Hazardous Waste Facility Permit Application

Resource Conservation and Recovery Act (RCRA) Part A and B

AA Sydcol Waste Transfer Facility

2264 East 13th Street

Yuma, Arizona 85365

November 8, 2021

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Checklist for Review

RCRA Part A

RCRA Part B

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Character Background Reference Forms

Registered Professional Engineer (Civil)
CERTIFICATE NO.
37554
JAMES G.
PECK
Date Signed 11/10/21
ARIZONA, U.S.A.
Expires 3/31/2021

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

AHWMA/RCRA OPERATING PERMIT APPLICATION

COMPLETENESS/TECHNICAL EVALUATION CHECKLIST

DISCLAIMER: This checklist is not an official ADEQ policy document. This checklist is a tool used by ADEQ permit writers to evaluate hazardous waste permit applications. The checklist is periodically revised by ADEQ, following the adoption of new regulatory requirements.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION A. PART A GENERAL INFORMATION REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
A-1	Description of Activities Conducted which Require Facility to Obtain a Permit under the Resource Conservation and Recovery Act (RCRA), and Brief Description of Nature of the Business	270.13(a),(m)		B.A	
A-2	Name, Mailing Address, and Location of Facility for which the Application is Submitted, including a Topographic Map	270.13(b),(l)		B.A	
A-3	Up to Four Standard Industrial Classification Codes which Best Reflect the Products or Services Provided by the Facility	270.13(c)		B.A	
A-4	Operator/Owner's Name, Address, Telephone Number, and Ownership Status	270.13(d),(e)	Ownership status must include status as federal, state, private, public, or other entity.	B.A	
A-5	Facility is New, Existing, or Located on Indian Lands	270.13(f),(g)	Description must include information on whether this is a first or revised application with date of last signed permit application.	B.A	
A-6	Description of Processes to be Used for Treating, Storing, and Disposing of Hazardous Waste	270.13(i)	Description must include design capacity for these items.	B.A.	
A-7	Specification of the Hazardous Wastes Listed or Designated Under 261	270.13(j)	Specifications must include estimate on quantity of waste to be treated, stored, or disposed of.	B.A	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
A-8	Listing of all Permits or Construction Approvals Received or Applied for	270.13(k)	Permits include the following programs: Hazardous Waste Management under RCRA; Underground Injection Control under the Solid Waste Disposal Act; Prevention of Significant Deterioration, Nonattainment Program, and National Emissions Standards for Hazardous Pollutants under the Clean Air Act; ocean dumping permits under the Marine Protection Research and Sanctuaries Act; dredge and fill permits under Section 404 of the Clean Water Act; or other relevant environmental permits including state permits.	B.A	

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION B. FACILITY DESCRIPTION

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
B-1	General Description	270.14(b)(1)		B.B	
B-2	Topographic Map	270.14	Show a distance of 1,000 feet around the unit at a scale of 1 inch to not more than 200 feet (multiple maps may be submitted at this scale), and should be similar to Part A topographic map.	B.B	
B-2a	General Requirements	270.14(b)(19)		B.B	
	Scale and Date	270.14(b)(19)(i)	Other scales may be used if justified.	B.B	
	The 100-Year Flood Plain Area	270.14(b)(19)(ii)		B.B	
	Surface Waters	270.14(b)(19)(iii)		B.B	
	Surrounding Land Use	270.14(b)(19)(iv)		B.B	
	Wind Rose	270.14(b)(19)(v)		B.B	
	Map Orientation	270.14(b)(19)(vi)		B.B	
	Legal Boundaries	270.14(b)(19)(vii)		B.B	
	Access Control	270.14(b)(19)(viii)		B.B	
	Injection and Withdrawal Wells (On Site and Off Site)	270.14(b)(19)(ix)		NA	
	Buildings and Other Structures	270.14(b)(19)(x)	270.14(b)(19)(x) for example list.	B.B	
	Drainage and Flood Control Barriers	270.14(b)(19)(xi)		NA	
	Location of the Treatment or Disposal Unit(s) and Decontamination Areas	270.14(b)(19)(xii)		NA	
	Location of Solid Waste Management Units	270.14(d)(1)(i)		B.B	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION B. FACILITY DESCRIPTION

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
B-2b	Additional Information on the Topographic Map for Land Disposal Facilities	270.14(c)(3)		NA	
	Uppermost Aquifer and Hydraulically Connected Aquifers Beneath Facility Property	270.14(c)(2)		B.B	
	Groundwater Flow Direction	270.14(c)(2)		B.B	
	Waste Management Areas	270.14(c)(3)		B.B	
	Property Boundaries	270.14(c)(3)		B.B	
	Point of Compliance Location	270.14(c)(3); 264.95	Point of compliance is defined in 264.95.	B.B	
	Location of Groundwater Monitoring Wells	270.14(c)(3); 264.97		NA	
	Extent of any Groundwater Contaminant Plume	270.14(c)(4)(i)		NA	
B-3	Facility Location Information	270.14(b)(11); 264.18		B.B	
B-3a	Seismic Requirements	270.14(b)(11)(i), (ii); 264.18(a)	Seismic requirements applicable only to new facilities.	B.B	
	Political Jurisdiction in which Facility is Proposed to be Located	270.14(b)(11)(i)		B.B	
	Indication of Whether Facility is Listed in Appendix VI of 264 (New Facilities)	270.14(b)(11)(i)		B.B	
	New Facility must be Located at Least 200 feet from a Fault which has had Displacement in Holocene Time	270.14(b)(11)(ii); 264.18(a)	If facility location is listed in Appendix VI of 264, this information is required.	B.B	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION B. FACILITY DESCRIPTION

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
B-3b	Flood Plain Requirements	270.14(b)(11)(iii), (iv); 264.18(b)		B.B	
	Copy of Federal Insurance Administration or other Flood Map	270.14(b)(11)(iii)	Reference source used to determine whether facility is located in 100-year flood plain.	B.B	
B-3b(1)	Demonstration that Facility is Designed, Constructed, Operated, and Maintained to Prevent Washout, or Detailed Description of Procedures to be Followed to Remove Hazardous Waste to Safety before Facility is Flooded	270.14(b)(11)(iv); 264.18(b)	Flood plain requirements applicable if facility is located in 100-year flood plain.	NA	
B-3b(1)(a)	Engineering Analysis to Indicate the Various Hydrodynamic and Hydrostatic Forces Expected to Result from the 100-Year Flood Plain	270.14(b)(11)(iv); 264.18(b)	Flood plain requirements applicable if facility is located in 100-year flood plain.	NA	
	Demonstration that no Adverse Effects will Result from Failure to Remove Waste by Providing:	270.14(b)(11)(iv); 264.18(b)(ii)	Flood plain requirements applicable if facility is located in 100-year flood plain.	NA	
	Volume and Physical and Chemical Characteristics of the Waste in the Facility	270.14(b)(11)(iv); 264.18(b)(ii)(A)	Flood plain requirements applicable if facility is located in 100-year flood plain.	NA	
	Concentration of Hazardous Constituents that Would Potentially Affect Surface Waters as a Result of Washout	270.14(b)(11)(iv); 264.18(b)(ii)(B)	Flood plain requirements applicable if facility is located in 100-year flood plain.	NA	
	Impact of such Concentration on Current or Potential uses of, and Water Quality Standards Established for, the Affected Surface Waters	270.14(b)(11)(iv); 264.18(b)(ii)(C)	Flood plain requirements applicable if facility is located in 100-year flood plain.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION B. FACILITY DESCRIPTION

	Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
	Impact of Hazardous Constituents on the Sediments of Affected Surface Waters, or the Soils of the 100-Year Flood Plain, that could Result from Washout	270.14(b)(11)(iv); 264.18(b)(ii)(D)	Flood plain requirements applicable if facility is located in 100-year flood plain.	NA	
	Plan and Schedule for Future Compliance	270.14(b)(11)(v)	Flood plain requirements applicable if facility is located in 100-year flood plain and not in compliance with 264.18(b).	NA	
B-4	Traffic Patterns	270.14(b)(10)	Show turns across traffic lanes and stacking lanes, if appropriate.	B.B	
	Estimate of Number and Types of Vehicles around the Facility	270.14(b)(10)		B.B	
	Traffic Control Signs and Signals	270.14(b)(10)		B.B	
	Road Surface Composition and Load-Bearing Capacity	270.14(b)(10)		B.B	

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION C. WASTE CHARACTERISTICS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
C-1	Chemical and Physical Analyses	270.14(b)(2); 264.13(a)	Data generated by testing the waste, published data on the waste, or data gathered from similar processes may be used.	B.C	
C-1a	Containerized Waste	270.15(b)(1); 264.172	Demonstrate that waste is compatible with container construction materials.	B.C, B.D	
C-1b	Waste in Tank Systems	270.16(a); 264.190(a); 264.191(b)(2); 264.192(a)(2)	Demonstrate that tank construction materials are compatible with waste stored in tank.	NA	
C-1c	Waste in Piles	270.18(a); 264.250(c)(1), (4)		NA	
C-1d	Landfilled Wastes	270.21(a) 264.13(c)(3); 264.314	Demonstrate that sorbent materials are non-biodegradable.	NA	
C-1e	Wastes Incinerated and Wastes used in Performance Tests	270.19(c); 270.62(b); 264.341		NA	
C-1f	Wastes to be Land Treated	270.20(b)(4); 264.271(a)(1), (2); 264.272; 264.276, Part 261 Appendix VIII	If food-chain crops will be grown in or on treatment zone, identify hazardous constituents reasonably expected to be in or derived from waste.	NA	
C-1g	Wastes in Miscellaneous Treatment Units	270.23(d)		NA	
C-1h	Wastes in Boilers and Industrial Furnaces	270.66(c); 266.102(b)		NA	
C-1i	Wastes on Drip Pads	270.26; 264.570		NA	

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SECTION C. WASTE CHARACTERISTICS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
C-2	Waste Analysis Plan	270.14(b)(3); 264.13(b),(c)		B.C	
C-2a	Parameters and Rationale	270.14(b)(3); 264.13(b)(1)		B.C	
C-2b	Test Methods	270.14(b)(3); 264.13(b)(2)		B.C	
C-2c	Sampling Methods	270.14(b)(3); 264.13(b)(3)	If a sampling method described in 261 Appendix I is not used, facility must provide detailed description of proposed method and demonstrate its equivalency.	B.C	
C-2d	Frequency of Analyses	270.14(b)(3); 264.13(b)(4)		B.C	
C-2e	Additional Requirements for Wastes Generated Off Site	270.14(b)(3); 264.13 (b)(5), (c); 264.73(b)	Describe statistical method used to determine a representative sample of incoming waste.	B.C	
C-2f	Additional Requirements for Ignitable, Reactive, or Incompatible Wastes	270.14(b)(3); 264.13(b)(6); 264.17		B.C	
C-2g	Additional Requirements Pertaining to BIF Facilities	270.22; 266.102(e)(6)(ii)(C),(e)(6)(iii)		NA	
C-3	Waste Analysis Requirements Pertaining to Land Disposal Restrictions	270.14(b)(3); 264.13; 264.73; Part 268		NA	

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SECTION C. WASTE CHARACTERISTICS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
C-3a	Waste Analysis	270.14(a); 264.13(a)(1); 268.1; 268.7; 268.9; 268.32 - 268.37; 268.41 - 268.43	Waste that was newly identified or newly listed as hazardous after 11/08/84 for which the U.S. Environmental Protection Agency has not promulgated land disposal prohibitions or treatment standards are not subject to land disposal provisions.	NA	
C-3a(1)	Spent Solvent and Dioxin Wastes	270.14(a); 264.13(a)(1); 268.2(f)(1); 268.7; 268.30; 268.31		NA	
C-3a(2)	California List Wastes	270.14(a); 264.13(a)(1); 268.7; 268.32; 268.42(a); RCRA Section 3004(d)		NA	
C-3a(3)	Listed Wastes	270.14(a); 264.13(a)(1); 268.7; 268.33 - 268.36; 268.41 - 268.43	Arsenic-containing nonwastewater may use the extraction procedure (EP) toxicity test to determine compliance with treatment standards.	NA	
C-3a(4)	Characteristic Wastes	270.14(a); 264.13(a)(1); 268.7, 268.9; 268.37; Part 268 Appendix I, IX	Characteristic D008 lead nonwastewater and D004 arsenic nonwastewater may use EP toxicity test to determine compliance with treatment standards.	NA	
C-3a(5)	Radioactive Mixed Waste	270.14(a); 264.13(a); 268.7; 268.35(c),(d); 268.36(d); 268.42(d)	Hazardous debris containing radioactive waste must comply with treatment standards specified in 268.45.	NA	
C-3a(6)	Leachates	270.14(a); 264.13(a); 268.35(a)	Leachate that originates from newly identified waste is not coded as F039 waste, but is labeled with newly listed waste code from which it is derived.	NA	

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SECTION C. WASTE CHARACTERISTICS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
C-3a(7)	Lab Packs	270.14(a); 264.13(a); 268.7(a)(7),(8); 268.42(c); Part 268 Appendix IV	Lab packs containing California list polychlorinated biphenyls (PCB) or dioxins must be treated according to special incineration requirements detailed in 268.42(a).	NA	
C-3a(8)	Contaminated Debris	270.13(n); 268.2(g); 268.7; 268.9; 268.36; 268.45		NA	
C-3a(9)	Waste Mixtures and Wastes with Overlapping Requirements	270.14(a); 264.13(a)(1); 268.7; 268.9; 268.41; 268.43; 268.45(a)	Waste that carries more than one characteristic or listed waste code must be treated to the most stringent treatment requirement for each hazardous waste constituent of concern.	NA	
C-3a(10)	Dilution and Aggregation of Wastes	270.14(a); 268.3		NA	
C-3b	Notification, Certification, and Recordkeeping Requirements	270.14(a); 264.13; 264.73; 268.7; 268.9(d)		NA	
C-3b(1)	Retention of Generator Notices and Certifications	270.14(a); 264.13; 268.7(a)		NA	
C-3b(2)	Notification and Certification Requirements for Treatment Facilities	270.14(a); 264.13; 268.7(b)		NA	
C-3b(3)	Notification and Certification Requirements for Land Disposal Facilities	270.14(a); 264.13; 268.7(c)(1)		NA	
C-3b(4)	Wastes Shipped to Subtitle C Facilities	270.14(a); 264.13; 268.7(a),(b)(6)		NA	
C-3b(5)	Wastes Shipped to Subtitle D Facilities	270.14(a); 264.13; 268.7(d); 268.9(d)			

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SECTION C. WASTE CHARACTERISTICS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
C-3b(6)	Recyclable Materials	270.14(a); 264.13; 268.7(b)(7)		NA	
C-3b(7)	Recordkeeping	270.14(a); 264.13; 264.73; 268.7(a)(5),(a)(6),(a)(7), (d)	Recycling facilities must keep records of name and location of each entity receiving hazardous waste-derived product.	NA	
C-3c	Requirement Pertaining to the Storage of Restricted Wastes	270.14(a); 264.73; 268.50		NA	
C-3c(1)	Restricted Wastes Stored in Containers	270.14(a); 264.73; 268.50(a)(2)(i)		NA	
C-3c(2)	Restricted Wastes Stored in Tanks	270.14(a); 264.73; 268.50(a)(2)(ii)		NA	
C-3c(3)	Storage of Liquid PCB Wastes	270.14(a); 264.73; 268.50(f)		NA	
C-3d	Exemptions, Extensions, and Variances to Land Disposal Restrictions			NA	
C-3d(1)	Case-by-Case Extensions to an Effective Date	270.14(b)(21); 268.5		NA	
C-3d(2)	Exemption from Prohibition	270.14(b)(21); 268.6		NA	
C-3d(3)	Variance from a Treatment Standard	270.14(a); 264.73; 268.7; 268.44		NA	
C-3d(4)	Requirements for Surface Impoundments Exempted from Land Disposal Restrictions	270.14(a); 264.13(b)(7); 268.4; 268.14		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION C. WASTE CHARACTERISTICS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
C-3d(4)(a)	Exemption for Newly Identified or Listed Wastes	270.14(a); 264.13; 268.14	If owner/operator continues to treat newly listed or characteristic hazardous waste after 48 months from promulgation of new waste listing or characteristic, surface impoundment must be in compliance with 268.4.	NA	
C-3d(4)(b)	Treatment of Wastes	270.14(a); 264.13; 268.4(a)(1),(b)		NA	
C-3d(4)(c)	Sampling and Testing	270.14(a); 264.13(b)(6); 268.4(a)(2)(i),(iv)		NA	
C-3d(4)(d)	Annual Removal of Residues	270.14(a); 264.13(b)(7)(iii); 268.4(a)(2)(ii)		NA	
C-3d(4)(e)	Design Requirements	270.14(a); 264.13; 268.4(a)(3),(4)		NA	

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SECTION D. PROCESS INFORMATION - CONTAINERS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-1	Containers	270.15; 264.170		B.D	
D-la	Containers with Free Liquids	270.15; 264.175(a),(b)	Containers storing waste with free liquids must meet secondary containment requirements of 264.175(b).	B.D	
D-1a(1)	Description of Containers	270.14(b)(1); 264.171,172	Specify numbers of containers, sizes, and specifications.	B.D	
D-1a(2)	Container Management Practices	270.14(a); 264.173	Containers must be kept closed and must not be handled in any manner which could cause them to rupture or leak. Specify aisle space and stacking height.	B.D	
D-1a(3)	Secondary Containment System Design and Operation	270.15(a)(1); 264.175(a),(d)	Provide detailed design and profile drawings showing container storage areas.	B.D	
D-1a(3)(a)	Requirement for the Base or Liner to Contain Liquids	270.15; 264.175(b)(1)	Demonstrate that base is impervious to waste stored and precipitation.	B.D	
D-1a(3)(b)	Containment System Drainage	270.15(a)(2); 264.175(b)(2)	Containment system must be designed and operated to remove liquids resulting from leaks, spills, or precipitation.	B.D	
D-1a(3)(c)	Containment System Capacity	270.15(a)(3); 264.175(b)(3)	Containment system must have capacity to hold 10 percent of container volume or volume of the largest container, whichever is greater.	B.D	
D-1a(3)(d)	Control of Runon	270.15(a)(4); 264.175(b)(4)	Runon from storm water must be prevented unless containment system has sufficient excess capacity.	B.D	
D-1a(3)(e)	Removal of Liquids from Containment System	270.15(a)(5); 264.175(b)(5)	Accumulated liquids must be removed in timely manner to prevent containment system from overflowing.	B.D	
D-1b	Containers without Free Liquids			B.D	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - CONTAINERS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-1b(1)	Test for Free Liquids	270.15(b)(1)	Documentation that waste does not contain free liquids must be provided by test results or other information.	B.D	
D-1b(2)	Description of Containers	270.14(a); 264.171; 264.172	Describe numbers, sizes, and specifications of containers.	B.D	
D-1b(3)	Container Management Practices	270.14(a); 264.173	Same comment as D-1a(2).	B.D	
D-1b(4)	Container Storage Area Drainage	270.15(b)(2); 264.175(c)	Same comment as D-1a(3)(b).	B.D	

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - TANKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-2	Tank Systems	270.16; 264.191 - 194		NA	
D-2a	Tank Systems Descriptions	270.14(b)(1)	Describe type (aboveground, underground) and specific location of each tank.	NA	
D-2a(1)	Dimensions and Capacity of each Tank	270.16(b)		NA	
D-2a(2)	Description of Feed Systems, Safety Cutoff, Bypass Systems, and Pressure Controls	270.16(c); 264.194(b)		NA	
D-2a(3)	Diagram of Piping, Instrumentation, and Process Flow	270.16(d)		NA	
D-2a(4)	Ignitable, Reactive, and Incompatible Wastes	270.16(j); 264.17(b); 264.198,199	Demonstrate that waste is stored or treated in a way that protects against ignition or reaction.	NA	
D-2b	Existing Tank Systems			NA	
D-2b(1)	Assessment of Existing Tank System's Integrity	270.16(a); 264.191	A written tank assessment must be certified by an independent, qualified, registered professional engineer.	NA	
D-2c	New Tank System			NA	
D-2c(1)	Assessment of New Tank System's Integrity	270.16(a),(e); 264.192(a)	A written tank assessment must be certified by an independent, qualified, registered professional engineer.	NA	
D-2c(2)	Description of Tank System Installation and Testing Plans and Procedures	270.16(f); 264.192(b) - (e)	A new tank installation must be inspected by an independent, qualified, installation inspector or registered professional engineer.	NA	
D-2d	Containment and Detection of Releases	270.16(g); 264.193	Leak detection system must be capable of detecting leaks within 24 hours.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - TANKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-2d(1)	Plans and Description of the Design, Construction, and Operation of the Secondary Containment System	270.16(g); 264.193(b) - (f)		NA	
D-2d(1)(a)	Tank Age Determination	270.16(g); 264.193(a)	Age of each tank must be accurately determined to ascertain when secondary containment requirements apply.	NA	
D-2d(1)(b)	Requirements for Secondary Containment and Leak Detection	270.16(g); 264.193(b),(c); 264.1101(b)(3)(iii)	A detailed description of the construction, installation, and operation of the secondary containment system is required.	NA	
D-2d(1)(c)	Requirements for External Liner, Vault, Double-walled Tank or Equivalent Device	270.16(g); 264.193(d),(e)	Secondary containment must consist of liner, vault, double-walled tank, or equivalent device approved by regional administrator.	NA	
D-2d(1)(d)	Secondary Containment and Leak Detection Requirements for Ancillary Equipment	270.16(g); 264.193(f)	Secondary containment is required for ancillary equipment except as provided in 264.193(f).	NA	
D-2d(1)(e)	Containment Buildings Used as Secondary Containment for Tank Systems	270.16(g); 264.1101(b)(3)(iii)	A containment building can serve as secondary containment for a tank system provided it meets requirements of 264.193(b),(c)(1&2),(d)(1).	NA	
D-2d(2)	Requirements for Tank Systems until Secondary Containment is Implemented	270.16(h); 264.193(i)	Annual leak tests are required until secondary containment is provided.	NA	
D-2d(3)	Variance from Secondary Containment Requirements	270.16(h); 264.193(g)		NA	
D-2d(3)(a)	Variance Based on a Demonstration of Equivalent Protection of Groundwater and Surface Water	270.16(h)(1); 264.193(g)(1),(h)	Detailed plans and engineering and hydrogeologic reports are required to demonstrate equivalent protection of groundwater and surface water.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - TANKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-2d(3)(b)	Variance Based on a Demonstration of No Substantial Present or Potential Hazard	270.16(h)(2); 264.193(g)(2),(h)	Provide detailed assessment of substantial present or potential hazards posed to human health or the environment, should a release enter the environment.	NA	
D-2d(3)(c)	Exemption Based on No Free Liquids and Location Inside a Building	270.16(h); 264.190(a)	Demonstrate that tanks used to treat or store hazardous waste contain no free liquid as defined by Paint Filter Test (SW-846 Method 9095).	NA	
D-2e	Controls and Practices to Prevent Spills and Overflows	270.16(i); 264.194(a),(b); 264.195	Provide detailed description of controls and practices used to prevent spills and overflows.	NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3	Waste Piles	270.18; 264.250 - 259		NA	
D-3a	List of Wastes	270.18(a)	List all hazardous waste to be placed in waste piles.	NA	
D-3b	Liner Exemption	270.18(b)		NA	
D-3b(1)	Enclosed Dry Piles	270.18(b); 264.250(c)	Demonstrate that neither runoff, nor leachate is generated from the pile.	NA	
D-3b(1)(a)	Protection from Precipitation	270.18(b); 264.250(c)	Demonstrate that pile is inside or under structure that provides complete protection from precipitation.	NA	
D-3b(1)(b)	Free Liquids	270.18(b); 264.250(c)(1)	Demonstrate that neither liquids, nor materials containing free liquids are placed in the pile.	NA	
D-3b(1)(c)	Runon Protection	270.18(b); 264.250(c)(2)	Demonstrate that pile is protected from surface water runon.	NA	
D-3b(1)(d)	Wind Dispersal Control	270.18(b); 264.250(c)(3)	Demonstrate that pile design and operation controls wind dispersal of waste.	NA	
D-3b(1)(e)	Leachate Generation	270.18(b); 264.250(c)(4)	Demonstrate that pile will not generate leachate through decomposition or other reactions.	NA	
D-3b(2)	Exemption for Monofills	270.18(b); 264.251(e)	This exemption applies only to waste generated from foundry furnace emission controls or metal casting molding sand that are not hazardous waste for reasons other than toxicity characteristics.	NA	
D-3b(3)	Alternate Design/No Migration	270.18(c)(1); 264.251(b)	This exemption from liner requirements is based on documenting that design, operating practices, and local aspects will prevent migration of hazardous constituents into groundwater or surface water in the future.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3b(4)	Exemption Based on Alternative Design and Location	270.18(c)(1); 264.251(d)	Document that alternative design and operating practices, together with location characteristics, will prevent migration of any hazardous constituent into groundwater or surface water at least as effectively as a double liner with leachate detection system, and will allow detection of hazardous constituents through the top liner as least as effectively.	NA	
D-3b(5)	Exemption for Replacement Waste Piles	270.18(c); 264.251(f)	Demonstrate (1) that existing unit was constructed in compliance with design standards of Sections 3004(o)(1)(A)(i) and 3004(o)(5) of Resource Conservation and Recovery Act, and (2) there is no reason to believe that liner is not functioning as designed.	NA	
D-3c	Liner System	270.18(c)(1); 264.251(a)(1)(i),(c)	Describe liner system and demonstrate that flow of liquids through liner will be prevented.	NA	
D-3c(1)	Liner Description	270.18(c)(1); 264.251(a)(1)(i),(c)	Describe and draw liner system to demonstrate that any flow of liquids through the liner will be prevented.	NA	
D-3c(1)(a)	Synthetic Liners	270.18(c)(1); 264.251(a)(1),(c)(1)	Describe type, thickness, material, and brand name and manufacturer of liner.	NA	
D-3c(1)(b)	Soil Liner	270.18(c)(1); 264.251(a),(c)(1)(i)(B)	Describe bottom composite liner including its classification, thickness, and hydraulic conductivity.	NA	
D-3c(2)	Liner Location Relative to High Water Table	270.18(c)(1); 264.251(a)(1)(i)	Provide data showing seasonal fluctuations in depth to water table and the location of seasonal high water table in relation to liner system.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3c(3)	Calculation of Required Soil Liner Thickness	270.18(c)(1); 264.251(a)(1)(i)	Calculations using either numerical simulation techniques (unsaturated flow conditions) or Darcy Law-derived transit time equations (saturated flow conditions) must be provided.	NA	
D-3c(4)	Liner Strength Requirements	270.18(c)(1); 264.251(a)(1)(i)	Provide calculations showing minimum strength requirements for liners considering pressure gradients, installation and operating stresses, and climatic change stresses.	NA	
D-3c(5)	Liner Strength Demonstration	270.18(c)(1); 264.251(a)(1)(i)	Demonstrate that liner exceeds minimum strength requirements.	NA	
D-3c(6)	Liner/Waste Compatibility Testing Results	270.18(c)(1); 264.251(a)(1)(i)	Demonstrate that liner material is compatible with both waste and leachate.	NA	
D-3c(7)	Liner Installation	270.18(c)(1); 264.251(a)(1)(i)	Describe procedures for installing liner.	NA	
D-3c(7)(a)	Synthetic Liner Seaming	270.18(c)(1); 264.251(a)(1)(i)	Describe techniques to be used to bond membrane liner seams and the strength and chemical compatibility of seams with waste and leachate.	NA	
D-3c(7)(b)	Soil Liner Compaction	270.18(c)(1); 264.251(a)(1)(i)	Describe procedures for installing soil liner and compacting liner to achieve desired permeability. Include maximum height of lifts to be placed.	NA	
D-3c(7)(c)	Installation Inspection/testing Programs	270.18(c)(1); 264.254(a)	Describe quality assurance/quality control procedures to be used during liner installation.	NA	
D-3c(8)	Liner Coverage	270.18(c)(1); 264.251(a)(1)(iii)	Demonstrate that liner will be installed to cover all surrounding earth likely to be in contact with waste or leachate.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3c(9)	Liner Exposure Prevention	270.18(c)(1); 264.251(a)(1)(i)	Demonstrate that either the liner is protected from, or is resistant to, exposure to climatic conditions.	NA	
D-3c(10)	Synthetic Liner Bedding	270.18(c)(1); 264.251(a)(1)(i)	Demonstrate that sufficient bedding will be provided above and below liner to prevent rupture during installation and operation.	NA	
D-3d	Liner Foundation Report			NA	
D-3d(1)	Liner Foundation Design Description	270.18(c)(1); 264.251(a)(1)(ii)	Describe liner foundation design and materials of construction and ability to withstand expected static and dynamic loadings.	NA	
D-3d(2)	Subsurface Exploration Data	270.18(c)(1); 264.251(a)(1)(ii)	Verify engineering characteristics of foundation materials through subsurface exploration.	NA	
D-3d(3)	Laboratory Testing Data	270.18(c)(1); 264.251(a)(1)(ii)		NA	
D-3d(4)	Engineering Analyses	270.18(c)(1); 264.251(a)(1)(ii)		NA	
D-3d(4)(a)	Settlement Potential	270.18(c)(1); 264.251(a)(1)(ii)		NA	
D-3d(4)(b)	Bearing Capacity and Stability	270.18(c)(1); 264.251(a)(1)(ii)		NA	
D-3d(4)(c)	Potential for Bottom Heave or Blow-Out	270.18(c)(1); 264.251(a)(1)(ii)		NA	
D-3d(4)(d)	Construction and Operational Loading	270.18(c)(1); 264.251(a)(1)(ii)		NA	
D-3d(5)	Foundation Installation Procedures	270.18(c)(1); 264.251(a)(1)(ii)		NA	

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SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3d(6)	Foundation Installation Inspection Program	270.18(c)(1); 264.251(a)(1)(ii)	Describe quality assurance/quality control procedures to be used during foundation installation.	NA	
D-3e	Leachate Collection and Removal System	270.18(c); 264.251(a)(2),(c)(2)	Describe design and operation of system to collect and remove leachate from new portions of existing waste piles and from new waste piles.	NA	
D-3e(1)	Upper Leachate Collection and Removal System	270.18(c)(1); 264.251(a)(2),(c)(2)	Describe design and operating conditions to ensure that leachate depth over the liner does not exceed 1 foot.	NA	
D-3e(2)	Leachate Detection System	270.18(c)(1); 264.251(a)(2),(c)(3)	Describe design and operating features of leachate detection system.	NA	
D-3e(2)(a)	Grading and Drainage	270.18(c)(1); 264.251(a)(2); 264.221(c)(2)(ii)	Demonstrate that leak detection system design meets or exceeds specifications described in referenced regulations.	NA	
D-3e(3)	Chemical Resistance	270.18(c); 264.251(a)(2)(i)(A)(c)(3); 264.251(c)(3)	Demonstrate that all leachate collection and removal system components are chemically resistant to waste managed in the pile and the leachate expected to be generated.	NA	
D-3e(4)	Strength of Materials	270.18(c); 264.251(a)(2)(i)(B); 264.251(c)(3)	Demonstrate that system components are of sufficient strength and thickness to prevent collapse under expected static and dynamic loadings.	NA	
D-3e(5)	Prevention of Clogging	270.18(c); 264.251(a)(2)(ii); 264.251(c)(3)	Demonstrate that leachate collection and removal system's design and operation will prevent clogging throughout active life and post-closure period of waste pile.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3e(6)	Installation	270.18(c); 264.251(a)(2)	Describe installation methods and construction quality assurance/quality control procedures.	NA	
D-3e(7)	Maintenance	270.18(c); 264.251(a)(2)	Describe anticipated maintenance activities that will be used to assure proper leachate management system operation throughout pile's expected active life.	NA	
D-3e(8)	Liquid Removal	270.18(c); 264.251(c)(3)	Describe leachate removal system, including sumps and other equipment, and fate of the collected leachate.	NA	
D-3e(9)	Location Relative to Water Table	270.18(c); 264.251(c)(4)	Demonstrate that operation of leak detection system will not be adversely affected by presence of groundwater.	NA	
D-3f	Action Leakage Rate	270.18(c)(1)(v); 264.252	Action leakage rate must be approved by regional administrator based on system design.	NA	
D-3f(1)	Determination of Action Leakage Rate	270.18(c)(1)(v); 264.252(a)	Determine action leakage rate for waste pile units subject to 264.251(c),(d). Include adequate safety margin to allow for uncertainties in design, construction, operation, and location of leak detection system, waste and leachate characteristics, sources of other liquids in system, and proposed response actions.	NA	
D-3f(2)	Monitoring of Leakage	270.18(c)(1)(v); 264.252(b)	Weekly leachate flow rate data must be converted to average daily flow rate.	NA	
D-3g	Leakage Response Action Plan	270.18(c)(1)(v); 264.253		NA	
D-3g(1)	Response Action	270.18(c)(1)(v); 264.253(a)	Provide response action plan to describe actions to be taken if flow rate into leak detection system exceeds action leakage rate.	NA	

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SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3g(2)	Leak and/or Remedial Determinations	270.18(c)(1)(v); 264.253(b),(c)	Response action plan must describe actions to be taken to comply with 264.223(b),(c) if the action leakage rate is exceeded.	NA	
D-3g(3)	Notifications	270.18(c)(1)(v); 264.253(b)	Response action plan must indicate that regional administrator will be (1) notified in writing within 7 days of determining that action leakage rate has been exceeded, (2) provided with preliminary assessment and action plan within 14 days of initial determination that action leakage rate has been exceeded, and (3) provided with status report within 30 days after original notification that action leakage rate has been exceeded. Regional administrator must receive monthly status reports for as long as flow rate exceeds action leakage rate.	NA	
D-3h	Runon Control System	270.18(c)(2); 264.251(g)	Describe system that will be used to prevent runon into active portions of piles.	NA	
D-3h(1)	Calculation of Peak Flow	270.18(c)(2); 264.251(g)	Identify peak surface water flow expected to result from 25-year design storm. Describe data sources and methods used to make peak flow calculation.	NA	
D-3h(2)	Design and Performance	270.18(c)(2); 264.251(g)	Demonstrate that runon control system design will prevent runon from reaching active portions of unit.	NA	
D-3h(3)	Construction	270.18(c)(2); 264.251(g)	Describe runon control system construction methods and any construction quality assurance/quality control procedures.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3h(4)	Maintenance	270.18(c)(2); 264.251(g)	Describe any maintenance activities required to assure continued proper runon system operation throughout unit's active life.	NA	
D-3i	Runoff Control System	270.18(c)(3); 264.251(h)	Describe the runoff control system to be used to collect and control runoff from active portions.	NA	
D-3i(1)	Calculation of Peak Flow	270.18(c)(3); 264.251(h)	Identify the total runoff volume expected to result from a 24-hour, 25-year storm, and include data sources and methods used to make peak flow calculation.	NA	
D-3i(2)	Design and Performance	270.18(c)(3); 264.251(h)	Demonstrate that system has sufficient capacity to collect and hold total runoff volume calculated in D-3i(1).	NA	
D-3i(3)	Construction	270.18(c)(3); 264.251(h)	Describe runoff system construction methods and any construction quality assurance/quality control procedures.	NA	
D-3i(4)	Maintenance	270.18(c)(3); 264.251(h)	Describe any maintenance activities required to assure continued proper runoff system operation throughout unit's active life.	NA	
D-3j	Management of Collection and Holding Units	270.18(c)(4); 264.251(i)	Describe how collection and holding facilities will be managed to maintain system design capacity.	NA	
D-3k	Control of Wind Dispersal	270.18(c)(5); 264.251(j)	Describe how pile is covered or otherwise managed to control wind dispersal.	NA	
D-3l	Groundwater Monitoring Exemption	270.18(b); 264.90(b)(2)	To receive exemption from groundwater monitoring requirements of Subpart F, conditions specified in D-3l(1) through D-3l(7) must be met.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3l(1)	Engineered Structure	270.18(b); 264.90(b)(2)(i)	Provide design data showing that unit is engineered structure.	NA	
D-3l(2)	No Liquid Wastes	270.18(b); 264.90(b)(2)(ii)	Describe procedures for ensuring that no liquid waste or waste containing free liquids will be received by, or contained in, unit.	NA	
D-3l(3)	Exclusion of Liquids	270.18(b); 264.90(b)(2)(iii)	Demonstrate how liquids, precipitation, and other runon and runoff will be excluded from unit.	NA	
D-3l(4)	Containment System	270.18(b); 264.90(b)(2)(iv)	Describe containment system (both inner and outer layers) that will enclose waste.	NA	
D-3l(5)	Leak Detection System	270.18(b); 264.90(b)(2)(v)	Describe design and operating data demonstrating leak detection system built into each containment layer.	NA	
D-3l(6)	Operation of Leak Detection System	270.18(b); 264.90(b)(2)(vi)	Demonstrate means for ensuring continuing operation and maintenance of leak detection systems during active life of unit and closure and post-closure care periods.	NA	
D-3(7)	No Migration	270.18(b); 264.90(b)(2)(vii)	Demonstrate to reasonable degree of certainty that unit will not allow hazardous constituents to migrate beyond outer layer of containment system prior to end of post-closure care period.	NA	
D-3m	Treatment Within the Pile	270.18(e)	If any treatment is conducted in pile, provide descriptions specified in D-3m(1) through D-3m(3).	NA	
D-3m(1)	Treatment Process Description	270.18(e)	Describe the process by which wastes are treated and the effect of the treatment on the wastes.	NA	

