be limited to sprinkler systems, foam-water sprinkler systems, foam concentrate supply system, fire pumps, underground piping, hydrants, monitors, dike suppression systems, local fire alarm control units, and site-wide fire alarm control units.

A description of any significant field changes to the Illinois EPA approved Phase II Fire Protection System design documents, or a copy of the marked-up record drawings.

The results of all tests shall be submitted to the Agency's Bureau of Land for review and approval.

13. The permittee shall have record drawings on a site at all times during construction and testing, showing all field changes from the Illinois EPA approved Phase II Fire Protection System drawings, hydraulic calculations, cut-sheets and specifications. These record drawings may be marked-up copies of the Illinois EPA approved documents. These documents shall be available for Illinois EPA review.

14. The permittee must obtain the appropriate approvals/reviews from the City of Chciago for the Fire Suppression Drawings and Specifications by Grinnell Fire Protection and Gage-Babcock & Associates. Verification of any necessary approvals/reviews must be provided to the Illinois EPA prior to operation of this system.

15. The permittee is prohibited from receiving ignitable wastes at the old CWM portion of the site or placing ignitable wastes in any of the proposed units at the old CWM portion of the site unless the Fire Protection System identified in Conditions G.10, G.11, G.12, G.13 and G.14 above is approved by the Illinois EPA and is operational.

H. LISTED WASTE TREATMENT

Stabilization

1. The stabilization area (Unit Z) cannot accept wastes containing over 2% (by weight) of mercury.

2. The stabilization area (Unit Z) cannot stabilize wastes containing parameters above land ban restrictions whose BDAT as identified in the Federal Register is not based on stabilization (i.e., cyanide, organics, etc.). Attachment A identifies acceptable codes of wastes which may be stabilized that have hazardous constituents above their maximum specified LDR limit.

3. Workers inside Process Building No. 3 (Unit Z) must wear respirators which are designs to remove particulates (HEPA) and organic compounds from the air they breathe. In addition, the workers must be equipped as necessary, to meet the applicable requirements of OSHA.

4. The following items shall be documented in the operating record for the Waste Stabilization Facility (Unit Z) regarding each load of waste received for stabilization/solidification:

   a. Time and date that each waste load is received;

   b. Permit number and manifest number associated with the waste;

   c. Waste name, generator name and location (including the USEPA and IEPA identification number);

   d. Volume of waste received;

   e. Identification of the receiving bay where the incoming waste is placed;

   f. Information pertaining to the actual treatment process, including:

      i. The time and date when each waste load is treated at the mixing unit;

      ii. The amount of material added to the waste in the mixing unit (mass per mass or mass per volume basis);

      iii. Length of time treated waste "cures" before being subjected to the paint filter test, the penetrometer test and any additional tests;

      iv. Results of the paint filter test; the penetrometer test, if applicable; and

      v. All analytical results obtained in evaluating the stabilization achieved during treatment of the waste as required in.

   g. The results of the initial treatability study/development of the treatment recipe.

5. The areas where waste is handled within the stabilization building (Unit Z) (unloading area, mixing area, loading area, areas trafficked in transporting waste to and from the mixing unit (i.e., mixing box or mixing equipment)) shall be inspected each time after a mixing unit is either filled or emptied. Any waste residue observed on the floor shall be cleaned up immediately. Any spills which occur during the treatment process or during the movement of waste within the facility shall be responded to immediately in accordance with the contingency plan. Documentation of each inspection and spill incident shall be placed in the operating record.

6. The areas heavily trafficked during transport of waste to and from the mixing unit shall be cleaned at the end of each eight hour operating shift as time and circumstances allow in accordance with the following procedures:

   a. Operation of the stabilization facility (Unit Z) shall cease during the required cleanup activities;

   b. The areas of concern shall be cleaned through use of a pressure washer or steam cleaner. Wastewater generated during this activity shall be directed to the collection sump.

   c. All washwater which collects in the sump shall be removed prior to resuming operation; and

   d. Documentation of the cleaning activities shall be placed in the operating record of this facility.

7. The mixing unit (i.e., the waste feed hoppers, the mixers, and all associated waste transfer appurtenances) or mixing boxes shall be completely emptied (i.e., as much waste as possible shall be removed) prior to placing a waste in the unit which is subject to different land disposal restrictions than the waste that was previously in the unit. The mixing unit mixing box will be considered empty when it contains no more than 3% (by weight) of the waste that was initially in the unit. Documentation of this cleaning effort shall be placed in the operating record for the facility.

8. Treated waste subject to the land disposal restrictions of 40 CFR 268 and/or 35 Ill. Adm. Code 728 shall be managed in accordance with the following procedures:

   a. The treated waste shall not be placed in a landfill disposal unit until it has been demonstrated that the applicable restrictions are met.

   b. Until such time as the analyses necessary to demonstrate compliance with these restrictions are completed, the treated waste shall be stored. Wastes subject to different land disposal restrictions shall be segregated from each other prior to, during and after treatment until it is demonstrated that the wastes have each passed the treatment standards applicable to that waste.

   c. The container or tank may contain waste generated over more than one day of operation.

d. Once the samples required for the demonstration have been obtained, no new wastes may be added to the container(s) and a new container(s) for the waste of concern must be started.

e. The demonstration shall be carried out in accordance with the steps listed below:

i. To comply with the initial demonstration of documenting the facility's ability to treat a particular waste code. A representative sample shall be collected from the first twenty (20) roll-off boxes and an analyses performed to demonstrate compliance with parameters specific to the Land Disposal Restrictions (LDR) for the pertinent waste code. The results of the sampling (before and after) shall be submitted to this Illinois EPA within 30 days after the completion of the analysis of the samples.

ii. Once a facility has demonstrated its ability to meet the LDR standards for a particular code, the Permittee(s) may reduce the sampling frequency to the first and last batches, respectively, in any group of containers for which compliance is to be determined.

iii. If the treatment standard for any of the constituents is exceeded:

a. Treated waste which fails to meet the requirements shall receive additional treatment (this may consist of additional curing time, reintroduction into the treatment facility for further stabilization or transfer to another facility for additional treatment).

b. In no event shall the waste be placed in a land disposal unit until the waste meets the applicable LDR standards.

9. All wastes which failed the gate control paint filter test shall be tested by the penetrometer test (after stabilization). No wastes which fails to possess a load bearing capacity of at least 2.0 tons per square foot (TSF) may be disposed.

I. CHEMICAL OXIDATION

1. Only the following waste codes may be processed in the listed waste treatment building utilizing the above method:

D018	Wastes containing less than 35 ppm benzene
D028	Wastes containing less than 10 ppm 1,2-Dichloroethane
D029	Wastes containing less than 100 ppm 1,1-Dichloroethylene

D030	Wastes containing less than 5 ppm 2,4-Dinitrotoluene
D032	Wastes containing less than 10 ppm Hexachlorobenzene
D033	Wastes containing less than 10 ppm Hexachlorobutadiene
D034	Wastes containing less than 5 ppm Hexachloroethane
D035	Wastes containing less than 400 ppm Methyl-Ethyl-Ketone
D036	Wastes containing less than 100 ppm Nitrobenzene
D039	Wastes containing less than 5 ppm Tetrachlorethylene
D040	Wastes containing less than 10 ppm Trichloroethylene

J. CARBON ADSORPTION

1. All wastes to be treated using carbon adsorption must be evaluated through a treatability study to determine if the carbon adsorption is effective in removing the organic constituents below MWRDGC's sewer discharge. Testing shall be conducted after actual treatment to verify treatment. For wastewater shipped off-site (in accordance with the LDR requirements), the Permittee(s) shall provide to the receiving facility a "certification" for all treatment standards that have been achieved, and/or a "notification" for all constituents which do not meet applicable LDR treatment standards. The results of each treatability study shall be retained as part of the operating record. This permit does not authorize the discharge of wastewater above MWRDGC's sewer discharge.

K. GENERIC WASTE STREAMS AUTHORIZATIONS PURSUANT TO SECTION 22.11 OF THE ENVIRONMENTAL PROTECTION ACT

1. The permittee is authorized to accept the wastes identified in Condition D(K)(2) below provided the generator complies with the following requirements:

   a. The waste is analyzed in accordance with the waste analysis plan submitted as part of the approved Part B permit application, Condition D(A) and all subsequent waste analysis requirements included in the approved Part B Permit; and it is determined that the waste complies with the acceptance criteria in the approved waste analysis plan;

   b. The waste is delivered by an Illinois licensed special waste hauler or an exempt hauler as defined in 35 Ill. Adm. Code 809.211; and

   c. The waste is accompanied by a manifest, if required.

The Illinois EPA has modified its procedures. As a result, an authorization number is no longer required. Therefore, the generator will no longer be required to identify the authorization number on the manifest when shipping waste as authorized by this permit.

2. The following categories of waste from more than one generator may be accepted:

   a. Nonhazardous waste, received for storage and transfer offsite.

   b. Nonhazardous waste, received for treatment.

   c. Hazardous waste, received for treatment.

   d. Hazardous waste, received for storage and transfer offsite.

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ATTACHMENT E

CLOSURE CERTIFICATION FORM

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

The hazardous waste management units at the facility described in this document have been closed in accordance with the specifications in the Illinois EPA approved closure plan. 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 fine and imprisonment for knowing violations.

USEPA ID Number	Facility Name
Signature of Owner/Operator	Name and Title
Signature of Registered P.E.	Name of Registered P.E. and Illinois Registration Number
Date	

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ATTACHMENT F

REQUIRED SCOPE OF WORK

FOR A RCRA FACILITY INVESTIGATION

AT THE CHSI FACILITY

LPC 0316000051

RCRA Log No. B-16

SCOPE OF WORK FOR A RCRA FACILITY INVESTIGATION
CLEAN HARBORS OF CHICAGO FACILITY

This Scope of Work relates specifically to the RCRA Facility Investigation (RFI) of the solid waste management units ("SWMU") identified in Section V of this RCRA Permit, which the Permittee(s) is required to perform under the terms of this RCRA permit. In this Scope of Work, "Agency's BOL" refers to the Illinois Environmental Protection Agency's Bureau of Land, Permittee(s) refers to Clean Harbors Svcs Inc and the Illinois International Port District.

I. PURPOSE

The purpose of the RFI is to determine the nature and extent of releases of hazardous waste or constituents, if any, from SWMUs located at the facility and to gather data necessary to prepare a Corrective Action Plan (CAP). Specifically, the information gathered during the RFI will be used to help determine the need, scope and design of a corrective action program.