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SECTION D. PROCESS INFORMATION - WASTE PILES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-3m(2)	Equipment Used	270.18(e)	Describe any equipment or other materials required to initiate or promote treatment.	NA	
D-3m(3)	Residuals Description	270.18(e)	Describe nature and quantity of waste remaining in pile after treatment is complete.	NA	
D-3n	Special Waste Management Plan for Piles Containing Wastes F020, F021, F022, F023, F026, and F027	270.18(i); 264.259	If waste pile is not enclosed, provide plan describing how pile will be designed, constructed, operated, and maintained in order to protect human health and environment.	NA	
D-3n(1)	Waste Description	270.18(i)(1); 264.259(a)(1)	Identify volume, physical, and chemical characteristics of waste, including potential to migrate through soil or volatilize or escape into atmosphere.	NA	
D-3n(2)	Soil Description	270.18(i)(2); 264.259(a)(2)	Describe attenuative properties of underlying and surrounding soils or other materials.	NA	
D-3n(3)	Mobilizing Properties	270.18(i)(3); 264.259(a)(3)	Describe mobilizing properties of other materials codisposed of with this waste.	NA	
D-3n(4)	Additional Management Techniques	270.18(i)(4); 264.259(a)(4)	Document effectiveness of additional treatment, design, operating, or monitoring techniques.	NA	
D-3o	Construction Quality Assurance Program	270.18(c)(iv); 264.19	Provide written construction quality assurance program to comply with regulations found in 264.19.	NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4	Surface Impoundments			NA	
D-4a	List of Wastes	270.17(a)	Provide list of all hazardous waste placed, or to be placed, in surface impoundments.	NA	
D-4b	Liner System Exemption Requests	270.17(b)		NA	
D-4b(1)	Exemption Based on Existing Portion	270.17(b)(1); 264.221(c)	Existing portions of surface impoundments with waste in place on November 8, 1994, and having only vertical expansion are exempted from liner system requirements. New units, lateral expansion of existing units, and replacement units at existing facilities are not exempt. Provide plan indicating limits of existing portions.	NA	
D-4b(2)	Exemption Based on Alternative Design and Location	270.17(b)(1); 264.221(d)		NA	
D-4b(3)	Exemption for Replacement Surface Impoundments	270.17(b); 264.221(f)		NA	
D-4c	Liner System, General Items	270.17(b)(1)	Provides discussion of the following items that apply to liner system as a whole.	NA	
D-4c(1)	Liner System Description	270.17(b)(1)	Provide detailed description of liner system, demonstrating that any flow of liquids into and through liners will be prevented. The liner system includes liner foundation, bottom composite liner, leachate detection system, top synthetic liner, and any protective layer placed to protect top synthetic liner.	NA	
D-4c(2)	Liner System Location Relative to High Water Table	270.17(b)(1), (3); 264.221(a)	Provide geological cross sections showing groundwater levels with seasonal fluctuations and liner foundation elevations.	NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4c(3)	Load on Liner System	270.17(b)(1); 264.221(a)(1),(b)	Provide results of calculations defining maximum loads or stresses that will be placed on liner system.	NA	
D-4c(4)	Liner System Coverage	270.17(b)(1); 264.221(a)(1), (b)	Demonstrate that liner system will be installed to cover all surrounding earth likely to be in contact with waste or leachate.	NA	
D-4c(5)	Liner System Exposure Prevention	270.17(b)(1); 264.221(a)(1), (b)	Demonstrate that liner system will not be exposed to elements, or that if exposed, exposure will not result in unacceptable degradation of system.	NA	
D-4d	Liner System Foundation			NA	
D-4d(1)	Foundation Description	270.17(b)(1); 264.221(a)(2)	Describe foundation for liner system, including materials, and indicate bearing elevations and any load-bearing embankments placed to support liner system.	NA	
D-4d(2)	Subsurface Exploration Data	270.17(b)(1); 264.221(a)(2)	The engineering characteristics of liner system foundation materials should be verified through subsurface explorations. Provide information to fully describe these efforts.	NA	
D-4d(3)	Laboratory Testing Data	270.17(b)(1); 264.221(a)(2)	Provide index testing results to classify site materials and lab test data to evaluate engineering properties of foundation materials. Provide references to standard test procedures.	NA	
D-4d(4)	Engineering Analyses	270.17(b)(1); 264.221(a)(2)	Provide engineering analyses based on subsurface exploration and laboratory testing data. Include discussion of methods used, assumptions, copies of calculations, and appropriate references.	NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4d(4)(a)	Settlement Potential	270.17(b)(1); 264.221(a)(2)	Provide estimates of total and differential settlement of liner system foundation.	NA	
D-4d(4)(b)	Bearing Capacity	270.17(b)(1); 264.221(a)(2)	Provide analysis of allowable bearing capacity of liner system foundation.	NA	
D-4d(4)(c)	Potential for Excess Hydrostatic or Gas Pressure	270.17(b)(1); 264.221(a)(2)	Provide estimates of potential or bottom heave or blow-out of liner system or line foundation due to unequal hydrostatic or gas pressures.	NA	
D-4e	Liner System, Liners			NA	
D-4e(1)	Synthetic Liners	270.17(b)(1); 264.221(a),(c)	For each synthetic liner in system or under consideration, provide the following general information: thickness; type; material; brand name; and manufacturer.	NA	
D-4e(1)(a)	Synthetic Liner Compatibility Data	270.17(b)(1); 264.221(a)(1)	Provide summary and discussion of test results and conclusions as to suitability of synthetic liner based on liner/waste compatibility testing.	NA	
D-4e(1)(b)	Synthetic Liner Strength	270.17(b)(1); 264.221(a)(1)	Provide data showing that synthetic liners, including seams, have sufficient strength after exposure to waste and waste leachate.	NA	
D-4e(1)(c)	Synthetic Liner Bedding	270.17(b)(1); 264.221(a)(2)	Demonstrate that sufficient bedding will be provided above and below the synthetic liners to prevent rupture during installation and operation. Synthetic membrane of bottom composite liner should be placed directly on soil portion.	NA	
D-4e(2)	Soil Liners	270.17(b)(1); 264.221(a); (c)(1)	Describe soil portion of bottom composite liner, including classification, thickness, hydraulic conductivity, and material specifications.	NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4e(2)(a)	Material Testing Data	270.17(b)(1); 264.221(c)	Provide complete results for index tests, laboratory and/or in situ permeability tests, strength tests, consolidation tests, and shrink-swell properties of soil liner material. Discuss potential for dispersion and piping of soil due to flow of liquid through soil liner layer.	NA	
D-4e(2)(b)	Soil Liner Compatibility Data	270.17(b)(1); 264.221(a)(1)	Provide complete results of permeability testing of soil liner material using representative of leachate from surface impoundment.	NA	
D-4e(2)(c)	Soil Liner Strength	270.17(b)(1); 264.221(a)(1)	Demonstrate that soil liner has sufficient strength to support loads/stresses computed in item D-4c(3).	NA	
D-4f	Liner System, Leachate Detection System	270.17(b)(1); 264.221(c)(2)		NA	
D-4f(1)	Systems Operation and Design	270.17(b)(1); 264.221(c)(2),(4)	Describe design features of leachate detection system and how system will function to detect any leakage through either liner in timely manner.	NA	
D-4f(2)	Drainage Material	270.17(b)(1); 264.221(c)(2)(ii)	Describe leachate detection system drainage material.	NA	
D-4f(3)	Grading and Drainage	270.17(b)(1); 264.221(c)(2)	Indicate slopes of leachate detection system and provide contour plan for system along with plan showing layout and spacing of piping system and any sumps, pumps, etc. Demonstrate that leak detection system is appropriately graded to assure that leakage at any point in liner system is detected in timely manner.	NA	
D-4f(4)	System Compatibility	270.17(b)(1); 264.221(c)(2)(iii)		NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4f(5)	System Strength			NA	
D-4f(5)(a)	Stability of Drainage Layers	270.17(b)(1); 264.221(c)(2)(iii)	Demonstrate that drainage layer of leachate detection system has sufficient soil-bearing capacity to support loads. Provide calculations showing that drainage layer placed on sloped surfaces of surface impoundment or foundations will be stable during construction.	NA	
D-4f(5)(b)	Strength of Piping	270.17(b)(1); 264.221(c)(2)(iii)	Demonstrate that pipes used in piping systems have sufficient strength to support loads as computed in item D-4c(3).	NA	
D-4f(6)	Prevention of Clogging	270.17(b)(1); 264.221(c)(2)(iv)		NA	
D-4f(7)	Liquid Removal	270.17(b)(1); 264.221(c)(2)(v), (c)(3)	Indicate fate of collected leachate, which is considered hazardous waste.	NA	
D-4f(8)	Location Relative to Water Table	270.17(b)(3); 264.221(c)(4)		NA	
D-4g	Liner System, Construction and Maintenance			NA	
D-4g(1)	Material Specifications	270.17(b)(1); 264.221(a)		NA	
D-4g(1)(a)	Synthetic Liners	270.17(b)(1); 264.221(a)	Provide detailed material specifications for specific synthetic liner(s) to be used.	NA	
D-4g(1)(b)	Soil Liners	270.17(b)(1); 264.221(a)	For soil liners constructed of borrowed material, provide specifications; for soil liners using in-place soil, provide specifications to be used to assure that all existing materials meet requirements of liner design.	NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4g(1)(c)	Leachate Detection System	270.17(b)(1); 264.221(a)	Provide material specifications for drainage layer material, filter fabric or filter layer, piping, and sumps.	NA	
D-4g(2)	Construction Specifications			NA	
D-4g(2)(a)	Liner System Foundation	270.17(b)(1); 264.221(a)	For installed foundations, provide construction specifications of foundation installation procedures. For units that use the in-place material for liner system foundation, provide construction specifications for preparation.	NA	
D-4g(2)(b)	Soil Liner	270.17(b)(1); 264.221(a),(a)(2)	Describe procedures for installing soil liner.	NA	
D-4g(2)(c)	Synthetic Liners	270.17(b)(1); 264.221(a); 264.226(a)(1)	Provide construction specifications for placement of synthetic liners.	NA	
D-4g(2)(d)	Leachate Detection System	270.17(b)(1); 264.221(a)	Provide construction specifications for placement of leachate detection system components, including drainage layers, piping, filter layers, sumps, pumps, etc.	NA	
D-4g(3)	Construction Quality Assurance (CQA) Program	270.17(b)(1),(4); 270.30(k)(2); 264.19; 264.226(a)	Provide complete details of CQA program to be used during construction of liner system to assure that it is built as designed.	NA	
D-4g(4)	Maintenance Procedures for Leachate Detection System	270.17(b)(1); 264.221(a)	Describe anticipated maintenance activities that will be used to assure proper operation of leachate detection systems throughout surface impoundment's expected life.	NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4g(5)	Liner Repairs During Operations	270.17(b)(1); 264.221(a)	Describe methods that will be used to repair any damage to liner that occurs while surface impoundment is in operation (such as a drag line ripping the liner during cleaning operations).	NA	
D-4h	Action Leakage Rate	270.17(b)(5); 264.222		NA	
D-4h(1)	Determination of Action Leakage Rate	270.17(b)(5); 264.222(a)	Identify action leakage rate for surface impoundment units subject to liner system provisions of 264.221(c) and 264.221(d).	NA	
D-4h(2)	Monitoring of Leakage	270.17(b)(5); 264.222(b)		NA	
D-4i	Leakage Response Action Plan	270.17(b)(5); 264.223		NA	
D-4i(1)	Response Action	270.17(b)(5); 264.223(a)		NA	
D-4i(2)	Leak and/or Remedial Determinations	270.17(b)(5); 264.223(b),(c)		NA	
D-4i(3)	Notifications	270.17(b)(5); 264.223(b)		NA	
D-4j	Prevention of Overtopping	270.17(b)(6); 264.221(g)	Describe design and/or operating procedures that will protect against impoundment overtopping/overflow.	NA	
D-4j(1)	Design Features	270.17(b)(6); 264.221(g)	Describe design features used to prevent overtopping, such as spillways or weirs for flow-through systems, automatic or manual controls, and sensors and alarms.	NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4j(2)	Operating Procedure	270.17(b)(6); 264.221(g)	If operating procedures are instrumental to preventing overtopping, describe those procedures.	NA	
D-4j(3)	Overtopping Prevention	270.17(b)(6); 264.221(g)	Unless foolproof controls are used to prevent overtopping, provide results of calculations showing that adequate freeboard will be available following 100-year, 24-hour storm event.	NA	
D-4j(4)	Freeboard Requirements	270.17(b); 264.221(g)	Freeboard requirements associated with normal and extreme wind activity should be determined unless automatic controls are used and freeboard equals or exceeds 2 feet.	NA	
D-4j(5)	Outflow Destination	270.17(b); 264.221(g)	Describe fate of liquids released through flow control devices. Identify location to which waste would be moved in event of emergency.	NA	
D-4k	Dike Stability			NA	
D-4k(1)	Engineer's Certification	270.17(d); 264.226(c)		NA	
D-4k(2)	Dike Design Description	270.17(b)(7); 264.221(h)	Provide data and/or drawings specifying design layout of the dikes and their components, including materials of construction. Determine capability of dikes to withstand failure from expected static and dynamic loadings and effects of erosion.	NA	
D-4k(3)	Erosion and Piping Protection	270.17(b); 264.221(h)	Demonstrate that dikes are designed and constructed to minimize erosion and piping, and to prevent failure due to excessive erosion. Describe procedures for correcting erosion problems identified during unit's operating life.	NA	

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SECTION D. PROCESS INFORMATION - SURFACE IMPOUNDMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-4k(4)	Subsurface Soil Conditions	270.17(b)(7); 264.221(h)	Engineering characteristics of dike foundation materials should be verified through testing and subsurface explorations, as necessary. These explorations may include: test borings; test pits or trenches; in situ tests; and geophysical exploration methods.	NA	
D-4k(5)	Stability Analysis	270.17(b); 264.221(h)	Describe stability analyses and results for the following conditions, as appropriate: foundation soil bearing failure of settlement; failure in dike slopes; failure of impoundment cut slopes; build-up of hydrostatic pressure due to failure of drainage system, dike cover, and liner; and rapid drawdown.	NA	
D-4k(6)	Strength and Compressibility Test Results	270.17(b); 264.221(h)	Provide results of strength and consolidation tests on dike materials together with description of sampling procedures and test methods.	NA	
D-4k(7)	Dike Construction Procedures	270.17(b); 264.221(h)	Describe methods to be used to construct dikes at new units.	NA	
D-4k(8)	Dike Construction Inspection Program	270.17(b); 264.221(h)	Describe inspection, monitoring, sampling and testing methods, and frequencies to be used during dike construction to assure that new dikes meet design requirements.	NA	
D-4l	Special Waste Management Plan for Surface Impoundments Containing Wastes F020, F021, F022, F023, F026, and F027	270.17(i); 264.231(a)		NA	

Notes:
[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

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SECTION D. PROCESS INFORMATION - INCINERATORS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-5	Incinerators	270.19; 264.340 - 264.351		NA	
D-5a	Justification for Exemption	270.19(a)	To justify exemption under 264.340(b) or (c), document the following: (1) waste contains no, or insignificant, concentrations of Part 261, Appendix VIII materials; and (2) waste is considered hazardous solely because it is (a) ignitable and/or corrosive, or (b) reactive.	NA	
D-5b	Trial Burn	270.19(b)		NA	
D-5b(1)	Trial Burn Plan	270.19(b)	Submit trial burn plan or results of trial burn, including all required determinations.	NA	
D-5b(1)(a)	Detailed Engineering Description of Incinerator	270.62(b)(2)(ii)	Provide information per regulatory citation. Also, include process and instrumentation diagram.	NA	
D-5b(1)(b)	Sampling and Monitoring Procedures	270.62(b)(2)(iii)	Describe sampling and monitoring procedures during trial burn per regulatory citation. Sampling and analysis methods approved by the U.S. Environmental Protection Agency (EPA) must be used or, alternatively, a demonstration of equivalence with EPA-approved methods must be made.	NA	
D-5b(1)(c)	Trial Burn Schedule	270.62(b)(2)(iv)		NA	
D-5b(1)(d)	Test Protocols	270.62(b)(2)(v)		NA	
D-5b(1)(e)	Pollution Control Equipment Operation	270.62(b)(2)(vi)		NA	
D-5b(1)(f)	Shutdown Procedures	270.62(b)(2)(vii)		NA	
D-5c	Data Submitted in Lieu of Trial Burn	270.19(c)	Provide information per regulatory citation in lieu of trial burn plan.	NA	

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SECTION D. PROCESS INFORMATION - INCINERATORS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-5c(1)	Detailed Engineering Description of Incinerator	270.19(c)(2)	Provide information per regulatory citation. Also, include process and instrumentation diagram.	NA	
D-5c(2)	Expected Incinerator Operation	270.19(c)(6)		NA	
D-5c(3)	Design and Operating Conditions	270.19(c)(4)		NA	
D-5c(4)	Previous Trial Burn Results	270.19(c)(5)	Describe results from all previously conducted, approved trial burns.	NA	
D-5d	Determinations	270.62(b)(7)		NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6	Landfills	270.21; 264.300 - 264.317		NA	
D-6a	List of Wastes	270.21(a)		NA	
D-6b(1)	Exemption Based on Existing Portion	270.21(b)(1); 264.301(a)	Existing portions of landfills that have waste in place on November 8, 1984, and will have only vertical expansion are exempted from liner system requirements. Provide plan showing limits of existing portion.	NA	
D-6b(2)	Exemption Based on Alternative Design and Location	270.21(b)(1); 264.301(d)		NA	
D-6b(3)	Exemption for Replacement Landfill Unit	270.21(b)(1); 264.301(f)		NA	
D-6b(4)	Exemption for Monofills	270.21(b)(1); 264.301(e)		NA	
D-6b(5)	Groundwater Monitoring Exemption	270.21(c); 264.90(b)(2)	If exemption from Subpart F groundwater monitoring requirements is sought, provide data demonstrating that the following conditions are met.	NA	
D-6b(5)(a)	Engineered Structure	270.21(c); 264.90(b)(2)(i)	Provide design data showing that unit for which exemption is sought is an engineered structure.	NA	
D-6b(5)(b)	No Liquid Waste	270.21(c); 264.90(b)(2)(ii)	Describe procedures for ensuring that no liquid waste or waste containing free liquids will be received by, or contained, in the unit.	NA	
D-6b(5)(c)	Exclusion of Liquids	270.21(c); 264.90(b)(2)(iii)	Provide design and operating data demonstrating how liquids, precipitation, and other runon and runoff will be excluded from the unit.	NA	

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6b(5)(d)	Containment System	270.21(c); 264.90(b)(2)(iv)	Describe containment system (both inner and outer layers) that will enclose waste.	NA	
D-6b(5)(e)	Leak Detection System	270.21(c); 264.90(b)(2)(v)	Describe design and operating data demonstrating leak detection system built into each containment layer.	NA	
D-6b(5)(f)	Operation of Leak Detection System	270.21(c); 264.90(b)(2)(vi)	Demonstrate means for ensuring continuing operation and maintenance of leak detection systems during active life of unit and closure and post-closure care periods.	NA	
D-6b(5)(g)	No Migration	270.21(c); 264.90(b)(2)(vii)	Demonstrate that unit will not allow hazardous constituents to migrate beyond outer layer of containment system prior to end of post-closure care period.	NA	
D-6c	Liner System, General Items	270.21(b)(1); 264.301(a),(c)	Discuss the items that apply to liner system as a whole.	NA	
D-6c(1)	Liner System Description	270.21(b)(1); 264.301(a),(c)	Provide detailed description of liner system, demonstrating that any flow of liquids into and through liners will be prevented. Liner system includes liner foundation, bottom composite liner, leachate detection system, top synthetic liner, and any protective layer placed to protect leachate collection system from damage.	NA	
D-6c(2)	Liner System Location Relative to High Water Table	270.21(b)(1); 264.301(a)(1)(i)	Provide geological cross sections showing groundwater levels with seasonal fluctuations and liner foundation elevations.	NA	

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Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6c(3) Loads on Liner System	270.21(b)(1); 264.301(a)(1)(i)	Provide results of calculations defining maximum loads or stresses that will be placed on liner system considering: C both static and dynamic loads C stresses due to installation or construction C stresses resulting from operating equipment C stresses due to maximum quantity of waste, cover, and proposed post-closure land use C stresses resulting from settlement, subsidence, or uplift C internal and external pressure gradients.	NA	
D-6c(4) Liner System Coverage	270.21(b)(1); 264.301(a)(1)(iii)		NA	
D-6c(5) Liner System Exposure Prevention	270.21(b)(1); 264.301(a)(1)(i)	Demonstrate that the liner system will not be exposed to wind or sunlight or, if exposure to any part of the system is to be permitted, that such exposure will not result in unacceptable degradation of that portion of the system.	NA	
D-6d Liner System, Foundation			NA	
D-6d(1) Foundation Description	270.21(b)(1); 264.301(a)(1)(ii)	Describe foundation for liner system, including foundation materials and indicate bearing elevations on geological and construction drawings. Indicate any load-bearing embankments placed to support liner system.	NA	

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6d(2)	Subsurface Exploration Data	270.21(b)(1); 264.301(a)(1)(ii)	Verify engineering characteristics of liner system foundation materials through subsurface explorations. Provide information to fully describe these efforts.	NA	
D-6d(3)	Laboratory Testing Data	270.21(b)(1); 264.301(a)(1)(ii)	Provide index testing results to classify site materials and lab test data to evaluate engineering properties of foundation materials. Provide references to standard test procedures.	NA	
D-6d(4)	Engineering Analyses	270.21(b)(1); 264.301(a)(1)(ii)	Provide engineering analyses based on subsurface exploration and laboratory testing data. Include discussion of methods used, assumptions, copies of calculations, and appropriate references.	NA	
D-6d(4)(a)	Settlement Potential	270.21(b)(1); 264.301(a)(1)(ii)	Provide estimates of total and differential settlement of liner system foundation. Consider stresses imposed by liner system and applicable stresses computed in item D-6c(3).	NA	
D-6d(4)(b)	Bearing Capacity	270.21(b)(1); 264.301(a)(1)(ii)	Provide analysis of allowable bearing capacity of liner system foundation.	NA	
D-6d(4)(c)	Stability of Landfill Slopes	270.21(b)(1); 264.301(a)(1)(ii)	Provide, as appropriate, analyses of stability of: C excavated slopes for units constructed below grade C embankment slopes for units constructed with earthen dikes or berms C landfill slopes consisting of liner system or cover system placed on waste.	NA	
D-6d(4)(d)	Potential for Excess Hydrostatic or Gas Pressure	270.21(b)(1); 264.301(a)(1)(ii)	Provide estimates of potential for bottom heave or blow-out of liner system due to unequal hydrostatic or gas pressures.	NA	
D-6e	Liner System, Liners			NA	

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6e(1)	Synthetic Liners	270.21(b)(1); 264.301(a)(1)(ii),(c)	For each synthetic liner in system or under consideration, provide following general information: thickness; type; material; brand name; and manufacturer.	NA	
D-6e(1)(a)	Synthetic Liner Compatibility Data	270.21(b)(1); 264.301(a)(1)(i)	Provide summary and discuss test results and conclusions as to suitability of synthetic liner based on liner/waste compatibility testing.	NA	
D-6e(1)(b)	Synthetic Liner Strength	270.21(b)(1); 264.301(a)(1)(i)	Provide data showing that synthetic liners, including seams, have sufficient strength after exposure to waste and waste leachate.	NA	
D-6e(1)(c)	Synthetic Liner Bedding	270.21(b)(1); 264.301(a)(1)(ii)	Demonstrate that sufficient bedding will be provided above and below synthetic liners to prevent rupture during installation and operation. Synthetic membrane of bottom composite liner should be placed directly on soil portion.	NA	
D-6e(2)	Soil Liners	270.21(b)(1); 264.301(a),(c)	Provide description of soil portion of bottom composite liner, including its classification, thickness, hydraulic conductivity, and material specifications.	NA	
D-6e(2)(a)	Material Testing Data	270.21(b)(1); 264.301(c)	Provide complete results for index tests, laboratory and/or in situ permeability tests, strength tests, consolidation tests, and shrink-swell properties of soil liner material. Discuss potential for dispersion and piping of soil due to flow of liquid through soil liner layer.	NA	
D-6e(2)(b)	Soil Liner Compatibility Data	270.21(b)(1); 264.301(a)(1)(i); 264.301(c)(3)(iii)	Provide complete test results of permeability testing of soil liner material using representative of leachate from surface impoundment.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6e(2)(c)	Soil Liner Strength	270.21(b)(1); 264.301(a)(1)(i); 264.301(c)(3)(iii)	Demonstrate that soil liner has sufficient strength to support loads/stresses computed in item D-4c(3).	NA	
D-6f	Liner System, Leachate Collection/Detection Systems	270.21(b)(1); 264.301(a)(2); 264.301(c)(2),(3)		NA	
D-6f(1)	System Operation and Design	270.21(b)(1); 264.301(a)(2); 264.301(c)(2),(3)	Describe design features of leachate detection system and how system will function to detect any leakage through either liner in timely manner.	NA	
D-6f(2)	Drainage Material	270.21(b)(1); 264.301(a)(2),(c)(3)(ii)	Describe leachate detection system drainage material.	NA	
D-6f(3)	Grading and Drainage	270.21(b)(1); 264.301(a)(2),(c)(2),(3)	Indicate slopes of leachate detection system and provide contour plan for system along with plan showing layout and spacing of piping system and any sumps, pumps, etc. Demonstrate that leak detection system is appropriately graded to assure that leakage at any point in liner system is detected in timely manner.	NA	
D-6f(4)	Maximum Leachate Head	270.21(b)(1); 264.301(a)(2),(c)(2)		NA	
D-6f(5)	Systems Compatibility	270.21(b)(1); 264.301(a)(2)(i)(A),(c)(3)(iii)		NA	
D-6f(6)	Systems Strength	270.21(b)(1); 264.301(a)(2)(i)(B),(c)(3)(iii)		NA	

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6f(6)(a)	Stability of Drainage Layers	270.21(b)(1); 264.301(a)(2)(i)(B), (c)(3)(iii)		NA	
D-6f(6)(b)	Strength of Piping	270.21(b)(1); 264.301(a)(2)(i)(B), (c)(3)(iii)	Demonstrate that pipe used in piping systems have sufficient strength to support loads as computed in item D-6c(3).	NA	
D-6f(7)	Prevention of Clogging	270.21(b)(1); 264.301(a)(2)(ii), (c)(3)(iv)		NA	
D-6f(8)	Liquid Removal	270.21(b)(1); 264.301(c)(3)(v),(4)		NA	
D-6f(9)	Location Relative to Water Table	270.21(b)(1)(iii); 264.301(c)(5)		NA	
D-6g	Liner System, Construction and Maintenance			NA	
D-6g(1)	Material Specifications			NA	
D-6g(1)(a)	Synthetic Liners	270.21(b)(1); 264.301(a)(1)	Provide detailed material specifications for specific synthetic liner or liners to be used.	NA	
D-6g(1)(b)	Soil Liners	270.21(b)(1); 264.301(a)(1)	For soil liners constructed of borrowed material, provide specifications. For soil liners using in-place soil, provide specifications to be used to assure that all existing materials meet requirements of liner design.	NA	
D-6g(1)(c)	Leachate Collection/Detection Systems	270.21(b)(1); 264.301(a),(c)	Provide material specifications for drainage layer material, filter fabric or filter layer, piping, and sumps.	NA	
D-6g(2)	Construction Specifications			NA	

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6g(2)(a)	Liner System Foundation	270.21(b)(1); 264.301(a)(1); 264.303(a)	Provide construction specifications of foundation installation procedures. For units that use in-place material for liner system foundation, provide construction specifications for preparation of foundation.	NA	
D-6g(2)(b)	Soil Liner	270.21(b)(1); 264.301(a)(1); 264.303(a)(2)	Describe procedures for installing soil liner.		
D-6g(2)(c)	Synthetic Liners	270.21(b)(1); 264.301(a)(1); 264.303(a)(1)	Provide construction specifications for placement of synthetic liners.	NA	
D-6g(2)(d)	Leachate Collection/Detection Systems	270.31(b)(1); 264.301(a),(c)	Provide construction specifications for placement of all components of leachate collection/detection systems.		
D-6g(3)	Certified Quality Auditor (CQA) Program	270.21(b)(1); 270.30(k)(2); 264.19; 264.303(a)	Provide complete details of CQA program to be used during construction of liner system to assure that it is built as designed.	NA	
D-6g(4)	Maintenance Procedures for Leachate Collection/Detection Systems	270.21(b)(1); 264.301(a),(c)	Describe anticipated maintenance activities that will be used to assure proper operation of leachate collection/detection systems throughout landfill's expected life.	NA	
D-6g(5)	Liner Repairs During Operations	270.21(b)(1); 264.301(a)	Describe methods that will be used to repair any damage to liner that occurs while landfill is in operation during placement of waste (such as a dozer ripping the liner).	NA	
D-6h	Action Leakage Rate	270.21(b)(1)(v); 264.302		NA	
D-6h(1)	Determination of the Action Leakage Rate	270.21(b)(1)(v); 264.302(a)		NA	

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6h(2)	Monitoring the Leakage	270.21(b)(1)(v); 264.302(b)	To determine if action leakage rate has been exceeded, owner/operator must convert required leachate flow rate monitoring data to average daily flow rate for each sump. This average daily flow rate must be calculated weekly during active life of facility and closure period, and monthly during post-closure care period.	NA	
D-6i	Leakage Response Action Plan	270.21(b)(1)(v); 264.304		NA	
D-6i(1)	Response Actions	270.21(b)(1)(v); 264.304(a)		NA	
D-6i(2)	Leak and/or Remedial Determinations	270.21(b)(1)(v); 264.304(b),(c)		NA	
D-6i(3)	Notifications	270.21(b)(1)(v); 264.304(b)		NA	
D-6j	Runon and Runoff Control Systems			NA	
D-6j(1)	Runon Control System	270.21(b)(2); 264.301(g)	Describe system that will be used to prevent runon onto active portions of landfills.	NA	
D-6j(1)(a)	Design and Performance	270.21(b)(2); 264.301(g)	Describe runon control system design and how that design prevents runon from reaching active portions of site. Provide plan view.	NA	
D-6j(1)(b)	Calculation of Peak Flow	270.21(b)(1); 264.301(g)	Identify peak surface water flow expected to result from 2-year design storm. Provide copies of calculations and data.	NA	
D-6j(2)	Runoff Control System	270.21(b)(3); 264.301(h)	Describe runoff control system to be used to collect and control runoff from active portions.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6j(2)(a)	Design and Performance	270.21(b)(3); 264.301(h)	Describe runoff collection and control system design. Indicate fate of collected runoff that is considered hazardous waste until tested and/or treated.	NA	
D-6j(2)(b)	Calculation of Peak Flow	270.21(b)(3); 264.301(h)	Identify total runoff volume expected to result from at least a 24-hour, 25-year storm event. Provide copies of calculations and data.	NA	
D-6j(3)	Management of Collection and Holding Units	270.21(b)(4); 264.301(i)	Describe how collection and holding facilities associated with runon and runoff control systems will be emptied or otherwise managed expeditiously after storms to maintain system design capacity. Describe fate of liquids discharged from these systems.	NA	
D-6j(4)	Construction	270.21(b)(2),(3); 264.301(g),(h)	Provide detailed construction and material specifications for runon and runoff control systems.	NA	
D-6j(5)	Maintenance	270.21(b)(2),(3); 264.301(g),(h)	Describe any maintenance activities required to assure continued proper operations of runon and runoff control systems throughout active life of unit.	NA	
D-6k	Control of Wind Dispersal	270.21(b)(5); 264.301(j)		NA	
D-6L	Liquids in Landfills			NA	
D-6L(1)	Bulk or Noncontainerized Free Liquids	270.21(h); 264.314	Describe procedures that will be used to ensure that no bulk or noncontainerized liquid hazardous waste or waste with free liquids will be placed in landfill. Demonstrate, by paint filter test, Method 9095, that no free liquids will be placed in landfill.	NA	

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SECTION D. PROCESS INFORMATION - LANDFILLS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6L(2)	Containers Holding Free Liquids	270.21(h); 264.314(d)	For facilities that intend to dispose of containers holding free liquids, describe how free liquids will be removed from containers or stabilized within container before container is placed in landfill. If liquid is removed, container must be backfilled or crushed.	NA	
D-6L(3)	Restriction to Small Containers	270.21(h); 264.314(d)(2)	If small containers are to be disposed of in landfill, demonstrate by indicating container volume, that containers will be very small (such as ampules).	NA	
D-6L(4)	Nonstorage Containers	270.21(h); 264.314(d)(3)	If nonstorage containers are to be disposed of in landfill, demonstrate by describing the containers designed to hold free liquids for use other than storage (e.g., batteries, capacitors).	NA	
D-6L(5)	Lab Packs	270.21(h); 264.314(d)(4)	Describe how it will be assured that lab packs to be landfilled containing free liquids meet requirements for lab packs.	NA	
D-6L(5)(a)	Inside Containers	270.21(h); 264.314(d)(4); 264.316(a)		NA	
D-6L(5)(b)	Overpack	270.21(h); 264.314(d)(4); 264.316(b)	Demonstrate that overpacking consists of metal, Department of Transportation (DOT) containers, metal DOT containers, with open heads no larger than 110 gallons; and sufficient sorbent material determined to be non-biodegradable to completely sorb all liquid contents of inside container.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-6L(5)(c)	Sorbent Material	270.21(h); 264.314(d)(4),(e) 264.316	Demonstrate that sorbent materials used are no capable of reacting dangerously with, being decomposed by, or being ignited by contents of inside containers.	NA	
D-6L(5)(d)	Incompatible Wastes	270.21(h); 264.314(d)(4); 264.316(d)	Demonstrate that incompatible waste will not be placed in same outside containers.	NA	
D-6L(5)(e)	Reactive Wastes	270.21(h); 264.314(d)(4); 264.316(d)	Demonstrate that incompatible waste will not be placed in same outside containers.	NA	
D-6m	Containerized Wastes	270.21(i); 264.315		NA	
D-6n	Special Waste Management Plan for Landfills Containing Wastes F020, F021, F022, F023, F026, and F027	270.21(j); 264.317	Provide plan for waste management in this special facility. Plan must address the following factors.	NA	
D-6n(1)	Waste Descriptions	270.21(j)(1); 264.317(a)(1)	Identify volume, physical, and chemical characteristics of waste, including potential to migrate through soil or volatilize or escape into atmosphere.	NA	
D-6n(2)	Soil Description	270.21(j)(2); 264.317(a)(2)	Describe attenuative properties of underlying and surrounding soils or other materials.	NA	
D-6n(3)	Mobilizing Properties	270.21(j)(2); 264.317(a)(2)	Describe mobilizing properties of other materials codisposed of with this waste.	NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

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SECTION D. PROCESS INFORMATION - LAND TREATMENT

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-7	Land Treatment	270.20; 264.270 - 264.283		NA	
D-7a	Treatment Demonstration	270.20(a); 264.272		NA	
D-7a(1)	Demonstration Wastes	270.20(a)(1); 264.272(a),(c)(1)(i)	Describe waste used in demonstration and waste to be treated during normal operation. Identify concentrations of all hazardous constituents reasonably expected to be present in both wastes.	NA	
D-7a(2)	Demonstration Data Sources	270.20(a)(2); 264.272(b)	Describe source of data used for treatment demonstration and provide available determinations.	NA	
D-7a(2)(a)	Existing Literature	270.20(a)(2); 264.272(b)	If existing literature is used to demonstrate treatment, submit brief written review of scientific literature and previous studies that contain pertinent information. Information sources should be properly referenced. In general, existing literature will not be acceptable as demonstration unless it can be shown that site and waste characteristics are identical to those in literature.	NA	
D-7a(2)(b)	Operating Data	270.20(a)(2); 264.272(b)	Provide any operating data gathered from units to be permitted, including application rate data and operating records.	NA	
D-7a(3)	Laboratory/Field Testing Programs	270.20(a)(3); 264.272(b),(c)	Field and laboratory tests to be used for demonstration must be thoroughly described. Include interpretive discussions as appropriate.	NA	