II. SCOPE OF WORK

The Scope of Work for the RFI is divided into three phases -- Phases I, II and III.

A. The purpose of Phase I is to provide information on the characteristics and integrity of each unit and conduct field activities, as necessary, to determine if a SWMU has released, is currently releasing, or has the potential to release hazardous waste or constituents to the soil or air which may be impacted for that SWMU.

B. Phase II of the RFI will be required if the Agency's BOL determines from the data obtained in Phase I that, for any SWMU, (1) a release has occurred to the soil, (2) a release is occurring to the soil or (3) the results are inconclusive. The purpose of Phase II is to define the extent of releases to the soil from these SWMUs.

C. Phase III will be required if the Agency's BOL determines from the data obtained in Phase II that hazardous wastes or constituents may have migrated to the groundwater. The purpose of Phase III is to define the extent of releases both on-site and off-site to the ground water from SWMUs identified in Phase I or II to have potentially released hazardous waste or hazardous constituents to the groundwater.

Each phase of the investigation is divided into three Subparts. The first Subpart deals with the development of a RFI Workplan by the Permittee. The second Subpart is the implementation of the RFI. The final Subpart covers the submission of reports of activities and results of the RFI.

III. RFI WORKPLANS

The Permittee(s) shall prepare a detailed workplan for each phase of the RFI which contains detailed background information related to the facility and the SWMUs listed in Condition B.1 of Section V of the permit and which describes procedures for each phase of the RFI in accordance with the schedule in Section V of the permit. The RFI Workplan must, at a minimum, contain the information identified in III.A-III.H below. The information in the workplan must be presented in a manner which is similar to the format set forth in these sections. Information provided in each Phase of the RFI may be incorporated into the workplan for the subsequent Phase by reference. Information already submitted in the Part B permit application may also be incorporated by reference into the workplans when appropriate.

A. GENERAL FACILITY INFORMATION

The following information must be provided in the Phase I RFI Workplan regarding the facility overall:

1. A description of the facility, including the nature of its business, both past and present. This description should identify (1) the size and location of the facility, (2) the raw materials used and products manufactured at the facility and (3) the Standard Industrial Code which describes the type of activities carried out at the facility;

2. Identification of past and present owners;

3. A discussion of the facility's past and present operations, including all solid and hazardous waste generation, storage, treatment and disposal activities;

4. A brief discussion of each of the SWMUs identified in Section V of this permit;

5. A description of all significant surface features (ponds, streams, depressions, etc.) and wells within 1,500 feet of the facility;

6. A description of all land usage within 1,500 feet of the facility, including all known SWMUs (residential, commercial, industrial, agricultural, recreational, etc.);

7. Identification of all human populations and environmental systems potentially susceptible to contaminant exposure from releases from the SWMUs within a distance of at least 1,500 feet of the facility;

8. A description of any interim corrective action measures which were or are being planned or undertaken at the facility;

9. Approximate dates or periods of past spills or releases, identification of material spilled, amount spilled, location, and a description of the response actions, including any inspection reports or technical reports generated as a result of the spill or release.

10. A current topographic map(s) showing a distance of at least 1,500 feet around the facility and other information described below, and at a scale of one inch equal to not more than 200 feet. Contours shall be shown on the map, with the contour interval being sufficient to clearly show the pattern of surface water flow. If such a map is not available, the workplan shall describe the method for generating the map for inclusion in the Phase I report. The map shall clearly show the following:

    a. Map scale, North arrow, date, and location of facility with respect to Township, Range and Section;

    b. Topography and surface drainage depicting all waterways, wetlands, 100-year floodplain, drainage patterns, and surface water areas;

    c. Property lines, with the owners of all adjacent property clearly indicated;

    d. Surrounding land use;

    e. Locations and boundaries of (1) all solid waste management units, both past and present, (2) spill areas and (3) other suspected areas of contamination;

    f. All injection and withdrawal wells, and

    g. All buildings, tanks, piles, utilities, paved areas, easements, rights-of-way, and other features including all known past and present product and waste underground tanks or piping.

The map(s) shall be of sufficient detail and accuracy to locate and report all current and future RFI work performed at the site. The base map(s) shall be submitted in the Phase I report and modified in subsequent reports and workplans as appropriate.

B. NATURE AND EXTENT OF CONTAMINATION

The Phase I Workplan must contain the following information, to the extent known, for each of SWMUs identified in Section V of the permit:

1. Location of unit/area;

2. The horizontal and vertical boundaries of each unit/area;

3. Details regarding the construction, operation and structural integrity of each unit/area;

4. A description of all materials managed and/or disposed at each SWMU including, but not limited to, solid waste, hazardous wastes, and constituents, hazardous substances to the extent they are known or suspected over the life of the facility including:

   a. Type of solid waste, hazardous waste or constituents or hazardous substances placed in the units, including source, hazardous classification, quantity and chemical composition;

   b. Physical and chemical characteristics, including physical form, physical description, general chemical class, cohesiveness of the waste;

5. Quantities of solid and hazardous wastes managed by the unit;

6. The history of the utilization of each SWMU and the surrounding areas, including the period of operation and age of the unit;

7. Methods used to close the unit, if applicable;

8. All available data and qualitative information on the level of contamination present at the SWMU;

9. A description of the existing degree and extent of contamination at each unit area.

10. Identification of additional information which must be gathered regarding 1 thru 9 above;

C. ADMINISTRATIVE OUTLINE

The Permittee(s) shall submit as part of each Phase Workplan a general outline defining the RFI objectives, technical approach, and scheduling of tasks during that phase of the RFI. The Permittee(s) shall prepare a Project Management Plan as part of each Phase Workplan which will include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan must also include a description of the qualifications of personnel performing or directing the RFI, and a description of any contractor personnel qualifications. This plan shall also document the overall management approach to the current Phase of the RFI.

D. SITE-SPECIFIC SAMPLING PLANS

The Permittee(s) shall prepare detailed site-specific sampling plans for each phase of the RFI which address all field activities needed to obtain site-specific data. The plans must contain: a statement of sampling objectives, specifications of equipment, analyses of interest, sample types, sample locations and schedules for sampling. Wherever appropriate, Test Methods for Evaluating Solid Wastes, Third Edition, (SW-846), including Final Update I, sampling, analysis, and statistical methods shall be utilized. The plans must address all levels of the investigations, as well as types of investigations conducted on specific environmental media (i.e., soil, air, surface water, groundwater). The plans must describe in detail how each phase of the RFI will be implemented.

1. Phase I Sampling and Analysis Plan

The Phase I Sampling and Analysis Plan must describe methods to determine whether any of the SWMUs to be investigated have released or are currently releasing hazardous waste or constituents, hazardous substances, agrichemical or pesticide into the environment. This Phase I Sampling Plan shall be submitted as part of the RFI Phase I Workplan. The workplan must contain procedures for:

a. Soils Investigation

The Phase I Workplan must provide for a determination of the presence or absence of releases of hazardous waste and constituents, hazardous

substances, agrichemicals or pesticides into the soil around and under each SWMU which must be investigated, based upon the information present in the Phase I Work Plan. To meet this requirement, the workplan must identify:

i. The procedures which will be used to describe and characterize the soils in and around the subject SWMU(s) down to the water table, including, but not limited to, the following:

   (a) Unified Soil Classification;

   (b) Soil profile; and

   (c) Elevation of water table;

ii. The parameters and hazardous constituents to be used to establish the presence or absence of contamination. These must include, but are not limited to, specific hazardous constituents of wastes known or suspected to have been managed by the SWMU(s) as identified and determined by the unit characterization information presented in the work plan.

iii. The basis for selecting the parameters and constituents in (ii) above.

iv. The methodology for choosing sampling locations, depths, and numbers of samples.

v. Sampling procedures for each parameter or constituent to be analyzed. All soil samples taken must be handled in accordance with 40 CFR 261, Appendix III and the Agency's BOL soil volatile sampling procedure if volatiles are to be analyzed. All other environmental media samples must be collected and handled in accordance with USEPA approved and standardized methods for evaluation of solid wastes.

vi. Analytical methods to be used in the analysis of the samples. If any of these methods is not consistent with those specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition (U.S. EPA SW-846), a complete description of the methods to be used and the justification for not using the appropriate SW-846 methods must be provided.

vii. Procedures and criteria for evaluating analytical results to establish the presence or absence of any contamination.

b. Air Investigation

i. The Phase I Workplan must provide for an investigation to characterize the particulate and gaseous contaminants released into the atmosphere. A determination of "no impact" must be justified and documented to the satisfaction of the Agency's BOL. This investigation shall provide the following information:

(a) A description of the horizontal and vertical direction and velocity of contaminant movement;

(b) The rate and amount of release; and

(c) The chemical and physical composition of the contaminants release, including horizontal and vertical concentration profiles.

The Permittee(s) shall document the procedures used in making the above determinations.

ii. The Phase I Workplan must provide for characterizing the climate in the vicinity of the facility. Such information shall include, but not be limited to:

(a) A description of the following parameters:

(1) Annual and monthly rainfall averages;

(2) Monthly temperature averages and extremes;

(3) Wind speed and directions;

(4) Relative humidity and dew point;

(5) Atmospheric pressure;

(6) Evaporation data;

(7) Development and inversions; and

(8) Climate extremes that have been known to occur in the vicinity of the facility, and the frequency of occurrence.

(b) A description of topographic and manmade features which affect air flow and emission patterns, including:

(1) Ridges, hills or mountain areas;

(2) Canyons or valleys;

(3) Surface water bodies;

(4) Wind breaks and forests;

(5) Buildings; and

(6) Other man-made features.

2. Phase II Sampling and Analysis Plan

The Phase II Sampling and Analysis plan, if necessary, must describe procedures to determine the nature and extent of hazardous waste and/or hazardous constituents released to the soil. This workplan shall address and/or include, at a minimum:

a. A description of what is known about the horizontal and vertical extent of contamination;

b. A description of relevant contaminant and environmental chemical properties within the affected source area and plume, including solubility, specification absorption, leachability, exchange capacity biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation (if known);

c. Specific contaminant concentrations, if known;

d. The horizontal and vertical velocity and direction of contaminant movement (if known);

e. An extrapolation of future contaminant movement (if known); and

f. The methods and criteria to be used to define the boundaries of the plume(s) of contamination;

g. The parameters and constituents to be used to establish the presence or absence of a plume of contamination. This must include, but need not be limited to, specific hazardous constituents of wastes known or suspected to have been placed in the SWMUs;

h. The basis for selecting the parameters and constituents in g above;

i. The methodology for choosing sampling locations depths, and numbers of samples;

j. Sampling procedures for each parameter or constituent to be analyzed;

k. Analytical methods to be used in the analysis of the samples. If any of these methods are not identical to those specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition (U.S. EPA SW-846), a complete description of the methods to be used and the justification for not using the SW-846 methods shall be provided; and

l. Procedures and criteria for evaluating analytical results to establish the presence or absence of any plume of contamination.