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SECTION D. PROCESS INFORMATION - LAND TREATMENT

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-7a(3)(a)	Toxicity Testing	270.20(a)(2); 264.272(b)	Describe acute toxicity test procedures used to estimate impact of waste application or waste constituents on soil biota responsible for waste treatment.	NA	
D-7a(3)(b)	Field Plot Testing	270.20(a)(2),(3); 264.272(b),(c)	Describe field plot studies used to demonstrate treatability of waste(s) or waste constituents.	NA	
D-7a(3)(c)	Laboratory Testing	270.20(b)(2),(3); 264.272(b),(c)	Describe laboratory test methods used to demonstrate treatability of waste(s) or waste constituents.	NA	
D-7b	Land Treatment Program	270.20(b); 264.271	Describe characteristics and operating conditions of land treatment unit(s) to be permitted.	NA	
D-7b(1)	List of Wastes	270.20(b)(1); 264.271(b)		NA	
D-7b(2)	Operating Procedures	270.20(b)(2); 264.273(a)	Describe operating procedures used to assure uniform and complete degradation, transformation, and immobilization.	NA	
D-7b(2)(a)	Waste Application Rates	270.20(b)(2)(i); 264.273(a)(1)	Identify rate and frequency of waste application and concentration of limiting constituents in waste.	NA	
D-7b(2)(b)	Waste Application Methods	270.20(b)(2)(i); 264.273(a)(1)	Describe method(s) used to apply and incorporate waste into treatment zone.	NA	
D-7b(2)(c)	Control of Soil pH	270.20(b)(2)(ii); 264.273(a)(2)	Identify acceptable limits of soil pH and describe rationale for those limits. Describe how soil pH will be measured and adjusted, including a schedule for the same.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-7b(2)(d)	Enhancement of Microbial or Chemical Reactions	270.20(b)(2)(iii); 264.273(a)(3)	Describe measures used to enhance treatment, including method and frequency of such measures (e.g., fertilization, microbial inoculations, soil aeration).	NA	
D-7b(2)(e)	Control of Soil Moisture	270.20(b)(2)(iv); 264.273(a)(4)	Identify limits on soil moisture content. Describe how soil moisture will be monitored and adjusted, if necessary.	NA	
D-7c	Unsaturated Zone Monitoring Plan	270.20(b)(3); 264.278	Submit unsaturated zone monitoring plan describing measures used to determine if hazardous wastes have migrated from treatment zone.	NA	
D-7c(1)	Soil-Pore Liquid Monitoring	270.20(b)(3); 264.278	Describe program for sampling and analysis of soil-pore liquid to detect migration of dissolved constituents below treatment zone.	NA	
D-7c(1)(a)	Sampling Location	270.20(b)(3)(ii); 264.278(b), (d)	Identify sampling locations and indicate that samples will be collected immediately below treatment zone.	NA	
D-7c(1)(b)	Sampling Frequency	270.20(b)(3)(i); 264.278(e)	Provide schedule for sampling soil-pore liquid.	NA	
D-7c(1)(c)	Sampling Equipment	270.20(b)(3)(i); 264.278(e)	Identify equipment used to obtain soil-pore liquid samples.	NA	
D-7c(1)(d)	Sampling Equipment Installation	270.20(b)(3)(i); 264.278(e)	Describe procedures used to install soil-pore liquid monitoring devices.	NA	
D-7c(1)(e)	Sampling Procedures	270.20(b)(3)(i); 264.278(e)(1),(2)		NA	
D-7c(1)(f)	Analytical Procedures	270.20(b)(3)(iii); 264.278(e)(3)	Identify analytical procedures used to determine concentration of hazardous constituents in soil-pore liquid samples.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-7c(1)(g)	Chain of Custody	270.20(b)(3)(iv); 264.278(e)(4)		NA	
D-7c(1)(h)	Background Values	270.20(b)(3)(v); 264.278(c)	Describe sampling and analytical program used to establish background soil-pore liquid concentrations of hazardous constituents. Provide background data, if available.	NA	
D-7c(1)(i)	Statistical Methods	270.20(b)(3)(vi); 264.278(f)	Describe statistical methods that will be used to determine differences between background and treatment zone concentrations of hazardous constituents.	NA	
D-7c(1)(j)	Justification of Principle Hazardous Constituents	270.20(b)(3)(vii); 264.278(a)(2)	Provide suggested list of 261 Appendix VIII hazardous constituents to be monitored for in soil-pore liquids.	NA	
D-7c(2)	Soil Core Monitoring	270.20(b)(3); 264.278	Describe program for monitoring soil cores to detect migration of hazardous constituents below treatment zone.	NA	
D-7c(2)(a)	Sampling Location	270.20(b)(3)(ii); 264.278(b),(d)	Identify sampling locations and indicate that soil cores will be collected immediately below treatment zone.	NA	
D-7c(2)(b)	Sampling Frequency	270.20(b)(3)(i); 264.278(e)	Provide schedule for sampling soil.	NA	
D-7c(2)(c)	Sampling Equipment	270.20(b)(3)(i); 264.278(e)	Identify equipment used to sample soil cores.	NA	
D-7c(2)(d)	Sampling Procedures	270.20(b)(3)(i); 264.278(e)(1),(2)		NA	
D-7c(2)(e)	Analytical Procedures	270.20(b)(3)(iii); 264.278(e)(3)	Identify analytical methods used to determine concentration of hazardous constituents in soil core samples.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-7c(2)(f)	Chain of Custody	270.20(b)(3)(iv); 264.278(e)(4)		NA	
D-7c(2)(g)	Background Values	270.20(b)(3)(v); 264.278(c)	Describe sampling and analytical program used to establish background soil core concentrations of hazardous constituents. Provide background data, if available.	NA	
D-7c(2)(h)	Statistical Methods	270.20(b)(3)(vi); 264.278(f)	Describe statistical methods that will be used to determine differences between background and treatment zone concentrations of hazardous constituents.	NA	
D-7c(2)(i)	Justification of Principal Hazardous Constituents	270.20(b)(3)(vii); 264.278(a)(2)	Provide suggested list of 261 Appendix VIII hazardous constituents to be monitored for in soil core samples.	NA	
D-7d	Treatment Zone Description	270.20(b)(5); 264.271(c)	Identify dimensions of treatment zone.	NA	
D-7d(1)	Horizontal and Vertical Dimensions	270.20(b)(5); 264.271(c)		NA	
D-7d(2)	Soil Survey	270.20(b)(2); 264.272(c)(1)(iv)	Provide map or plat plan delineating horizontal boundaries of treatment zone and all soil series occurring within treatment zone.	NA	
D-7d(3)	Soil Series Descriptions	270.20(b)(2); 264.272(c)(1)(iv)	Submit description of each soil series identified within treatment zone.	NA	
D-7d(4)	Soil Sampling Data	270.20(b)(2); 264.272(1)(iv)		NA	
D-7d(5)	Seasonal High Water Table	270.20(b); 264.271(c)(2)	Identify depth to seasonal high water table and source of that data.	NA	

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SECTION D. PROCESS INFORMATION - LAND TREATMENT

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-7e	Unit Design, Construction, Operation, and Maintenance	270.20(c); 264.273	Describe design, construction, operation, and maintenance of runon, runoff, and wind dispersal controls.	NA	
D-7e(1)	Runon Control	270.20(c)(1); 264.273(c)	Submit scale drawing of unit showing any runon controls used.	NA	
D-7e(2)	Runoff Control	270.20(c)(1); 264.273(c)	Describe runoff collection and control system.	NA	
D-7e(3)	Minimizing Hazardous Constituent Runoff	270.20(c)(3); 264.273(b)		NA	
D-7e(4)	Management of Accumulated Runon and Runoff	270.20(c)(4); 264.273(e)	Describe fate of collected surface water, including sampling and analysis protocols for determining contaminant levels.	NA	
D-7e(5)	Control of Wind Dispersal	270.20(c)(6); 264.273(f)		NA	
D-7f	Food-Chain Crops	270.20(d); 264.276	Demonstrate that there is no substantial risk to human health or environment caused by growth of food-chain crops on unit.	NA	
D-7f(1)	Food-Chain Crop Demonstration	270.20(d); 264.276(a)(1)		NA	
D-7f(1)(a)	Demonstration Basis	270.20(d)(1),(2); 264.276(a)(3)(i)	Show that demonstration results will be representative of unit to be permitted.	NA	
D-7f(1)(b)	Test Procedures	270.20(d)(3); 264.276(a)(3)(ii)	Describe procedures used in any tests referenced or conducted.	NA	
D-7f(2)	Cadmium-Bearing Wastes	270.20(e); 264.276(b)		NA	

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SECTION D. PROCESS INFORMATION - LAND TREATMENT

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-7f(2)(a)	Crops for Human Consumption	270.20(e); 264.276(b)(1)	If crops are to be grown for human consumption, provide: soil pH; soil pH controls; cadmium-loading rate; and soil cation exchange capacity.	NA	
D-7f(2)(b)	Animal Feed	270.20(e); 264.276(b)(2)	If only animal feed is to be grown, provide soil pH and soil pH controls. Provide copy of operating plan demonstrating how animal feed will be distributed to preclude ingestion by humans, including control of alternative land use.	NA	
D-7g	Special Waste Management Plan for Land Treatment Units Containing Wastes F020, F021, F022, F023, F026, and F027	270.20(i); 264.283	Provide plan describing how land treatment units containing referenced waste are, or will be, designed, constructed, operated, and maintained to protect human health and environment.	NA	
D-7g(1)	Waste Description	270.20(i)(1); 264.283(a)(1)		NA	
D-7g(2)	Soil Description	270.20(i)(2); 264.283(a)(2)		NA	
D-7g(3)	Mobilizing Properties	270.20(i)(3); 264.283(a)(3)		NA	
D-7g(4)	Additional Management Techniques	270.20(i)(4); 264.283(a)(4)		NA	
D-7h	Incompatible Wastes	270.20(h); 264.282	Indicate that incompatible waste will not be placed in, or on, the same treatment zone.	NA	

Notes:

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - MISCELLANEOUS TREATMENT

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-8	Miscellaneous Units	270.23; 264.601	Identify all miscellaneous units that treat, store, or dispose of hazardous waste at facility, but do not fit current definition of container, tank, surface impoundment, etc. These units may include: C geologic repositories C deactivated missile silos C thermal treatment units other than incinerators, boilers, or industrial furnaces C units open burning and open detonating explosive waste C certain chemical/physical/biological treatment units.	NA	
D-8a	Description of Miscellaneous Units	270.23(a)		NA	
D-8b	Waste Characterization	270.23; 264.601(a)(1), (b)(1),(c)(1)	Provide information on volume and concentration of waste in order to determine release potential.	NA	
D-8c	Treatment Effectiveness	270.23(d)		NA	
D-8d	Environmental Performance Standards for Miscellaneous Units		Environmental performance standards must be established and maintained to protect human health and environment.	NA	
D-8d(1)	Protection of Groundwater and Subsurface Environment	270.23(b),(c); 264.601(a)		NA	
D-8d(1)(a)	Environmental Assessment	270.23(b),(c); 264.601(a)	Applicant must conduct assessment of potential for releases to groundwater or the subsurface environment. Both saturated and unsaturated zones must be considered in evaluating potential for subsurface migration.	NA	

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SECTION D. PROCESS INFORMATION - MISCELLANEOUS TREATMENT

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-8d(1)(b)	Performance Standards	270.23(b); 264.601	Based on assessments, performance standards must be developed and maintained.	NA	
D-8d(2)	Protection of Surface Water, Wetlands, and Soil Surfaces	270.23(b),(c); 264.601(b)		NA	
D-8d(2)(a)	Environmental Assessment	270.23(b),(c); 264.601(b)	Applicant must conduct assessment of potential for releases to surface water, wetlands, or soil surface.	NA	
D-8d(2)(b)	Performance Standards	270.23; 264.601	Based on assessments, performance standards must be developed and maintained.	NA	
D-8d(3)	Protection of the Atmosphere	270.23(b),(c); 264.601		NA	
D-8d(3)(a)	Environmental Assessment	270.23(b),(c); 264.601(c)	Applicant must conduct assessment of potential for release to air.	NA	
D-8d(3)(b)	Performance Standards	270.23; 264.601	Based on assessments, performance standards must be developed and maintained.	NA	
D-8e	Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action	270.23(a); 264.602		NA	
D-8e(1)	Elements of a Monitoring Program	270.23(a); 264.602	Monitoring program must include procedures for sampling, analysis, and evaluation of data, suitable response procedures, and a regular inspection schedule.	NA	
D-8e(2)	Air Monitoring Alternatives	270.23(a); 264.602	For situations in which ambient air monitoring would be unsafe or impractical, possible alternatives may include analysis of waste, emissions measurements, and periodic monitoring with portable detectors.	NA	

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - BOILERS/INDUSTRIAL FURNACES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-9	Boilers and Industrial Furnaces (BIF)			NA	
D-9a	Waivers/Exemptions	270.22(a)(2)(i); 266.104(a)(4); 266.110	If applying for waiver or exemption, provide information demonstrating compliance with requirements outlined in this section.	NA	
D-9a(1)	Waiver of Destruction and Removal Efficiency (DRE) Trial Burn for Boilers	270.22(a)(2)(i); 266.104(a)(4); 266.110		NA	
D-9a(2)	Low Risk Waste Exemption	270.22(a)(2)(ii); 266.104(a)(5); 266.109(a)	The DRE standard for a BIF may be waived provided certain criteria listed in regulatory citation are met and documented.	NA	
D-9a(3)	Waiver of Particulate Matter Standard	270.22(a)(4); 266.109(b)	The particulate matter standard of 266.105 and trial burn for particulate matter may be waived if: the BIF complies with Tier I or Adjusted Tier I metals feed rate screening limits under 266.106(b) or (e) and submits documentation showing conformance with trial burn waiver under checklist Section D-9a(4) below; and BIF meets requirements of low risk waste exemption under checklist Section D-9a(2) above.	NA	
D-9a(4)	Waiver of Trial Burn for Metals	270.22(a)(3); 266.106(b),(e)		NA	
D-9a(5)	Waiver of Trial Burn for Hydrogen Chloride (HCl)/Cl_2	270.22(a)(5); 266.107(b),(e)		NA	
D-9b	Pretrial Burn Requirements for New BIFs	270.66(b)(1); 266.102(d)(4)(i); 266.102(e)	Time required to bring new BIF to point of operational readiness for trial burn must be minimum necessary and cannot exceed 720 hours, or up to 1,440 hours if applicant shows good cause for requiring an extension.	NA	

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SECTION D. PROCESS INFORMATION - BOILERS/INDUSTRIAL FURNACES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-9b(1)	Pretrial Burn Requirements for New BIFs - Organic Emission Standards	270.66(b)(1)(i); 266.102(e)(2); 266.104(d),(e)		NA	
D-9b(2)	Pretrial Burn Requirements for New BIFs - Particle Matter Emissions Standards	270.66(b)(1)(i); 266.105		NA	
D-9b(3)	Pretrial Burn Requirements for New BIFs - Metal Emissions Standards	270.66(b)(1)(i); 266.102(e)(4)(i), (ii); 266.106		NA	
D-9b(4)	Pretrial Burn Requirements for New BIFs - Alternative Metals Approach	270.66(b); 266.102(e)(4)(iii); 266.106(f)	For conformance with alternative metals approach, description of operating conditions must: describe approach that will be used to comply; specify how approach ensures compliance with metals emissions standards of 266.106(c) and (d); specify how approach can be effectively implemented and monitored; and provide such other information as necessary to ensure that the standards of 266.106(c) or (d) are met.	NA	
D-9b(5)	Pretrial Burn Requirements for New BIFs - Hydrogen Chloride/Chlorine Emission Standards	270.66(b)(1)(i); 266.102(e)(5)(i); 266.107		NA	
D-9b(6)	Pretrial Burn Requirements for New BIFs - Fugitive Emissions	270.66(b)(1)(i); 266.102(e)(7)(i)	Description of operating conditions must thoroughly describe method by which fugitive emissions will be controlled.	NA	
D-9b(7)	Pretrial Burn Requirements for New BIFs - Automatic Waste Feed Cutoff	270.66(b)(1)(i); 266.102(e)(7)(ii), (iii)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - BOILERS/INDUSTRIAL FURNACES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-9b(8)	Pretrial Burn Requirements for New BIFs - Monitoring Requirements	270.66(b)(1)(i); 266.102(e)(8),(10)		NA	
D-9c	Trial Burn Plan Requirements for All BIFs	270.66(b)(2),(c), (e); 266.102(d)(4)(ii)		NA	
D-9d	Trial Burn Results	270.22(a)(6); 270.66(d),(f)	Results of trial burn, as specified in regulatory citation, must be submitted within 90 days of completing trial burn. The submittal must be certified on behalf of applicant by signature of a person authorized to sign a permit application or a report under 270.11.	NA	
D-9e	Post-Trial Burn Requirements for New BIFs	270.66(b)(3)(ii); 266.102(d)(4)(iii),(e)	Post-trial burn requirements for new BIFs are the same as pretrial burn requirements for new BIFs with the following exceptions: C No documentation of total burn hours is required; no limit to length of time for burning. C Must submit statement identifying conditions necessary to operate in compliance. C Must submit statement specifying that BIF will stop burning when changes in combustion properties or feed rates or BIF design or operating conditions deviate from approved post-trial burn period.	NA	

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SECTION D. PROCESS INFORMATION - BOILERS/INDUSTRIAL FURNACES

Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-9f Data in Lieu of Trial Burn	270.22(a)(6); 270.66(c)(3)	A BIF may seek exemption from trial burn requirements by submitting information provided by previous compliance testing of same device, or from compliance testing or trial or operational burns of similar BIFs burning similar hazardous waste under similar conditions.	NA	
D-9g Alternative Hydrocarbons (HC) Limit for Industrial Furnaces with Organic Matter in Raw Materials	270.22(b); 266.104(f)		NA	
D-9h Alternative Metals Implementation Approach	270.22(c); 266.106(f)	For conformance with an alternative metals implementation approach, the information must: C Describe approach that will be used to comply. C Specify how approach ensures compliance with the metals emissions standards of 266.106(c) and (d). C Specify how approach can be effectively implemented and monitored. C Provide such other information as necessary to ensure that standards are met.	NA	
D-9i Monitoring Requirements	270.22; 266.102(e)(6),(8)	Various parameters must be continuously monitored per 266.102(e)(6) while burning hazardous waste. Data must be maintained in operating record until closure of facility.	NA	
D-9j Automatic Waste Feed Cutoff System	270.22(d); 266.102(e)(7)(ii)	All facilities must submit description of automatic waste feed cutoff system, including any pre-alarm systems that may be used.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - BOILERS/INDUSTRIAL FURNACES

Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-9k Direct Transfer Standards	270.22(e); 266.111; Part 264 Subparts I and J	BIFs that directly feed hazardous waste from a transport vehicle to a BIF without use of a storage unit must submit a description of the direct transfer procedures that will be used, along with other information as specified in regulatory citation.	NA	
D-9k(1) Direct Transfer Standards - Containment System	270.22(e); 264.175	In areas where direct transfer vehicles are located, a complete description of containment system must be provided.	NA	
D-9k(2) Direct Transfer Standards - Condition of Containers	270.22(e); 264.171		NA	
D-9k(3) Direct Transfer Standards - Compatibility of Waste with Container	270.22(e); 264.172		NA	
D-9k(4) Direct Transfer Standards - Management of Containers	270.22(e); 264.173		NA	
D-9k(5) Direct Transfer Standards - Special Requirements of Ignitable or Reactive Waste	270.22(e); 264.176	Provide documentation of location of all containers holding ignitable/reactive waste.	NA	
D-9k(6) Direct Transfer Standards - Special Requirements of Incompatible Wastes	270.22(e); 264.177	Provide statement and description of procedures to ensure compliance with management standards for incompatible waste.	NA	
D-9k(7) Direct Transfer Standards - Closure	270.22(e); 264.178	Describe how all hazardous waste and hazardous waste residues will be removed from containment system at closure.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - BOILERS/INDUSTRIAL FURNACES

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-9k(8)	Direct Transfer Standards - Secondary Containment Requirements	270.22(e); 266.111(e)	Owners/operators must submit documentation demonstrating conformance with secondary containment requirements of 265.193(b),(c), and (f) - (h).	NA	
D-9L	Bevill Residues	270.22(f); 266.112; Part 266 Appendices VII and IX		NA	

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - CONTAINMENT BUILDINGS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-10	Containment Buildings	270.14(a),(b) 264.1100 - 264.1102		NA	
D-10a	Containment Building Description	270.14(a),(b) 264.1100(a); 264.1101(a)		NA	
D-10a(1)	Construction	270.14(a),(b) 264.1100(a); 264.1101(a)	Provide description of unit, include dimensions and materials of construction.	NA	
D-10a(2)	Strength Requirements	270.14(a),(b) 264.1100(a); 264.1101(a)	Provide results of calculations defining maximum loads or stresses that will be placed on containment building system.	NA	
D-10a(3)	Design Requirements for Units Not Managing Liquids	270.14(a),(b) 264.1100(b); 264.1101(d)		NA	
D-10a(3)(a)	Primary Barrier	270.14(a),(b) 264.1100(a),(b); 264.1101(a)(4)	Provide detailed description of primary barrier, and demonstrate that it is sufficiently durable to withstand movement of personnel, waste, and handling equipment within unit.	NA	
D-10a(4)	Design Requirements for Units Managing Liquids	270.14(a),(b) 264.1100(c); 264.1101(a)(4),(b)		NA	
D-10a(4)(a)	Primary Barrier	270.14(a),(b) 264.1100(c)(1); 264.1101(b)(1)	Describe how primary barrier is designed and constructed to prevent migration of hazardous constituents into barrier.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - CONTAINMENT BUILDINGS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-10a(4)(b)	Liquid Collection System	270.14(a),(b) 264.1100(c)(2); 264.1101(b)(3)	Describe in detail liquid collection system that must be designed and constructed of materials to minimize accumulation of liquid on primary barrier.	NA	
D-10a(4)(c)	Secondary Containment System	270.14(a),(b) 264.1100(c)(3)		NA	
D-10a(4)(c)(i)	Leak Detection System	270.14(a),(b) 264.1100(c)(3); 264.1101(a),(b)(3)	Describe design and operating features of leak detection system.	NA	
D-10a(4)(C)(ii)	Secondary Barrier	270.14(a),(b) 264.1100(b)(3); 264.1101(b)(3)	Describe how secondary barrier is designed and constructed to prevent migration of hazardous constituents into barrier.	NA	
D-10a(4)(d)	Temporary Variance from Secondary Containment Requirements	270.14(a),(b) 264.1101(b)(4)		NA	
D-10a(4)(e)	Waiver of Secondary Containment Requirements	270.14(a),(b) 264.1101(e)		NA	
D-10a(5)	Design of Units Managing Both Liquids and Nonliquids in the Same Unit	270.14(a),(b) 264.1101(d)	Identify areas of containment building that are constructed both with and without secondary containment, if applicable.	NA	
D-10a(6)	Compatibility of Structure with Wastes	270.14(a),(b) 264.1101(a)(2), (b)(3)(iii)	Demonstrate that all surfaces in contact with hazardous waste, collected liquids, or leachate must be chemically compatible with those waste.	NA	
D-10a(7)	Fugitive Dust Emissions	270.14(a),(b) 264.1100(d); 264.1101(c)(1)(iv); Part 60 Appendix A		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - CONTAINMENT BUILDINGS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-10a(8)	Structural Integrity Requirements	270.14(a),(b) 264.1101(a)(2)		NA	
D-10a(9)	Certification of Design	270.14(a),(b) 264.1101(c)(2)		NA	
D-10b	Containment Building Operations	270.14(a),(b) 264.1101(c)		NA	
D-10b(1)	Primary Barrier Integrity	270.14(a),(b) 264.1101(b)(2)(ii), (c)(1)(i)		NA	
D-10b(2)	Volume of Waste	270.14(a),(b) 264.1101(c)(1)(ii)	Describe how owner/operator will maintain level of stored and/or treated hazardous waste within containment walls of unit so that height of any containment wall is not exceeded.	NA	
D-10b(3)	Tracking of Waste Out of Unit	270.14(a),(b) 264.1100(e); 264.1101(c)(1)(iii)		NA	
D-10b(4)	Liquids Removal	270.14(a),(b) 264.1101(b)(2)(ii), (b)(3)	Describe sumps and liquid removal methods for liquids collection and leak detection systems. Indicate fate of collected liquids and leachates, which are considered hazardous waste.	NA	
D-10b(5)	Management of Incompatible Wastes	270.14(a),(b) 264.1101(a)(3)	Indicate whether incompatible waste or treatment reagents will be placed in the unit or its secondary containment system.	NA	
D-10b(6)	Management of Liquids and Nonliquids in the Same Unit	270.14(a),(b) 264.1101(d)(2),(3)	For containment buildings that contain areas both with and without secondary containment, describe measures to prevent release of liquids or wet materials into areas without secondary containment.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION D. PROCESS INFORMATION - CONTAINMENT BUILDINGS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-10b(7)	Fugitive Dust Emissions	270.14(a),(b) 264.1100(d); 264.1101(c)(1)(iv); Part 60 Appendix A		NA	
D-10b(8)	Treatment of Wastes	270.14(a),(b) 264.1101(b)(3)(ii)	If treatment of waste is conducted in containment building, describe how treatment will be conducted to prevent release of liquids, wet materials, or liquid aerosols to other portions of building.	NA	
D-10b(9)	Equipment Decontamination	270.14(a),(b) 264.1101(c)(1)(iii)	Identify area used to decontaminate equipment and collect and manage any rinsate from decontamination. Identify fate of decontamination residues.	NA	
D-10c	Containment Buildings as Tank Secondary Containment	270.14(a),(b) 264.1101(b)(3)(iii)	Indicate whether containment building is intended to serve as a secondary containment system for a tank placed in the building. The unit must meet the requirements of 264.193(b), 264.193(c)(1), 264.193(c)(2), and 264.193(d)(1).	NA	

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SECTION D. PROCESS INFORMATION - DRIP PADS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-11	Drip Pads	270.26; 264.570 - .575		NA	
D-11a	Drip Pad Description	270.26(c); 264.573(a)		NA	
D-11a(1)	Construction	270.26(c); 264.573(a)(1) - (4);264.573(b)(1) - (3)	Provide a description of the unit including dimensions and materials of construction. Drip pads must: be constructed of nonearthen materials; be sloped to free-drain treated wood drippage, rain and other waters or wastes to the associated collection system; and, have a curb or berm around the perimeter.	NA	
D-11a(1)(a)	Existing Drip Pads	270.26(c); 264.572(a); 264.573(a)(4)	Existing drip pads must have a hydraulic conductivity of less than or equal to $1x10^{-7}$ centimeters per second. Provide a copy of the most recent written assessment of the drip pad. This assessment must be reviewed and certified by an independent, qualified registered professional engineer (PE). The assessment must be reviewed, updated and recertified annually.	NA	
D-11a(1)(b)	New Drip Pads	270.26(c); 264.572(b); 264.573(b)	New drip pads must have a synthetic liner installed below the pad. The liner must be constructed of materials that will prevent waste from being absorbed into the liner. A leakage detection system and a leakage collection system are also required.	NA	
D-11b(1)	Preventive Maintenance	270.26(c); 264.573(c)	Drip pads must be maintained to remain free of cracks, gaps, corrosion, etc., that could cause a release of hazardous waste.	NA	

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SECTION D. PROCESS INFORMATION - DRIP PADS

Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
D-11b(2) Prevent Runon and Runoff	270.26(c); 264.573(d), (e), (L)	The drip pad and associated collection system must be operated to prevent runoff. Unless protected by a structure, the runon and runoff control systems must have the capacity to prevent flow onto the drip pad from a 24-hour, 25-year storm. All collection systems must be emptied as soon as possible after storms to maintain design capacity.	NA	
D-11b(3) Certification	270.26(c); 264.573(g)	Provide certification from a qualified, registered PE stating the drip pad meets the requirements of section 264.573.	NA	
D-11b(4) Maintaining Collection System	270.26(c); 264.573(h)	Provide plan for removal of drippage and accumulated precipitation from collection system as necessary to prevent overflow.	NA	
D-11b(5) Cleaning Drip Pad Surface	270.26(c); 264.573(i),(j)	Drip pad surface must be cleaned appropriately to allow weekly inspection of the entire surface and to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad.	NA	
D-11b(6) Recordkeeping	270.26(c); 264.573(k)	Maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with the requirements of this section.	NA	

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION E. GROUNDWATER MONITORING

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
E-1	Exemption from Groundwater Protection Requirements	270.14(c)		B.E	
E-1a	Waste Piles	270.18(b); 264.90(b)(2), (5)		NA	
E-1b	Landfill	270.14(c); 264.90(b)(2)		NA	
E-1c	No Migration	270.14(c); 264.90(b)(4)		NA	
E-1d	Drip Pad	270.26(b); 264.90(b)(2)		NA	
E-2	Interim Status Groundwater Monitoring Data	270.14(c)(1)		NA	
E-2a	Description of Wells	270.14(c)(1)	A copy of topographic map provided for 270.14(b) on which location and identification of each interim status monitoring well is indicated. Details of design and construction of each interim status monitoring well.	NA	
E-2b	Description of Sampling and Analysis Procedures	270.14(c)(1); 265.92	A copy of facility's groundwater sampling and analysis plan.	NA	
E-2c	Monitoring Data	270.14(c)(1); 265.92	Provide all interim status monitoring results.	NA	
E-2d	Statistical Procedures	270.14(c)(1); 265.93	Provide information relating to statistical procedures.	NA	
E-2e	Groundwater Assessment Plan	270.14(c)(1); 265.93(d)(2)	If required, based on statistical comparison results, provide specific plan for groundwater quality assessment program along with results obtained from implementation of plan.	NA	

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SECTION E. GROUNDWATER MONITORING

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
E-3	General Hydrogeologic Information	270.14(c)(2)	Include description of regional and site-specific geologic and hydrogeological setting.	NA	
E-4	Topographic Map Requirements	270.14(c)(2),(3),(4)(i)		NA	
E-5	Contaminant Plume Description	270.14(c)(2),(4),(7)	In some cases, contaminant plumes may be defined under groundwater quality assessment programs carried out during interim status period which may not address complete list of Appendix VIII constituents as required under 270.14(c)(4). Additional monitoring may be required to identify concentration of each Appendix VIII constituent in plume.	NA	
E-6	General Monitoring Program Requirements	270.14(c)(5); 264.90(b)(4); 264.97		NA	
E-6a	Description of Wells	270.14(c)(5); 264.97(a),(b),(c)		NA	
E-6b	Description of Sampling and Analysis Procedures	270.14(c)(5); 264.97(d),(e),(f)		NA	
E-6c	Procedures for Establishing Background Quality	270.14(c)(5); 264.97(a)(1),(g)		NA	
E-6d	Statistical Procedures	270.14(c)(5); 264.97(h),(i)(1),(5),(6)		NA	
E-6d(1)	Parametric Analysis of Variance (ANOVA)	270.14(c)(5); 264.97(h)(1),(i)(2)		NA	

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SECTION E. GROUNDWATER MONITORING

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
E-6d(2)	Nonparametric ANOVA (based on ranks)	270.14(c)(5); 264.97(h)(2), (i)(2)		NA	
E-6d(3)	Tolerance or Prediction Interval Procedure	270.14(c)(5); 264.97(h)(3), (i)(4)		NA	
E-6d(4)	Control Chart Approach	270.14(c)(5); 264.97(h)(4), (i)(3)		NA	
E-6d(5)	Alternative Approach	270.14(c)(5); 264.97(h)(5),(i)		NA	
E-7	Detection Monitoring Program	270.14(c)(6); 264.91(a)(4); 264.98		NA	
E-7a	Indicator Parameters, Waste Constituents, Reaction Products to be Monitored	270.14(c)(6) (i); 264.98(a)		NA	
E-7b	Groundwater Monitoring System	270.14(c)(6) (ii); 264.97(a) (2),(b),(c); 264.98(b)	Identify number, location, and depth of each well, and describe well construction materials.	NA	
E-7c	Background Groundwater Concentration Values for Proposed Parameters	270.14(c)(6) (iii); 264.97 (g); 264.98(c), (d)		NA	
E-7d	Proposed Sampling and Analysis Procedures	270.14(c)(6) (iv); 264.97 (d),(e),(f); 264.98(d),(e), (f)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION E. GROUNDWATER MONITORING

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
E-7e	Statistically Significant Increase in any Constituent or Parameter Identified at any Compliance Point Monitoring Well	270.14(c)(6); 264.98(g); Part 264 Appendix IX		NA	
E-8	Compliance Monitoring Program	270.14(c)(7); 264.99		NA	
E-8a	Waste Description	270.14(c)(7)(i)	Description must include historical records of volumes, types, and chemical composition of waste placed in units in waste management areas.	NA	
E-8b	Characterization of Contaminated Groundwater	270.14(c)(7)(ii)	For each well at point of compliance and for each background well, provide concentrations of each constituent in 261 Appendix VIII, major cations and anions, and constituents listed in Table 1 of 264.94, if not already mentioned above.	NA	
E-8c	Hazardous Constituents to be Monitored in Compliance Program	270.14(c)(7)(iii); 264.98(g)(3); 264.99(a)(1)		NA	
E-8d	Concentration Limits	270.14(c)(7)(iv); 264.94, 264.97(g),(h); 264.99(a)(2)		NA	
E-8e	Alternate Concentration Limits	270.14(c)(7)(iv); 264.94(b); 264.99(a)(2)	Provide justification for establishing alternate concentration limits. Justification must address the following two factors.	NA	
E-8e(1)	Adverse Effects on Groundwater Quality	270.14(c)(7)(iv); 264.94(b)(1)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION E. GROUNDWATER MONITORING

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
E-8e(2)	Potential Adverse Effects	270.14(c)(7)(iv); 264.94(b)(2)		NA	
E-8f	Engineering Report Describing Groundwater Monitoring Systems	270.14(c)(7)(v); 264.95; 264.97(a)(2),(b),(c); 264.99(b)	Provide details supporting representative nature of groundwater quality at background monitoring points and compliance monitoring point.	NA	
E-8g	Proposed Sampling and Statistical Analysis Procedures for Groundwater Data	270.14(c)(7)(vi); 264.97(d),(e),(f); 264.99(c) - (g)		NA	
E-8h	Groundwater Protection Standard Exceeded at Compliance Point Monitoring Well	270.14(c)(8); 264.99(h),(i)		NA	
E-9	Corrective Action Program	270.14(c)(8); 264.99(j); 264.100		NA	
E-9a	Characterization of Contaminated Groundwater	270.14(c)(8)(i)	For each well at point of compliance and for each background well, provide concentrations of each constituent in 261 Appendix VIII, major cations and anions, and constituents listed in Table 1 of 264.94, if not already determined by the above.	NA	
E-9b	Concentration Limits	270.14(c)(8)(ii); 264.94; 264.100(a)(2)		NA	
E-9c	Alternate Concentration Limits	270.14(c)(8)(ii); 264.94(b); 264.100(a)(2)	Provide justification for establishing alternate concentration limits. Justification must address the following two factors.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION E. GROUNDWATER MONITORING

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
E-9c(1)	Adverse Effects on Groundwater Quality	270.14(c)(8); 264.94(b)(1)		NA	
E-9c(2)	Potential Adverse Effects	270.14(c)(8); 264.94(b)(2)		NA	
E-9d	Corrective Action Plan	270.14(c)(8)(iii); 264.100(b)	Provide detailed plans and engineering report on corrective actions proposed for facility, including maps of engineered structures, construction details, plans for removing waste, description of treatment technologies, effectiveness of correction program, description of reinjection system, additional hydrogeologic data, operation and maintenance plans, and closure and post-closure plans.	NA	
E-9e	Groundwater Monitoring Program	270.14(c)(8)(iv); 264.100(d)		NA	
E-9e(1)	Description of Monitoring System	270.14(c)(7)(v),(8)		NA	
E-9e(2)	Description of Sampling and Analysis Procedures	270.14(c)(7)(v),(8)		NA	
E-9e(3)	Monitoring Data and Statistical Analysis Procedures	270.14(c)(7)(v),(8)		NA	
E-9e(4)	Reporting Requirements	270.14(c)(7); 264.100(g)		NA	