3. Potential Receptors

If (1) a release to air or groundwater is detected, or (2) the Permittee(s) desires to establish site-specific soil cleanup objectives, then the subsequent RFI Phase Report must provide data describing the human populations and environmental systems within a radius of 1,500 feet of the facility boundary or SWMU, whichever provides the greatest distance that may be affected by releases from SWMUs must be collected and submitted to the Agency's BOL. The following characteristics shall be identified.

a. Local uses and possible future uses of groundwater. Of special concern is the identification of the:

i. Type of use (e.g. municipal or residential drinking water source, industrial, etc.); and

ii. Location of groundwater users, including wells and discharge areas.

iii. Construction details of any wells (public or private) in the area;

iv. Water-bearing geologic units from which the groundwater is obtained.

b. Local uses and possible future uses of surface waters draining the facility:

i. Domestic and municipal;

ii. Recreational;

iii. Agricultural;

iv. Industrial; and

v. Environmental.

c. Human use of, or access to, the facility and adjacent lands, including, but not limited to:

i. Recreation (including hunting);

ii. Agriculture;

iii. Residential;

iv. Commercial;

v. Zoning; and

vi. Location between population locations and prevailing wind direction.

d. A description of the biota in surface water bodies on, adjacent to, or affected by the facility.

e. A description of ecology of, and adjacent to the facility.

f. A demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age, sex, and sensitive subgroups.

g. A description of any endangered or threatened species (both proposed and listed) near the facility. The U.S. Fish and Wildlife Service must be contacted to obtain this information.

4. Phase III - Hydrogeologic and Hydrologic Investigation

The potential for releases to groundwater from a given SWMU must be investigated as part of Phase III of the RFI if the Agency's BOL determines from the data obtained during the RFI Phase II investigation that releases to soil from a given SWMU may have migrated to the groundwater below the site, or the data is inconclusive. The RFI Phase III hydrogeologic and geologic investigation plan must provide descriptions of groundwater monitoring systems which will provide adequate data on the detection, nature, extent and rate, and concentration of any releases to groundwater or surface water.

Groundwater monitoring will not be required for a SWMU during the RFI Phase III investigation, if the Permittee(s) can demonstrate, based upon the data obtained from the soils investigation under the RFI Phase I environmental media investigation that no releases have occurred from the SWMU(s), or, based upon the data obtained from the rate and extent evaluation under the RFI Phase II investigation that contaminants from the subject SWMU(s) have not entered the groundwater. The Illinois EPA reserves the right to require a groundwater monitoring program for SWMUs based upon interim or final corrective measures chosen.
If releases of hazardous waste or constituents, hazardous substance, agrichemicals or pesticides, have entered the groundwater at a particular SWMU, the RFI Phase III Workplan shall address a hydrological investigation and groundwater monitoring for a SWMU or group of SWMUs at the time the Illinois EPA notifies the Permittee(s) that a RFI Phase III Workplan is required. This workplan must include:

a. Information, as it is available, regarding:

i. The regional geologic and hydrogeologic characteristics in the vicinity of the facility, including stratigraphy, hydrogeologic flow and the areas of recharge and discharge;

ii. Any topographic or geomorphic features that might influence the groundwater flow system;

iii. The hydrogeologic properties of all of the hydrogeologic units found at the site down to the first bedrock aquitard, including: hydraulic conductivity and porosity, texture, uniformity and lithology; an interpretation of hydraulic interconnections between saturated zones; and zones of significant fracturing or channeling in the unconsolidated and consolidated deposits;

iv. Using the facility map as a base, isopach and structural contour maps, and at least two (2) geologic cross sections showing the extent (depth, thickness, lateral extent) of all hydrogeologic units within the facility boundary, down to the first bedrock aquitard, identifying: all units in the unconsolidated and consolidated deposits; zones of higher permeability or lower permeability that might direct or restrict the flow of contaminants; perched aquifers; and the first saturated zone that may have a potential for migration of contaminants;

v. The water level or fluid pressure monitoring, including: water level contour maps and vertical gradient sections, well or piezometer hydrographs and interpretation of the flow system, interpretation of any changes in hydraulic gradients, and seasonal fluctuation; and

vi. Any man-made influences that may affect the hydrogeology of the site, identifying local water supply and production wells and other man-made hydraulic structures within 1500 feet of the facility boundary.

b. Procedures for obtaining information identified in III.D.4.a above which was not obtained during preparation of the workplan.

c. Documentation that sampling and analysis of groundwater monitoring wells will be carried out in accordance with the approved Data Collection Quality Assurance Plan as required in III.F. below. The Plan shall provide information on the design and installation of all groundwater monitoring wells. The designs shall be in accordance with the latest version of the Technical Enforcement Guidance Document (TEGD), where appropriate, and the latest version of the Agency's BOL design criteria. At a minimum:

i. The groundwater monitoring wells must consist of monitoring wells installed in the uppermost aquifer and in each underlying aquifer (e.g., sand units) which are hydraulically interconnected;

ii. At least one background monitoring well in each aquifer shall be installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the SWMUs, except to the extent that SWMUs in close proximity can be investigated with the same background well system. The number, locations, and depths must be sufficient to yield groundwater samples that are: (a) representative of background quality in the uppermost aquifer and units hydraulically interconnected beneath the facility; and (b) not affected by SWMUs at the subject facility; and

iii. Monitoring wells in each appropriate aquifer shall be installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the SWMU or at the limit of each group of proximate SWMUs. The number, locations and depths of the groundwater monitoring wells must ensure that they allow for detection of releases of hazardous waste or hazardous constituents from the SWMU(s).

d. A sampling plan which specifies:

i. The parameters and constituents to be used to establish the presence or absence of a plume of contamination. These must include, but need not be limited to, specific hazardous constituents of wastes determined to have been placed in or released from the SWMUs (including any possible degradation products);

ii. The basis for selecting the parameters and constituents in i above;

iii. The methodology for investigating the hydrostratigraphic units at site, and the locations, depths, and concentration specifications for each monitoring well;

iv. Sampling procedures for each parameter or constituent to be analyzed, including sampling frequency;

v. Analytical methods to be used in the analysis of the samples. If any of these methods is not consistent with those specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition (U.S. EPA SW-846), a complete description of the methods to be used and the justification for not using the appropriate SW-846 methods will be provided; and

vi. Procedures and criteria for evaluating analytical results to establish the presence or absence of any plume of contamination.

If the Agency's BOL determines from the data obtained during the Phase III investigation that releases of hazardous waste or constituents have occurred to the groundwater or that the data are inconclusive, the Permittee(s) must submit a Groundwater Monitoring Plan to determine the vertical and horizontal distribution of the contaminants identified and to predict the long-term disposition of any contaminants. This groundwater monitoring program must include proposals for establishing the locations, depths, and construction specifications for additional monitoring wells that may be necessary to delineate the extent of any plume. The methodology of the investigation, the sampling procedures, analytical methods, and procedures for evaluating analytical results to establish the extent of the plume shall be the same as above unless specifically identified in the Phase III workplan. The Groundwater Monitoring Plan must also specify the criteria which will be used to determine the limits of the plume.

E. DATA COLLECTION QUALITY ASSURANCE

The Permittee shall prepare a plan which describes the procedures which will be used to carry out and monitor all sampling and analysis efforts to ensure that all information and data collected are technically sound, statistically valid and properly documented. Such a plan, referred to as a Quality Assurance Project Plan, must be developed using a format in which the fourteen items listed below are discussed in detail:

1. Project Description
2. Project Organization and Responsibility
3. Quality Assurance Objectives for Data Measurements
4. Sampling Procedures
5. Sample Custody
6. Calibration Procedures and Frequency
7. Analytical Procedures

8. Data Reduction, Validation and Reporting

9. Internal Quality Control Audits

10. Performance and System Audits

11. Preventative Maintenance

12. Specific Routine Procedures Used to Assess Data Precision, Accuracy and Completeness

13. Corrective Action

14. Quality Assurance Reports to Management

F. DATA MANAGEMENT PLAN

The Permittee(s) shall develop and initiate a Data Management Plan to document and track investigation data and results. This Plan shall identify and set-up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The Plan shall also provide the format to be used to present the raw data and conclusions of the investigation(s). This plan shall be submitted with each Phase Workplan.

G. HEALTH AND SAFETY PLAN

Under the provisions of 29 CFR 1910 (54 Fed. Reg. 9295 (1989), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the site must have at least an additional eight hours of specialized training on managing hazardous waste operations. These requirements must be met during each phase of the RFI.

IV. IMPLEMENTATION OF RFI

The Permittee(s) shall conduct those investigations necessary to characterize the site, and to determine the nature, rate and extent of migration, and concentrations of hazardous waste or constituents, if any, released from the SWMU's into the surface water and sediments, groundwater, air, and soil. The investigations must be of adequate technical content to support the development and evaluation of a corrective action program, if one is deemed necessary by the Agency.

The investigation activities shall follow the plans and procedures set forth in the Workplan(s) and the RFI schedule. Any actual or anticipated deviations from the Workplan(s) or the RFI schedule shall be reported no later than the time of submission of the next quarterly report required by Section V below subsequent to the determination of need or actual deviation from the Workplan.

V. SUBMISSION OF REPORTS AND RESULTS OF RFI ACTIVITIES

The Permittee(s) must prepare and submit quarterly progress reports and a final report on the activities and results of each Phase of the RFI activities as appropriate. The progress reports shall contain at a minimum:

1. An estimate of the percentage of the investigation completed;
2. Summary of activities completed during the reporting period;
3. Summaries of all actual or proposed changes to the Workplan or its implementation;
4. Summaries of all actual or potential problems encountered during the reporting period;
5. Proposal for correcting any problems;
6. Projected work for the next reporting period; and
7. Other information or data as requested in writing by the Agency's BOL.