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-1	Security	270.14(b)(4); 264.14		B.F	
F-1a	Security Procedures and Equipment	270.14(b)(4); 264.14	Unless waiver is granted, facility must have surveillance system or a barrier to entry.	B.F	
F-1a(1)	24-Hour Surveillance System	270.14(b)(4); 264.14	Monitor/camera, guards, or personnel must continuously monitor or control access to active parts of facility.	B.F	
F-1a(2)(a)	Barrier	270.14(b)(4); 264.14	This item required if 24-hour surveillance system is not feasible. Describe artificial or natural barrier.	B.F	
F-1a(2)(b)	Means to Control Entry	270.14(b)(4); 264.14	This item required if 24-hour surveillance system is not feasible.	B.F	
F-1a(3)	Warning Signs	270.14(b)(4); 264.14	Signs in english must be posted at each entrance, and be legible from 25 feet.	B.F	
F-1b	Waiver	270.14(b)(4); 264.14	Owner/operator must prevent unknowing entry, and minimize unauthorized entry of persons or livestock unless can demonstrate:	B.F	
F-1b(1)	Injury to Intruder	270.14(b)(4); 264.14	Assure physical contact with waste, structure, or equipment will not injure unknowing intruder.	B.F	
F-1b(2)	Violation Caused by Intruder	270.14(b)(4); 264.14	Assure disturbance of waste or equipment by unauthorized intruder will not cause a violation.	B.F	
F-2	Inspection Schedule	270.14(b)(5); 264.15	Inspection is required for monitoring equipment, safety emergency equipment, communication and alarm systems, decontamination equipment, security devices, and operating and structural equipment.	B.F	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-2a	General Inspection Requirements	270.14(b)(5); 264.15(a),(b); 264.33		B.F	
F-2a(1)	Types of Problems	270.14(b)(5); 264.15(b)(3)	Inspection checklist must identify types of problem.	B.F	
F-2a(2)	Frequency of Inspections	270.14(b)(5); 264.15(b)(4)	Based on rate of deterioration of equipment and probability of environmental or human health incident.	B.F	
F-2a(3)	Schedule of Remedial Action	270.14(b)(5); 264.15(c)	Owner/operator must immediately remedy any deterioration or malfunction of equipment or structures to ensure problem does not lead to environmental or human health hazard.	B.F	
F-2a(4)	Inspection Log	270.14(b)(5); 264.15(d)	Provide example log or summary.	B.F	
F-2b	Specific Process Inspection Requirements	270.14(b)(5)		B.F	
F-2b(1)	Container Inspection	270.14(b)(5); 264.174	Inspect at least weekly.	B.F	
F-2b(2)	Tank System Inspection	270.14(b)(5); 264.195	Owner/operator must develop schedule and inspect at least once daily.	NA	
F-2b(2)(a)	Tank System External Corrosion and Releases	270.14(b)(5); 264.195(b)(1)	Owner/operator must inspect that aboveground portion and check for corrosion.	NA	
F-2b(2)(b)	Tank System Construction Materials and Surrounding Area	270.14(b)(5); 264.195(b)(3)	Observe construction materials and area around external portion for signs of release of hazardous waste.	NA	
F-2b(2)(c)	Tank System Overfilling Control Equipment	270.14(b)(5); 264.195(a)	Develop and follow schedule for inspection of overfill controls.	NA	
F-2b(2)(d)	Tank System Monitoring and Leak Detection Equipment	270.14(b)(5); 264.195(b)(2)	Analyze data gathered from monitoring equipment to ensure tank is operating according to design.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-2b(2)(e)	Tank System Cathodic Protection	270.14(b)(5); 264.195(c)	Inspect according to schedule.	NA	
F-2b(3)	Waste Pile Inspection	270.14(b)(5); 270.18(d); 264.254(b)	Describe how waste pile will be inspected daily and after storms.	NA	
F-2b(3)(a)	Runon and Runoff Control System	270.14(b)(5); 264.254(b)(1)	Inspections should identify deterioration, malfunction, or improper operation of control system.	NA	
F-2b(3)(b)	Wind Dispersal System	270.14(b)(5); 264.254(b)(2)	Facility should inspect proper function of wind dispersal system.	NA	
F-2b(3)(c)	Leachate Collection and Removal System	270.14(b)(5); 270.18 (d); 264.254(b)(3), (c)	Determine whether there is leachate present in functioning double liner system.	NA	
F-2b(4)	Surface Impoundment Inspection	270.14(b)(5); 270.17(c); 264.226(b),(c)	Describe how each surface impoundment will be inspected to meet requirements of monitoring and inspection and waiver requirement.	NA	
F-2b(4)(a)	Condition Assessment	270.14(b)(5); 264.226(b)	Describe how surface impoundment will be inspected weekly and after storms.	NA	
F-2b(4)(a)(1)	Overtopping Control System	270.14(b)(5); 264.226(b)(1)	Inspect for deteriorating, malfunction, or improper operation of control system.	NA	
F-2b(4)(a)(2)	Impoundment Contents	270.14(b)(5); 264.226(b)(2)	Inspect for sudden drop in level of impoundment contents.	NA	
F-2b(4)(a)(3)	Dikes and Containment Devices	270.14(b)(5); 264.226(b)(3)	Inspect for severe erosion in containment devices.	NA	
F-2b(4)(b)	Structural Integrity	270.14(b)(5); 264.226(c)	Specify procedure for assessing integrity of surface impoundments.	NA	

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SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-2b(4)(c)	Leak Detection System	270.14(b)(5); 270.17(c); 264.226(d)	Describe how double liner system and leak detection system will be inspected.	NA	
F-2b(5)(a)	Incinerator and Associated Equipment	270.14(b)(5); 264.347(b)	Describe procedures for daily visual inspection of incinerator and associated equipment.	NA	
F-2b(5)(b)	Incinerator Waste Feed Cutoff System and Alarms	270.14(b)(5); 264.347(c)	Describe procedure and frequency of testing emergency waste feed cutoff system.	NA	
F-2b(6)	Landfill Inspection	270.14(b)(5); 264.303(b)	For operating landfill, describe how it will be inspected weekly and after storms.	NA	
F-2b(6)(a)	Runon and Runoff Control System	270.14(b)(5); 264.303(b)(1)	Deterioration, malfunction, or improper operation of runon and runoff control system.	NA	
F-2b(6)(b)	Wind Dispersal Control System	270.14(b)(5); 264.303(b)(2)	Proper functioning of wind dispersal control systems, where present.	NA	
F-2b(6)(c)	Leachate Collection and Removal System	270.14(b)(5); 264.303(b)(3), (c)	In properly functioning double liner system, is there a presence of leachate? Leak detection required under 264.301(c) or 264.301(d) must record amount of leakage from each system weekly.	NA	
F-2b(7)	Land Treatment Facility Inspection	270.14(b)(5); 264.273(g)	Describe how land treatment facility will be inspected weekly and after storms.	NA	
F-2b(7)(a)	Runon and Runoff Control System	270.14(b)(5); 264.273(g)(1)		NA	
F-2b(7)(b)	Wind Dispersal Control System	270.14(b)(5); 264.273(g)(2)		NA	
F-2b(8)	Miscellaneous Unit Inspections	270.14(b)(5); 264.602	Provide inspection program that ensures compliance with standards in 264.601 and 270.23.	NA	

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SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-2b(9)	Boilers and Industrial Furnaces (BIF) Inspection	270.14(b)(5); 264.15; 266.102(a)(2)(ii),(e)(8); 266.111(e)(3)	Demonstrate that BIF will be visually inspected daily, automatic waste feed cutoff inspected at least weekly, and direct transfer area at least once an hour when waste is being transferred.	NA	
F-2b(10)	Containment Building Inspection	270.14(b)(5); 264.1101(c)(3), (4)	Demonstrate owner/operator will inspect and document at least weekly, monitoring equipment, leak detection equipment, containment building, and surrounding areas for waste releases.	NA	
F-2b(11)	Drip Pad Inspection	270.14(b)(5); 264.574	Demonstrate that the drip pad owner/operator will inspect and document at least weekly and after storms, the leak detection and collection equipment, the drip pad surface, and the runon and runoff control systems for evidence of deterioration, malfunction, improper operation, or leakage of hazardous waste.	NA	
F-3	Waiver or Documentation of Preparedness and Prevention Requirements	270.14(b)(6) 264.32(a) - (d)	Facility must submit justification for any waiver to requirements of this section.	B.F	
F-3(a)	Equipment Requirements	270.14(b); 264.32		B.F	
F-3(a)(1)	Internal Communication	270.14(b); 264.32(a)	Describe internal communication or alarm system used to provide immediate emergency instruction to personnel.	B.F	
F-3(a)(2)	External Communication	270.14(b); 264.32(b)	Describe device for summoning emergency assistance from local police, fire, or state/local emergency response.	B.F	
F-3(a)(3)	Emergency Equipment	270.14(b); 264.32(c)	Demonstrate that portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment are available.	B.F	

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SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-3(a)(4)	Water and Fire Control	270.14(b); 264.32(d)	Demonstrate facility has adequate fire control systems, water volume and pressure, foaming equipment, automatic sprinklers, etc.	B.F	
F-3(a)(5)	Testing and Maintenance of Equipment	270.14(b); 264.33	Demonstrate communication, alarm, fire control equipment, spill control equipment, and decontamination equipment are tested and maintained.	B.F	
F-3(a)(6)	Access to Communication or Alarm System	270.14(b); 264.34	When waste is being hauled, all personnel must have access to internal alarm or communication device.	B.F	
F-3(b)	Aisle Space Requirement	270.14(b); 264.35	Aisle space is required for unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment in case of emergency.	B.F	
F-3(c)	Documentation of Arrangements with:	270.14(b); 264.37	Owner/operator must make arrangements, as appropriate, with type of waste and hazard potential, for the potential need for services.	B.F	
F-3(c)(1)	Police/Fire Department	270.14(b); 264.37(a)(1)	Arrange to familiarize local fire department and police with facility.	B.F	
F-3(c)(2)	Emergency Response Teams	270.14(b); 264.37(a)(2), (a)(3)		B.F	
F-3(c)(3)	Local Hospitals	270.14(b); 264.37(a)(4)	Arrange to familiarize local hospital with properties of hazardous waste and possible types of injury or illness to expect.	B.F	
F-3(c)(4)	Document Agreement Refusal	270.14(b); 264.37(b)	Document refusal to enter into a coordination agreement.	B.F	
F-4	Prevention Procedures, Structures, and Equipment	270.14		B.F	

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SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-4(a)	Unloading Procedures	270.14(b)(8)(i)	Describe procedure used to prevent hazards in unloading operations. Identify possible loading and unloading hazards, and document steps taken to minimize or eliminate possibility of these hazards.	B.F	
F-4(b)	Runoff	270.14(b)(8)(ii)	Describe procedure used to prevent runoff from hazardous waste handling areas.	B.F	
F-4(c)	Water Supplies	270.14(b)(8)(iii)	Describe procedure, structures, equipment used to prevent contamination of water supply.	B.F	
F-4(d)	Equipment and Power Failure	270.14(b)(8)(iv)	Describe procedure used to mitigate the effects of equipment failure and power outages.	B.F	
F-4(e)	Personnel Protection Procedures	270.14(b)(8)(v)	Describe procedure, structures, equipment used to prevent contamination of personnel to hazardous waste.	B.F	
F-4(f)	Procedures to Minimize Releases to the Atmosphere	270.14(b)(8)(vi)	Describe procedure, structures, equipment used to prevent hazardous waste releases to the atmosphere.	B.F	
F-5	Prevention of Reaction of Ignitable, Reactive, and Incompatible Waste	270.14(b)(9)		B.F	
F-5a	Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes	270.14(b)(9); 264.17(a),(b)	Waste must be protected from sources of ignition or reaction. Describe precautions taken by facility to prevent actual ignition, including sources of spontaneous ignition and radiant heat. Owner/operator must designate safe areas for smoking and open flames. Post signs where hazard exists.	B.F	
F-5b	General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste	270.14(b)(9); 264.17(a)	Describe precautions taken by facility to prevent reactions that generate heat, produce flammable byproducts, cause risk of fire or explosion, threaten structural integrity, or pose threat to human life or the environment.	B.F	

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SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-5b(1)	Documentation of Adequacy of Procedures	270.14(b); 264.17(c)	Published literature, trial test, waste analyses, or similar processes may be used.	B.F	
F-5c	Management of Ignitable or Reactive Wastes in Containers	270.15(c); 264.176	Demonstrate that ignitable containers are at least 15 meters from facility property line.	B.F	
F-5d	Management of Incompatible Wastes in Containers	270.15(d); 264.177	Describe procedures that ensure incompatible wastes and materials are not placed in same container.	B.F	
F-5e	Management of Ignitable or Reactive Wastes in Tank Systems	270.16(j); 264.198	Describe operation procedures and how facility treats waste so it is no longer ignitable or how facility stores ignitable or reactive waste.	NA	
F-5f	Management of Incompatible Wastes in Tank Systems	270.16(j); 264.199	Demonstrate that incompatible waste and materials are not stored in same tank.	NA	
F-5g	Management of Ignitable or Reactive Wastes Placed in Waste Piles	270.18(g); 264.256	If waste is reactive or ignitable, describe how handling process will render waste pile nonreactive and/or nonignitable.	NA	
F-5h	Management of Incompatible Wastes Placed in Waste Piles	270.18(h); 264.257	Document how hazardous waste piles of incompatible materials are separated to render them nonreactive.	NA	
F-5i	Management of Ignitable or Reactive Wastes in Surface Impoundments	270.17(h); 264.229	If waste is reactive or ignitable, describe how handling process will render surface impoundments nonreactive and/or nonignitable.	NA	
F-5j	Management of Incompatible Wastes in Surface Impoundments	270.17(h); 264.230	Document how hazardous surface impoundments of incompatible materials are separated to render them nonreactive.	NA	
F-5k	Management of Ignitable or Reactive Wastes Placed in Landfills	270.21(f); 264.312	If waste is reactive or ignitable, describe how handling process will prevent reaction or ignition to landfills.	NA	

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SECTION F. PROCEDURES TO PREVENT HAZARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
F-5l	Management of Incompatible Wastes Placed in Landfills	270.21(g); 264.313	Document how hazardous landfills of incompatible materials are separated to render them nonreactive.	NA	
F-5m	Management of Ignitable or Reactive Wastes Placed in Land Treatment Units	270.20(g); 264.281	If waste is reactive or ignitable, describe how handling process will render land treatment units nonreactive and/or nonignitable.	NA	
F-5n	Management of Incompatible Wastes Placed in Land Treatment Units	270.20(h); 264.282	Document how land treatment unit piles of incompatible materials are separated to render them nonreactive.	NA	
F-5o	Management of Incompatible Wastes Placed in Containment Buildings	270.14(a); 264.1101(a)(3)	Subsections include design, primary and secondary containment, barriers to prevent migration, leak detection, and facility logs.	NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION G. CONTINGENCY PLAN

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G-1	Contingency Plan	270.14(b)(7)		B.G	
G-2	Emergency Coordinators	270.14(b)(7); 264.52(d); 264.55	There must at least be one primary emergency coordinator available at all times.	B.G	
G-3	Implementation	270.14(b)(7); 264.52(a); 264.56(d)	Emergency coordinator to determine that facility has had a release, fire, or explosion that could threaten human health or the environment outside facility.	B.G	
G-4	Emergency Actions	270.14(b)(7); 264.56		B.G	
G-4a	Notification	270.14(b)(7); 264.56(a)	Describe the method for immediate notification of facility personnel and necessary state and local agencies.	B.G	
G-4b	Identification of Hazardous Materials	270.14(b)(7); 264.56(b)	Observation, records or manifest, or chemical analysis may be used by emergency coordinator.	B.G	
G-4c	Assessment	270.14(b)(7); 264.56(c),(d)	Direct and indirect effects must be considered.	B.G	
G-4d	Control Procedures	270.14(b)(7); 264.52(a)	Contingency plan must describe actions facility personnel must take in response to fires, explosions, or any unplanned release of hazardous waste to air, soil, or surface water.	B.G	
G-4e	Prevention of Recurrence of Spread of Fires, Explosions, or Releases	270.14(b)(7); 264.56(e)	Measures must include stopping processes and operations, collecting and containing release of waste, and removing or isolating containers.	B.G	
G-4e(1)	Monitor for Leaks, Pressure Buildup, Gas Generation or Ruptures of Released Material	270.14(b)(7); 264.56(f)	This item applies if facility stops operations.	B.G	

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SECTION G. CONTINGENCY PLAN

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G-4f	Storage, Treatment, and Disposal of Released Material	270.14(b)(7); 264.56(g)	After emergency, emergency coordinator must provide for treating, storing, and disposing of recovered waste.	B.G	
G-4g	Incompatible Waste	270.14(b)(7); 264.56(h)(1)	Until cleanup is complete, assure that incompatible waste is not stored together.	B.G	
G-4h	Post-Emergency Equipment Management	270.14(b)(7); 264.56(h)(2)	Decontamination is required for emergency equipment.	B.G	
G-4h(1)	Notification of Federal, State and Local Authorities before Resuming Operations	270.14(b)(7); 264.56(i)	Federal or state authorities must be notified within 15 days of occurrence.	B.G	
G-4i	Container Spills and Leakage	270.14(b)(7); 264.52; 264.71	Specify procedures to be used when responding to container spills and leakage.	B.G	
G-4j	Tank Spills and Leakage		For a tank or containment system from which there has been a leak or spill:	NA	
G-4j(1)	Stopping Waste Addition	270.14(b)(7); 264.196(a)	Document that the owner/operator will immediately stop the flow of hazardous waste.	NA	
G-4j(2)	Removing Waste	270.14(b)(7); 264.196(b)	Owner/operator will, within 24 hours after leak detected, remove waste and allow inspection and repair of the tank system to be performed.	NA	
G-4j(3)	Containment of Visible Releases	270.14(b)(7); 264.196(c)	Specify that a visual inspection of a release will be conducted, demonstrate further mitigation of leak will be prevented, and visible contamination will be removed and disposed of properly.	NA	
G-4j(4)	Notification Reports	270.14(b)(7); 264.196(d)	Demonstrate that any release to the environment will be reported to regional administrator within 24 hours of detection.	NA	

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SECTION G. CONTINGENCY PLAN

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G-4j(5)	Provisions of Secondary Containment, Repair, or Closure	270.14(b)(7); 264.196(e)	Provision of secondary containment repair, otherwise closure is required.	NA	
G4-k	Surface Impoundment Spills and Leakage	270.14(b)(7); 264.227	Surface impoundments must be removed from service when:	NA	
G4-k(1)	Emergency Repairs	270.14(b)(7); 264.227	Describe procedures for removing surface impoundments from service.	NA	
G4-k(1)(a)	Stopping Waste Addition	270.14(b)(7); 264.227(b)(1)	Procedures for stopping waste addition to the impoundment.	NA	
G4-k(1)(b)	Containing Leaks	270.14(b)(7); 264.227(b)(2)	Procedures for containing leak.	NA	
G4-k(1)(c)	Stopping Leaks	270.14(b)(7); 264.227(b)(3)	Procedures for stopping leak.	NA	
G4-k(1)(d)	Preventing Catastrophic Failure	270.14(b)(7); 264.227(b)(4)	Procedures to stop or prevent catastrophic failure.	NA	
G4-k(1)(e)	Emptying the Impoundment	270.14(b)(7); 264.227(b)(5)	Procedures for emptying impoundment, if necessary.	NA	
G4-k(2)	Certification	270.14(b)(7); 264.226 (c); 264.227(d)(1)	Procedures for recertifying a dike's structural integrity if impoundment is removed from service due to actual or imminent failure.	NA	
G4-k(3)	Repairs as a Result of Sudden Drop	270.14(b)(7); 264.227(d)(2)	Procedures to follow if impoundment is removed from service due to sudden drop in liquid level of the following:	NA	
G4-k(3)(a)	Existing Portions of Surface Impoundment	270.14(b)(7); 264.227(d)(2)(i)	Installation of liner for any existing portion of impoundment.	NA	
G4-k(3)(b)	Other Portions of the Surface Impoundment	270.14(b)(7); 264.227(d)(2)(ii)	Certification by qualified engineer for other than existing portions of the impoundment.	NA	

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SECTION G. CONTINGENCY PLAN

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G4-l	Containment Building Leaks	270.14(b)(7); 264.1101(c)(3)	Through active life of building if owner/operator detects condition that could lead to release of hazardous waste.	NA	
G-4l(1)	Repair of Containment Building	270.14(b)(7); 264.1101(c)(3)	Within 7 days of detection, owner/operator must contact regional administrator. Enter record of discovery, remove contaminated portion of building from service, determine repair steps, and establish schedule for repair.	NA	
G-4l(2)	Certification Following Repair	270.14(b)(7); 264.1101(c)(3)(iii)	Upon completion of repairs owner/operator must notify regional administrator.	NA	
G-4m	Drip Pad Spills and Leakage	270.14(b)(7); 264.573(m)	Throughout the active life of the drip pad, if a condition is detected that may have or has caused a release of hazardous waste, it must be repaired within a reasonably prompt period of time.	NA	
G-4m(1)	Stopping Waste Addition	270.14(b)(7); 264.573(m)(1)(ii)	Upon detection of leakage in the leak detection system, immediately remove the affected portion of the drip pad from service.	NA	
G-4m(2)	Determine Appropriate Cleanup and Repair	270.14(b)(7); 264.573(m)(1)(iii)	Establish a schedule for accomplishing the repairs.	NA	
G-4m(3)	Notification	270.14(b)(7); 264.573(m)(1)(iv)	Within 24 hours after discovery of the condition, notify the Regional Administrator or state director. Within 10 working days, provide written notice and a description of the repairs to be made to the drip pad.	NA	
G-4m(4)	Certification	270.14(b)(7); 264.573(m)(3)	Upon completing all repairs and clean up, provide certification signed by an independent, qualified registered PE.	NA	

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Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G-5	Emergency Equipment	270.14(b)(7); 264.52(e)		B.G	
G-6	Arrangements with Local Authorities	270.14(b)(7); 264.37; 264.52(c)	Police and fire departments, hospitals, and emergency response teams must be notified by owner/operator. Document refusal to enter into a coordination agreement.	B.G	
G-7	Evacuation Plan for Facility Personnel	270.14(b)(7); 264.52(f)	Evacuation plans must include evacuation signals and primary and alternate evacuation routes.	B.G	
G-8	Required Report Procedures for Recordkeeping and Reporting to Federal Authority	270.14(b)(7); 264.56(j)	Owner/operator must note on operation record the time, date and details of incidents which require implementation of contingency plan.	B.G	
G-9	Location and Distribution of Contingency Plan	270.14(b)(7); 264.53	Copy of contingency plan must be maintained at facility and submitted to local authorities.	B.G	

Notes:

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[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

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SECTION H. PERSONNEL TRAINING

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
H-1	Outline of Introductory and Continuing Training Programs	270.14(b)(12); 264.16(a)(1)	Facility personnel must successfully complete classroom or on-the-job training which will allow them to responsibly perform in their positions.	B.H	
H-1a	Job Title/Job Description	270.14(b)(12); 264.16(d)1), (d)(2)	Owner or operator must maintain records of job titles, names of employees, job descriptions, and types and amounts of training given to employees.	B.H	
H-1b	Description of How Training will be Designed to Meet Actual Job Tasks	270.14(b)(12); 264.16(c),(d)(3)	Training must be conducted by a qualified person; there must also be an annual review of the training.	B.H	
H-1c	Training Director	270.14(b)(12); 264.16(a)(2)	Program must be directed by person trained in hazardous waste procedures.	B.H	
H-1d	Relevance of Training to Job Position	270.14(b)(12); 264.16(a)(2)	Training must include instruction on hazardous waste procedures relevant to each employee's position.	B.H	
H-1e	Training for Emergency Response	270.14(b)(12); 264.16(a)(3)	Personnel must minimally be familiar with emergency procedures, emergency equipment, and emergency systems.	B.H	
H-2	Maintenance of Training Records/Copy of Personnel Training Documents	270.14(b)(12); 264.16(b),(d)(4),(e)	Training records on current personnel must be kept until closure of facility. Training must be completed within 6 months after date of employment.	B.H	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-1	Closure Plans	270.14(b)(13)		B.I	
I-1a	Closure Performance Standard	270.14(b)(13) ; 264.111	Describe how closure: minimizes the need for further maintenance; controls, minimizes, or eliminates the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and complies with the closure requirements of Subpart G and unit-specific closure requirements.	B.I	
I-1b	Time and Activities Required for Partial Closure and Final Closure Activities	270.14(b)(13) ; 264.112(b)(1) through 264.112(b)(7)	Describe the time and all activities required for: partial closure, if applicable; final closure; and maximum extent of operation that will be active during life of facility.	B.I	
I-1c	Maximum Waste Inventory	270.14(b)(13) ; 264.112(b)(3)		B.I	
I-1d	Schedule for Closure	270.14(b)(13) ; 264.112(b)(6)		B.I	
I-1(d)(1)	Time Allowed for Closure	270.14(b)(13) ; 264.112(b)(2) ; 264.113(a) and (b)		B.I	
I-1d(1)(a)	Extension for Closure Time	270.14(b)(13) ; 264.113(a) and (b)		B.I	
I-1e	Closure Procedures	270.14(b)(13) ; 264.112; 264.114		B.I	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-1e(1)	Inventory Removal	270.14(b)(13) ; 264.112(b)(3)	Discuss methods for removing, transporting, treating, storing, or disposing of all hazardous wastes and identify the type(s) of off-site hazardous waste management units to be used.	B.I	
I-1e(2)	Disposal or Decontamination of Equipment, Structure, and Soils	270.14(b)(13) ; 264.112(b)(4) ; 264.114	Provide a detailed description of the steps needed to decontaminate or dispose of all facility equipment and structures. Demonstrate that any hazardous constituents (i.e., Appendix VII) left at the unit will not impact any environmental media in excess of Agency-established exposure levels and that direct contact will not pose a threat to human health and the environment.	B.I	
I-1e(3)	Closure of Disposal Units/Contingent Closures	270.14(b)(13)		NA	
I-1e(3)(a)	Disposal Impoundments	270.14(b)(13) ; 264.228(a)(2)		NA	
I-1e(3)(a)(i)	Elimination of Liquids	270.14(b)(13)		NA	
I-1e(3)(a)(ii)	Waste Stabilization	270.14(b)(13) ; 264.228(a)(2)(ii)		NA	
I-1e(3)(b)	Cover Design	270.14(b)(13) ; 264.228(a)(2)(iii);264.310(a)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-1e(3)(c) Minimization of Liquid Migration	270.14(b)(13); 264.228(a)(2)(iii)(A); 264.310(a)(1)	Draft RCRA Guidance Document entitled Landfill (Design--Liner Systems and Final Cover (1982), suggests the following design for landfill cover systems (from top to bottom): a vegetated top cover, with a minimum of 24 inches of topsoil; a middle drainage layer (at least one foot thick with a saturated conductivity of not less than 1 x 10^{-3} cm/sec) overlain by a geotextile filter fabric or graded granular filter; and a low permeability bottom layer consisting of two components: an upper component of at least a 20 mil synthetic membrane protected above and below by at least six inches of bedding material, a lower component of at least 24 inches of low permeability (maximum hydraulic conductivity of 1 x 10^{-7} cm/sec) soil emplaced in lifts not exceeding six inches. For cover designs different than EPA-recommended designs, provide engineering calculations showing the proposed cover will provide long-term minimization of liquid migration through the cover.	NA	
I-1e(3)(d) Maintenance Needs	270.14(b)(13); 264.228(a)(2)(iii)(B); 264.310(a)(2)		NA	
I-1e(3)(e) Drainage and Erosion	270.14(b)(13); 264.228(a)(2)(iii)(C); 264.310(a)(3)	The following information should be provided: data demonstrating that the proposed final slopes will not cause significant cover erosion; description of drainage materials and their permeabilities; engineering calculations demonstrating free drainage of precipitation off of and out of the cover; and estimation of the potential for drainage-layer clogging.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-1e(3)(f)	Settlement and Subsidence	270.14(b)(13); 264.228(a)(2)(iii)(D); 264.310(a)(4)	Include the following information: potential foundation compression; potential soil liner compression; and potential waste consolidation and compression resulting from waste dewatering, biological oxidation and chemical conversion of solids to liquids.	NA	
I-1e(3)(g)	Cover Permeability	270.14(b)(13); 264.228(a)(2)(iii)(E); 264.310(a)(5)		NA	
I-1e(3)(h)	Freeze/Thaw Effects	270.14(b)(13); 264.228(a)(2)(iii); 264.310(a)	Identity the average depth of frost penetration and describe the effects of freeze/thaw cycles on the cover.	NA	
I-1e(4)	Closure of Containers	270.14(b)(13); 264.178; 264.112(b)(3); 270.14(b)(13	Address the following: hazardous waste removal and disposal; container decontamination and disposal; site decontamination and disposal including linings, soil, and washes; maximum inventory.	NA	
I-1e(5)	Closure of Tanks	270.14(b)(13); 264.197; 264.112(b)(3)	The description should address the following: waste removal from tanks and equipment; decontamination of all components; verification of decontamination; disposal of wastes and residues; and maximum inventory.	NA	
I-1e(6)	Closure of Waste Piles	270.14(b)(13); 270.18(h); 264.258	The description must address the following: procedure and criteria for determining whether or not decontamination has been successful; and sampling and analytical techniques.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-1e(7)	Closure of Surface Impoundments	270.14(b)(13) ; 270.17(f); 264.228(a)(1), (2), and (b)	Surface impoundments without liners or with liners that do not meet the requirements must also provide contingent plans for closure in place and a contingent post-closure plan, except for impoundments requesting a liner exemption in accordance with D-4b.	NA	
I-1e(8)	Closure of Incinerators	270.14(b)(13) ; 264.351	Describe how, at closure, all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) will be removed from the incinerator, associated ductwork, piping, air pollution control equipment, sumps, and any other structures or operating equipment such as pumps, valves, etc., that have come into contact with the hazardous waste. Alternatively, describe how the incinerator and associated units and equipment will be dismantled and disposed of as a hazardous waste.	NA	
I-1e(9)	Closure of Landfills	270.14(b)(13) ; 270.21(e); 264.310(a)	Provide detailed plans and engineering report that describes the final cover components in detail. Cover installation and construction quality assurance procedures should be thoroughly described.	NA	
I-1e(10)	Closure of Land Treatment Facilities	270.14(b)(13) ; 264.280(a); 270.20(f)		NA	
I-1e(10)(a)	Continuance of Treatment	270.14(b)(13) ; 264.280(a)(1) through (7)		NA	
I-1e(10)(b)	Vegetative Cover	270.14(b)(13) ; 270.20(f); 264.280(a)(8)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-1e(11)	Closure of Miscellaneous Units	270.14(b)(13) ; 270.23(a)(2)		NA	
I-1e(12)	Closure of Boilers and Industrial Furnaces	270.14(b)(13) ; 266.102(a)(2)(vii)	Describe how, at closure, all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) will be removed from the BIF unit, associated ductwork, piping, air pollution control equipment, sumps and any other structures or operating equipment such as pumps, valves, etc., that have come into contact with hazardous wastes. Alternatively, describe how the BIF and associated equipment will be dismantled and disposed of. If any wastes, waste residues, contaminated components, subsoils, structures or equipment remain after closure, provide plans for closing the BIF unit as a landfill and provide a post-closure care plan.	NA	
I-1e(13)	Closure of Containment Buildings	270.14(b)(13) ; 264.1102	Show that at closure all hazardous waste, hazardous waste residues, contaminated containment system, contaminated subsoils, and all structures and equipment contaminated with waste and leachate will be removed. If any wastes, waste residues, contaminated components, subsoils, structures or equipment remain after closure, provide plans for closing the containment building as a landfill and provide a post-closure care plan.	NA	
I-2	Post-Closure Plans	270.14(b)(13)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-2a	Inspection Plan	270.14(b)(13); 264.118(a); 264.197(b); 264.197(c)(2); 264.226(d)(2); 264.228(b); 264.228(c)(1)(ii); 264.258(b); 264.258(c)(1)(ii); 264.303(c); 264.310(b)	Rationale for determining the length of time between inspections should be provided.	NA	
I-2b	Monitoring Plan	270.14(b)(13); 264.118(b)(1); 264.197(b); 264.197(c)(2); 264.226(d)(2); 264.228(b); 264.228(c)(1)(ii); 264.258(b); 264.258(c)(1)(ii); 264.303(c); 264.310(b)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-2c	Maintenance Plan	270.14(b)(13); 264.118(b)(2); 264.197(b); 264.197(c)(2); 264.228(b); 264.228(c)(1)(ii); 264.258(b); 264.258(c)(1)(ii); 264.310(b)	Describe the preventative and corrective maintenance procedures, equipment procedures, equipment requirements and material needs.	NA	
I-2d	Land Treatment	270.14(b)(13); 264.280(c)	Describe the operation, inspection, and maintenance programs to be used at the closed facility.	NA	
I-2e	Post-Closure Care for Miscellaneous Units	270.14(b)(13); 270.23(a)(3); 264.603		NA	
1-2f	Post-Closure Security	270.14(b)(13); 264.117(b) and (c)	Demonstrate that for property where hazardous wastes remain after partial or final closure, post-closure use must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring system.	NA	
I-2g	Post-Closure Contact	270.14(b)(13); 264.118(b)(3)		NA	
I-3	Notices Required for Disposal Facilities	270.14(b)(13)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-3a	Certification of Closure	270.14(b)(13) ; 264.115; 264.280		B.I	
I-3b	Survey Plat	270.14(b)(13) ; 264.116		NA	
I-3c	Post-Closure Certification	270.14(b)(13) ; 264.120		NA	
I-3d	Post-Closure Notices	270.14(b)(13) ; 270.14(b)(14) ; 264.119		NA	
I-4	Closure Cost Estimate	270.14(b)(15) ; 264.142	Estimate must equal final cost estimate. Estimate must be based on third party closing facility and may use on-site disposal if capacity will exist over life of facility. Estimate must be adjusted for annual inflation as stated in 264.142(b). Estimates may not assume zero cost for hazardous waste handling, and may not incorporate salvage value, facility structures/equipment, land, or other facility assets as offsets.	B.I	
I-5	Financial Assurance for Closure	270.14(b)(15) ; 264.143; 264.151		B.I	
I-5a	Closure Trust Fund	270.14(b)(15) ; 264.143(a); 264.151(a)(1)	Provide copy of fund agreement.	NA	
I-5b	Surety Bond	270.14(b)(15) ; 264.143(b), (c); 264.151 (b),(c)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-5b(1)	Surety Bond Guaranteeing Payment into a Closure Trust Fund	270.14(b)(15) ; 264.143(b); 264.151(b)	Must provide bond or standby trust agreement. Bond must guarantee owner/operator will fund standby trust fund or provide financial assurance equal to penal sum.	NA	
I-5b(2)	Surety Bond Guaranteeing Performance of Closure	270.14(b)(15) ; 264.143(c); 264.151(c)	Guarantee owner/operator will perform closure required as worded in 246.151(c) and Subpart G.	NA	
I-5(c)	Closure Letter of Credit	270.14(b)(15) ; 264.143(d); 264.151(d)	Requires letter of credit for 1 year equal to amount of closure.	NA	
I-5(d)	Closure Insurance	270.14(b)(15) ; 264.143(e); 264.151(e)	Provide copy of certificate of insurance, wording requirement found in 264.151(e).	B.I	
I-5(e)	Financial Test and Corporate Guarantee for Closure	270.14(b)(15) ; 264.143(f); 264.151(f),(h)	Signed letter by owner/operator or chief financial officer as specified in 264.151(f),(h) of applicant financial statement. If a parent corporation is guaranteeing closure care, corporate guarantee must accompany.	NA	
I-5(f)	Use of Multiple Financial Mechanism	270.14(b)(15) ; 264.143(g)	Financial assurance instruments must meet requirements stated in 264.143 (a),(b),(c),(d) or (e) that include trust funds, surety bonds, letter of credit, and insurance, respectively.	NA	
I-5(g)	Use of Multiple Financial Mechanism for Multiple Facilities	270.14(b)(15) ; 264.143(h)	Provide financial assurance mechanism showing amount of funds assured.	NA	
I-6	Post-Closure Cost Estimate	270.14(b)(16) ; 264.144	Estimate must be based on third party closing facility and may use on-site disposal if capacity will exist over life of facility. Estimate must be adjusted for annual inflation as stated in 264.142(b).	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-7	Financial Assurance Mechanism for Post Closure Care	270.14(b)(16) ; 264.145; 264.151		NA	
I-7a	Post-Closure Trust Fund	270.14(b)(16) ; 264.145(a); 264.151(a)(1)	Provide copy of post-closure fund agreement. Wording requirements outlined in 264.151(a)(1).	NA	
I-7b	Surety Bond	270.14(b)(16) ; 264.145(b),(c) ; 264.151(b),(c)	264.145(b),(c) spells out requests for owner/ operator for adjusting estimates, inflation, and reporting to regional administrator. 264.151(b),(c) outlines wording for bond agreement.	NA	
I-7b(1)	Surety Bond Guaranteeing Payment into a Post-Closure Trust Fund	270.14(b)(16) ; 264.145(b); 264.151(b)	Must provide bond or standby trust agreement before beginning final closure of the facility. Bond must guarantee owner/operator will fund a standby trust fund or provide financial assurance equal to penal sum.	NA	
I-7b(2)	Surety Bond Guaranteeing Performance of Closure	270.14(b)(16) ; 264.145(c); 264.151(c)	Guarantee owner/operator will perform closure required as stated in 246.151(c) and Subpart H.	NA	
I-7(c)	Post-Closure Letter of Credit	270.14(b)(16) ; 264.145(d); 264.151(d)	Requires letter of credit for 1 year equal to amount of post-closure cost.	NA	
I-7(d)	Post-Closure Insurance	270.14(b)(16) ; 264.145(e); 264.151(e)	Provide copy of certificate of insurance, wording requirement found in 264.151(e).	NA	
I-7(e)	Financial Test and Corporate Guarantee for Post-Closure Care	270.14(b)(16) ; 264.145(f); 264.151(f),(h)	Signed letter by owner/operator or chief financial officer as specified in 264.151(f),(h) of applicant financial statement. If parent corporation is guaranteeing post-closure care, corporate guarantee must accompany.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-7(f)	Use of Multiple Financial Mechanism	270.14(b)(16) ; 264.145(g)	Provide copy of financial assurance mechanisms. Combined financial assurance must be at least equal to post-closure cost estimate.	NA	
I-7(g)	Use of Multiple Financial Mechanism for Multiple Facilities	270.14(b)(16) ; 264.145(h)	Provide copy of financial assurance mechanisms for more than one facility. Amount must be no less than sum of funds that would be available if separate mechanism had been established and maintained for each facility.	NA	
I-8	Liability Requirements	270.14(b)(17) ; 264.147		B.I	
I-8a	Coverage for Sudden Accidental Occurrences	270.14(b)(17) ; 264.147(a)	Coverage must be maintained for sudden accidental occurrences in the amount of $1 million per occurrence with an annual agreement of at least $2 million.	B.I	
I-8a(1)	Endorsement of Certification	270.14(b)(17) ; 264.147(a)(1)	Submit original Hazardous Waste Facility Liability Endorsement wording pursuant to 264.151(i), or Certificate of Liability wording pursuant to 264.151(j).	B.I	
I-8a(2)	Financial Test and Corporate Guarantee for Liability Coverage	270.14(b)(17) ; 264.147(a)(2),(f),(g); 264.151(f),(g)	Requires signed letter by owner or chief financial officer worded as outlined in 264.151(g) outlining applicant financial statement. 264.151(g) used if applicant is using financial test to cover cost for closure or post closure. Alternatively, owner/operator may submit corporate guarantee specified in 264.151(h)(2).	NA	
I-8a(3)	Use of Multiple Financial Mechanism	270.14(b)(17) ; 264.147(a)(3)	Submit items demonstrating liability coverage specified in I-8a(1) and I-8a(2). Amount of coverage must total at least minimum amount required by 264.147(a).	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-8b	Coverage for Nonsudden Accidental Occurrences	270.14(b)(17) ; 264.147(b)	For high risk storage facilities, surface impoundments, land disposal, land treatment facilities, liability coverage must be maintained in the amount of at least $3 million per occurrence. Annual aggregate at least $6 million.	NA	
I-8b(1)	Endorsement or Certification	270.14(b)(17) ; 264.147(b)(1)	Submit signed duplicate original of Hazardous Waste Facility Liability Endorsement.	NA	
I-8b(2)	Financial Test or Corporate Guarantee for Liability Coverage	270.14(b)(17) ; 264.147(b)(2) ; 264.151(f),(g)	Requires signed letter by owner or chief financial officer worded as outlined in 264.151(g) outlining applicant financial statement. 264.151(g) used if applicant is using financial test to cover cost for closure or post closure. Alternatively, owner/operator may submit corporate guarantee specified in 264.151(h)(2).	NA	
I-8b(3)	Use of Multiple Insurance Mechanism	270.14(b)(17) ; 264.147(b)(3)	Submit items demonstrating liability coverage specified in I-8a(1) and I-8a(2). Amount of coverage must total at least minimum amount required by 264.147(b).	NA	
I-8c	Requests for Variance	270.14(b)(17) ; 264.147(c)	Request for adjusted level of required liability must be supported by information which demonstrates 264.147(a) or (b) are not consistent with degree and duration of risk associated with treatment, storage, or disposal at facility or group of facilities.	NA	
I-9	Use of State Required Mechanisms	270.14(b)(18)		NA	
I-9a	Use of State Required Mechanisms	270.14(b)(18) ; 264.149	When state has regulations equivalent or greater liability requirements for financial assurance for closure post-closure submit copy of state-required financial mechanism.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION I. CLOSURE POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
I-9b	State Assumption of Responsibility	270.14(b)(18) ; 264.150	If state assumes legal responsibility for compliance with closure, post-closure, or liability requirements there must be a letter submitted from state specifying assumption of responsibilities and amounts of liability.	IM	