The workplans and reports which must be submitted to the Illinois EPA for review and approval in accordance with the schedule set forth in the following table:

RFI IMPLEMENTATION SCHEDULE

Facility Action	Due Date
Submission of RFI Phase I Workplan.	Within 120 days after effective date of the permit.
Completion of RFI Phase I investigation and submission of Phase I Report and Summary.	Within timeframes established by the Illinois EPA following review of the RFI Phase I Workplan.
Submission of RFI Phase II Workplan.	Within 90 days after notification of the need of Phase II by Agency's BOL.
Completion of RFI Phase II investigation and submission of Phase II Report and Summary.	To be negotiated with the Agency's BOL during review of Phase II workplan.
Quarterly Progress Reports	For months of / Report to the Illinois EPA by the following January-March / May 1 April-June / August 1 July-September / November 1 October-December / February 1
Submission of Implementation Interim Measures Report.	Within 30 days from the date interim measures were determined by the Illinois EPA to be necessary.
Submission of RFI Phase III Workplan.	Within 90 days after notification of the need of Phase III by Agency's BOL.
Completion of RFI Phase III Investigation and Submission of Phase III Report and Summary.	To be negotiated with the Agency's BOL during review of Phase III Workplan.

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ATTACHMENT G

APPROVED PERMIT SECTION IDENTIFICATION

FOR THE ORIGINAL RCRA

PERMIT ISSUED ON

SEPTEMBER 30, 1993

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Permit Log No. B-16

APPROVED PERMIT SECTION IDENTIFICATION FOR THE ORIGINAL RCRA PERMIT LOG NO. 16 ISSUED ON SEPTEMBER 30, 1993

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SECTION B -- FACILITY DESCRIPTION	
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C-1(iv) Stabilization and/or Fixation Prior To Off-Site Disposal	12/23/92

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C-1(vi)	Storage and Blending of Hazardous Waste Fuels	02/14/92
C-1(vii)	Compacting of Hazardous Waste	12/28/92
C-1(viii)	Treatment of D002 Liquid/Solid Mixtures	12/28/92
C-1a	Containerized Waste	02/15/91
C-1b	Waste in Tank Systems	02/15/91
C-1d	Landfilled Waste	02/15/91
C-1e	Wastes Incinerated and Used in Performance Tests	02/15/91
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C-2a(i)	Waste Pre-qualification Procedures	06/10/91
C-2a(ii)	Conformance Testing	06/10/91
C-2a(iii)	Process Operation and Compatibility Testing	03/15/93
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C-2e(i)	Bulk Transport Receiving Procedures	02/15/91
C-2e(ii)	Container Receiving Procedures	02/15/91
C-2e(iii)	Lab Packed Waste Receiving Procedures	02/15/91
C-2e(iv)	General Waste Acceptance Criteria	02/15/91
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C-2f	Additional Requirements for Ignitable, Reactive or Incompatible Wastes	02/14/92
C-2g	Waste Analysis Requirements for Land Disposal Restrictions (LDR)	02/15/91
C-3	Quality Assurance	02/15/91

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J. Proposed Aerosol Can Compactor	12/23/92
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B-4. CHCI Drawing No. 4203, Issue C - Site Plan Existing Facilities 02/14/92

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B-5.	CHCI Drawing No. 4204, Issue C - Site Plan Existing, Approved and Proposed Facilities & Operations	02/14/92
B-6.	City of Chicago Zoning Ordinance, Page Nos. 227B, 228B, 234B, and 235B. Amended January 1, 1971	Undated
B-7.	Legal Description and Survey, Clean Harbors of Chicago, Inc., Drawing No. N-116032, prepared by National Survey Services, Inc.	Undated
B-8.	CHCI Drawing No. 4223, Issue A - Wind Rose	09/19/90
B-9.	Seismic Survey	01/24/91
B-10.	Vicinity/Access Maps	Undated
B-11.	Stony Island Avenue Construction Upgrade	05/89
B-12.	Roadway Analysis	01/24/91
B-13.	Stony Island Avenue Construction Details	Undated
C-1.	Typical Waste Analyses	Undated
C-2.	Laboratory Equipment	Undated
C-3.	Treatability Study Data for Oxidation of Organic Compounds	Undated
C-4.	Treatability of Organic Compounds Using Carbon Adsorption	Undated
C-5.	Treatability Study Data for Stabilization/Fixation of Wastes	05/28/92

List of Appendices		**Latest Revision Date**
D-1.	Process Descriptions for Existing and Proposed Activities at Clean Harbors of Chicago, Inc.	02/15/91
D-2.	CHCI Drawing no. 4209, Sheet 1 of 2, Issue B - Existing Drum Storage Layout Building No. 2	02/01/91
D-3.	CHCI Drawing No. 4209, Sheet 2 of 2, Issue B - Existing Drum Storage Layout Building No. 2	02/01/91
D-4.	CHCI Drawing No. 4210, Issue B - Approved and Proposed Container Management area Layout and Details	02/14/92
D-5.	Direct Design Limited Dwg. No. A1 - Containers Outdoor Storage Area Phase II - Foundation Detail	03/20/91
D-6.	Direct Design Limited Dwg. No. A2 - Containers Outdoor Storage Area Phase I - Building Elevations	03/20/91
D-7.	Direct Design Limited Dwg. No. A3 - Containers Outdoor Storage Area Phase I - Foundation/Floor Plan	03/19/91
D-8.	Direct Design Limited Dwg. No. A4 - Containers Outdoor Storage Area Phase I - Foundation Details	03/20/91
D-9.	Direct Design Limited Dwg. No. A5 - Containers Outdoor Storage Area Phase II - Rec'd Foundation/Floor Plan	03/20/91
D-10.	Direct Design Limited Dwg. No. a6 - Containers Outdoor Storage Area Phase II - Rec'd Building Elevations	03/20/91

List of Appendices	Latest Revision Date
D-11. CHCI Dwg. No. 4211, Issue C - Proposed Lab Pack Repack and Consolidation Area Details	02/14/92
D-12. CHCI Dwg. No. 4228, Issue B - Proposed Lab Pack Repack and Consolidation Area Elevations	02/14/92
D-13. CHCI Dwg. No. 4213, Sheet 2 of 3, Issue D - Equipment Layout - Proposed Fuels Blending Operation	12/18/92
D-14. CHCI Dwg. No. 4212, Issue B - Equipment Layout - Proposed Drum Crushing and Compacting Operation	02/14/92
D-15. CHCI Dwg. No. 4217, Issue B - Proposed Rail Car Containment Area Details	01/28/92
D-16. CHCI Dwg. No. 4218, Issue C - Bulk Solids and Medical Waste Storage Pad Details	05/16/91
D-17. Container Management Guidelines	Undated
D-18. Technical Specification for Coating Systems	Undated
D-19. Professional Engineer (PE) Certification of the Construction of the Existing Container Storage Area	01/08/91
D-20. CHCI Dwg. No. 4208, Issue A - Equipment Layout Existing Facilities	09/19/90
D-21. CHCI Dwg. No. 4205, Sheet 1 of 2, Issue B - Process Flow, Piping and Instrumentation Diagram - Existing Operations	09/19/90
D-22. CHCI Dwg. No. 4205, Sheet 2 of 2, Issue B - Process Flow, Piping and Instrumentation Diagram - Existing Operations	02/01/91

List of Appendices **Latest Revision Date**

D-23. CHCI Dwg. No. 4206, Issue B - Piping and Instrumentation Diagram - Air Pollution Control Systems for Existing Operations 02/01/91

D-24. Construction Details for Existing Waste Receiving Tanks 09/02/80

D-25. Construction Details for Existing Bulk Storage Tanks 12/17/80

D-26. CHCI Dwg. No. 4214, Issue A - Existing Tank Farm Details 09/19/90

D-27. Chem Clear Dwg. No. M-0012-E: Design Details, Existing Chemical Treatment Unit 09/15/81

D-28. Chem Clear Dwg. No. M-0010-D: Design Details, Existing Clarifier Internal Assembly 03/26/81

D-29. Design Details, Existing Secondary Treatment Tanks, Sheet Nos. 1 through 4 ..... Undated

D-30. R.A. Morley Co. Dwg. No. 4033-D: Design Details, Existing Sludge Sump 09/02/80

D-31. Chem Clear Dwg. No. 4068-C: Design Details, Existing Sludge Conditioning Tank 02/03/88

D-32. Clean Harbors Dwg. No. 2916-M-01: Existing Reactor Vessel Details ..... Undated

D-33. Chem Clear Dwg. No. 4062-C: Modifications in Effluent Holding Tank 09/12/88

D-34. Chem Clear Dwg. No. 4034-D: Tank Details Oily Waste Water Pretreatment 11/02/83

List of Appendices	Latest Revision Date
D-35. Design Details, Waste Storage Tank	Undated
D-36. Professional Engineer (PE) Certification of Assessment of the Integrity of the Existing Tank Systems	06/10/91
D-37. CHCI Dwg. No. 4219, Issue C - Proposed Sludge Conditioning Tank Details	06/16/91
D-38. CHCI Dwg. No. 4231, Issue B - Reactor Vessel Installation and Secondary Containment Plan and Details	05/16/91
D-39. CHCI Dwg. No. 4213, Sheet 1 of 3, Issue C - Equipment Layout - Proposed Operations	02/14/92
D-39A. CHCI Dwg. No. 4213, Sheet 3 of 3, Issue A - Equipment Layout - Proposed Operations	02/14/92
D-40. CHCI Dwg. No. 4207, Sheet 1 of 3, Issue A - Process Flow, Piping and Instrumentation Diagram - Proposed Operations	02/01/91
D-41. CHCI Dwg. No. 4207, Sheet 2 of 3, Issue B - Process Flow, Piping and Instrumentation Diagram - Approved and Proposed Operations	02/01/91
D-42. CHCI Dwg. No. 4229, Issue B - Proposed Process Building No. 3 Plan, Sections, Details	02/14/92
D-43. CHCI Dwg. No. 4230, Issue B - Proposed Process Building No. 3 Elevations	02/14/92
D-44. CHCI Dwg. No. 4216, Issue D - Proposed Listed Wastes Storage/Transfer Farm Details	02/14/92

List of Appendices	Latest Revision Date
D-45. CHCI Dwg. No. 4207, Sheet 3 of 3, Issue D - Process Flow, Piping and Instrumentation Diagram - Proposed Fuels Blending Operations	12/18/92
D-46. CHCI Dwg. No. 4215, Issue D - Proposed Flammable Storage Tank Farm Details	02/14/92
D-47. Structural Design and Secondary Containment Calculations for Proposed Units	06/06/91
D-48. Subsurface Investigation Report, O'Brien & Associates, Inc., June 1991	06/91
D-49. Professional Engineer (PE) Assessment and Certification of the Design of New Tank Storage System	06/03/91
D-49A. Professional Engineer (PE) Assessment and Certification of the Design of Pegasus Tank Processing System	06/03/91
D-50. Pegasus Fuel Blending System Operations Manual	01/09/92
D-51. CHCI Dwg. No. 4235, Issue B - Control Panel Face Layout Drum Processing	02/14/92
D-52. CHCI Dwg. No. 4236, Issue B - Control Panel Face Layout Drum Processing	02/14/92
D-53. CHCI Dwg. No. 4237, Issue B - Drum Processing System Schematic	12/18/92
D-54. CHCI Dwg. No. 4238, Issue B - Enclosure Vacuum, Fire Prevention and Suppression	12/18/92
D-55. CHCI Dwg. No. 4239, Issue B - Drum Movement Isometric	12/18/92

List of Appendices		Latest Revision Date
D-56.	CHCI Dwg. No. 4240, Issue B - Simplified Process Flow and Material Balance	12/18/92
D-57.	CHCI Dwg. No. 4241, Issue B - Waste Liquid Piping Schematic	12/18/92
D-58.	Sample Labels/Markings	02/14/92
D-59.	Professional Engineer (PE) Assessment and Certification of the Design of Proposed Container Storage Areas	12/11/92
D-60.	Manufacturer's Literature for Mobile Waste Compactor	Undated
D-61.	CHCI Dwg. No. 4234, Issue A - Proposed Truck Loading Dock & Truck Sampling Pad Details	02/14/92
D-62.	Clean Harbors of Chicago, Inc., Proposed Non-Hazardous Drum Storage & Bulking Area Layout, CHCHI Dwg No. 4266 (Issue A)	10/13/92
D-63.	Clean Harbors of Chicago, Inc., Site Plan Proposed Non-Hazardous Drum Storage & Bulking Area, CHCI Dwg. No. 4266 (Issue A)	10/13/92
D-64.	Manufacturer's Literature, Aerosol Compaction System	Undated
D-65.	Minimum Tank Thickness Calculations	03/15/93
F-1.	Confined Space Entry Procedures	Undated
F-2.	Personal Protective Equipment Program	03/90

List of Appendices		Latest Revision Date
F-3.	Medical Waste Health/Safety Control Plan	10/90
F-4.	Equipment and Procedures for Transfer of Flammable Liquids	Undated
F-5.	25-Year, 24-Hour Rainfall Chart, Excerpted from the US Department of Commerce Frequency Atlas of the United States	Undated
F-6.	Fire Control analysis, prepared by Gage Babcock & Associates, Inc., for Clean Harbors of Chicago, Inc.	02/13/92
F-7.	Professional Engineer (PE) Assessment and Certification of the Design of Railcar Containment Basins	02/13/92
F-8.	Manufacturer's Literature for Steel Railcar Containment Pans	Undated
F-9.	Secondary Containment Calculations for Loading/Unloading Areas	03/10/93
F-10.	25-Year, 24-Hour Rainfall Map	Undated
G-1.	CHCI Dwg. No. 4221, Issue C - Emergency & Safety Equipment Location Plan	02/14/92
G-2.	CHCI Drawing No. 4220, Issue B - Evacuation Plan	02/14/92
G-3.	Anticipated Hazards at Clean Harbors of Chicago, Inc.	02/14/92
G-4.	CHCI Drawing No. 4204, Issue C - Site Plan Existing, Approved and Proposed Facilities & Operations	02/14/92

List of Appendices		Latest Revision Date
G-5.	Documentation of Emergency Coordination Agreements	05/03/91
G-6.	Air Emission Study, Prepared by Carlson Environmental, Inc. for Clean Harbors of Chicago, Inc.	05/03/91
H-1.	Job Descriptions/Job Titles	10/90
H-2.	Professional Resumes	Undated
H-3.	CHCI Training Documentation Form	Undated
H-4.	CHCI Personnel Training Summary, as of January 14, 1992	Undated
I-1.	Closure Cost Calculations	03/15/93
I-2.	Certificate of Liability Insurance	Undated
J-1.	Existing Air Pollution Control Permits	12/20/90
J-2.	Existing Water Pollution Control Permits	07/31/90
K-1.	Facility Certification	02/14/92
K-2.	Certification by Professional Engineer	03/12/93
L-1.	Illinois EPA Operating Permits	02/15/91
L-2.	Release Reports	02/15/91
O-1.	Clean Harbors, Inc. SEC 10K Form	Undated
O-2.	Description of Violations of Federal, State, or Local laws, Regulations, or Ordinances	01/10/91
O-3.	Prior Conduct Certification forms	02/14/92

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ATTACHMENT H

FINANCIAL ASSURANCE REQUIREMENTS

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

I. FINANCIAL ASSURANCE FOR CLOSURE

The permittee shall maintain financial assurance for the closure of the units at the facility as described in the application and as identified below in accordance with 35 Ill. Adm. Code 724.242 and 724.243.

A. Description of Units

Unit	Financial Assurance Required for Unit (1995 dollars)
i. Existing and Proposed Units to be Operated as of the Effective Date of this Permit	
Existing Container Storage Units	
Drum Storage Area (Unit G1)	$ 40,506
Drum Storage Area (Unit R1)	$ 254,157
Lab Pack Pouroff Area (Unit F1)	$ 7,063
Drum Storage Area Expansion (Unit R2).	$ 118,577
Proposed Container Storage Units	
Container Storage Building (Unit 25)	$ 177,351*
Ignitable Container Storage Building (Unit 26) . .	$ 70,817
Container Handling Dock (Unit 61)	$ 44,644
Existing Bulk Solids Storage Units	
Bulk Container Storage Area (Unit Q1)	$ 28,176
Proposed Bulk Solids Storage Units	
Bulk Solids Storage Pad (Unit B)	$ 63,273
Proposed Tank Storage/Processing Units	
Fuels Blending Operation (Unit 43)	$ 12,498
Tank Farm (Unit 16)	$ 490,179
Existing Transportation Storage/Staging Units	
Truck Unloading Area and Bulking Area (Unit Q)	$ 74,616
Truck Loading Dock (Unit V)	$ 73,716
Proposed Transporation Storage/Staging Units	
Truck Staging Area (Unit C)	$ 140,981
Railcar Unloading Area (Unit 13)	$ 196,595

Unit	Financial Assurance Required for Unit (1995 dollars)
Truck Unloading Platform (Unit 15)	$ 50,024
Truck Staging Area (Unit 59)	$ 72,857
Loading/Unloading Area (Unit 62)	$ 95,967
	$2,011,997*

Total for Existing/proposed Units Upon Effective Date

ii. Proposed Units to be Operated in the Future

Proposed Container Storage Units	
Drum Storage Area Expansion (Unit R2)	$ 98,814
Lab Pack Repack and Consolidation Area (Unit U)	$ 20,294
Proposed Bulk Solids Storage Units	
Rolloff Container for Listed Waste (Unit Z1)	$ 12,104
Proposed Tank Storage/Processing Units	
Listed Waste Storage Tanks (Unit Y)	$ 548,819
Process Building 3 (Unit Z)	$ 148,146
Tank Farm Unit 22	$ 151,428
Shredding Operation	$ 36,007
Metal Washing Operation	$ 24,515
Proposed Transportation Storage/Staging Units	
Truck to Truck Transfer Pad (Unit W)	$ 97,669
Listed Wáste Loading/Offloading Area (Unit X) .	$ 49,491
Unit 69	$ 50,073
Proposed Miscellaneous Treatment Unit and Storage Area	
Building 42	$ 17,977
West Pad	(combined)
TOTAL FOR FUTURE UNITS	**$1,255,337**
TOTAL	**$3,267,334**

*The required financial assurance will be reduced to $169,827, $2,0004, 473, and $3,2259,810 respectively, once the construction certification for Unit 25 is approved and Clean Harbors notices the Illinois EPA that Unit 25 will operate solely as described in Modification B-16-M-35. The permittee may submit a Class 1 Modification request in accordance with 35 Ill. Adm. Code 703 Appendix A(A)(1).

B. Conditions

1. These cost estimates do not include the cost for a Professional Engineer certification or the 5 percent contingency cost allowance.

2. Financial assurance for the amounts identified above shall be submitted to the Illinois EPA 60 days prior to placing wastes in the units identified in Condition I.A.ii above. No wastes shall be placed in these units until the requirements of this condition have been met.

3. Within six (6) months of the effective date of this permit, Clean Harbors shall provide closure cost estimates and additional financial assurance for the following areas. These areas are to be closed in accordance with the general procedures described in the "Decontamination/Closure Plan" dated August 24, 1994 and approved by the Illinois EPA in a letter dated October 31, 1994.

   i. the incinerator and the soils under it,

   ii. the outdoor container storage/staging areas specified in the second amended consent decree that were not included in this p partial closure plan C-742,

   iii. the kiln staging areas as described on Figure B.1-2 of the CWM RCRA permit application Revision Ha dated August 1992, and

   iv. the process area where several permitted (interim status only) and unpermitted storage areas are present. This includes all of the CWM site located south of the old biobeds and west of the office building.

4. At the time of the submittal of the Phase II Corrective Measures Program Report required by Condition V.D of this permit, Clean Harbors shall submit cost estimates and financial assurance for the proposed corrective action activities.

II. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

The permittee shall maintain financial assurance for the post-closure care of the surface impoundments at the facility as described in the application in accordance with 35 Ill. Adm. Code 724.244 and 724.245.

A. Surface Impoundments

Surface Impoundments	**Financial Assurance Required for Unit (1995 dollars)**
Annual cost of post-closure care	$ 176,654
TOTAL cost of post-closure care	$5,299,593

B. Conditions

1. Financial assurance for the amounts identified above shall be submitted to the Agency within 6 months of the effective date of this permit.