Notes:

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION J. SOLID WASTE MANAGEMENT UNITS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
J-1	Characterize the Solid Waste Management Unit (SWMU)	270.14(d)(1)	Describe methodology used to determine that no existing or former SWMUs exist at facility if applicable.	B.J	
J-2	Releases	270.14(d)(2)	Provide following information concerning releases: date of release; type, quantity, and nature of release; groundwater monitoring and other analytical data; physical evidence of stressed vegetation; historical evidence of releases; any state, local, or federal enforcement action that may address releases; any public citizen complaints that indicate a release; and any other information showing the migration of the release. Describe methodology used to determine that releases from SWMUs are not present.	B.J	

Notes:

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION K. OTHER FEDERAL LAWS

Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See attached Comment Number[c]
K-1 Other Federal Laws	270.14(b)(20), 270.3	Demonstrate compliance with requirements of applicable Federal laws such as the Wild and Scenic Rivers Act, National Historic Preservation Act of 1966, Endangered Species Act, Coastal Zone Management Act, and Fish and Wildlife Coordination Act.	B.K	

Notes:

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION L. PART B CERTIFICATION

Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
L-1 Part B Certification	270.11		B.L	

Notes:

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-1	Definition of Process Vent	270.14(a); 264.1030; 264.1031	A process vent is any open-ended pipe or stack that is vented to atmosphere either directly, through a vacuum-producing system, or through a tank.	B.M	
M-2	Applicability—Process Vents Associated with the Following Six Operations that Manage Hazardous Waste with Organic Concentrations of at Least 10 Parts per Million by Weight if these Operations are Conducted in; a Unit Subject to the Permitting Requirements of 270; a Unit (including a Hazardous Waste Recycling Unit) that is Not Exempt from Permitting Under 262.34(a) and is Located at a Hazardous Waste Management Facility Otherwise Subject to Permitting Requirements; and a Unit that is Exempt from Permitting Under 262.34(a)	270.14(a); 264.1030(b); 264.1031	Concentrations should be determined by a time-weighted average annually or when waste or process changes.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-2a	Distillation—a Batch or Continuous Operation Which Separates One or More Feed Stream(s) into Two or More Exit Streams, Each Exit Stream Having Component Concentrations Different from Those in the Feed Stream(s)	270.24(b)(3); 264.1030(b); 264.1031	Include process description.	NA	
M-2b	Fractionation—a Distillation Operation or Method Used to Separate a Mixture of Several Volatile Components of Different Boiling Points in Successive Stages	270.24(b)(3); 264.1030(b); 264.1031	Include process description.	NA	
M-2c	Thin-Film Evaporation—a Distillation Operation that Employs a Heating Surface Consisting of a Large Diameter Tube that May be Either Straight or Tapered, Horizontal or Vertical	270.24(b)(3); 264.1030(b); 264.1031	Include process description.	NA	
M-2d	Solvent Extraction—an Operation or Method of Separation in Which a Solid or Solution Contacts a Liquid Solvent (The Two Being Mutually Insoluble) to Preferentially Dissolve and Transfer One or More Components into the Solvent	270.24(b)(3); 264.1030(b); 264.1031	Include process description.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-2e	Air Stripping—a Desorption Operation Employed to Transfer One or More Volatile Components from a Liquid Mixture into a Gas (Air) Either with or Without the Application of Heat to the Liquid	270.24(b)(3); 264.1030(b); 264.1031	Include process description.	NA	
M-2f	Stream Stripping—a Distillation Operation in Which Vaporization of the Volatile Constituents of a Liquid Mixture Takes Place by the Introduction of Steam Directly into the Charge.	270.24(b)(3); 264.1030(b); 264.1031	Include process description.	NA	
M-3a	Reduce Total Organic Emission below 1.4 Kilogram per Hour (3 Pounds per Hour) and 2.8 Million Grams per Year (3.1 Tons per Year), or	270.24(b); 264.1032(a)(1),(c)	Engineering calculations or performance tests may be used to determine vent emissions and emissions reductions or total organic compound concentrations achieved by add-on control devices.	NA	
M-3b	Reduce Total Organic Emissions of 95 Percent by Weight with the Use of a Control Device	270.24(b); 264.1032(a)(2),(b)	Engineering calculations or performance tests may be used to determine vent emissions and emissions reductions or total organic compound concentrations achieved by add-on control devices.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-3c	Reduce Emissions for Various Control Devices with Closed-vent Systems under the Following Operational Conditions:	270.24(b); 264.1032(a - b); 264.1033 (b - j)	Closed-vent systems are optional devices, but shall comply with regulations if they are used.	NA	
M-3c(1)	Control Device Involving Vapor Recovery (Condenser or Adsorber) Shall Recover at Least 95 Percent by Weight of the Organic Vapors	270.24(b); 264.1032(a) (1),(b)	A less than 95 percent recovery is permissible if control devices meet emission limits set in 264.1032(a)(1).	NA	
M-3c(2)	Enclosed Combustion Device (A Vapor Incinerator, Boiler, or Process Heater) Shall Recover at Least 95 Percent by Weight of Organic Emissions	270.24(d); 264.1033(c)	The device shall achieve 20 parts per million by weight or 1/2 second residence time at 760 °C.	NA	
M-3c(3)	A Flare Shall Operate under the Following Four Conditions: (1) No Visible Emissions, (2) a Flame Present at all Times, (3) an Acceptable Net Heating Value, and (4) Appropriate Exit Velocity	270.24(d); 264.1033(d)		NA	
M-4	Inspection Readings Shall Be Conducted at Least Daily. Vent Stream Flow Information Shall be Provided at Least Hourly.	270.24(d); 264.1033(f) (1),(3)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-4a	Continuous Monitoring for the Following Control Devices:	270.24(d); 264.1033(f)(2)		NA	
M-4a(1)	Thermal Vapor Incinerator (One Temperature Sensor).	270.24(d); 264.1033(f)(2)(i)	Sensor shall have accuracy of ± 1 percent °C or ± 0.5 °C, whichever is greater.	NA	
M-4a(2)	Catalytic Vapor Incinerator (Two Temperature Sensor)	270.24(d); 264.1033(f)(2)(i)	Sensor shall have accuracy of ± 1 percent °C or ± 0.5 °C, whichever is greater.	NA	
M-4a(3)	Flare (Heat Sensing Device)	264.1033(f)(2)(iii)		NA	
M-4a(4)	Boiler or Process Heater with Heater Input Capacity Equal or Greater than 44 Megawatts (Recorder Which Indicates Good Combustion Practices)	270.24(d); 264.1033(f)(2)(v)		NA	
M-4a(5)	Condenser (Device with Recorder to Measure the Concentration of Organic Compounds in the Condenser Exhaust Vent Stream or Temperature Monitoring Device Equipped with Recorder to Measure Temperature in the Condenser Exhaust Vent Stream)	270.24(d); 264.1033(f)(2)(vi)	Sensor shall have accuracy of ± 1 percent °C or ± 0.5 °C, whichever is greater.	NA	
M-4a(6)	Carbon Adsoprtion System (Device to Measure Organic Vapors or a Recorder that Verifies Predetermined Regeneration Cycle)	270.24(d); 264.1033(f)(2)(vii)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-4b	Alternate Monitoring of Control Device	270.24(c); 264.1033(i)	Describe measurement of applicable monitoring parameters.	NA	
M-4c	Inspection of the Following Control Devices:	270.24(d); 264.1033(g - h)		NA	
M-4c(1)	Regenerable Carbon Adsorption System	270.24(d); 264.1033(g)	Carbon replacement schedule must be acceptable.	NA	
M-4c(2)	Nonregenerable Carbon Adsoprtion System	270.24(d); 264.1033(h)	Carbon shall be replaced when breakthrough is observed or on an acceptable schedule.	NA	
M-5	Basic Design and Operation			NA	
M-5a	The Closed-Vent System Shall be Designed to Operate According to Either of the Following:	270.24(d); 264.1033(k)		NA	
M-5a(1)	With No Detectable Emissions	270.24(d); 264.1033(k)(1)	Emissions shall be less than 500 parts per million above background.	NA	
M-5a(2)	At a Pressure below Atmospheric Pressure	270.24(d); 264.1033(k)(2)	System shall be equipped with at least one pressure gauge or other measurement device that can be read from a readily accessible location to verify negative pressure is being maintained in system during operation.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-5b	Owner/operator Shall Monitor and Inspect Each System	270.24(d); 264.1033(1)	The monitoring and inspection shall be done: (1) by date the system is subject to regulation, (2) annually, and (3) other times requested by the U.S. Environmental Protection Agency regional administrator. Various inspection and monitoring requirements apply depending upon the type of closed-vent system employed. All detected defects shall be repaired according to the schedule prescribed in 264.1033(l)(3).	NA	
M-5c	Closed-Vent System Shall be Operated at all Times When Emissions May be Vented to Them.	270.24(d); 264.1033(m)		NA	
M-5d	Carbon Adsorption System Used to Control Air Pollutant Emissions	270.24(d); 264.1033(n)	Owner/operator must document that all carbon that is a hazardous waste and removed from the control device is managed in one of these approved manners: 264.1033(n)(1), (2), or (3).	NA	
M-6	Any Components of a Closed-Vent System that are Designated as Unsafe to Monitor are Exempt from the Monitoring Requirements of 1033(l)(1)(i)(B) if Certain Conditions are Met.	270.24(d); 264.1033(o)	Applies to system if its components are unsafe to monitor and it adheres to written plan that requires monitoring using the procedures in 264.1033(l)(1)(ii)(B) as frequently as practicable during safe-to-monitor times.	NA	

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SECTION M. SUBPART AA PROCESS VENTS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
M-7a	Owner/operator Complies with Record Keeping Requirements	270.24(d); 264.1033; 264.1035	Depending on the type of control devices and closed vent systems used, various records must be maintained in the facility operating record.	NA	
M-7b	Semiannual Report is Submitted According to Subpart AA Requirements	270.14(a); 264.1036	A semiannual report is only required if a control device operates outside the design specifications.	NA	
M-7c	Implementation Schedule is Provided	270.24(a); 264.1033(a)(2)	A schedule shall be provided when facilities cannot install a closed-vent system and control device to comply with Part 264 on date facility is subject to requirements.	NA	
M-7d	Performance Test Plan is Provided	270.24(c); 264.1035(b)(3)	A performance test plan shall be provided where owner/operator applies for permission to use control device other than thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, and chooses to use test data to determine organic removal efficiency achieved by control device.	NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION N. SUBPART BB EQUIPMENT LEAKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
N-1a	Applicability	270.14(a); 270.25; 264.1050(b),(d)	Except as otherwise specified, this subpart applies to equipment that contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight that are managed in one of the following: if these operations are conducted in; a unit subject to the permitting requirements of 270; a unit (including a hazardous waste recycling unit) that is not exempt from permitting under 262.34(a) and is located at a hazardous waste management facility otherwise subject to permitting requirements; and a unit that is exempt from permitting under 262.34(a) such as a 90-day tank or container.	B.N	
N-1b	Definition of Equipment	270.14(a); 270.25; 264.1031; 264.1051	Examples include: valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange.	B.N	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION N. SUBPART BB EQUIPMENT LEAKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
N-1c	Equipment in a Vacuum or Equipment that Contains or Contacts Hazardous Waste with an Organic Concentration of at Least 10 Percent by Weight for a Period of Less than 300 Hours per Calendar Year is Excluded from Requirements at 264.1052 to 264.1060.	270.14(a); 270.25; 264.1050(f)	Equipment shall be identified in a log in facility's operating record as required by 264.1064(g) in order to qualify for exclusion.	B.N	
N-2a	Monthly Monitoring for Leaks	270.25(d); 264.1052(a)(1)		B.N	
N-2b	Visual Inspection for Pump Seal Leakage on a Weekly Basis	270.25(d); 264.1052(a)(2)		B.N	
N-2c	Leak Detection	270.25(d); 264.1052(b); 264.1063	Leak detected if: (1) leak detection instrument reads 10,000 parts per million (ppm) or greater, or (2) there are indications of liquid dripping from the pump seal.	B.N	
N-2d	Leak Repair as Soon as Practicable	270.25(d); 264.1052(c); 264.1059	Repairs are to be made within 15 calendar days after detection. Repair extensions are allowed under conditions specified in 264.1059.	B.N	

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SECTION N. SUBPART BB EQUIPMENT LEAKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
N-2e	Specific Exceptions to these Standards	270.25(d); 264.1052(d - f)	Exceptions to these standards are dual mechanical seal systems or no detectable emissions.	B.N	
N-3a	Barrier Fluid Pressure Greater than the Compressor Stuffing Box Pressure	270.25(d); 264.1053(b) (1)		B.N	
N-3b	Barrier Fluid System Connected by a Closed-Vent System to a Control Device as Described in Subpart AA	270.25(d); 264.1053(b) (2)		B.N	
N-3c	No Detectable Atmospheric Emissions of Hazardous Contaminants from the Barrier System	270.25(d); 264.1053(b) (3)		B.N	
N-3d	Sensors Checked Daily or an Audible Alarm Checked Monthly	270.25(d); 264.1053(d - c)		B.N	
N-3e	Leak Detection	270.25(d); 264.1053(f)	A leak is detected if sensor indicates failure of: (1) seal system, or (2) barrier fluid system.	B.N	
N-3f	Leak Repair as Soon as Practicable	270.25(d); 264.1053(g) (1); 264.1059	Repairs are to be made within 15 calendar days after detection. Repair extensions are allowed under conditions specified in 264.1059.	B.N	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION N. SUBPART BB EQUIPMENT LEAKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
N-3g	Specific Exceptions to these Standards	270.25(d); 264.1053(h - i)	Exceptions to these standards are certain closed vent systems or no detectable emissions.	B.N	
N-4a	Except During Pressure Releases, No Pressure Relief Device Shall Release Detectable Emissions	270.25(d); 264.1054(a)	Emissions shall be less than 500 ppm above background levels.	B.N	
N-4b	Within 5 Calendar Days after a Pressure Release, No Detectable Emissions Shall Emanate from Pressure Released Device	270.25(d); 264.1054(b)	Emissions shall be less than 500 ppm above background levels.	B.N	
N-4c	Specific Exceptions to These Standards	270.25(d); 264.1054(c)	Exceptions to these standards are certain closed vent systems.	B.N	
N-5a	Each Sampling Connecting System Shall Be Equipped with a Closed-Purge, Closed Loop, or Closed-Vent System. Closed-Vent Systems and Control Devices are also Subject to 264.1033	270.25(d); 264.1055(a - b); 264.1060	Each closed-purge, closed-loop, or closed-vent system shall either: (1) return purged process fluid directly to process line, (2) collect and recycle purged process liquid, or (3) be designed and operated to capture and transport all purged process fluid to a waste management unit or control device that satisfies applicable requirements.	NA	
N-5b	Exemption for Qualified Sampling Systems	270.25(d); 264.1055(c)	In situ sampling systems and sampling systems without purges are exempt from requirements of 264.1055(a),(b).	B.N	

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SECTION N. SUBPART BB EQUIPMENT LEAKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
N-6a	Open-Ended Valve or Line	270.25(d); 264.1056(a), (c)	A double block or bleed system must comply with the open-ended valve or line requirements.	B.N	
N-6b	Second Valve	270.25(d); 264.1056(b)	A second valve shall be operated such that primary valve shall be closed before second valve is opened.	B.N	
N-7	Monitoring Schedule Based on Detection of Leaks and Predetermined Schedule	270.25(d); 264.1057(a - e)	A reading of 10,000 ppm denotes a detected leak.	B.N	
N-7d	Specific Exceptions to the Monitoring Schedule	270.25(d); 264.0157(f - h); 264.1061; 264.1062	Exceptions to schedule include unsafe-to-monitor valves, no detectable emissions, and difficult-to-monitor valves.	B.N	
N-8a	Monitoring	270.25(d); 264.1058(a); 264.1063(b)	Monitoring is required within 5 days after leak is found by sight, sound, smell, or other detection method.	B.N	
N-8b	Leak Detection	270.25(d); 264.1058(b)	A leak is detected if a leak detection instrument reads 10,000 ppm or greater.	B.N	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION N. SUBPART BB EQUIPMENT LEAKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
N-8c	Leak Repair as Soon as Practicable	270.25(d); 264.1058(c); 264.1059	Repairs are to be made within 15 calendar days after detection. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. Repair extensions are allowed under conditions specified in 264.1059.	B.N	
N-8d	Any Connector that is Inaccessible or is Ceramic or Ceramic-Lined is Exempt from the Monitoring Requirements of 264.1058(a) and 264.1064	270.25(d); 264.1058(e)	Examples of ceramic-lined connectors include porcelain, glass, or glass-lined connectors.	NA	
N-9	Specific Allowances for Delay of Repair for Various Types of Equipment	270.25(d); 264.1059		B.N	
N-10	When Closed-Vent Systems and Control Devices are Used, they Must Comply with the Requirements in Subpart AA	270.25(e); 264.1033; 264.1060		NA	
N-11	An Owner/Operator may Elect to Comply with this Alternative Monitoring Program	270.25(e); 264.1061	No greater than 2 percent of the valves are allowed to leak per monitoring period.	NA	
N-12	An Owner/Operator may Elect to Comply with this Alternative Work Practice	270.25(e); 264.1062	Relief of monitoring frequency is allowed if less than 2 percent of the valves are leaking.	NA	

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SECTION N. SUBPART BB EQUIPMENT LEAKS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
N-13	Owner Complies with Recordkeeping Requirements	270.25(a); 264.1064	Depending on the type of requirement, various records must be maintained in the facility operating record.	B.N	
N-13a	Semiannual Report	270.25(a); 264.1065	A semiannual report is only required if leaks from equipment have gone unrepaired or a control device operates outside the design specifications.	NA	
N-13b	Implementation Schedule	270.25(b)	An implementation schedule shall be provided if facility cannot install closed-vent system and control device to comply with provisions of Part 264, Subpart BB on the effective date that facility becomes subject to provisions of Parts 264 and 265.	NA	
N-13c	Performance Test Plan	270.25(c)	A performance test plan shall be provided if the owner/operator applies for permission to use a control device for other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency achieved by the control device.	NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

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CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-1	Standards Apply to All Facilities That Treat, Store, or Dispose of Hazardous Waste in Tanks, Surface Impoundments, or Containers Subject to 264, Subparts I, J, or K, Except as Provided Otherwise	270.14(a); 270.27; 264.1080 (a) - (d)	Exclusions from 264.1080(a) are listed at 264.1080(b) (e.g., a container that has a design capacity less than or equal to 0.1 cubic meters [m^3]).	B.O	
O-2	Following is a List of Units that are Exempt from the 264.1084-264.1087 Standards:	270.14(a); 270.27; 264.1082(c)			
O-2a	A Tank, Surface Impoundment, or Container for Which All Hazardous Waste Entering the Unit Has an Average Volatile Organic Concentration at the Point of Waste Origination of less than 500 Parts per Million by Weight (ppmw)	270.14(a); 270.27; 264.1082(c)(1)	Waste determination procedures are specified at 264.1083.	NA	
O-2b	A Tank, Surface Impoundment, or Container for Which the Organic Content of all the Hazardous Waste Entering the Waste Management Unit has been Reduced by an Organic Destruction or Removal Process that Achieves Specified Criteria	270.14(a); 270.27; 264.1082(c)(2)	Waste determination procedures are specified at 265.1084(b)(2)-(b)(9).	NA	

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SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-2c	A Tank Used for Biological Treatment of Hazardous Waste that Destroys or Degrades the Organics Contained in the Hazardous Waste such that the Requirements of 264.1082(c)(2)(iv) are Met	270.14(a); 270.27; 264.1082(c)(3)	Waste determination procedures are specified at 264.1083(b) and 264.1083(a).	NA	
O-2d	A Tank, Surface Impoundment or Container for Which all Hazardous Waste Placed in the Unit Meets Applicable Organic Concentration Limits or has been Treated by Appropriate Treatment Technology	270.14(a); 270.27; 264.1082(c)(4)	Waste determination procedures are specified at Part 268.	NA	
O-2e	A Tank Located Inside an Enclosure Vented to a Control Device that is Used for Bulk Feed of Hazardous Waste to a Waste Incinerator that Meets Specified Criteria	270.14(a); 270.27; 264.1082(c)(5)	Design and operation of the control device and enclosure shall satisfy Part 61, Subpart FF; 52.741, Appendix B; and other conditions as specified.	NA	
O-3	Several Waste Determination Procedures are Explained in Detail and Must be Followed in Order to Demonstrate the Various Subpart CC Exemptions and/or Control Requirements	270.14(a); 270.27; 264.1083; 265.1084	In general, an owner or operator need not undergo waste determination procedures unless they are pursuing an exemption from the Subpart CC regulations.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-4	Tanks that Satisfy the Conditions at 264.1084(b)(1)(i-iii) Can Use Tank Level 1 or Tank Level 2 Controls. Tanks that do not Satisfy Conditions Shall Use Tank Level 2 Controls	270.14(a); 270.27; 264.1084(b)(1), (2)		NA	
O-5a	The Conditions at 264.108(b)(1)(i-iii) Provide that Hazardous Waste in the Tank Shall:	270.14(a); 270.27; 264.1084(b)(1)		NA	
O-5a(1)	Have Maximum Organic Vapor Pressure Which is less than Maximum Organic Vapor Pressure Limit for Tank's Design Capacity Category	270.14(a); 270.27; 264.1084(b)(1)(i)		NA	
O-5a(2)	Not be Heated to Temperature Greater than Temperature at Which Maximum Organic Vapor Pressure of Waste is Determined for Purposes of Compliance	270.14(a); 270.27; 264.1084(b)(1)(ii)		NA	
O-5a(3)	Not be Treated Using a Waste Stabilization Process, as Defined in 265.1081	270.14(a); 270.27; 264.1084(b)(1)(iii)	A waste stabilization process includes mixing hazardous waste with binders or other materials, and curing resulting hazardous waste and binder mixture.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-5b	Maximum Organic Vapor Pressure Determination	270.14(a); 270.27; 264.1084(c) (1)	Must be determined before first time waste placed in tank, and retested whenever changes could cause it to increase above the maximum vapor pressure limit [264.1084(b)(1)(i)].	NA	
O-5b(1)	Tank Level 1. Owner/Operator Shall Equip Tanks with Fixed Roof and Closure Devices as Needed	270.14(a); 270.27; 264.1084(c) (2), (3)	Fixed roof/closure devices shall form continuous barrier over entire waste in tank; contain no visible open spaces between roof section joints or between interface of roof edge and tank wall; contain openings with closure devices or closed-vent system; and be made of suitable materials.	NA	
O-5b(2)	Tank Level 2. Owner/Operator Shall Use One of the Following Tanks:	270.14(a); 270.27; 264.1084(d)		NA	
O-5b(2)(i)	Fixed Roof Tank Equipped with Internal Floating Roof	270.27(a)(1); 264.1084(d)(1) (e)	Internal floating roof shall be designed to float on liquid surface, except when supported by leg supports; be equipped with continuous seal between tank wall and floating roof edge; and meet other design specifications.	NA	
O-5b(2)(ii)	Tank Equipped with an External Floating Roof	270.27(a)(1); 264.1084(d)(2), (f)	External floating roof shall be designed to float on all liquid surface, except when supported by leg supports; be equipped with two continuous seals; and meet other design specifications.	NA	

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SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-5b(3)	Tank Vented Through Closed-Vent System to a Control Device	270.14(a); 270.27; 264.1084(d)(3), (g)	Fixed roof/closure devices shall form continuous barrier over entire liquid surface; be made of suitable materials; and satisfy 264.1087 standards.	NA	
O-5c	Pressure Tank	270.14(a); 270.27; 264.1084(d)(4), (h)	Tank shall be designed not to bend to atmosphere as result of compression of vapor headspace in tank, and be equipped with closure devices as needed.	NA	
O-5d	Tank Located Inside an Enclosure that is Vented Through a Closed-Vent System to an Enclosed Combustion Control Device	270.14(a); 270.27; 264.1084(d)(5), (1)	Tank shall be located in enclosure that is vented through closed vent system to enclosed combustion device, and enclosure shall be equipped with safety devices as needed.	NA	
O-5e	Tank Level 1. Owner/Operator Shall:	270.14(a); 270.27; 264.1084(c) (1),(3)		NA	
O-5e(1)	Determine Maximum Organic Vapor Pressure for Hazardous Waste Initially and Whenever Changes could Cause the Vapor Pressure to Increase Above the Maximum Organic Vapor Pressure Limit	270.14(a); 270.27; 264.1084(c)(1)	Maximum organic vapor pressure shall be determined using 264.1083(c) procedures.	NA	

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SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-5e(2)	Ensure that, Whenever Hazardous Waste is in Tank, the Fixed Roof is Installed with Each Closure Device Secured in Closed Position		Exceptions are listed at 264.1084(c)(3)(i-iii).	NA	
O-5e(3)	Inspect the Air Emission Control Equipment	270.14(a); 270.27; 264.1084(c)(4)		NA	
O-5f	Tank Level 2. Owner/Operators Shall Adhere to the Following Operating Procedures for Each Unit Type:	270.14(a); 270.27; 264.1084(e)(i)		NA	
O-5f(1)	Fixed Roof Tank Equipped with Internal Floating Roof	270.14(a); 270.27; 264.1084(e)(2),(3)	When floating roof is resting on leg supports, filling, emptying, or refilling shall be continuous and completed as soon as practical; when roof is floating, automatic bleeder vents shall be set closed; and prior to filling, openings in roof shall be secured. Inspect the floating roof.	NA	
O-5f(2)	Tank Equipped with an External Floating Roof	270.14(a); 270.27; 264.1084(f)(2),(3)	When floating roof is resting on leg supports, filling, emptying, or refilling shall be continuous and completed as soon as practical; when closure device is open for access, equipment and devices shall be closed and secured as specified; and seals shall provide a continuous and complete cover as specified. Inspect the floating roof.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-5f(3)	Tank Vented Through Closed-Vent System to a Control Device	270.14(a); 270.27; 264.1084(g)(2), (3)	When hazardous waste is in tank, fixed roof shall be installed with closure devices secured in closed position and vapor headspace underneath fixed roof vented to control device, except as specified. Inspect and monitor the air emission control equipment.	NA	
O-5f(4)	Pressure Tank	270.14(a); 270.27; 264.1084(h)(2), (3)	When hazardous waste is in tank, it shall be operated as closed system that does not vent to atmosphere, except to avoid an unsafe condition.	NA	
O-5f(5)	Tank Located Inside an Enclosure that is Vented Through a Closed-Vent System to an Enclosed Combustion Control Device	270.27(a)(3), 264.1084(i)	Enclosure shall be operated in accordance with 52.741, Appendix B, and comply with applicable closed-vent requirements. Safety devices may be operated as needed. Inspect and monitor the system and control device.	NA	
O-5f(6)	Shall be Conducted Using Continuous Hard-Piping or Another Closed System that Does Not Allow Exposure of Hazardous Waste to Environment	270.14(a); 270.27; 264.1084(j)(1)	Requirements do not apply under the conditions specified at 264.1084(j)(2).	NA	
O-6a	Owner/Operators Shall Install Either of the Following Controls:	270.14(a); 270.27; 264.1085(b)(d)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-6a(1)	Floating Membrane Cover	270.27(a)(4); 264.1085 (b)(1), (c)(1)	Floating membrane cover shall float on liquid surface and form continuous barrier over entire liquid; be made of synthetic membrane material; contain no visible open spaces; and be equipped with closure devices and cover drains as needed.	NA	
O-6a(2)	Cover That Is Vented Through a Closed-Vent System to a Control Device	270.14(a); 270.27; 264.1085 (b)(2) and (d)(2)	Cover/closure devices shall form continuous barrier over entire liquid surface; be equipped with closure device; be made of suitable material; and be designed in compliance with 264.1087.	NA	
O-6b	Owner/Operators Shall Adhere to the Following Operating Procedures for Each Control Type:	270.14(a); 270.27; 264.1085 (c), (d)		NA	
O-6b(1)	Floating Membrane Cover	270.14(a); 270.27; 264.1085(c) (2), (3)	When hazardous waste is in surface impoundment, floating membrane cover shall float on liquid, and each closure device shall be secured in closed position, except as specified. Inspect the cover.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-6b(2)	Cover that is Vented Through a Closed-Vent System to a Control Device	270.14(a); 270.27; 264.1085(d)(2), (3)	When hazardous waste is in surface impoundment, cover shall be installed with each closure device secured in closed position and vapor headspace underneath the cover vented to control device, except as specified. Closed-vent system and control device shall be operated in accordance with 264.1087. Inspect and monitor the control device.	NA	
O-7	Shall be Conducted Using Continuous Hard-Piping or Another Closed System	270.14(a); 270.27; 264.1085(c)(1)	Requirements do not apply under conditions specified at 264.1085(e)(2).	NA	
O-8a	Container Level 1 Standards Apply to:	270.14(a); 270.27; 264.1086(b)(1)		B.O	
O-8a(1)	Container with Design Capacity Greater than 0.1 m^3 and less than or Equal to 0.46 m^3	270.14(a); 270.27; 264.1086(b)(1)(i)		B.O	
O-8a(2)	Container with Design Capacity Greater than 0.46 m^3 that is not in Light Material Service	270.14(a); 270.27; 264.1086(b)(1)(ii)		B.O	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-8ab	Container Level 2 Standards Apply to Container with a Design Capacity Greater than 0.46 m^3 that is in Light Material Service	270.14(a); 270.27; 264.1086(b)(1)(iii)		B.O	
O-8c	Container Level 3 Standards Apply to Container with Design Capacity Greater than 0.1 m^3 that is Used for Stabilization	270.14(a); 270.27; 264.1086(b)(2)	Level 3 standards apply at those times during waste stabilization process when hazardous waste in container is exposed to atmosphere.	NA	
O-9	Identify Each Container Area Subject to Subpart CC	270.27(a)(2)		B.O	
O-9a	Container Level 1. A Container Using Level 1 Controls is Defined as One of the Following:	270.27(a)(2); 264.1086(c)(1)		B.O	
O-9a(1)	Container that Meets Department of Transportation Regulations on Packaging	270.27(a)(2); 264.1086(c)(1)(i),(f)	Container shall meet Part 178 or Part 179 and be managed in accordance with Parts 107, 172, 173, and 180.	B.O	
O-9a(2)	Container Equipped with Cover and Closure Devices	270.27(a)(2); 264.1086(c)(1)(ii),(2)	Container shall be equipped with covers and closure devices, as needed.	B.O	
O-9a(3)	Open-Top Container Equipped with Organic-Vapor Suppressing Barrier	270.27(a)(2); 264.1086(c)(1)(iii),(2)	Container shall be equipped with covers and closure devices, as needed.	B.O	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-9b	Container Level 2. A Container Using Level 2 Controls is Defined as One of the Following:	270.27(a)(2); 264.1086 (d)(1)(f),(g)		B.O	
O-9b(1)	Container that Needs Department of Transportation (DOT) Regulations on Packaging	270.27(a)(2); 264.1086(d)(1)(i),(f)	Containers shall meet Part 178 or Part 179, and be managed in accordance with Parts 107, 172, 173, and 180.	B.O	
O-9b(2)	Container that Operates with No Detectable Organic Emissions	270.27(a)(2); 264.1086(d)(1)(ii),(g)	Owner/operator shall follow the procedures at 264.1086(g) and 265.1084(d) to determine no detectable organic emissions.	B.O	
O-9b(3)	Container that has been Demonstrated Within the Preceding 12 Months to be Vapor-Tight	270.27(a)(2); 264.1086(d)(1)(iii) and (h)	Owner/operator shall follow procedures at 264.1086(h) and Part 60, Appendix A, Method 27 to demonstrate container is vapor-tight.	B.O	
O-9c	Container Level 3. A Container Using Level 3 Controls is Defined as One of the Following:	270.27(a)(2); 264.1086(e)(1), (2)		NA	
O-9c(1)	Container that is Vented Directly Through a Closed-Vent System to a Control Device	270.27(a)(2); 264.1086(e)(1)(i)	The closed-vent system and control device shall be designed in accordance with 264.1087. Safety devices may be installed as needed.	NA	
O-9c(2)	Container that is Vented Inside an Enclosure Which is Exhausted Through a Closed-Vent System to a Control Device	270.27(a)(2); 270.27(a)(3); 264.1086(e)(1)(ii)	The container/enclosure must be designed in accordance with 52.741, Appendix B and 264.1087. Safety devices may be installed as needed.	BNA.O	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-10a	Container Level 1. Owner/Operators Shall Install Covers and Closure Devices for the Container and Secure and Maintain Each Closure Device in Closed Position, Except as Specified	270.14(a); 270.27; 264.1086(c)(3), (4)	The closure device or cover may be opened for the purpose of adding or removing hazardous waste or for maintenance or to avoid unsafe conditions.	B.O	
O-10b	Container Level 2. Owner/Operator Shall Install All Covers and Closure Devices for the Container and Maintain and Secure Each Closure Device in Closed Position, Except as Specified	270.14(a); 270.27; 264.1086(d)(2), (3)	Transfer of hazardous waste in or out of container shall be conducted in such a manner as to minimize exposure to atmosphere, as practical. The closure device or cover may be opened for the purpose of adding or removing hazardous waste or for maintenance or to avoid unsafe conditions.	B.O	
O-10c	Container Level 3. Owner/Operators Shall Operate the System in Accordance with 52.741, Appendix B; 264.1087; and 265.1081, as Needed	270.14(a); 270.27; 264.1086(e)(3),(4), (5)		NA	
O-11a	Standards Apply to Each Closed-Vent System and Control Device Used to Control Air Emissions under Part 264; Subpart CC	270.14(a); 270.27; 264.1087(a)		B.O	
O-11(b)	Closed-Vent Systems Shall:	270.27(a)(5); 264.1087(b)		B.O	
O-11b(1)	Route Gases, Vapors, and Fumes to Control Device	270.27(a); 264.1087(b)(1)		B.O	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-11b(2)	Be Designed and Operated in Accordance with 264.1033(k)	270.27(a); 264.1087(b)(2)	The Subpart AA standards for closed-vent systems must be satisfied.	B.O	
O-11b(3)	Meet the Requirements for Bypass Devices, if Applicable	270.27(a); 264.1087(b)(3)	Each bypass device shall be equipped with either a flow indicator or a seal or locking device.	B.O	
O-12a	The Control Device Shall be One of the Following:	270.27(a)(5); 264.1087(c)(1)			
O-12a(1)	A Control Device Designed and Operated to Reduce Total Organic Content on Inlet Vapor Stream Vented to the Control Device by at Least 95 Percent by Weight	270.27(a)(5); 264.1087(c)(1)(i)	Owner/operator shall demonstrate compliance using either performance test or design analysis, except as specified.		
O-12a(2)	An Enclosed Combustion Device	270.27(a)(5); 264.1087(c)(1)(ii)	Owner/operator shall demonstrate compliance using either performance test or design analysis, except as specified. Control device shall be designed and operated in accordance with 264.1033(c).	NA	
O-12a(3)	A Flare	270.27(a)(5); 264.1087(c)(1)(iii)	Owner/operator shall demonstrate compliance using either performance test or design analysis, except as specified.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-12b	Each Closed-Vent System and Control Device Shall Comply with the Operating Requirements of 264.1087(c)(2)	270.27(a)(5); 264.1087(c)(2)	Planned routine maintenance of control device shall not exceed 240 hours per year; system malfunctions shall be corrected as soon as practicable; and system shall be operated such that gases, vapors, or fumes are not actively vented to control device during planned maintenance or system malfunction, except as specified.		
O-12c	A Carbon Adsorption System	270.27(a)(5); 264.1087(c)(3)	Carbon replacement and removal shall follow prescribed requirements in 264.1033(g), (h), and (n).		
O-12d	Each Control Device Shall be Operated and Maintained in Accordance with 264.1033(j), Except for Certain Devices Identified (e.g., Flare)	270.27(a)(5); 264.1087(c)(4)	264.1033(j) requires the owner/operator to prepare documentation describing the control device's operation and to identify the process parameter(s) that indicate its proper operation and maintenance.		
O-12e	The Owner/Operator Shall Demonstrate that a Control Device Achieves the Performance Requirements Using a Performance Test or Design Analysis, Except for Specific Devices Identified (e.g., flare)	270.27(a)(5); 264.1087(c)(5)	For performance test, owner/operator shall use the test specified at 264.103(c). For design analysis, owner/operator shall use an analysis that meets requirements specified at 264.1035(b)(4)(iii). In addition, the U.S. Environmental Protection Agency (EPA) prescribes unit-specific performance demonstration requirements for certain unit types at 264.1087(c)(5).		

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-12f	If Design Analysis is Not Sufficient, then a Performance Test is Required	270.27(a)(5); 264.1087(c) (6)	The EPA regional administrator shall determine if a performance test is required to demonstrate control device's performance.		
O-12h	Inspect and Monitor the Control Device	270.27(a)(5); 264.1087(c) (7)	Control devices shall be inspected and monitored at least once a day.		
O-13	Each Tank, Surface Impoundment and Container Shall be Inspected, Monitored, and Repaired in Accordance with the 264 Subpart CC Requirements	270.27; 264.1088	Inspection, monitoring and repair requirements specific to each unit are located in the standards sections of the regulation 264.1084 through 264.1087. Owner/operator shall develop and implement written plan and schedule to perform inspections and monitoring required. The plan and schedule shall be incorporated into facility's inspection plan.		
O-14	Each Owner/Operator Shall Comply with the Recordkeeping Requirements Specified at 264.1089	270.27; 264.1089	Except as specified, records shall be maintained in facility's operating record for a minimum of 3 years. Various records are required depending on the type of unit and control device.		
O-14a	Each of the Following Owner/Operators Shall Comply with the Reporting Requirements at 264.1090:	270.27; 264.1090			

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
O-14a(1)	Each Owner/Operator Managing Hazardous Waste in a Tank, Surface Impoundment, or Container Exempted from Using Air Emission Controls under 264.1082(c)	270.27; 264.1090(a)	Owner/operator shall report to EPA each noncompliance identified under 264.1082(c).		
O-14a(2)	Each Owner/operator Using Air Emission Controls on a Tank in Accordance with 264.1084(c)	270.27; 264.1090(b)	Owner/operator shall report to EPA each noncompliance identified under 264.1084(B).		
O-14a(3)	Each Owner/operator Using a Control Device in Accordance with 264.1087	270.27; 264.1090 (c),(d)	Owner/operator shall submit semiannual written report to EPA, except as specified.		
O-14b	Each Owner/Operator shall Provide an Emission Monitoring Plan	270.27(a)(6)	Applies to Method 21 and control device monitoring methods.		
O-14c	Subpart CC Implementation Plan	270.27(a)(7)	Required when facility cannot comply with Subpart CC by date of permit issuance.		

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION P. EXPOSURE INFORMATION

Section and Requirement	Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
P Information on the Potential for the Public to be Exposed to Releases. At a Minimum, this must include: C reasonably foreseeable potential releases C potential pathways of human exposure C potential magnitude and nature of exposure	270.10(j)	The federal requirement is for surface impoundments and land disposal units.	NA	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.

OMB# 2050-0024; Expires 05/31/2020

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility and/or generator of ≥ 1,000 kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
✔	Submitting a new or revised Part A Form

2. Site EPA ID Number

AZR	000	520	304								

3. Site Name

AA Sydcol, LLC

4. Site Location Address

Street Address	2264 East 13th Street		
City, Town, or Village	Yuma	County	Yuma
State Arizona	Country USA	Zip Code	85365

5. Site Mailing Address

✔ Same as Location Address

Street Address	2264 East 13th Street		
City, Town, or Village	Yuma		
State Arizona	Country USA	Zip Code	85365

6. Site Land Type

✔ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary)	562112	C.	
B.	484232	D.	

8. Site Contact Information

☐ Same as Location Address

First Name **Charles**	MI **M**	Last Name **Templer**
Title **Managing Member**		
Street Address **2264 East 13th Street**		
City, Town, or Village **Yuma**		
State **Arizona**	Country **USA**	Zip Code **85365**
Email **chuck@sydcol.com**		
Phone **928-783-3676**	Ext	Fax

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

☐ Same as Location Address

Full Name **Syd-Cole Propeties, LLC**	Date Became Owner (mm/dd/yyyy) **7/14/2014**
Owner Type ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address **2264 E. 13th Street**	
City, Town, or Village **Yuma**	
State **Arizona** / Country **USA**	Zip Code **85365**
Email	
Phone / Ext	Fax
Comments	

B. Name of Site's Legal Operator

☐ Same as Location Address

Full Name **AA Sydcol, LLC**	Date Became Operator (mm/dd/yyyy)
Operator Type ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address **2264 East 13th Street**	
City, Town, or Village **Yuma**	
State **Arizona** / Country **USA**	Zip Code **85365**
Email **chuck@sydcol.com**	
Phone **928-783-3676** / Ext	Fax
Comments	

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

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

A. Hazardous Waste Activities

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

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

D001	D002	D003	D004	D005	D006	D007
D008	D009	D010	D011	D012	D013	D014
D015	D016	D017	D018	D019	D020	D021
D022	D023	D024	D025	D026	D027	D028
See	List					

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

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

A. Other Waste Activities

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

B. Universal Waste Activities

☑ Y ☐ N		1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If "Yes" mark all that apply. Note: Refer to your State regulations to determine what is regulated.
	☑	a. Batteries
	☑	b. Pesticides
	☑	c. Mercury containing equipment
	☑	d. Lamps
	☑	e. Other (specify) Aerosols, as applicable
	☐	f. Other (specify) _____
	☐	g. Other (specify) _____
☐ Y ☑ N		2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

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

D. Pharmaceutical Activities

☐ Y ☑ N	1. Operating under 40 CFR 266 Subpart P for the management of hazardous waste pharmaceuticals—if "Yes", mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
☐	a. Healthcare Facility
☐	b. Reverse Distributor
☐ Y ☑ N	2. Withdrawing from operating under 40 CFR 266 Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is no longer an LQG or SQG.

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

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

13. Episodic Generation

☐ Y ☑ N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If "Yes", you must fill out the Addendum for Episodic Generator?

14. LQG Consolidation of VSQG Hazardous Waste

☐ Y ☑ N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQGs hazardous waste.

15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)

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

16. Notification of Hazardous Secondary Material (HSM) Activity

☐ Y ☑ N	Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.

17. Electronic Manifest Broker

☑ Y ☐ N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

18. Comments (include item number for each comment)

Question 8 - Form completed with the assistance of envionmental consultant:
James Peck, P.E.
3104 East Camelback Road, #1114, Phoenix, AZ 85016
Direct 602-396-4300 Email james@jgpcon.com

Question 10b - See attached list for additional D, F, P, U codes handled at the Facility

19. Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy) 11/04/2021
Printed Name (First, Middle Initial Last) **Charles M. Templer**	Title **Managing Member**
Email **chuck@sydcol.com**	

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

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

ONLY fill out this form if:

- You are located in a State that allows you to manage excluded hazardous secondary material (HSM) under 40 CFR 260.30, 261.4(a)(23), (24), (25), or (27) (or state equivalent; See https://www.epa.gov/epawaste/hazard/dsw/statespf.htm for a list of eligible states; AND
- You are or will be managing excluded HSM in compliance with 40 CFR 260.30, 261.4(a)(23), (24), (25), or (27) (or state equivalent) or have stopped managing excluded HSM in compliance with the exclusion(s) and do not expect to manage any amount of excluded HSM under the exclusion(s) for at least one year. Do not include any information regarding your hazardous waste activities in this section. Note: If your facility was granted a solid waste variance under 40 CFR 260.30 prior to July 13, 2015, your management of HSM under 40 CFR 260.30 is grandfathered under the previous regulations and you are not required to notify for the HSM management activity excluded under 40 CFR 260.30.

1. Reason for Notification (Include dates where requested)

☐ Facility will begin managing excluded HSM as of _____ (mm/dd/yyyy).

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

☐ Facility has stopped managing excluded HSM as of _____ (mm/dd/yyyy) and is notifying as required.

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

A. Facility Code	B. Waste Code(s) for HSM	C. Estimate Short Tons of excluded HSM to be managed annually	D. Actual Short Tons of excluded HSM that was managed during the most recent odd-numbered year	E. Land-based Unit Code

ADDENDUM TO THE SITE IDENTIFICATION FORM: EPISODIC GENERATOR

ONLY fill out this form if:

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

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

Waste 1

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

Waste 2

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

Waste 3

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

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

ONLY fill out this form if:

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

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

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

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

EPA ID Number | AZR000520304 | | | | | | | | | | | OMB# 2050-0024; Expires 05/31/2020

United States Environmental Protection Agency

HAZARDOUS WASTE REPORT _____ (reporting cycle)

WASTE GENERATION AND MANAGEMENT (GM) FORM

1. **Waste Characteristics**

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						

D. Source Code	Management Method (G25)	Country Code (G62)
E. Form Code	F. Waste Minimization Code	G. Radioactive Mixed ☐ Y ☐ N
H. Quantity	UOM	Density ☐ lbs/gal ☐ sg

2. **On-site Generation and Management of Hazardous Waste**

☐ Y ☐ N	Was any of this waste that was generated at this facility treated, disposed, and/or recycled on-site? If yes, continue to On-site Process System 1.

Process System 1	Management Method Code	Quantity
Process System 2	Management Method Code	Quantity

3. **Off-site Shipment of Hazardous Waste**

☐ Y ☐ N	A. Was any of this waste that was generated at this facility shipped off-site for treatment, disposal, or recy-

Site 1		
B. EPA ID of facility to which waste was shipped	C. Management Method Code	D. Total Quantity Shipped
Site 2		
B. EPA ID of facility to which waste was shipped	C. Management Method Code	D. Total Quantity Shipped
Site 3		
B. EPA ID of facility to which waste was shipped	C. Management Method Code	D. Total Quantity Shipped

4. **Comments**

United States Environmental Protection Agency
HAZARDOUS WASTE REPORT _____ (reporting year)
WASTE RECEIVED FROM OFF-SITE (WR) FORM

1. Waste 1

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						
D. EPA ID Number		E. Form Code		F. Management Code		
G. Quantity	UOM	Density		☐ lbs/gal ☐ sg		

2. Waste 2

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						
D. EPA ID Number		E. Form Code		F. Management Code		
G. Quantity	UOM	Density		☐ lbs/gal ☐ sg		

3. Waste 3

A. Waste Description						
B. EPA Hazardous Waste Code(s)						
C. State Hazardous Waste Code(s)						
D. EPA ID Number		E. Form Code		F. Management Code		
G. Quantity	UOM	Density		☐ lbs/gal ☐ sg		

4. Comments

United States Environmental Protection Agency
HAZARDOUS WASTE REPORT
OFF-SITE IDENTIFICATION (OI) FORM

1. Site 1

A. EPA ID Number of Off-site Installation or Transporter		
B. Name of Off-site Installation or Transporter		
C. Handler Type (mark all that apply) ☐ Generator	☐ Transporter	☐ Receiving Facility
D. Address of Off-site Installation		
Street Address		
City, Town, or Village		
State	Zip Code	Country

2. Site 2

A. EPA ID Number of Off-site Installation or Transporter		
B. Name of Off-site Installation or Transporter		
C. Handler Type (mark all that apply) ☐ Generator	☐ Transporter	☐ Receiving Facility
D. Address of Off-site Installation		
Street Address		
City, Town, or Village		
State	Zip Code	Country

3. Site 3

A. EPA ID Number of Off-site Installation or Transporter		
B. Name of Off-site Installation or Transporter		
C. Handler Type (mark all that apply) ☐ Generator	☐ Transporter	☐ Receiving Facility
D. Address of Off-site Installation		
Street Address		
City, Town, or Village		
State	Zip Code	Country

4. **Comments**

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM

1. Facility Permit Contact

First Name	**Charles**	MI	**M**	Last Name	**Templer**
Title	**Managing Member**				
Email	**chuck@sycol.com**				
Phone	**928-783-3676**	Ext		Fax	

2. Facility Permit Contact Mailing Address

Street Address	**2264 East 13th Streeet**				
City, Town, or Village	**Yuma**				
State	**Arizona**	Country	**USA**	Zip Code	**85365**

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

4. Other Environmental Permits

A. Permit Type	B. Permit Number	C. Description

5. Nature of Business

The Facility will accept a variety of hazardous and non-hazardous wastes, and consolidate, bulk, repackage, and store the wastes prior to shipment to approved off-site reuse, treatment, and/or disposal facilities. Hazardous wastes will typically be transported to and from the Facility in tankers and/or containers (e.g. 55-gallon drums, totes) on flat bed trucks, tractor trailers, or other vehicles. Hazardous wastes will be liquid, semisolid, and/or solid in nature and will be processed and stored in 55-gallon open-head steel or plastic containers or in 330-gallon totes. Acceptable wastes include characteristic wastes (D wastes), listed wastes (F, P, and U wastes), flammable and combustible materials (such as used oil, waste fuels, etc.), contaminated soil, universal wastes (such as batteries, mercury-containing equipment, mercury-containing lamps/bulbs, and certain pesticides), metal-containing filter cake, and other wastes as listed in Item 7 below and the attached table for Item 7.

6. Process Codes and Design Capacities

Line Number	A. Process Code	B. Process Design Capacity (1) Amount	B. Process Design Capacity (2) Unit of Measure	C. Process Total Number of Units	D. Unit Name
X1	S01				

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes (1) Process Codes	D. Processes (2) Process Description (if code is not entered in 7.D1))
X1	D001	30000	Tons	S01	
X2	D002	20000	Tons	S01	
X3	D003	200	Tons	S01	
x4	D004	100	Tons	S01	
X5	D005				included in line 4
X6	D006				included in line 4
X7	D007				included in line 4
X8	D008				included in line 4
X9	D009				included in line 4
10	D010				included in line 4
11	D011				included in line 4

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

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

10. Photographs

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

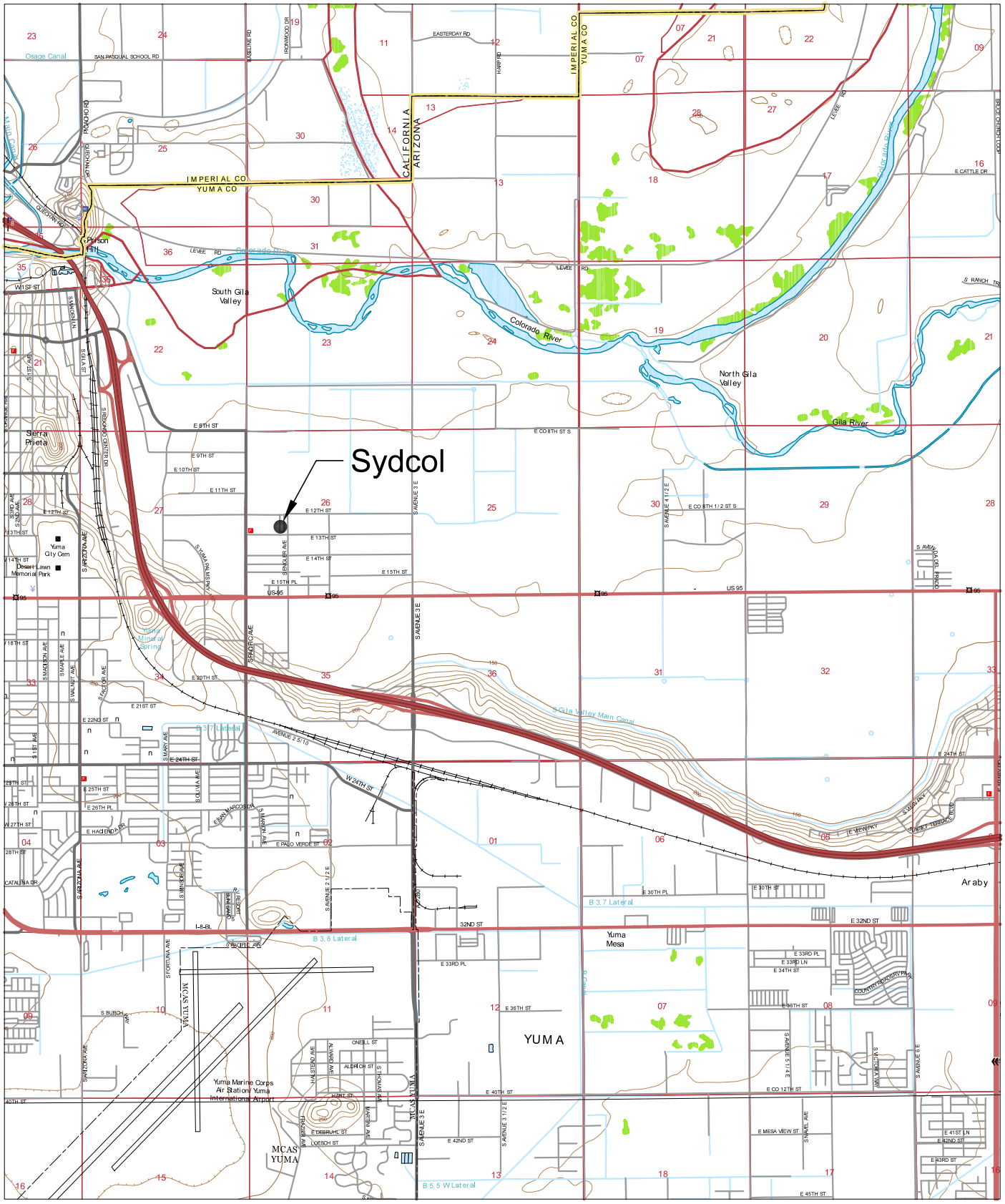
11. Comments

Item 7 - See Table 1 for additional hazardous wastes to be accepted at the Facility.

Table 1
AA Sydcol Hazardous Wastes

Waste type	RCRA Waste Codes	HMWUs	Estimated Annual Quantity (tons)
Ignitables	D001	1*, 2, 3, 4	30,000
Corrosives	D002	1*, 2, 3, 4	20,000
Reactives	D003	1*, 2, 3, 4	200
Toxicity: Heavy metals	D004-011	1*, 2, 3, 4	100
Toxicity: pesticides/herbicides	D012-017, 020, 031	1*, 2, 3, 4	100
Toxicity: Volatile organics	D018-019, 021-022, 028-029, 035, 039-040, 043	1*, 2, 3, 4	32,500
Toxicity: Semi-volatile organics	D022-027, 032-034, 036-038, 041-042,	1*, 2, 3, 4	200
2,4-dinitrotoluene, nitrobenzene	D030, D036	1*, 2, 3, 4	2
Halogenated compounds: degreasing	F001	1*, 2, 3, 4	4,000
Halogenated compounds: solvents	F002	1*, 2, 3, 4	4,000
non-Halogenated compounds solvents	F003-005	1*, 2, 3, 4	8,000
Listed electroplating wastes	F006-009	1*, 2, 3, 4	11,000
Listed metal finishing wastes	F010-012, 019	1*, 2, 3, 4	2,500
Chlorinated aliphatic hydrocarbons	F024-026	1*, 2, 3, 4	10
Listed wood-preserving wastes	F032, F034-035	1*, 2, 3, 4	10
Refinery WW treatment sludges	F037-038	1*, 2, 3, 4	10
Hazardous leachates	F039	1*, 2, 3, 4	10
P-listed commercial chemicals	P001-P205	1*, 2, 3, 4	100
Commercial grade acetone	U002	1*, 2, 3, 4	100
Commercial grade benzene	U019	1*, 2, 3, 4	100
Commercial grade 1-butanol	U031	1*, 2, 3, 4	20
Commercial grade methanol	U154	1*, 2, 3, 4	100
Commercial grade methyl-ethyl ketone	U159	1*, 2, 3, 4	100
other U-listed commercial chemicals	U001, 003-018, 020-030, 032-153, 154-158, 160-411	1*, 2, 3, 4	200
Total			113,362

* Containers with free liquids or listed waste FO26 are to be placed on containment pallets or within non-occupancy structures in HWMU1.


Sydcol
IMPERIAL CO
YUMA CO
CALIFORNIA
ARIZONA
Colorado River
Gila River
South Gila Valley
North Gila Valley
Sierra Prieta
Yuma City Cem
Desert Lawn Memorial Park
Yuma Mineral Spring
S Gila Valley Main Canal
B 3.7 Lateral
B 3.8 Lateral
B 5.5 W Lateral
Yuma Mesa
YUMA
Araby
Yuma Marine Corps Air Station/Yuma International Airport
MCAS YUMA
US 95
I-8-BL
E 8TH ST
E 9TH ST
E 10TH ST
E 11TH ST
E 12TH ST
E 13TH ST
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S AVENUE 3 1/2 E
S AVENUE 5 1/2 E
S AVENUE 1 E
S ARIZONA AVE
S MAIN ST
S GILA ST
S FORTUNA AVE
S MARY AVE
S COLMA AVE
S MCKEEN AVE
S MAPLE AVE
S WALNUT AVE
S PACIFIC AVE
S SENDER AVE
S MCLEAN AVE
S MCCAS YUMA
S MCTOWNSEND AVE
S MCTOWNSEND PL
S MCTOWNSEND LN
S MCTOWNSEND WAY
S MCTOWNSEND CT
S MCTOWNSEND TER
S MCTOWNSEND RD
S MCTOWNSEND PKWY
S MCTOWNSEND BLVD

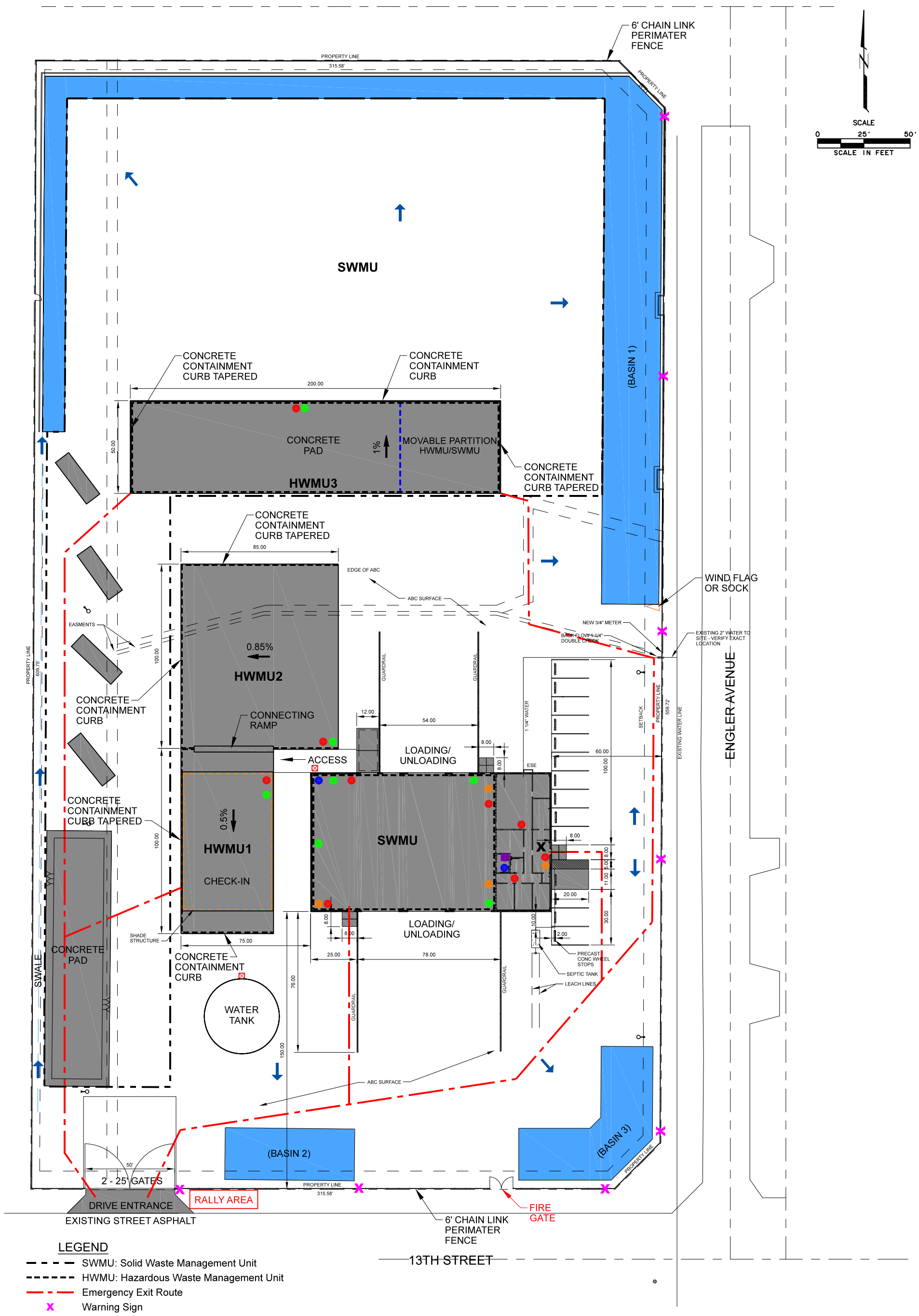
LEGEND

- 139 Elevation Contour
- Property Boundary
- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Concrete Surface
- Registered Well (Location Approximate)

Figure 2
SURROUNDING TOPOGRAPHY
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL04
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services



LEGEND

- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Emergency Exit Route
- Warning Sign
- Spill Kit
- Fire Alarm
- Fire Extinguisher (ABC)
- Eyewash
- Shower
- Facility Report
- Fire Hose Connection
- Concrete Surface
- Drainage Direction
- Drainage Basin

Figure 2
SITE PLAN
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: SYDCOL02
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services

AA Sydcol, LLC. Photographs of Existing Facility

Photo 1: West side of warehouse structure, location for future HWMU1, facing southeast.

Photo 2: Area northwest of structure where HWMU2 will be located. Facing northwest.

AA Sydcol, LLC. Photographs of Existing Facility

Photo 3: Showing concrete pad to serve as HWMU4. Facing northeast.

RCRA Part B

A. General Information
B. Facility Description
C. Waste Characteristics
D. Process Information
E. Groundwater Monitoring
F. Procedures to Prevent Hazards
G. Contingency Plan
H. Personnel Training
I. Closure Post-Closure Plans and Financial Requirements
J. Solid Waste Management Units
K. Other Federal Laws
L. Part B Certification
M. Process Vents
N. Subpart BB Equipment Leaks
O. Subpart CC Air Emissions Standards

ATTACHMENT A

AA SYDCOL, LLC

GENERAL INFORMATION
[40 CFR 270.13]

MARCH 15, 2021

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3 FACILITY CONTACT INFORMATION 2
4 SIC CODES 2
5 OWNER/OPERATOR CONTACT INFORMATION 2
6 FACILITY STATUS 3
7 PROCESS DESCRIPTION 3
8 SPECIFICATION OF HAZARDOUS WASTES 5
8.1 Acceptable Wastes 5
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9 LISTING OF PERMITS 6

TABLE

1. Hazardous Waste Codes

APPENDICES

A. Acronyms and Definitions

1 INTRODUCTION

This Operating Permit application for the Facility has been prepared to satisfy RCRA permitting requirements to operate a hazardous waste storage and transfer as defined in RCRA, 40 CFR 264.10. The application consists of two components as defined in 40 CFR 270; Part A, the EPA's RCRA Subtitle C Site Identification Form, and Part B, Facility information requirements identified in 40 CFR 270.14 through 270.28 and described in detail in the ADEQ's RCRA Completeness/Technical Evaluation Checklist (December 1997).

A list of acronyms and definition of terms used throughout Part B of the application is provided in Appendix A.

This section provides general information under Part B of the application.

2 DESCRIPTION OF ACTIVITIES REQUIRING PERMITTING

The Facility will accept a variety of hazardous and non-hazardous wastes, and consolidate, bulk, repackage, and store the wastes for shipment to approved off-site reuse, treatment, and/or disposal facilities, fuel blenders or wastewater treatment plants. These activities are subject to regulation under RCRA, 40 CFR parts 239 through 282 and require a hazardous waste permit. The RCRA hazardous waste management program is administered in Arizona by the ADEQ under delegation from the EPA. Specific parts of RCRA applicable to the activities to be conducted at the Facility include the following:

- Part 243 Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste
- Part 260 Hazardous Waste Management System: General
- Part 261 Identification and Listing of Hazardous Waste
- Part 262 Standards Applicable to Generators of Hazardous Waste
- Part 263 Standards Applicable to Transporters of Hazardous Waste
- Part 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, And Disposal Facilities
- Part 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, And Disposal Facilities
- Part 268 Land Disposal Restrictions
- Part 273 Standards for Universal Waste Management
- Part 279 Standards for the Management of Used Oil

Typically, wastes will be transported to the Facility in tankers and/or containers (e.g. 55-gallon drums, totes) and will be liquid, semisolid, and/or solid in nature. Wastes will be received directly from generators or through third-party waste brokers under contract with

hazardous and non-hazardous waste generators.

3 FACILITY CONTACT INFORMATION

Facility contact information is as follows:

Facility Address:	AA Sydcol, LLC 2264 East 13th Street Yuma, Arizona 85365
General On-Site Telephone:	(928) 783-3676
Primary Contact	Charles M. Templer Office Phone: (928) 783-3676
Alternate Contact	Juvi Remitio Mobile Phone: (928) 210-7077

4 SIC CODES

The Facility is a commercial solid and hazardous waste transfer facility. The Standard Industrial Classification (SIC) codes that best define the activities to be conducted at the Facility are:

SIC CODE	DESCRIPTION
4213	Trucking, Except Local
5093	Scrap and Waste Materials
7389	Business Services, not elsewhere classified

The NAICS codes that best define the activities to be conducted that the Facility are:

NAICS CODE	DESCRIPTION
562112	Hazardous Waste Collection
484230	Specialized Freight Trucking, Long Distance

5 OWNER/OPERATOR CONTACT INFORMATION

Owner/Operator contact information is as follows:

Owner:	Syd-Cole Properties, L.L.C. 2264 East 13th Street Yuma, Arizona 85365
Primary Contact	Charles M. Templer

	Office Phone: (928) 783-3676
Operator:	AA Sydcol, L.L.C. 2264 East 13th Street Yuma, Arizona 85365
Primary Contact	Charles M. Templer Mobile Phone: (928) 783-3676
Alternate Contact	Juvi Remitio Mobile Phone: (928) 210-7077

6 FACILITY STATUS

Sydcol currently uses the Facility as a solid waste transfer station involved in storing, consolidating, and repackaging non-hazardous wastes and shipping them off site to reuse, treatment, and/or disposal facilities. Current operations are conducted consistent with notice provided to the ADEQ. Sydcol plans to use a portion of the Facility as a transfer station for hazardous wastes. This application is the first application for acceptance of hazardous waste at the Facility.

7 PROCESS DESCRIPTION

The Facility will receive a variety of hazardous and non-hazardous wastes from commercial waste generators, industrial waste generators, LQGs, SQGs. and VSQGs of hazardous waste. The wastes will be profiled, classified, stored, consolidated and/or repackaged and shipped to approved off-site facilities for reuse, treatment, and/or disposal.

Generators or third-party waste brokers wishing to transport hazardous waste to the Facility must complete a pre-acceptance waste profile procedure prior to shipping wastes to the Facility. Waste profile information to be submitted will include generator information; waste stream information; waste properties; waste classification; waste description; transportation information; land disposal restriction notifications; and generator certification statements. The Facility will review the waste profile information and use generator knowledge and data on the physical and chemical properties of the waste to determine if the wastes can be accepted, if additional information is required, or if the waste cannot be accepted. If the waste is accepted based on the initial profile information or supplemental information, a waste profile number will be assigned. The Facility will use the procedures described in the WAP presented in Attachment C to characterize waste to be accepted at the Facility.

Wastes will typically be transported in tankers and/or containers (e.g. 55-gallon drums, totes)

and will be liquid, semisolid, and/or solid in nature. Acceptable wastes include characteristic wastes (D wastes), listed wastes (F, P, and U wastes), flammable and combustible materials (such as used oil, waste fuels, etc.), contaminated soil, universal wastes (such as batteries, mercury-containing equipment, mercury-containing lamps/bulbs, and certain pesticides), metal-containing filter cake, and other wastes listed in the WAP.

Typically, wastes are transported to the Facility via a tanker truck, flat-bed truck, or other vehicle. Trucks are directed to the loading docks for off-loading and transferred directly to the check-in area for receiving. Waste shipments arriving at the Facility will undergo a Level I Analysis to verify the waste shipment conforms to the description on the waste profile form and the manifest that accompanies the shipment. The Level I analysis includes a load inspection to confirm the shipment matches that described on the manifest and identify irregularities (such as damaged containers). The load inspection is also used to aid in properly segregating the wastes. A representative sample of 10 percent of the waste received will be obtained (when possible, safe, and reasonable) and analyzed for select parameters depending on the waste profile. Analyses can include pH, sulfide screen, cyanide screen, PCB screen, and oxidizer screen. If the results of the Level I Analysis fail, a Level II Analysis will be initiated. A Level II Analysis can include obtaining additional information from the generator addressing the Level I Analysis failures and/or additional sampling and testing. Acceptance procedures for incoming waste shipments at the Facility will follow those described in the WAP in Attachment C.