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Attachment I

Groundwater Monitoring

Diagrams, Reports, Tables

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

Attachment I.1

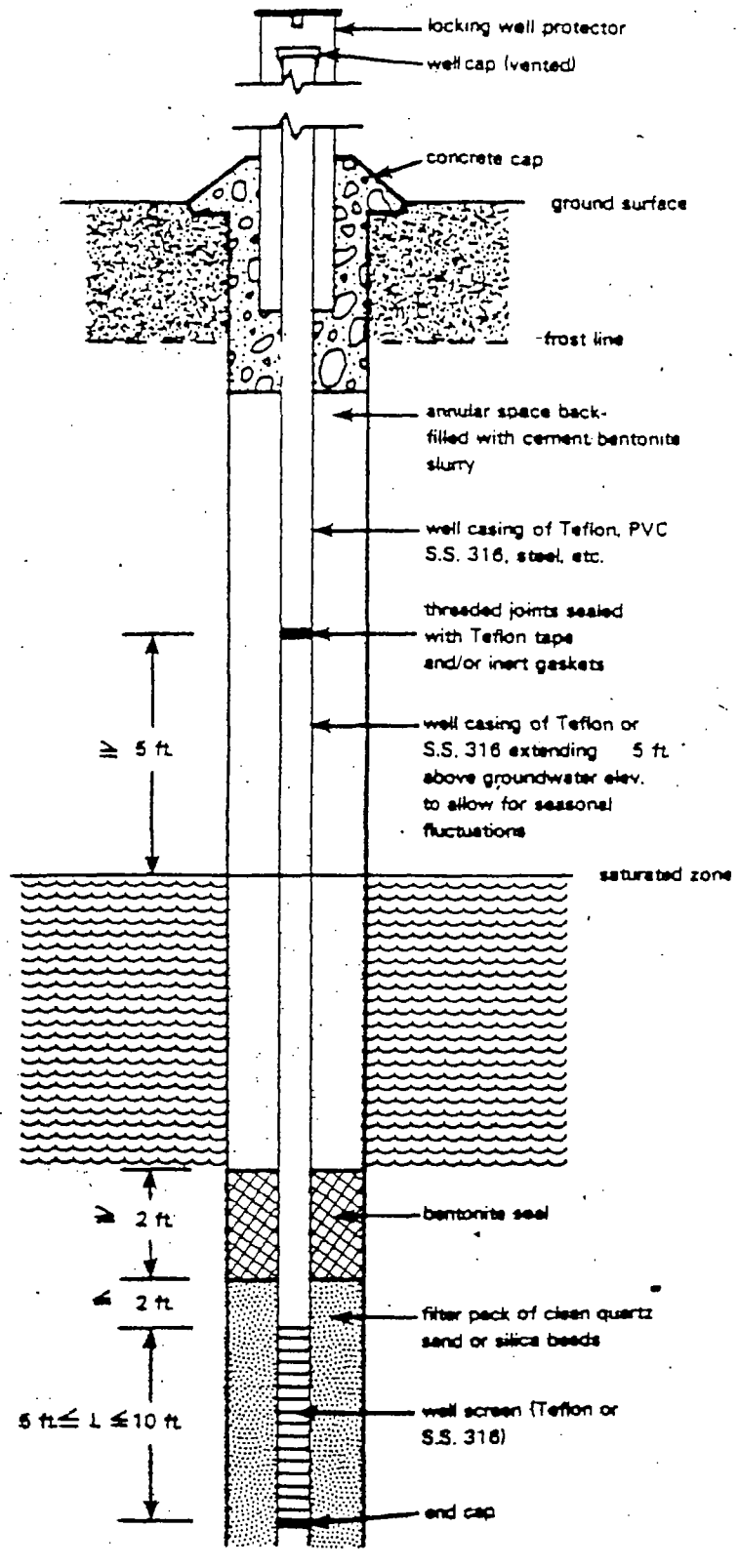
Monitor Well Construction Diagram

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

Monitoring Well Diagram



Attachment I.2

Field Boring Log

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

Illinois Environmental Protection Agency

Field Boring Log

Site ID No. _____ Federal ID No. _____

Site Name: _____

Quadrangle: _____ Sec. _____ T. _____ R. _____

UTM (or State Plane) Coord. N. (X) _____ E. (Y) _____

Latitude: ____ ____ ____ (o ' ") Longitude: ____ ____ ____ (o ' ")

Boring Location: _____

Drilling Equipment: _____

County: _____

Boring No. _____ Monitoring Well No. _____

Surface Elevation: _____ Completion Depth: _____

Auger Depth: _____ Rotary Depth: _____

Date: Start: _____ Finish: _____

Elev.	Description of Material	Graphic Log	Depth In Feet	SAMPLES: Sample No.	Sample Type	Sample Recovery (X)	Penetrometer	N Values (Blow Counts)	OVA or HNU Readings	Personnel: G - D - H - H - / REMARKS

Illinois Environmental Protection Agency Well Completion Report

SITE #: _____ COUNTY: _____ WELL #: _____

SITE NAME: _____ BOREHOLE #: _____

STATE PLANE COORDINATE: X _____ Y _____ (or) LATITUDE: ____ ° ____ ' ____ " LONGITUDE: ____ ° ____ ' ____ "

SURVEYED BY: _____ ILL. REGISTRATION #: _____

DRILLING CONTRACTOR: _____ DRILLER: _____

CONSULTING FIRM: _____ GEOLOGIST: _____

DRILLING METHOD: _____ DRILLING FLUIDS (TYPE): _____

LOGGED BY: _____ DATE STARTED: _____ DATE FINISHED: _____

REPORT FORM COMPLETED BY: _____ DATE: _____

ANNULAR SPACE DETAILS

TYPE OF SURFACE SEAL: _____

TYPE OF ANNULAR SEALANT: _____

INSTALLATION METHOD: _____

SETTING TIME: _____

TYPE OF BENTONITE SEAL – GRANULAR, PELLET, SLURRY (CIRCLE ONE)

INSTALLATION METHOD: _____

SETTING TIME: _____

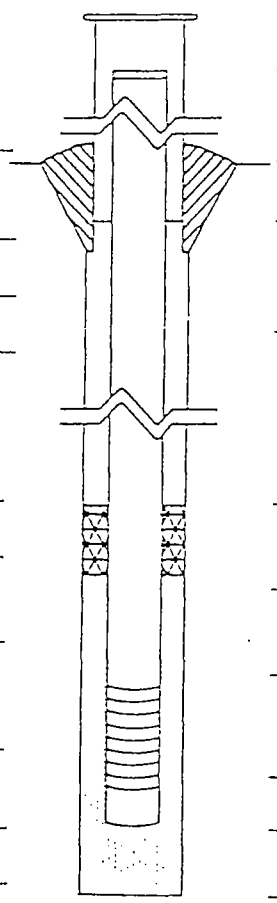
TYPE OF SAND PACK: _____

GRAIN SIZE: _____ (SIEVE SIZE)

INSTALLATION METHOD: _____

TYPE OF BACKFILL MATERIAL: _____ (IF APPLICABLE)

INSTALLATION METHOD: _____



ELEVATIONS (MSL)*	DEPTHS (BGS) (.01 ft)	
_____	_____	TOP OF PROTECTIVE CASING
_____	_____	TOP OF RISER PIPE
_____	_____	GROUND SURFACE
_____	_____	TOP OF ANNULAR SEALANT
_____	_____	STATIC WATER LEVEL (AFTER COMPLETION)
_____	_____	TOP OF SEAL
_____	_____	TOP OF SANDPACK
_____	_____	TOP OF SCREEN
_____	_____	BOTTOM OF SCREEN
_____	_____	BOTTOM OF WELL
_____	_____	BOTTOM OF BOREHOLE

* REFERENCED TO A NATIONAL GEODETIC VERTICAL DATUM

WELL CONSTRUCTION MATERIALS

(CIRCLE ONE)

PROTECTIVE CASING	SS304, SS316, PTFE, PVC OR OTHER:
RISER PIPE ABOVE W.T.	SS304, SS316, PTFE, PVC OR OTHER:
RISER PIPE BELOW W.T.	SS304, SS316, PTFE, PVC OR OTHER:
SCREEN	SS304, SS316, PTFE, PVC OR OTHER:

CASING MEASUREMENTS

DIAMETER OF BOREHOLE (in)	
ID OF RISER PIPE (in)	
PROTECTIVE CASING LENGTH (ft)	
RISER PIPE LENGTH (ft)	
BOTTOM OF SCREEN TO END CAP (ft)	
SCREEN LENGTH (1st SLOT TO LAST SLOT) (ft)	
TOTAL LENGTH OF CASING (ft)	
SCREEN SLOT SIZE **	

** HAND-SLOTTED WELL SCREENS ARE UNACCEPTABLE

(941014)

Attachment I.4

IEPA Monitor Well Plugging Procedures

LPC 0316000051

Clean Harbors Svcs Inc

RCRA Log No. B-16

ILLINOIS EPA MONITOR WELL PLUGGING AND ABANDONMENT PROCEDURES

	Well Construction		Plugging Procedure
I. Unconsolidated Sediment Wells	I-A	...if backfilled with cement grout above bentonite seal and/or sandpack:	1. Cut casing off at desired depth. 2. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 3. Insert tremi pipe (1" i.d. pvc) into well and extend to bottom. 4. Slowly pump slurry under low pressure through temi pipe. 5. Slowly withdraw tremi pipe - making sure bottom of pipe remains below pure slurry. 6. Continue slow pumping until all formation water and the watery slurry mix is displaced from top of casing.
	I-B	...if backfilled with soft sediments (cuttings) above bentonite seal and/or sandpack:	1. Knock out and remove thin surface concrete plug, if present. 2. Re-auger entire length of well. 3. Remove well casing from re-augured borehole. 4. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 5. Insert tremi pipe (1" i.d. pvc) into augers and extend to bottom. 6. Slowly pump slurry under low pressure through tremi pipe. 7. Continue slow pumping until all formation water and the water slurry mix is displaced from top of casing. 8. Slowly withdraw tremi pipe - making sure bottom of pipe remains below pure slurry. 9. Pull a flight of augers (5" if in unstable materials and hole collapse is likely or 10" if in competent material and collapse is unlikely). 10. Top off cement slurry after each flight is removed.
	I-C	...if monitor well construciton is unknown:	1. Follow procedures in I-A.
II. Bedrock Wells	II-A	...All bedrock monitor wells:	1. Cut casing off at desired depth. 2. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 3. Insert tremi-pipe (1" i.d. pvc) into well and extend to bottom. 4. Slowly pump slurry under low pressure through tremi pipe. 5. Slowly withdraw pipe making sure bottom of pipe remains below pure slurry. 6. Continue slow pumping until all formation water and the watery slurry mix is displaced from top of casing.