The Facility is situated on 4.75 acres of developed property. Site developments include a main building and two concrete pads that are used for management of incoming wastes.

The warehouse in the main building will only be used for off-loading trucks. A concrete pad adjacent and west of the main building is designated HWMU1, and a second concrete pad to be constructed northwest of the main building is designated HWMU2. A larger concrete pad is located north of the main building and is designated HWMU3. HWMU1, HWMU2, and HWMU3 are constructed with containment curbs and are sloped to drain to one side where spills or other releases will collect for removal. Once the hazard characteristics of a waste are identified, the waste material will be transferred to the appropriate area in HWMUs for ignitable, corrosive, toxic, and reactive wastes. These areas are separated by adequate aisle space, berms, catch basins, or other physical barriers that prevent a reaction caused by mixing potentially incompatible wastes. Ignitable or reactive RCRA hazardous waste are separated and protected from sources of ignition or reaction. Smoking at the facility is limited to specially designated areas and "No Smoking" signs are conspicuously placed throughout the Facility including, but not limited to entrances. Ignitable or reactive wastes in containers are stored at least 50 feet from the property line.

The Facility performs bulk consolidation of like wastes from smaller to large containers. These consolidation activities are conducted within the containment areas of HWMU1, HWMU2, and HWMU3. Liquid wastes are typically pumped from drums or totes to tankers. Solid and sludge wastes are consolidated into various sized containers. The Facility will record the waste manifest numbers for wastes consolidated into each container so waste characteristics can be tracked. Additional testing for characterizing the consolidated waste will be conducted if required by the receiving facility. Consolidated wastes are transported to approved facilities for reuse, treatment, and disposal.

8 SPECIFICATION OF HAZARDOUS WASTES

An estimate of annual hazardous waste quantities stored and processed at the Facility is provided in Table 1.

8.1 Acceptable Wastes

The waste streams accepted at the Facility will generally include characteristic wastes (D wastes) and/or listed wastes (F, P, and U waste), used oil, and universal waste (such as batteries, mercury-containing equipment, mercury-containing lamps/bulbs, and certain pesticides). Listed below are some examples of the types of waste received at the Facility:

1. Liquid paint, thinners, fuels, resins;
2. Alkaline sludge;
3. Alkaline liquid;
4. Mixed organic solvents;
5. Spent activated carbon;
6. Paint sludge, adhesives, resins;
7. Filter cake sludge;
8. Mercury batteries for mercury consolidation;
9. Halogenated organic solvents;
10. Soil and absorbent with organics;
11. Inorganic solid debris;
12. Nickel-cadmium batteries;
13. Lead shot and wheel weights;
14. Automobile batteries;
15. Solid and liquid pesticides;
16. Rags and debris;
17. Acids with organics;
18. Mineral/organic acid liquid; and
19. Poison and flammable aerosols.

19. Poison and flammable aerosols.

Hazardous waste codes to be accepted at the Facility are listed in Table 1.

8.2 Unacceptable Wastes

Waste streams prohibited from acceptance at the Facility include:

1. Polychlorinated biphenyls of a type or level regulated by TSCA (see 40 CFR Part 761), unless exempted, excluded or otherwise authorized pursuant to TSCA regulations (i.e. PCB waste in quantities greater than 500 gallons at concentrations greater than 50 PPM);
2. Mixed waste (wastes that contain both a hazardous component regulated under Subtitle C of RCRA and a radioactive component consisting of source, special nuclear, or byproduct material regulated under the Atomic Energy Act);
3. DOT "Class 1" Explosives as defined in 49 CFR 173. 50 and forbidden explosives as defined in 49 CFR 173.54;
4. Biohazardous medical waste as defined by AAC R 18-13-1401;
5. K-Listed industry-specific wastes; and
6. F-Listed dioxin-containing wastes.
7. Lithium-ion batteries.

9 LISTING OF PERMITS

The Facility is located in unincorporated Yuma and is not subject to City licensing and permitting. Most of permits which have been applied for and obtained have to with construction of the main building. Construction of the main building required a permit to construct a building and a septic system from Yuma County Department of Development Services along with a certificate of occupancy. Sydcol also designed and installed a 121,000-gallon water tank for exclusive use in fire suppression which was reviewed and approved under permit from Yuma County for building and fire code compliance. A grading and drainage plan was permitted by Yuma County for the hazardous waste operations facilities anticipated in this application (Permit FC21-0028).

TABLE

Table 1
AA Sydcol Hazardous Wastes

Waste type	RCRA Waste Codes	HMWUs	Estimated Annual Quantity (tons)
Ignitables	D001	1, 2, 3	30,000
Corrosives	D002	1, 2, 3	20,000
Reactives	D003	1, 2, 3	200
Toxicity: Heavy metals	D004-011	1, 2, 3	100
Toxicity: pesticides/herbicides	D012-017, 020, 031	1, 2, 3	100
Toxicity: Volatile organics	D018-019, 021-022, 028-029, 035, 039-040, 043	1, 2, 3	32,500
Toxicity: Semi-volatile organics	D022-027, 032-034, 036-038, 041-042,	1, 2, 3	200
2,4-dinitrotoluene, nitrobenzene	D030, D036	1, 2, 3	2
Halogenated compounds: degreasing	F001	1, 2, 3	4,000
Halogenated compounds: solvents	F002	1, 2, 3	4,000
non-Halogenated compounds solvents	F003-005	1, 2, 3	8,000
Listed electroplating wastes	F006-009	1, 2, 3	11,000
Listed metal finishing wastes	F010-012, 019	1, 2, 3	2,500
Chlorinated aliphatic hydrocarbons	F024-026	1, 2, 3	10
Listed wood-preserving wastes	F032, F034-035	1, 2, 3	10
Refinery WW treatment sludges	F037-038	1, 2, 3	10
Hazardous leachates	F039	1, 2, 3	10
P-listed commercial chemicals	P001-P205	1, 2, 3	100
Commercial grade acetone	U002	1, 2, 3	100
Commercial grade benzene	U019	1, 2, 3	100
Commercial grade 1-butanol	U031	1, 2, 3	20
Commercial grade methanol	U154	1, 2, 3	100
Commercial grade methyl-ethyl ketone	U159	1, 2, 3	100
other U-listed commercial chemicals	U001, 003-018, 020-030, 032-153, 154-158, 160-411	1, 2, 3	200
Total			113,362

APPENDICIES

APPENDIX A

Appendix A
Acronyms and Definitions

AAC	Arizona Administrative Code
ABC	Aggregate base course
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
ASTM	America Society for Testing and Materials
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CP	Contingency Plan
CSAP	Closure Sampling and Analysis Plan
cyd	Cubic yard
DEA	Drug Enforcement Agency
DEUR	Declaration of Environmental Use Restriction
DOT	Department of Transportation
DQO	Data Quality Objectives
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
Facility	AA Sydcol Yuma Waste Transfer Facility
Facility Manager	The Facility Manager includes the designated responsible person on-site.
FEMA	Federal Emergency Management Agency
FID	Flame Ionization Detector
Generator	A facility, by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation. A generator can be the facility or their authorized representative.
GPL	Groundwater Protection Level
GSA	United States General Services Administration
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations Emergency Response
HDPE	High-density polyethylene

HWMU	Hazardous Waste Management Unit
LMS	Light Material Service container handling material in which one or more of the organic constituents has a vapor pressure greater than 0.3 kilopascals at 20°C and the total concentration of the pure organic constituents with a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight.
LDR	Land Disposal Restrictions
LQG	Large Quantity Generator
LQM	Laboratory Quality Manual
mg/L	Milligrams Per Liter
NAICS	North American Industrial Classification System
NRSRL	Non-residential Soil Remediation Level
O&P	Overhead and profit
OSHA	Occupational Safety and Health Act
OVA	Organic Vapor Analyzer
PCB	Polychlorinated Biphenyl
PID	Photo-ionization Detector
PPE	Personal Protective Equipment
PPM	Parts Per Million
SQG	Small Quantity Generator
QA	Quality Assurance
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
RSRL	Residential Soil Remediation Level
SARA	Superfund Amendments and Reauthorization Act
SIC	Standard Industrial Classification
SVOC	Semi-volatile Organic Compound
SWMU	Solid Waste Management Unit
Sydcol	AA Sydcol, LLC

TSCA	Toxic Substances Control Act
UTL	Upper Tolerance Limit
VOC	Volatile Organic Compound
VSQG	Very Small Quantity Generator
WAP	Waste Analysis Plan
WPS	Waste Profile Sheet

ATTACHMENT B

SYDCOL WASTE TRANSFER FACILITY

FACILITY DESCRIPTION
[40 CFR 270.14]

MARCH 15, 2021

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2. Surrounding Topography
3. Vicinity Hazards Map
4. Floodplain Map
5. Traffic Routes and Avoidance Areas

1 GENERAL DESCRIPTION

This description of the Facility has been prepared in support of the Sydcol RCRA Part B permit application. A list of all acronyms and a definition of key terms used in this description is provided with General Information provided in Appendix A of Attachment A of the RCRA Part B permit application.

The Facility is located at 2264 E. 13th Street in unincorporated Yuma County at the location shown in Figure 1. The site is 4.75 acres of developed property identified by the Yuma County Assessor's office as Parcel Number 666-17-050. Site developments include a main building, an existing concrete storage pad and two planned concrete storage pads to be used as waste management units, four concrete pads for roll-off containers, a water tank for fire suppression, and a perimeter chain-link fence.

The main building is a metal-frame structure with a large storage area including a shipping and receiving loading docks, a laboratory, offices, and an emergency eye wash and shower area. . A planned concrete pad adjacent and west of the main building is designated HWMU1 and a second planned concrete pad northwest of the main building is designated as HWMU2. A larger existing concrete pad located north of the main building is designated HWMU3. HWMU1 will be constructed with a metal shade structure to provide shade while checking in hazardous wastes. HWMU1, HWMU2, and HWMU3 are all constructed with containment curbs and are sloped to drain to one side where spills or other releases will collect for removal.

Incoming waste materials are typically transported to the Facility in tankers and/or containers (e.g. 55-gallon drums, totes, roll-off containers, end dumps, etc.) on flat bed or tractor trailers. Incoming traffic enter the Site via a gate located on the south side of the Facility and are directed to a designated receiving area and transferred to HWMU1 for check in.

2 TOPOGRAPHIC MAP

A topographic map of the area within 1,000 feet of the Facility is provided in Figure 2. Regional and site topography indicate a very slight land slope to the north-northwest of 0.17 feet per 100 feet or 8.8 feet per mile.

Note that for the purposes of 40 CFR §270.14(b)(19), there are no 100-year floodplains, surface waters, injection wells, drainage barriers or flood control structures within 1,000 feet of the Facility and therefore none are shown on Figure 2.

3 FACILITY INFORMATION

3.1 Location

The Facility is located at 2264 E. 13th Street in an unincorporated area of Yuma County, Arizona at Latitude 32° 42'18.20 N and Longitude 114 ° 35' 42.26" W. The cadastral location is in the northeast quarter of the northwest quarter of the southwest quarter of Section 26 of Township 8 South, Range 23 West of the Gila and Salt River Base and Meridian, Yuma County, Arizona. The Site's zip code is 85365. The Yuma County Recorder's office identifies the Site as Lot 11 and the east 40.97 feet of Lot 12 or the Gila Acres subdivision.

Based on the Yuma County Zoning Map, the Facility property is currently zoned Heavy Industrial, 1-acre minimum lot size (HI-1). Zoning in the vicinity of the Facility is a mixture of HI, Light Industrial (LI), and Rural Area, 20-acre minimum lot size (RA-20) for the farmland located north of the Facility.

3.2 Seismic and Floodplain Hazards

Yuma County is listed in Appendix VI of 40 CFR Part 264, indicating that compliance with seismic and floodplain location standards in 40 CFR 264.18(a) and (b) must be demonstrated. For seismic considerations, the Facility cannot be located within 200 feet of a geological fault which has had a displacement in Holocene time. The closest known fault to the Facility is the Algodones Fault. The Algodones Fault is oriented in a northwesterly –southeasterly direction south, southeast of Yuma. The Facility is approximately 11 miles north of the north end of the fault. Based on the distance of the Facility from the Algodones Fault, the Facility satisfies the requirement of 40 CFR Section 264.18 (a).

For floodplain considerations, the design, construction, and operation of a facility located within a 100-year floodplain must prevent washout of hazardous waste from the facility. The Facility is located approximately 1 mile from the Colorado River and 0.75 miles from the Yuma Levee, in area with a 0.2 percent change of flooding in any given year, or a 500-year floodplain, as designated by FEMA. Based on the FEMA designation, the Facility is outside the area of a 100-year flood and is exempt from the requirements of 40 CFR Section 264.18(b).

Figure 3 illustrates the location of active faults and flood hazard areas in the broader vicinity of the Facility. The FEMA floodplain map showing the Facility site is not located in a flood hazard area is provided in Figure 4.

3.3 Drywells

There are no drywells located at the Facility.

3.4 Wind Patterns

Wind patterns are generally calm to less than 20 mile per hour sustained wind speeds, with the predominant wind direction from the southeast or the north. Occasional high winds of 19 to 25 mile per hour sustained wind speeds occur, predominantly from the west or the south. A wind rose diagram for Yuma is presented on Figure 2.

4 TRAFFIC PATTERNS

Incoming waste material shipments and outgoing consolidated waste shipments will be transported by vehicular traffic to and from the Facility. Incoming and outgoing traffic will be directed to follow the following routes, as illustrated in Figure 5:

4.1 Incoming Traffic

Incoming waste shipments will be directed to the Facility via a route from Interstate 8 or State Route 95 to Avenue 3E. Traffic traveling eastbound on Interstate 8 will pass through the interstate interchange, crossing the Avenue 3E southbound lane, two left turn lanes for westbound traffic onto Interstate 8, and the Interstate 8 westbound exit ramp lane before reaching the Avenue 3E northbound lane. A traffic signal is at the Interstate 8 on and off ramp intersections with Avenue 3E.

Avenue 3E is an asphalt-paved roadway that has four traffic lanes for a short distance north of Interstate 8 and then merging into a two-lane roadway. Avenue 3E serves as the main arterial roadway to the industrial and agricultural area north of Interstate 8. Traffic will continue northbound on Avenue 3E, passing through a traffic signal at State Route 95 until its intersection with 13th Street, where traffic will turn west crossing one lane of southbound traffic. State Route 95 is a four-lane highway along the alignment of 16th Street in Yuma. Thirteenth Street is an asphalt-paved two-lane roadway. Traffic will continue travelling west on 13th Street to the Facility entrance on the western side of the Facility.

4.2 Outgoing Traffic

Waste shipments leaving the Facility will be directed to exit through the Facility entrance on the south side of the Facility and turn easterly onto 13th Street, crossing the westbound traffic lane. Traffic is to continue on 13th Street until it intersects with Avenue 3E, where traffic will stop at a stop sign and wait for clear traffic. Traffic will then turn onto the southbound

lane of Avenue 3E and continue south. Eastbound shipments can continue to either State Route 95 or Interstate 8; traffic crossing the northbound traffic lane of Avenue 3E at the State Route 95 intersection, which has a traffic signal. Eastbound traffic traveling on Interstate 8 will cross the on-off ramp lane for Interstate 8 westbound traffic and the Avenue 3E northbound lane when clear via the traffic signal. Westbound traffic will continue to the Interstate 8 interchange, crossing the intersection with State Route 95 and turning onto the on ramp for Interstate 8 when clear via the traffic signal. Waste shipments with then continue to their final destination.

4.3 Area Traffic Information

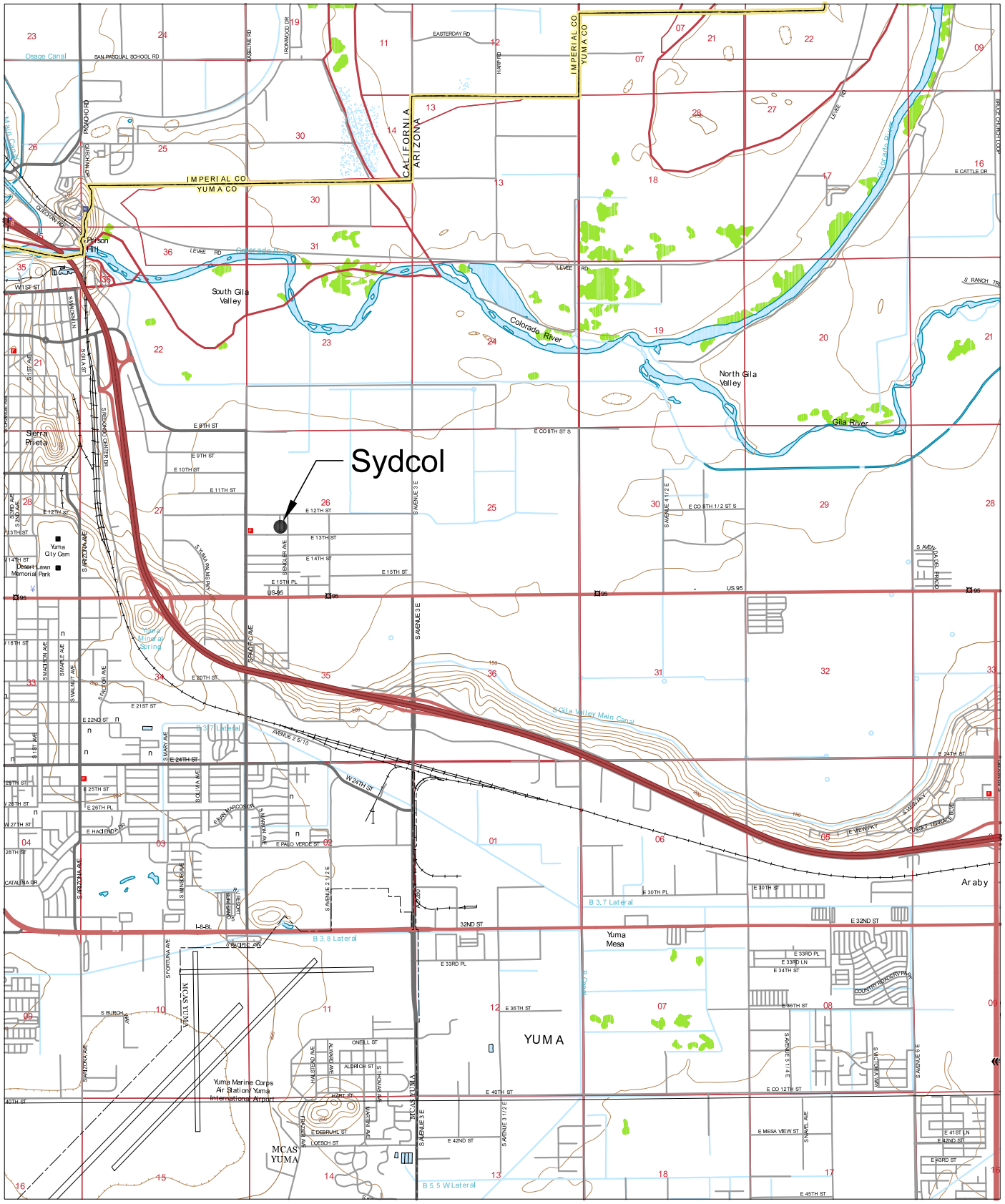
Traffic counts are not available for 13th Street in the vicinity of the facility. Based on the Yuma Metropolitan Planning Organization 2017 July biannual traffic count, East 16th St. (Highway 95) west of South Avenue 3 East had an average annual daily traffic rate of 21,538 vehicles and Highway 95 west of Araby Road had an average annual daily traffic rate of 9,501 vehicles.

The speed limit on 13th Street is not currently posted; however, based on the industrial area, the speed limit defaults to 25 miles per hour (mph). According to the Arizona Department of Transportation, the speed limit on State Route Highway 95 is 45 mph around Avenue 3E. Based on the current zoning and/or uses of the property and its vicinity, streets along the planned route will support the vehicles anticipated to enter and exit the Facility

4.4 Learning Site Avoidance Areas

Two learning sites have been identified within a 2-mile radius of the facility, as shown in the attached Figure 5. These include Harvest Preparatory Academy – Yuma Campus, located approximately 1.76 miles west-southwest of the Facility, and Desert View Academy, 1.95 miles south-southwest of the Facility. In-bound and out-bound transporters of hazardous waste will be notified in advance to avoid routing adjacent to these learning sites by providing them a copy of the route restrictions shown in Figure 5.

FIGURES


Sydcol
IMPERIAL CO
YUMA CO
CALIFORNIA
ARIZONA
Colorado River
Gila River
South Gila Valley
North Gila Valley
Sierra Prieta
Yuma City Cem
Desert Lawn Memorial Park
Yuma Mineral Spring
S Gila Valley Main Canal
B 3.7 Lateral
B 3.8 Lateral
B 5.5 W Lateral
Yuma Mesa
YUMA
Araby
Yuma Marine Corps Air Station/Yuma International Airport
MCAS YUMA
US 95
I-8-BL
E 8TH ST
E 9TH ST
E 10TH ST
E 11TH ST
E 12TH ST
E 13TH ST
E 14TH ST
E 15TH ST
E 20TH ST
E 24TH ST
W 24TH ST
32ND ST
E 40TH ST
E 42ND ST
E 45TH ST
E CO 8TH ST S
E CO 8TH 1/2 ST S
E CO 12TH ST
S AVENUE 3 E
S AVENUE 2 1/2 E
S AVENUE 3 1/2 E
S AVENUE 5 1/2 E
S AVENUE 1 E
S ARIZONA AVE
S MAIN ST
S GILA ST
S FORTUNA AVE
S MARY AVE
S COLMA AVE
S MCKEEN AVE
S MAPLE AVE
S WALNUT AVE
S PACIFIC AVE
S SENDER AVE
S MCLEAN AVE
S MCCAS YUMA
S MCTOWNSEND AVE
S MCTOWNSEND PL
S MCTOWNSEND LN
S MCTOWNSEND WAY
S MCTOWNSEND CT
S MCTOWNSEND TER
S MCTOWNSEND RD
S MCTOWNSEND PKWY
S MCTOWNSEND BLVD

LEGEND

- 139 Elevation Contour
- Property Boundary
- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Concrete Surface
- Registered Well (Location Approximate)

Figure 2
SURROUNDING TOPOGRAPHY
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL04
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services

Legend

Active Faults Latest Motion

- Within 10,000 years
- Within 750,000 years
- Within 2.5 million years

Flood Potential

- High

Figure 3

Vicinity Hazards Map

Sydcol

2264 E. 13th St., Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 4/16/19
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL06
REVISION:	

JGP Consulting, PLC

Environmental Compliance Services

National Flood Hazard Layer FIRMette

FEMA

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2019 at 4:10:32 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Figure 4

Fema Floodplain Map

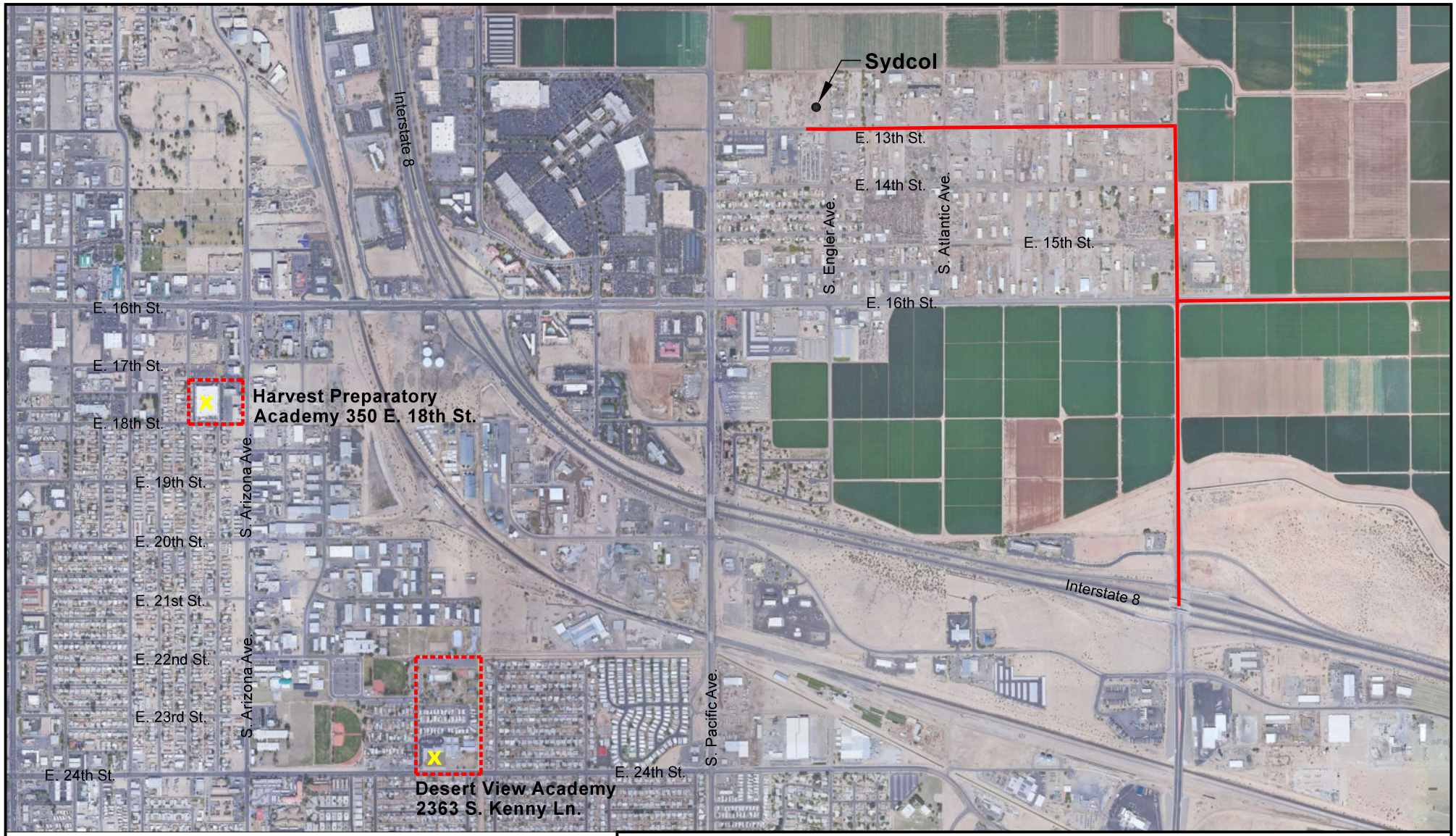
Sydcol

2264 E. 13th St., Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 6/14/19
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL07
REVISION:	

JGP Consulting, PLC

Environmental Compliance Services



LEGEND

- X Learning Site
- Traffic Avoidance Area
- Principal Traffic Route

N

SCALE

0 800' 1,600'

SCALE IN FEET

Note:
All Hazardous Waste Transportation Vehicles Must Not Enter the Designated Traffic Avoidance Areas.

Figure 5
Nearby Learning Sites
Sydcol
2264 E. 13th St., Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 4/6/20
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL07
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services

ATTACHMENT C

SYDCOL WASTE TRANSFER FACILITY
WASTE ANALYSIS PLAN
FOR RCRA HAZARDOUS WASTES
[270.A (270.14(b)(2)(3))]

June 25, 2021

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1. Site Location Map
2. Site Plan

APPENDICES

A. Example Waste Profile Form
B. Example LDR Notification/Certification Form
C. Industry-Standard Unpublished Methods

1.0 INTRODUCTION

1.1 Waste Analysis Plan Regulations and Guidance

This WAP describes AA Sydcol's procedures for evaluating waste characteristics. This WAP was developed in accordance with the requirements of 40 CFR 264.13(b) and AAC Title 18-8 in support of AA Sydcol's RCRA Part B application. Considerations This WAP was structured and developed with consideration of the EPA's *Waste Analysis at Facilities that Generate, Treat, Store and Dispose of Hazardous Wastes – Final, A Guidance Manual,* dated April 2015. A list of all acronyms and a definition of key terms used in this WAP is provided with General Information provided in Appendix A of Attachment A of the RCRA Part B permit application,

1.2 Waste Analysis Plan Purpose

The purpose of this WAP is to describe the methods, procedures, and equipment that will be used to perform the inspection, testing, analysis, handling, storage, and recordkeeping of hazardous waste accepted at the Facility. A copy of this WAP (final permitted version) will be kept on file at the Facility and will be made available for inspection.

The WAP documents the procedures the Facility will implement to safely transfer waste accepted at the Facility including the application of generator knowledge, inspection and physical testing and chemical analysis, when required, as identified below.

1. The Facility, when applicable, will apply generator knowledge including data developed under part 40 CFR 261 and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes (40 CFR 264.13(a)(2)).

2. Waste physical testing involves identifying and verifying the physical characteristics and composition of a waste by performing a physical analysis of a representative sample of the waste.

3. Waste chemical analysis involves identifying and performing various laboratory analysis of a representative sample of the waste.

1.3 Waste Analysis Plan Requirements

This WAP identifies and describes the following requirements:

1. Facility Description and Purpose of the WAP
2. Waste Profile Acceptance Procedure
3. Acceptable and Unacceptable Wastes

4. Waste Analysis Rationale
5. Waste Acceptance Procedures
6. Process Control Parameters
7. Sampling Methodology
8. Analytical Test Methods
9. Facility Quality Assurance and Quality Control
10. Recordkeeping and Reporting
11. Corrective Actions

2.0 FACILITY INFORMATION

2.1 Facility Location

The Facility is a commercial hazardous waste transfer facility located at 2264 E. 13th Street, Yuma, Arizona 85365, at Latitude 32º 42'18.20 N and Longitude 114 º 35' 42.26" W. A Site Location Map is included as Figure 1. The Facility intends to accept hazardous waste from off-site generators and will generate hazardous waste from the process of handling off-site wastes. Many of the characteristic and listed hazardous wastes from 40 CFR 261, Subparts C and D, are likely to be present in wastes handled at the Facility.

2.2 Facility Operations

The Facility will consolidate, bulk, repackage, and store a variety of hazardous waste for shipment to approved off-site reuse, treatment, and/or disposal facilities, fuel blenders or wastewater treatment plants. Wastes will typically be transported in tankers, roll-off bins and/or containers (e.g. 55-gallon drums, totes) and will be liquid, semisolid, and/or solid in nature. Generators, or customers, utilizing the Facility will include Large Quantity Generators (LQG), Small Quantity Generators (SQG) and Very Small Quantity Generators SQG (VSQG). Wastes will be received directly from generators or through third-party waste brokers under contract with hazardous waste generators.

2.3 Facility Description

The Facility consists of a 4.75-acre fenced lot with a main building, three concrete pads, and a water tank for fire control. The main building is a metal-frame structure with shipping and receiving loading docks. Also located in the main building is a laboratory, an office, and an emergency eye wash and shower area. The three concrete pads are located outside and are used as HWMUs to manage and store hazardous waste. A site plan of the Facility is provided in Figure 2.

When loading docks are otherwise occupied; trucks containing regulated waste are located on one of the concrete pads with containment located outside of the main building to contain drips and spills from the transport trailer. Types of acceptable hazardous waste in this area could include flammable and combustible materials (such as oils, waste fuels, etc.), contaminated soils and metal-containing filter cake, and other similar containerized materials.

2.4 Hazardous Waste Management Units

There are three designated HWMUs at the Facility; a concrete pad to the west of the main building

(HWMU1), a concrete pad located to the northwest of the main building (HWMU2), and a large concrete pad north of main building (HWMU3). The Facility is designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The Facility will carefully manage mixtures of hazardous wastes to prevent undesirable or uncontrolled reactions. During the waste acceptance process, the Facility will inspect incoming loads, and will review relevant data (such as profile sheets, LDRs, manifests, and laboratory results) to determine the hazard class of the waste. The Facility will manage the waste consistent with its identified hazard class for storage and/or transportation. Hazardous wastes classified as highly toxic chemicals will not be stored in excess of threshold quantities specified in 40 CFR 1910.119 Appendix A. Acceptable waste codes for each of the HWMUs are listed in Table 1.

Once the hazard characteristics of a waste are identified the waste material is transferred to the appropriate HWMU. The HWMUs have hazard class areas for ignitable, corrosive, toxic, and reactive wastes. These areas are separated by adequate aisle space, berms, catch basins or other physical barriers that prevent a reaction caused by mixing potentially incompatible wastes consistent with the Container Management Plan provided in Attachment D of the RCRA Part B application.

Ignitable or reactive RCRA hazardous waste are separated and protected from sources of ignition or reaction. Smoking at the facility is limited to specially designated areas and "No Smoking" signs are conspicuously placed throughout the Facility including, but not limited to entrances.

2.5 Employee Health and Safety Training

Sampling personnel (may include Managers, Supervisors, and Hazardous Waste Technicians I and II) will receive 40-hour hazardous waste operations (HAZWOPER) training consistent with 40 CFR 1910.120 that includes instruction on the use of sampling equipment, sample handling, selection of personnel protective equipment, evacuation procedures, container inspection and opening, fork lift operating, and Hazard Communication. HAZWOPER training for all sampling personnel will be kept current with annual 8-hour refresher training. Details on employee training are provided in Attachment H to the RCRA Part B application.

3.0 ACCEPTABLE AND UNACCEPTABLE WASTES

3.1 Facility Permitted/Acceptable Wastes

The waste streams accepted at the Facility will generally include characteristic wastes (D wastes) and/or listed wastes (F, P, and U waste), used oil, and universal waste (such as batteries, mercury-containing equipment, mercury-containing lamps/bulbs, and certain pesticides). Listed below are some examples of the types of waste received at the Facility:

1. Liquid paint, thinners, fuels, resins;
2. Alkaline sludge;
3. Alkaline liquid;
4. Mixed organic solvents;
5. Spent activated carbon;
6. Paint sludge, adhesives, resins;
7. Filter cake sludge;
8. Mercury batteries for mercury consolidation;
9. Halogenated organic solvents;
10. Soil and absorbent with organics;
11. Inorganic solid debris;
12. Nickel cadmium batteries;
13. Lead shot and wheel weights;
14. Automobile batteries;
15. Solid and liquid pesticides;
16. Rags and debris;
17. Acids with organics;
18. Mineral/organic acid liquid; and
19. Poison and flammable aerosols.

Individual waste codes are provided in Table 1.

Used oil is also received at the Facility.

3.2 Facility Non-Permitted/Unacceptable Wastes

Waste streams prohibited from acceptance at the Facility include:

1. Polychlorinated biphenyls of a type or level regulated by the TSCA (see 40 CFR Part 761), unless exempted, excluded or otherwise authorized pursuant to TSCA regulations (i.e. PCB waste in quantities greater than 500 gallons at concentrations greater than 50 PPM;

2. Mixed Waste (wastes that contain both a hazardous component regulated under Subtitle C of RCRA and a radioactive component consisting of source, special nuclear, or byproduct material regulated under the Atomic Energy Act);
3. DOT "Class 1" Explosives as defined in 49 CFR 173. 50 and Forbidden Explosives as defined in 49 CFR 173.54;
4. Biohazardous Medical Waste as defined by AAC R 18-13-1401;
5. K-Listed Industrial Specific wastes; and
6. F-Listed Dioxin-containing wastes (F020 – F023 and F026 – F028).
7. Lithium-ion battery wastes.

Generators and transporters will be notified of acceptable and unacceptable wastes at the Facility.

4.0 PRE-ACCEPTANCE WASTE PROFILE PROCEDURE

This section describes the rationale, information needs, and criteria for pre-acceptance of off-site wastes. This section also describes the processes, policies, and procedures for evaluating incoming waste shipments for acceptance and appropriate on-site management, referred to as the waste acceptance procedure. The waste acceptance procedure is designed to collect information needed to evaluate if a waste can be managed at the Facility. To have a waste stream accepted, the Generator must provide the Facility with written information about the waste stream.

The Facility uses information supplied by the Generator or the Generator's Agent to aid in its understanding of the waste it receives and manages. The Facility reviews and verifies the information provided on the waste profile to ensure its adequacy. The Facility is responsible for understanding the wastes to ensure compliance with its permit/regulations and to manage the wastes in a safe and environmentally protective manner.

4.1 Generator-Supplied Waste Profile Submittals

Prior to submitting a waste stream to the Facility for the first time, the Generator must submit a Waste Profile to the Facility. The Waste Profile includes a written description of the waste stream, including chemical and physical properties, prepared by the Generator or the Generator's designated agent knowledgeable in waste profiling procedures. The Waste Profile must include a description by the generator of their process knowledge of the waste and chemical composition. As necessary, an analytical report detailing relevant characteristics of a representative sample of the waste will be required. Process knowledge can include, but is not limited to, specific generator knowledge, and/or published or documented data on the hazardous waste, or on hazardous waste generated from similar processes. Additionally, a generator may also include the LDR Notification/Certification form for reference. The LDR Notification/Certification Form provides notice to the Facility from the generator on whether the waste stream is restricted under 40 CFR Part 268 and provides the basis for certification. The LDR must be included with the manifest on the initial shipment.