ATTACHMENT K

CORRECTIVE MEASURES PROGRAM REQUIREMENTS

Clean Harbors Svcs Inc

LPC 0316000051

RCRA Log No. B-16

CORRRECTIVE MEASURES PROGRAM REQUIREMENTS
CLEAN HARBORS SERVICES FACILITY

1.0 Introduction

In accordance with Section 3004 of RCRA and 35 Ill. Adm. Code 724.201, facilities receiving final RCRA permits must institute such corrective action necessary to protect human health and the environment from all releases of hazardous wastes, or hazardous constituents, listed in Appendix H of 35 Ill. Adm. Code Part 721, from any Solid Waste Management Unit (SWMU) at its facility. This is accomplished by:

1. Carrying out any required interim measures in accordance with the terms and conditions of the final RCRA permit;

2. Conducting a RCRA Facility Investigation (RFI) to determine whether releases of hazardous wastes and hazardous constituents have occurred from any Solid Waste Management Unit (SWMU) at the subject facility, and, if so, the nature and extent of the release; and

3. Based on the results of the RFI, developing and implementing a Corrective Measures Program which describes the necessary corrective actions which will be taken. The required corrective actions shall be those actions necessary to protect human health and the environment from all releases of hazardous wastes, or hazardous constituents, listed in Appendix H of 35 Ill. Adm. Code Part 721, from any SWMUs determined to pose an environmental threat by the RFI required under the terms and conditions of the final RCRA permit.

The purpose of this document is to describe the steps in developing and implementing the Corrective Measures Program (CMP). To allow for a logical and orderly progression in developing and implementing necessary corrective action at SWMUs, the Corrective Measures Program should be carried out in five phases.

1. Phase I should consist of (1) development of final cleanup objectives, (2) identification of those SWMUs requiring corrective action and (3) a preliminary evaluation of the corrective action alternatives available for each SWMU requiring corrective action.

2. Phase II should consist of development of a conceptual design of the corrective action chosen for each SWMU remedial system(s) and/or institutional controls.

3. Phase III should consist of development and submission of the final design plans for the corrective action, including operation/maintenance plans and plans for the actual installation of the desired correction action.

4. Phase IV is the actual construction/installation of the selected corrective measure.

5. Phase V CMP is operation, maintenance, and monitoring of the selected corrective action to ensure it is properly protecting human health and the environment.

Workplans, reports, etc. will have to be developed as part of the efforts associated with each phase. All such documents will be subject to Illinois EPA review and approval. Details associated with each phase and the development of workplans, reports, etc. required for each phase is provided below.

2.0 Phase I of the CMP

In the initial phase of the Corrective Measures Program, the Permittee should (1) develop cleanup objectives for the SWMUs being investigated, and then (2) identify those SWMUs requiring corrective action. If it should be determined that a specific SWMU, or group of SWMUs, require corrective action, then the Permittee should identify, in general, types of remedial technologies or institutional controls which may be instituted to address and/or stabilize residual contamination, and identify the goals of the corrective measures. All of these efforts should be documented in the form of a Determination of Corrective Measures Report which include the following:

1. Proposed Final Soil Clean-up Objectives. Final soil cleanup objectives will determine the need for and extent of soil remediation (soil corrective measures) at each SWMU investigated.

    a. The procedures utilized to develop the final soil cleanup objectives must take into consideration:

        i. The volume and physical and chemical characteristics of the contaminants of concern;

        ii. The effectiveness and reliability of containment, confinement and collection systems and structures in preventing contaminant migration;

        iii. The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;

        iv. The patterns of precipitation in the region;

v. The existing quality of surface soils, including other sources and their cumulative impacts on surface soils;

vi. The potential for contaminant migration and impact to the underlying groundwater;

vii. The land use patterns in the region;

viii. The potential for health risks caused by human exposure to the waste constituents; and

ix. The potential for damage to domestic animals, wildlife, food chains, crops, vegetation, and physical structures caused by exposure to waste constituents.

b. The Permittee and the Illinois EPA should have a meeting prior to the time that the Permittee begins developing these objectives. The goal of this meeting will be to provide the Permittee with guidance regarding the procedure which should be followed in developing and proposing these final target levels.

c. The Illinois EPA will establish final target levels if none are proposed by the Permittee.

d. Illinois EPA guidance regarding the development of final soil clean-up objectives can be found in the attached documents entitled Guidance for Developing Proposed Site-Specific Soil Cleanup Objectives for RCRA Clean Closures and Guidance Regarding the Contents of a Report Demonstrating that Proposed Soil Cleanup Objectives Will Not Adversely Impact the Quality of Groundwater (for RCRA Closure Only).

e. The USEPA draft guidance document entitled Soil Screening Guidance may be used in the development of these values as they relate to the protection of human health.

f. Final Illinois EPA action taken on the development of and establishment of these final target levels will be subject to the appeal provisions of Section 39(a) of the Illinois Environmental Protection Act.

g. For certain SWMUs, it may not be appropriate to establish final target soil levels. This will be the case for those SWMUs where the selected corrective action is capping of the area followed by long-term monitoring.

2. Final Corrective Measures Groundwater Target Levels. Final corrective measures groundwater target levels will determine the need for and extent of groundwater remediation (groundwater corrective measures). The procedures used in the development of these levels

must be in general accordance with the procedures described above for final soil target levels and must also meet the requirements set forth in 35 IAC 620.

a. The Permittee and the Illinois EPA should have a meeting prior to the time that the Permittee begins developing these target levels. The goal of this meeting will be to provide the Permittee with guidance regarding the procedure which should be followed in developing and proposing these final groundwater target levels;

b. The Illinois EPA will establish final target levels if none are proposed by the Permittee.

c. Final Illinois EPA action taken on the development of an establishment of these final objectives will be subject to the appeal provisions of Section 39(a) of the Illinois Environmental Protection Act.

3. Ecological Assessment An ecological assessment must be carried out as part of the development of cleanup objectives to determine if there will be any adverse impact on the ecology resulting from the proposed cleanup objectives. Ecological assessments must also be carried out if institutional controls (such as capping, etc.) are the selected corrective measures. This assessment should be developed in accordance with USEPA guidance and address the following issues:

a. Physical, chemical and ecological characterization of site area;

b. Formulation of potential ecological problem

i. Determination of contaminants of concern

ii. Identification of potential ecological receptors

c. Analysis of potential ecological problems

i. Characterization of exposure

ii. Assessment of exposure

iii. Characterization of ecological effects

iv. Characterization of ecotoxicological effects

v. Assessment of ecological effects

vi. Assessment of ecotoxicological effects

d. Characterization of risk

i. Estimation of risk

ii. Uncertainty analysis

iii. Interpretation of ecological significance

e. Risk management

4. Evaluation of Need for Corrective Action The need for corrective action at each SWMU should be evaluated, based upon a comparison of the proposed clean-up objectives to the results of the RFI.

5. Potential Corrective Measures The report should contain a general discussion of the possible corrective measures which may be taken at SWMUs where it is determined that some type of corrective measure is necessary. More detailed information of such measures should be provided if the selected corrective measure has an impact on the development of the clean-up objectives. Also, there must be a discussion of whether the various measures will actually remove the contamination from the environmental media of concern or whether it is some type of institutional control to minimize the potential for future releases from the SWMU. Typically, some type of long term monitoring is required for corrective measures which employ institutional control.

3.0 Phase II of the CMP

Phase II of the CMP includes selection of the corrective measure to be taken and developing a basis for completing the final design of the measure. This effort should be documented in a Conceptual Design Report which describes the proposed corrective measure for each SWMU and provides a conceptual design for these measures. The main criteria for Illinois EPA review is whether the proposed corrective measures are able to achieve the final cleanup objectives established by the Permittee and the Illinois EPA in Phase I of the CMP and/or provide the institutional controls to prevent the migration of contaminants from the SWMU of concern necessary. Based upon a review of the Conceptual Design Report, the Illinois EPA may approve the corrective measures, require revisions to the proposed corrective measures, or require that a totally new corrective measures proposal be submitted to the Agency.

The Conceptual Design Report should contain the following sections:

1. Introduction/Purpose. The report should include an introductory section which contains: (1) general background information regarding the project; (2) the purpose and goals of the submittal; and (3) the scope of the project.

2. Existing Site Conditions. The report should contain a summary of the RFI activities conducted for each of the SWMUs of concern and the results of Phase I of the CMP for each SWMU. RFI investigation analytical results should be provided in tabular form, and maps depicting both the horizontal and vertical extent of contamination at the site should be provided.

3. Evaluation for Potential Future Migration. Based on the existing site conditions, a conceptual model of the site should be developed and presented in this report. The potential for additional future migration of contamination for each of the SWMUs of concern must then be evaluated, especially those SWMUs which have been determined to have released hazardous waste/hazardous constituents to the groundwater. It may be helpful to develop conceptual models for contaminant migration. Of special concern in this evaluation are (1) the physical properties of the Corrective Measures Plan Guidance contaminants (solubility, volatility, mobility, etc.) and (2) existing site conditions (types of soil present, location of contamination, hydrology, geology, etc.).

4. Corrective Measures Objectives. The report should discuss the general objectives of the proposed corrective measures to be constructed/installed for each SWMU at the subject facility, and the ability of the proposed corrective measures to achieve the established Corrective Measures Target Levels.

5. Identification of Options Available. The report should contain a discussion of the various options available to achieve the corrective measures objectives for each SWMU. This discussion should identify: (1) a general overview of each option available, including how the option will achieve the stated objective; (2) the advantages associated with each option; (3) the disadvantages associated with each option and (4) an estimate of the cost associated with choosing each option as a remediate.

6. Description of Selected Corrective Measure. The report should contain a qualitative discussion of the corrective measure chosen, along with the rationale which was used to select this measure from all those identified initially. This discussion should include documentation that the selected correction measure will be effective.

7. Identification of Design Criteria. The report should identify what information must be available to design the selected corrective measure.

8. Review of Available Information. The report should contain an evaluation of the existing information to ensure that sufficient information is available to complete the design of the selected corrective measure. If insufficient information is available, then the report should contain procedures for collecting the required information. The level of detail required for this additional data collection should be similar to that provided in RFI workplans.

9. Procedures for Completing the Design. The report should contain a description of the procedures which will be followed to complete the design of the corrective measure. This should include as appropriate:

   a. Identification of the references and established guidance which will be used in designing the selected corrective measure. Justification for the selection of this procedure should also be provided.

   b. A description of the procedures which will be used to complete the design of the corrective measure.

   c. Identification of assumptions to be used in the design, and the impact these assumptions have on the overall corrective measure;

   d. Significant data to be used in the design effort;

   e. Identification and discussion of the major equations to be used in the design effort (including a reference to the source of the equations);

   f. Sample calculations to be used in the design effort;

   g. Conceptual process/schematic diagrams;

   h. A site plan showing a preliminary layout of the selected corrective measure;

   i. A site plan showing a preliminary layout of the selected corrective measure;

   j. Tables giving preliminary mass balances;

   k. Site safety and security provisions.

   The information presented herein will form the continuing technical basis for the detailed design of the system and the preparation of construction plans and specifications.

10. Identification of Required Permits. The report should identify and describe any necessary permits associated with the selected corrective measure, as well as the procedures which will be used to obtain these permits.

11. Long-lead Procurement Considerations. The report should identify any elements/components of the selected corrective measure which will require a large amount of time to obtain/install. The following issues should also be discussed: (1) the reason why

it will take a large amount of time to obtain/install the item; (2) the length of time necessary for procurement and (3) recognized sources of such items.

12. Project Management. The report should contain information regarding the procedures and personnel which will be involved in completing the design of the selected corrective measure. A schedule for completing the design should also be provided.

4.0 Phase III of the CMP

Once the Illinois EPA approves the Conceptual Design Report, the facility should complete the design of the approved corrective action (Phase II of the CMP). Upon final completion of the design, the Final Design Report, consisting of final plans, specifications, construction workplan, etc. must be submitted to the Illinois EPA for review and approval. Typically, the Illinois EPA requires that these documents be submitted to the Illinois EPA within 120 days after the Conceptual Design Report Corrective Measures Plan Guidance has been approved. The final design report of the CMP must be submitted to the Illinois EPA in the form of a Class II permit modification in accordance with 35 Ill. Adm. Code Part 703. Should implementation of the corrective measures include construction/installation of additional structures which would meet the definition of RCRA regulated units, the Illinois EPA may notify the Permittee that the submittal will be reviewed as a Class III permit modification in accordance with 35 Ill. Adm. Code Part 703. In any event, as the submittal is either a Class II or Class III modification to the facility permit, the Illinois EPA response will be handled in accordance with the procedures for Class II and Class III modifications as outlined in 35 Ill. Adm. Code Parts 703 and 705. Several documents must be submitted to the Illinois EPA as part of Phase III of the CMP. The following text describes the expected contents of the various documents which should be developed and submitted to the Illinois EPA as part of Phase III of the CMP.

1. Final Design Report and Construction Workplan. The Final Design Report and Construction Workplan must contain the detailed plans, specifications and drawings needed to construct the corrective measure. In addition, this document must contain (1) calculations, data etc. in support of the final design; and (2) a detailed description of the overall management strategy, construction quality assurance procedures and schedule for constructing the corrective measure. It must be noted that the approved Conceptual Design Report forms the basis for this final report. The information which should be provided in this document includes:

    a. Introduction/Purpose. This portion of the document should (1) provide background information regarding the project, (2) describe the purpose and goals of the project, and (3) describe the scope of the project.

    b. Detailed Plans of the Design System, including the following:

1. Plan views;

2. Section and supplementary views which, together with the specifications and general layouts, facilitate construction of the designed system;

3. Dimensions and relative elevations of structures;

4. Location and outline form of the equipment;

5. Ground elevations; and

6. Descriptive notations, as necessary, for clarity.

c. Technical Specifications. Complete technical specifications for the construction of the system. The specifications accompanying construction drawings should include, but are not limited to, the following:

1. All construction information, not shown in the drawings, which is necessary to inform the contractor in detail as to the required quality of materials, workmanship, and fabrication of the project;

2. The type, size, strength, operating characteristics and rating of the equipment;

3. The complete requirements for all mechanical and electrical equipment, including machinery, valves, piping and jointing of pipe;

4. Electrical apparatus, wiring and meters;

5. Construction materials;

6. Chemicals, when used;

7. Miscellaneous appurtenances;

8. Instruction for testing materials and equipment as necessary; and

9. Availability of soil boring information.

d. Project Management. A description of the construction management approach, including the levels of authority and responsibility, lines of communication and qualifications if key personnel who will direct corrective measures construction/installation must be provided in the workplan.

e. Construction Quality Assurance/Quality Control. the workplan must contain a construction quality assurance/quality control plan describing the procedures which will be followed t ensure the corrective measure is constructed/installed in accordance with the approved plans and specifications.

f. Schedule. The workplan must contain a schedule for completion of all major activities associated with construction/installation of the selected corrective measures. All major points of the construction/installation should be highlighted, with a graphical representation of the project schedule included.

g. Waste Management Practices. This portion of the document should identify the wastes anticipated to be generated during the construction/installation of the corrective measures, and provide a description of the procedures for appropriate characterization and management of these wastes.

h. Required Permits. This portion of the report should contain copies of permit applications submitted to other Bureaus of the Illinois EPA for the selected corrective measure. If it is determined that no permit is required for construction/installation and implementation of the corrective measures, rationale and justification must be provided to support this contention.

2. Operation and Maintenance Plan. An Operation and Maintenance Plan must be developed and submitted as part of Phase III of the CMP. This plan should outline the procedures for performing operations, long term maintenance, and monitoring of the corrective measure.

a. Introduction and Purpose. This portion of the document should provide a brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.

b. System Description. This portion of the document should provide a description of the corrective measure and significant equipment, including manufacturer's specifications. This portion of the permit should also include a narrative of how the selected system equipment is capable of complying with the final engineered design of the corrective measure.

c. Operation and Maintenance Procedures. This portion of the document should provide a description of the normal operation and maintenance procedures for the corrective measures system, including:

1. Description of tasks for operation;
2. Description of tasks for maintenance;
3. Description of prescribed treatment or operation conditions; and

4. Schedule showing the frequency of each operation and maintenance task.

d. Inspection Schedule. This portion of the document should provide a description of the procedures for inspection of the corrective measures system, including problems to look for during the inspection procedure, specific inspection items, and frequency of the inspections.

e. Waste Management Practices. This portion of the document should provide a description of the wastes generated by operation of the corrective measures, and the appropriate procedures for proper characterization and management of these wastes.

f. Contingency Procedures. This portion of the document should provide a description of the procedures which will address the following items;

1. System breakdowns and operational problems including a list of redundant and emergency backup equipment and procedures;

2. Alternative procedures (i.e., stabilization) which are to be implemented in the event that the corrective measure suffer complete failure. The alternative procedures must be able to prevent release or threatened releases of hazardous wastes/hazardous constituents which may endanger human health and the environment, or exceed cleanup standards.

3. Notification of facility and regulatory personnel in the event of a breakdown in the corrective measures, including written notification identifying what occurred, what response action is being taken and any potential impacts on human health and the environment.

5.0 Phase IV the CMP

Once the reports required by Phase III above are approved by the Agency, construction/installation of the approved corrective measure must commence. During this period, quarterly reports should be submitted which contain the following information:

1. Summary of activities completed during the reporting period;

2. An estimate of the percentage of the work completed;

3. Summaries of all actual or proposed changes to the approved plans and specifications or its implementation;

4. Summaries of all actual or potential problems encountered during the reporting period;

5. Proposal for correcting any problems;

6. Projected work for the next reporting period; and

Upon completion of construction/installation of the approved corrective measure, a Construction Report must be submitted to the Illinois EPA documenting that these efforts were carried out in accordance with the Illinois EPA approved plans and specifications. This report should contain a thorough description of the efforts that went into constructing/installing the corrective measure and demonstrate that the procedures in the Agency-approved Final Design Report were followed during this effort. Such a report should be formatted in a logical and orderly manner and contain the following information:

1. An introduction discussing the background of the project and the purpose and scope of the corrective measure described in the report.

2. Identification of the plans, technical specifications and drawings which were used in constructing/installing the corrective measure. These specifications and drawings should have been approved by the Illinois EPA during Phase III;

3. Identification of any variations from the Illinois EPA approved plans, technical specifications and drawings used in construction/installing the corrective measure. Justification regarding the need to vary from the approved plans and specifications must also be provided;

4. A description of the procedures used to construct/install the corrective measure, including the procedures used for quality assurance and quality control;

5. As-built drawings, including identification of any variations from the approved plans, technical specifications and drawings;

6. A summary of all test results from the construction/installation effort, including quality assurance/quality control testing.

7. Actual test results, including quality assurance/quality control test results. These results should be located in an attachment/appendix and be well organized.

8. Identification of any test results which did not meet the specified value and a description of the action taken in response to this failure, including re-testing efforts.

9. Photographs documenting the various phases of construction.

10. A detailed discussion of how the construction/installation effort met the requirements of the approved Final Design Report.

11. A certification by an independent qualified, registered professional engineer and by an authorized representative of the owner/operator (the authorized representative must meet the requirements of 35 Ill. Adm. Code 702.126). The wording for this certification must also meet the requirements of 35 Ill. Adm. Code 702.126.

6.0 Phase V of the CMP

Once the corrective measure has been constructed/installed, it must be operated, maintained and monitored in accordance with the approved plans and specifications (this is Phase V of the CMP). During this period, quarterly reports must be submitted to the Illinois EPA documenting the results of these efforts. These reports should contain the following information:

1. Introduction. This portion of the document should provide a brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.

2. System Description. This portion of the document should provide a description of the corrective measures constructed/installed at the site, and identify significant equipment. Describe the corrective measure and identify significant equipment.

3. Monitoring Results. This portion of the permit should provide a description of the monitoring and inspection procedures to be performed on the corrective measures. A summary of the monitoring results for the corrective measures, including copies of any laboratory analyses which document system effectiveness, provide a description of the monitoring procedures and inspections performed, and include a summary of the monitoring results for the corrective measure. Copies of all laboratory analytical results which document system monitoring must be provided.

4. Effectiveness Determination. This portion of the document should provide calculations and other relevant documentation which demonstrates the effectiveness of the selected corrective measure in remediating/stabilizing contamination to the extent anticipated by the corrective measures final design. Copies of relevant analytical data should be provided to substantiate this determination.

5. System Effectiveness Recommendation. Based upon the results of the effectiveness determination required under d. above, this portion of the document should provide a recommendation on continuance of the corrective measure. If the corrective measure is not performing in accordance with the final design, a recommendation on revisions or expansion of the system should be provided. Additionally, based upon the monitoring results, a schedule for achieving the cleanup standards would be included with each determination.

Attachments: Guidance for Developing Proposed Site-Specific Soil Cleanup Objectives for RCRA Clean Closures (draft)

Guidance Regarding the Contents of a Report Demonstrating that Proposed Soil Cleanup Objectives Will Not Adversely Impact the Quality of Groundwater (for RCRA Closures Only)

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