The Waste Profile Form contains specific information about the generator, the process generating the waste, waste characteristics, chemical composition, and waste volume and classification. Approved Facility personnel will compare the generator's supplemental information (if any) with the Waste Profile Form. The generator-completed Waste Profile Form must provide enough information for Facility personnel to make a preliminary determination and document with adequate specificity what waste the Facility will be managing and assurance that the Facility can manage the waste effectively, protectively, and in accordance with the conditions of the Facility's permit.

The Facility will, at all times, reserve the right to request additional information from the generator

prior to accepting a waste and/or at any time during the waste acceptance process. The profile form will include generator acknowledgment that Sydcol may require information in addition to what is submitted with the profile form in order to review and approve the profile.

An example waste profile form is provided in Appendix A. Waste information can be supplied in a different format if it is adequate to comply with 40 CFR 264.13, meets the Facility's reporting standards, and has been approved by the Facility Manager.

4.2 Waste Profile Approval Criteria

The Waste Profile submitted by the generator is first reviewed for completeness. Supplemental information could be required by the Facility when additional information about the waste is needed to properly manage and dispose of the waste so that proper storage and disposal options are considered for the waste stream. Facility personnel will evaluate the Waste Profile Form and any attachments to determine if the waste can be accepted at the Facility per the Facility's permit conditions.

A waste stream can be determined to be unacceptable during the pre-submittal stage based on information on the Waste Profile Form. Additional information will be requested if the data is determined to be inconclusive in one or more areas. If the waste stream is not approved for acceptance, Facility personnel will inform the generator that the waste is not acceptable at the Facility.

4.3 Land Disposal Restrictions

LDRs prescribe how most RCRA hazardous wastes must be treated before they can be disposed of in or on the land. The Facility will accept, store, generate, and transfer materials subject to 40 CFR Part 268 requirements. No treatment or disposal of waste occurs at the Facility. The facility will only bulk or combine waste with compatible properties. While some changes to characteristic listings may occur, the waste will maintain the codes of the original material.

The generator of a hazardous waste is responsible for determining the applicable LDRs at the point of generation. The generator is also responsible for notifying the Facility of the restricted status of the waste by providing the Facility with an LDR Notification/Certification Form. This notification and/or certification must be provided prior to acceptance and management of the waste shipment.

During the waste profile process, the Facility will perform a review of the LDR status of the waste. This status review, at the profile stage, will be performed independent of the generator's LDR Notification/Certification Form. If additional information is required to determine the LDR management requirements, the generator will be required to provide that information and/or to

provide a sample for analysis prior to the management of waste.

The Facility will provide the required LDR notifications when hazardous waste is subsequently shipped to a licensed treatment, storage, or disposal facility. This does not apply when the Facility sends waste material off-site as recyclable material.

A sample LDR Notification/Certification Form is shown in Appendix B. This is an example of a typical Notification/Certification Form, however the information can be supplied in a different format if it is meets the Facility's reporting standards.

4.4 Waste Profile Recertification

The Facility will assign a waste profile number to each approved waste stream for the generator. The waste profile number is tied to the Waste Profile Form. The generator will be required to identify the waste stream utilizing the waste profile number on future shipments.

The waste profile approval is repeated when determined necessary to ensure that it is accurate, up to date, and representative of the waste over time. Generators are required to inform the Facility of significant changes in the characteristics of and/or the process generating their waste streams. They agree to do so by signing the certification statement in the Waste Profile Form. The Waste Profile Form is updated whenever a change in waste stream characteristics is indicated by the generator or whenever results of the waste fingerprint analyses performed by or on behalf of the Facility are not consistent with the original Waste Profile Form.

If the waste stream exceeds the Facility's non-conformance criteria, the Facility will not accept the waste under the existing Waste Profile. The Facility will require the generator to submit a new Waste Profile Form to resolve the discrepancy. Discrepancies involving significant differences in quantity or type must be resolved within 15 days. Wastes rejected due to a discrepancy will be returned to the generator or forwarded to an acceptable alternate facility within 60 days.

The waste will be sent back to the generator or until a new waste profile is approved. Rejected wastes will not be maintained at the Facility for longer than 60 days after the discrepancy is resolved. Upon Facility approval, the Waste Profile will be assigned a new unique waste profile number to be associated with the waste stream.

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5.0 WASTE ANALYSIS PROCEDURES

This section describes the processes, policies, and procedures for evaluating incoming waste shipments once it arrives at the Facility. The waste acceptance process was developed and is implemented to verify that a waste shipment conforms to the description on the pre-approved Waste Profile Form and the manifest that accompanies the waste. In addition to comparing the waste shipment to the waste profile form, the acceptance procedure will be used to aid in properly segregating the waste.

Waste acceptance is performed in the step-by-step procedure outlined below that includes making qualitative observations (such as visual identification of color, number of phases, etc.), testing with field test kits and screening instruments, and by laboratory instrumental analysis. The specific information needed for waste acceptance depends on the variability of the waste, the accuracy and precision needed to comply with the permit requirements, and the stated objectives of the waste acceptance.

The two key objectives of all waste acceptance sampling and testing are to:

1. Ensure that the parameters being tested (e.g. pH) meet permit requirements and fall within acceptable limits for effective management and disposal; and,
2. Verify that the incoming shipment matches the manifest and is the same waste that was approved during pre-acceptance.

Until a waste has been accepted by the Facility, the waste remains the property of the generator. Should the waste have to be sent back to the generator or an alternate facility, it will be the generator's responsibility to provide and/or authorize a new profile and proper shipping manifest.

5.1 Fingerprint Analysis

The Facility at its discretion, may utilize fingerprint analysis to verify that the waste received matches the description on the manifest, and that the waste matches the waste type that the Facility has agreed to accept. When the Facility already knows the detailed chemical and physical properties of a waste, appropriate target or split check parameters can be selected to verify that each waste arriving at the Facility matches its corresponding profile.

Fingerprint analysis is generally conducted for parameters based on the waste stream that may include color, specific gravity, ignitability screen (flash), presence of more than one phase, pH, halogen content, cyanide content, and/or percent solids/liquids. Used oil waste is fingerprinted for halogen content. The fingerprint analysis will give information that can be used to help verify that the waste matches the expected characteristics for that waste.

Visual inspection of the waste consistent with ASTM D4979 will be performed as an initial screening procedure and for comparison with the waste description presented on the Waste Profile Form and/or manifest. Visual screening of waste can be used to help verify that the waste received and/or generated meets the acceptance criteria and matches the expected characteristics for that waste. Visual screening will include color, physical state, number of phases, strong odor, and percent solid and free liquid range.

Table 2 lists various characteristic information that may be identified on the waste profile for acceptance at the Facility. Information is divided into a Core analysis and Supplemental analysis. The Core analysis will be performed on wastes that are selected for analysis. Not all core analysis parameters are required for each waste. The Core analysis parameters are determined based on the profiled waste stream. The Facility will also perform the Core analysis as described per the Acceptance Level as described in 6.0 Waste Acceptance Procedures.

Supplemental analysis is required by the Facility when applicable to the waste stream identified during the Waste Profile and Acceptance stages. The supplemental analysis is also presented in Table 2.

In addition to the analyses shown in Table 2, several other parameters will also be studied in the waste profile process to determine the best management techniques for the waste streams. The parameters are determined by the specific characteristics of the various waste streams. For example, the sulfides screen shows whether the waste has a potential to produce hydrogen sulfide. If the analysis is positive, the waste is considered non-conforming and the Facility will contact the generator to discuss how to proceed. The same procedure is followed for non-conforming water reactive, oxidizer and cyanide-containing waste.

Waste is generally considered acceptable if analysis data show that the waste can be effectively managed at the Facility. Acceptance or refusal of each waste stream is based on the waste profile analytical results and the capabilities of the Facility.

5.2 Lab Packs & Other Waste Not Requiring Sampling

There are certain hazardous wastes streams that will not (or cannot) be sampled for analysis. These wastes are either not amenable for analysis, there are safety concerns for sampling/analyzing the waste, or the conformance between the waste and waste profile can be adequately determined by visual inspection. It is not possible to determine all cases in advance. Some wastes, such as those listed below, are typically not sampled.

- Lab packs

- Aerosol containers and other pressurized gas containers not defined as compressed gases in 49 CFR 173.301
- Some hazardous debris (e.g., contaminated PPE, contaminated glassware)
- Off-specification, outdated, or contaminated commercial products
- Chemical-containing equipment removed from service (e.g., cathode ray tubes, batteries)
- Containers labeled with contents

Inner containers in lab packs are not sampled because of safety concerns and because of the difficulties involved in sampling the many smaller containers, ampoules, and vials over packed within the larger shipping container. Aerosol containers, other pressurized gas containers as defined above, and some hazardous waste debris are not sampled as taking a representative sample of such waste (e.g., spray paint or contaminated concrete chunks and rebar) is usually not practical.

Off-specification, outdated, or contaminated commercial products are not sampled because there is ample information on these products (e.g. Safety Data Sheets). Chemical-containing equipment removed from service (such as cathode ray tubes and batteries) is not sampled because taking a representative sample of such waste is usually not practical.

For incoming waste, conformance is determined through visual inspection of the waste and comparisons to the waste profile's physical description. For lab packs, conformance is based upon review of the accompanying inventories supplied with the manifest.

For cases not described above, justification for not sampling the waste will be included in the operating record for the waste.

5.3 Recording Acceptance Fingerprint Analytical Results

The acceptance analytical results are recorded in the Facility operating record by generator name, the unique waste profile number, and/or sample identification number. These results take the form of computer files, electronic images, and/or paper copies. The operating record will consist of a filing system organized by generator name and waste profile, with information provided by the generator in support of the profile maintained with the analytical results of fingerprint analytical results. The retention period for records is for a minimum of three years or as otherwise prescribed in 40 CFR 264.73.

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6.0 WASTE ACCEPTANCE PROCEDURES

Waste acceptance procedures will be conducted on two levels of analysis; an initial Level I analysis and a more detailed Level II analysis, if necessary.

6.1 Level I Analysis

Level I analysis involves incoming load inspection and screening. When a waste shipment arrives at the Facility, the transporter is required to provide the manifest that describes each waste stream, and the appropriate LDR Notification/Certification form. If a waste shipment arrives at the Facility without an approved waste profile number, the shipment will be rejected unless profile information is provided by the generator and the waste is approved by the Facility. Upon passing the load inspection as described in 6.1.1, the waste will either be accepted at the Facility, rejected, and/or quarantined for further analysis.

6.1.1 Load Inspection

The incoming load will be verified. Incoming load verification begins by reconciling the number of containers and/or quantity of waste against the manifest.

The waste shipment is inspected by Facility personnel. During the inspection, the following information is verified:

1. Whether the quantity of waste received matches the manifest.
2. Irregularities in the shipment (such as leaking or damaged containers).

Leaking or damaged containers will be secured and repackaged unless deemed unsafe and/or not allowed by regulations. The container will be secured to prevent further releases into the environment and quarantined. The generator will be notified when deemed necessary by the Facility. Further handling procedures of the shipment will be determined on an individual basis by the Facility Manager.

6.1.2 Representative Sampling

Several manifests are commonly delivered on a single truck. Representative grab samples of bulk and containerized waste, up to ten percent (10%) of the eligible containers of each load subject to sampling, will be collected and analyzed for a set of given parameters (see Table 3).

To be representative, a sample will be collected and handled in a way to preserve the waste's physical form and chemical composition and prevents contamination. Based on the waste stream, the collected sample will be screened for some or all of the following

parameters:

1. Visual Inspection.
2. pH (Liquids only).
3. Sulfide Screen (sulfur-based wastes with a pH at or greater than 5).
4. Cyanide Screen (ammonia/nitrogen-based wastes with a pH at or greater than 5).
5. PCB Screen (to be performed on oils and PCB-contaminated soils).
6. Oxidizer Screen (to be performed on materials suspected but not identified as an oxidizer on the profile).

In certain situations, the Facility will conduct additional confirmation analyses. Situations where additional confirmation analyses might be performed would be for waste streams for disposal where the metal concentration ranges affect the disposal methodology and cost.

The results of the waste acceptance analysis are recorded and kept on file as part of the Facility operating record. The results of the inspection are recorded if there is a non-conformance or deviation between the waste delivered and the waste profile that results in Level II analysis.

The Facility Manager decides whether supplemental analyses are required for a waste based on the results of the routine acceptance fingerprint analyses, the results of the waste profile evaluation, and the experience of the laboratory manager or designee. Further analysis (Level II) will be required if the results indicate the unexpected presence or absence of a screening parameter or other reasons that warrant such testing.

6.2 Level II Analysis

Failure of Level I analysis automatically initiates Level II analysis. Level II analysis begins with a qualitative review of the waste by the Facility Manager. Level II analysis can result in the acceptance of the waste, analytical testing or rejection.

Level II analysis may also be initiated at the discretion of the Facility if the Level I analysis indicates a discrepancy with the description of the waste on the profile. If a Supervisor or Technician finds an apparent discrepancy between the results of the Level I analysis and the description of the waste on the profile, the Facility Manager will be requested to review the results of Level I. If the Facility Manager determines the waste conforms to the profile, the waste will be accepted. Waste that does not pass the Facility Manager's qualitative review will be moved to an appropriate storage area separate from other stored wastes while a Level II analysis is performed.

The Facility Manager may perform any or all of the following actions:

1. Submit a sample for in-house analysis;
2. Submit a sample to a third-party certified laboratory for confirmation;
3. Contact the generator; and/or
4. Reject the waste.

The generator will be contacted if determined by the Facility Manager that the quarantined waste fails Level II analysis. Based on a review by the Facility Manager, some or all the following options will be provided to the generator:

1) Generator submits a new waste profile for the waste.
2) Ship back to the generator.
3) Ship to another facility.

The Facility on-site laboratory has the capability to perform the fingerprint analysis in Table 4. Screening methods will be published methods or industry-standard practices as referenced in Table 4. Industry-standard methods that are not published are detailed in Appendix C.

The capabilities of the Facility's on-site laboratory could increase in the future to include supplemental analysis. The Facility Manager will determine if supplemental analysis will be required. Supplemental analysis that cannot be provided by the Facility laboratory will be performed by an off-site third-party laboratory.

The type of analysis required for waste acceptance is generally the same as the waste profile analysis requirements. However, the waste acceptance analysis does not duplicate the waste profile analyses. The former is generally less extensive and less time consuming than the latter, and the intent is to verify that the basic characteristics of a waste shipment match those expected based upon waste profile data. The major components of the waste shipment can usually be identified and matched to expected characteristics by qualitative analysis. Only when unexpected results are identified in the qualitative analysis are more extensive analyses of the waste shipment performed. These more extensive analyses provide data for discrepancy notation or resolution.

If the waste characterization analyses and/or discussions with the generator indicate that the waste shipment is not the same waste stream as originally pre-screened, the waste is considered non-conforming and the Facility Manager will contact the generator to resolve the non-conformance.

6.3 Special Procedures for After Hour Deliveries

The Facility receives wastes during normal business hours. If there is an occasion when wastes are delivered during off business hours (after 5 pm, weekends, and holidays) the following provisions will be implemented.

1. Arrangements will be made in advance with the generator/transporter Facility to have Facility personnel, including a Hazardous Waste Technician and Chemist/Lab Technician on call to receive the waste after hours and conduct required analysis as detailed in this section.
2. In those cases where the analysis is not or cannot be completed at the time the waste arrives at the Facility, the waste will remain on the transport vehicle until the analysis can be completed.

7.0 DISCREPANCY POLICY

This section described the policies and procedures that the Facility will use when there is a discrepancy between the waste designated on the manifest or waste profile and the waste received at the Facility.

7.1 Discrepancy Criteria

Whether a discrepancy in the waste is acceptable at the Facility is based on the following criteria:

1. The level of conformance between the initial waste profile and the Level I analysis of the incoming shipment.
2. The level of conformance between the manifest and Level I analysis of the incoming shipment.
3. Whether the waste is allowed pursuant to the Facility permitted waste code
4. Whether the waste stream is not allowed (i.e.; PCB levels/quantities, radioactive or infectious waste, etc.).

Manifest discrepancies are differences between the quantity and type of hazardous waste designated on the manifest, and the quantity and type of waste received at the Facility including the following:

1. A variation of 10 percent by volume for bulk shipments;
2. Any variation in piece count for containerized shipments;
3. Obvious difference in waste type per 40 CFR §264.72(a)(l).

The Facility will attempt to reconcile the discrepancy with the generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the Facility will submit a report to the ADEQ Hazardous Waste Unit describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

When waste is received, except for waste identified below at "Lab Packs and Other Wastes Not Requiring Sampling," it is screened per the WAP parameters in Table 2 to verify that the shipment matches the waste profile.

7.2 Non-Conforming Waste Procedure

If a waste type does not generally match the profile, it is considered to be non-conforming and requires further investigation and/or analyses to resolve the discrepancy. (For example, slight variations which do not significantly alter the waste type or handling methods).

The non-conformance area will be a pre-designated quarantine area within one of the HWMUs

suitable for short-term storage of a variety of waste. To be considered suitable, the quarantine area will be maintained separate from other waste containers in storage and have posted signage designating the containers are under quarantine. Quarantined wastes in HWMU1 will be separated on secondary containment pallets to segregate incompatible wastes that has yet to be accepted at the Facility.

A waste may be considered non-conforming for any of the following reasons:

1. Improper waste coding;
2. Physical discrepancies (discrepancies are considered noticeable and identifiable variations. All questionable discrepancies, regardless of size or nature, should be directed to Level II for the Facility Manager or its designee to determine if the discrepancy represents a non-conformance); and/or
3. A variation resulting in the change of a regulatory classification under the permit.

If a non-conformance is identified, the waste is quarantined in a pre-designated area, the generator and/or transporter is contacted, and further actions are discussed. The Facility will either require the profile to be updated, require the generator to approve a one-time discrepancy on the existing Waste Profile, or a new profile will be developed. If the waste is amenable to management at the Facility, the discrepancy is attempted to be resolved. If the waste is not amenable for management at the Facility or if the discrepancy cannot be resolved, the waste is rejected. Tests and methods used to determine if a discrepancy exists are contained in Table 3.

8.0 REJECTION POLICY

This section describes the policies and procedures that the Facility will use for the rejection of waste delivered to the Facility. The Rejection policy is designed to ensure that applicable federal and state requirements for rejections are followed as described in 40 CFR 264.72. The Facility will reserve the right to reject waste at the discretion of the Facility Manager or designee.

Once a waste stream has been identified by the Facility and rejected the following procedures will be followed:

1. The Facility will notify the generator the waste is rejected.
2. The generator will be responsible for arranging the removal of the rejected shipment.
3. While the shipment is waiting to be returned to the generator or delivered to an alternate facility, the Facility will maintain the waste in a secured manner.
4. The Facility will send the rejected waste off-site within 60 days of the rejection in accordance with applicable manifest requirements.

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9.0 SAMPLING METHODOLOGY

This section describes how the Facility determines the appropriate sampling method for waste characterization. Samples of waste streams designated for laboratory analysis are collected by Facility personnel in accordance with sample collection protocols designated in the EPA SW-846 waste sampling guidance or other industry-standard sampling protocols, as appropriate for specific waste types.

The Facility personnel collecting the sample must be aware that the waste can be a strong sensitizer, flammable, corrosive, or toxic. The background information on the manifest and Waste Profile Form is helpful in deciding the level of sampling safety precautions to be observed and selecting the proper personal protective equipment.

Sampling personnel will receive sampling methodology training in accordance with EPA SW-846 sampling guidance. The Laboratory Manager or designee will determine and implement the sampling method in the case an EPA sampling method does not exist for a specific material/shipment.

9.1 Sampling Rationale

Sampling rationale will need to address the types of samples needed (e.g. authoritative or random sampling: grab or composite sampling); selection of sampling locations; number of samples; and sampling frequency.

Authoritative sampling is sufficient in cases where historical data, generator, and process information is available to accurately assess the chemical and physical properties of a waste. Sample locations are selected based on knowledge of waste properties (e.g. homogeneous process steams) and level of uniformity or waste distribution. The validity of authoritative sampling is dependent upon the accuracy of the information used.

Random sampling strategies are more commonly utilized due to the difficulty in determining the exact chemical and physical properties of most hazardous waste streams (e.g. wastes streams of unknown and/or variable concentrations). The Facility will select either the simple or the stratified random sampling technique. Simple random sampling is used to collect representative samples of wastes that are heterogeneous through the entire waste stream. Stratified random sample is used to collect representative samples from waste streams that are known to have areas of non-uniform properties and/or hot spots.

A Grab sample is a single sample from a location within a volume of waste at a distinct point in time. Grab samples will be collected if the integrity of the sample may be affected by the physical mixing of samples during the compositing process and when determining compliance with the

LDR requirement.

A Composite sample is several individual samples (aliquots) collected from a volume of waste that are combined into a single sample for analysis. A composite sample may be used in cases at the Facility where a waste stream is considered to be homogenous with little concentration variations.

9.2 Sampling Equipment

The physical and chemical characteristics of waste must be considered when determining the most appropriate type of sampling equipment to use for a given waste. Table 3 provides examples of the types of sampling equipment that will be utilized at the Facility.

9.3 Maintaining and Decontaminating Sampling Equipment

Sampling personnel collecting waste samples will wear a pair of surgical latex gloves and/or other appropriate PPE. Reusable sampling equipment will be decontaminated after a sampling event. When needed to prevent cross-contamination, sampling equipment that comes in contact with waste will be decontaminated before use.

The decontamination procedure includes removal of loose debris and soil from the sampling equipment. Following removal of loose debris and soil the following steps are taken:

1) Reusable sampling equipment will be disassembled and washed thoroughly with a phosphate-free laboratory grade detergent after a sampling event.
2) The equipment will then by further decontaminated with a distilled water rinse.
3) If sampling for metals, the equipment will then be decontaminated using a 10% nitric acid rinse followed by a second rinse with clean distilled water.
4) If sampling for organics, the equipment is decontaminated with hexane or methanol and decontaminated with a distilled water rinse. (Typically, methanol is used due to lower hazards risk)
5) The equipment is then reassembled and allowed to air dry on a decontaminated drying rack or other similar device.

9.4 Sample Collection

A sufficient and representative sample of the waste material will be collected. Sample volume is subject to the request of the on-site laboratory and/or a third-party laboratory. Sample containers are labeled to identify their source, date and time of sampling, and initials of sampling personnel. Samples are submitted to the on-site laboratory and/or third-party laboratory for processing. Samples taken from hazardous waste shipments for fingerprint analysis are collected by the sampling personnel and delivered to the on-site laboratory. The on-site laboratory personnel will

properly preserve the sample according to the appropriate laboratory methodology in 10.2. Samples held for further analysis and/or submitted to an independent third-party laboratory will be collected by Laboratory personnel or designee and will be preserved as discussed in 10.2 Laboratory Sample Preservation.

9.5 Chain-of-Custody

All samples will be assigned a unique identifier. Samples collected by the Facility personnel will identify the sample containers with the following information:

1) Last four digits of Manifest # e.g. M1234
2) Line # e.g. L01
3) Container # e.g. C123

Samples will be labeled with the date, time and initials of the sampling personnel.

For samples submitted to a third-party laboratory, laboratory personnel or their designee will collect a sample of the waste. To document sample possession from the time of collection until the sample has been received by third party laboratory, the laboratory personnel or their designee will complete the chain-of-custody information on the laboratory-provided chain-of-custody form. Proper custody of the samples will be documented, and changes in sample custody will be documented. To simplify management of the sample chain-of-custody, only required personnel should handle the waste samples. While collecting the sample, it is the responsibility of the Facility for the care and custody of the samples until they are transferred. This chain-of-custody procedure will be followed during waste sampling activities.

Each record will contain the following information: sample identification, signature of the sampler, date and time of the collection, sample type, signature of persons involved in the chain of possession, and inclusive dates and time of possession.

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10.0 LABORATORY TEST METHODS AND PROCEDURES

This section describes how the Facility selects the laboratory analysis parameters, test methods, laboratory equipment calibration, sample preservation, sample receiving procedure, and chain-of-custody protocol. The Facility's QA program and QC procedures are designed to ensure laboratory data are scientifically valid, defensible, and of known precision and accuracy (except for test strips and visual observations). This section also identifies the data records the Facility will maintain, how long, where, and in what format each record type will be maintained.

10.1 Laboratory Test Methods

The on-site laboratory will perform fingerprint analysis. The on-site laboratory will follow EPA guidelines where protocol for field screening has been established per methods published by ASTM or listed in the SW-846 Compendium (as updated). Table 4 provides the list of screening methods and the associated method number utilized by the on-site laboratory.

The Facility will subcontract a third-party laboratory to provide analytical testing. Any third-party laboratory must be certified by ADHS for the methods used by the laboratory.

Third-party laboratory test methods shall be in conformance with the EPA manual Test Methods for Evaluating Solid Wastes SW-846 (as updated), Standard Methods/or the Examination of Water and Wastewater and/or ASTM. Table 5 provides the list of screening methods utilized by the third-party laboratory.

10.2 Laboratory Sample Preservation

All samples will be preserved and held according to current SW-846 or other methodological protocols.

10.3 Fingerprint Analysis QA/QC

The goal of a QA/QC program is to provide accurate and precise data on the physical and chemical properties of waste so that the wastes are handled safely. While Fingerprint analysis does not require a formal QA/QC manual, QA will be accomplished by ensuring that:

1. The wastes are properly screened;
2. Wastes that do not meet the Facility criteria are not accepted;
3. Analytical equipment is properly calibrated consistent with manufacturer recommendations; and
4. Personnel involved in sample collection and sample screening are trained in proper

procedures.

The Facility provides initial and recurrent training to employees to insure samples are analyzed, stored, and disposed properly and safely. Laboratory personnel are knowledgeable of analytical procedures and receive on the job training for the specific analytical procedures used at the Facility. The employee's training effectiveness is documented annually. The Facility laboratory personnel have been trained to perform the procedures outlined under the Fingerprint Analysis.

10.4 Sample Receiving Procedure

Samples collected for third party analysis will be maintained according to EPA and ADEQ approved chain-of-custody procedures. This means those samples can be traced from the time the samples are obtained by the Facility until results are reported.

Samples will be collected at the Facility and delivered to the third-party laboratory. It is the responsibility of the Facility to determine the analyses to be performed on the samples and that pertinent information relative to the sample is recorded. The third-party laboratory documents the receipt of the sample is consistent with the requirements.

It is the third-party laboratory's responsibility to document the sample containers are individually labeled and whether the paperwork matches the contents of the bottle (or package). In addition, the third-party laboratory will note whether all the dates and times are consistent, and whether or not the sample description on the paperwork matches the description of the sample containers.

Fingerprint samples at the Facility and samples received by the third-party laboratory will be logged in before work is performed on the samples. The purpose of the log-in procedures is to ensure that the laboratory has a means where samples can be tracked for sequence of events during a period. In handling projects in this manner, the Facility laboratory and third-party laboratory provides a consistent and documented sequence of events.

10.5 Maintenance of Laboratory Custody

On-site samples will be securely maintained by Laboratory personnel or designee. Samples obtained for third-party laboratory will be maintained consistent with the chain-of-custody requirements from the beginning of sampling to the final report. It is the responsibility of the third-party laboratory to ensure that: a) samples are kept in a minimum-access facility, and b) they are within their possession during the period they are being analyzed.

Samples received for analysis by the Facility will be stored consistent with method-specific sample handling requirements. No in-house samples will be disposed without authorization from the

Facility Manager. The third-party laboratory will maintain the samples in its laboratories for the specified length of time as required by ADHS.

The Facility will conduct, or subcontract to the third-party laboratory, analyses in general accordance with the U.S. EPA SW-856 methodology or by an equivalent ASTM method. These procedures incorporate stringent quality control requirements and describe accuracy, calibration criteria, internal standard, and method-detection limits.

10.6 Laboratory Analysis Evaluation

The Facility and/or third-party laboratory will complete check-in procedures as presented above. The on-site laboratory will perform fingerprint analyses and compare the results to the waste profile received from the generator. When the Facility deems a certified-laboratory analysis is required to perform waste characterization for permit compliance, the Facility will utilize the services of an ADHS-certified laboratory. Analytical results are retained by the Facility for three years as required by ADEQ.

10.7 Third-Party Laboratory Data Evaluation

Analytical data, if available, are evaluated as part of the screening and acceptance procedures for waste shipments. Data are compared to screening tests of previous shipments of the waste stream, other samples of the same shipment, and waste characterization data. Discrepancies that cannot be attributed to normal sampling or laboratory variation are investigated further.

The Facility Manager will review the laboratory report, and if necessary, revise at the Generator's approval, the waste profile and/or manifest to make it consistent with the certified results. Analytical results are retained by the Facility for three years.

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11.0 WASTE COMPATIBILITY

To prevent the possibility of mixing incompatible hazardous wastes, waste being considered for acceptance at the Facility is subject to a compatibility evaluation. This evaluation is qualitative and is based on data gathered in the waste profile and waste acceptance processes. The data is used to classify wastes into specific reactivity groups that are used as indicators of potential incompatibility.

The Facility will carefully manage mixtures of hazardous wastes to prevent undesirable or uncontrolled reactions by following the procedures outlined below:

1. During the waste acceptance process, the Facility inspects incoming loads and reviews relevant data from laboratory results and manifests (discussed in Section 6.0) to determine if the waste is ignitable or reactive. Based on the test results, the Facility manages the waste consistent with its hazard class for storage or disposal.

2. If an incompatibility issue is identified, additional testing will be required. Compatibility testing generally entails mixing a small volume of one substance with another and observing the mixture for heat, gas generation, or polymerization reactions. Facility personnel will evaluate the test results to determine the nature of the incompatibility. Field and/or laboratory compatibility testing must be documented in the Facility operating record.

3. The hazard characteristics of a bulked waste are verified and stored in appropriate segregation areas. The Facility has designated segregation areas for each hazard class areas for toxics, ignitable, corrosive, and reactive wastes. These areas are to be kept separated by adequate aisle space, berms, racking or other physical barriers that prevent a reaction caused by mixing potentially incompatible wastes.

4. Ignitable or reactive RCRA hazardous waste are separated and protected from sources of ignition or reaction. Smoking at the Facility will be limited to specially designated areas, and "No Smoking" signs are conspicuously placed where ignitable and reactive hazardous wastes are stored. Ignitable or reactive waste containers will be stored at least 50 feet from the property line.

5. Waste containers will be decontaminated before reuse for another potentially incompatible waste, unless a compatibility evaluation of the two or more wastes indicates that the reuse will not create adverse and/or uncontrollable reactions.

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TABLES

Table 1
AA Sydcol Hazardous Wastes

Waste type	RCRA Waste Codes	HMWUs	Estimated Annual Quantity (tons)
Ignitables	D001	1, 2, 3	30,000
Corrosives	D002	1, 2, 3	20,000
Reactives	D003	1, 2, 3	200
Toxicity: Heavy metals	D004-011	1, 2, 3	100
Toxicity: pesticides/herbicides	D012-017, 020, 031	1, 2, 3	100
Toxicity: Volatile organics	D018-019, 021-022, 028-029, 035, 039-040, 043	1, 2, 3	32,500
Toxicity: Semi-volatile organics	D022-027, 032-034, 036-038, 041-042,	1, 2, 3	200
2,4-dinitrotoluene, nitrobenzene	D030, D036	1, 2, 3	2
Halogenated compounds: degreasing	F001	1, 2, 3	4,000
Halogenated compounds: solvents	F002	1, 2, 3	4,000
non-Halogenated compounds solvents	F003-005	1, 2, 3	8,000
Listed electroplating wastes	F006-009	1, 2, 3	11,000
Listed metal finishing wastes	F010-012, 019	1, 2, 3	2,500
Chlorinated aliphatic hydrocarbons	F024-026	1, 2, 3	10
Listed wood-preserving wastes	F032, F034-035	1, 2, 3	10
Refinery WW treatment sludges	F037-038	1, 2, 3	10
Hazardous leachates	F039	1, 2, 3	10
P-listed commercial chemicals	P001-P205	1, 2, 3	100
Commercial grade acetone	U002	1, 2, 3	100
Commercial grade benzene	U019	1, 2, 3	100
Commercial grade 1-butanol	U031	1, 2, 3	20
Commercial grade methanol	U154	1, 2, 3	100
Commercial grade methyl-ethyl ketone	U159	1, 2, 3	100
other U-listed commercial chemicals	U001, 003-018, 020-030, 032-153, 154-158, 160-411	1, 2, 3	200
Total			113,362

Table 2
Waste Analyses Test Applicability

	Tests	Profile[1]	Initial[2]	Level I[11]	Level II[12]
1	**Visual Observation of Physical Characteristics**				
	Color	C	C	C	C
	Physical State	C	C	C	C
	Strong Odor	C	C	C	C
	Percent Solids /Liquid	C	C	C	C
	Phases (Layers)[6]	C	C	C	C
	Presence of free liquids[4]	C	C	C	C
2	**Level 1 Screening or Level 2 Analytical Testing**				
	pH Screen[6]	C	C	C[5]	C[5]
	Sulfide Screen[3]	C	C	C[5]	C[5]
	Cyanide Screen[3]	C	C	C[5]	C[5]
	PCB Screen[7]	C	C	C[5]	C[5]
	Oxidizer Screen[8]	C	C	C[5]	C[5]
	Total Halogens[9]	C	C	C[5]	C[5]
3	**Analytical Testing**				
	Specific Gravity[6]	C	S		S
`	Water Reactivity[13]	C	S		S
	Ignitability (Flash)[6]	C	S		S
	Halogenated Organic	S	S		S
	Heavy Metals	S	S		S
	Fuel Testing[10]	S	S		S
	OVA Analysis	S	S		S

Notes:

C Core Analysis - required by and/or performed at the Facility per Level 1. Not all core analysis parameters are required for each waste. The core analysis parameters are determined based on the profiled waste stream.

S Supplemental Analysis - performed at the discretion of the Laboratory Manager, Facility Manager, end disposal location, and/or as indicated by the waste stream. This analysis is performed in the Facility on-site laboratory and/or at an off-site third party laboratory. Not all supplemental analysis is required for each waste stream.

1 Generator knowledge is allowed in lieu of laboratory analysis to characterize a generator's waste.

2 See Section 5.2 on Lab Packs & Other Waste Not Requiring Sampling.

3 For the following wastes with a pH at or greater than 5: Sulfide screens for Sulfur-based waste and cyanide screens for ammonia/nitrogen-based wastes.

4 Applies to wastes without free liquids that are to be stored in containers outside of secondary containment.

5 Screens performed at Level I per WAP. (i.e. 10% of load)

6 Test performed on Liquids Only.

7 PCB Screen to be performed on oils and contaminated soils.

8 Oxidizer Screen to be performed on material suspected of being an oxidizer, but is not identified as an oxidizer on the profile.

9 Fuel Testing for BTU & % Chlorine.

10 Waste oil testing.

11 Level 1 is visual confirmation of waste received to waste profile and manifest and may include screening.

12 Level II is visual confirmation by Facility Manager and can include sampling and testing, and/or discussion with the generator.

13 Water reactivity tests on suspected waste but is not identified as water reactive on the profile.

Table 3
Sampling Equipment

Sample Type	Sampling Method(s)	Sampling Equipment
Free-flowing liquids and slurries, used oil	ASTMD5495, D6063	Coliwasa, glass sampling tube, plastic sampling tube, dipper, bomb, weighted bottle and other approved equipment.
Wet Solids/Sludges Sampling and Extremely Viscous Liquids	ASTM D5451, D6232	Trier, split spoon coring sampler, glass tube, plastic sampling tube and other approved equipment.
Dry Flowable Solids and Crushed or Powdered Materials	ASTM D5451, D6063	Thief, grain sampler, trier, scoop, shovel, glass sampling tube, plastic sampling tube and other approved equipment.
Solids and Soil or Rock-Like Materials	ASTM D5451, D6063	Large trier, split spoon coring sampler, grain sampler, trier, shovel, scoop and other approved equipment.

Note: Reference Section 5.2 regarding waste that does not require sampling.

Table 4
On-site Laboratory Fingerprint Test Methods

Analyte	Screening Test Method	Equipment
Cyanide Screen	Reactive cyanide screen[1]	Cyantesmo paper
PCB Screen	SW-856 Methods 9078/79	Colorometric test kit; PCB/Cl test kit
pH	SW-846 Method 9041A; EPA 150.1	Wide-range pH paper.
Specific Gravity	ASTM D5057	Balance scale, weighing bottle
Oxidizer Screen	KI paper[1]	Potassium iodine starch paper
Sulfide Screen	Reactive sulfide screen[1]	Lead acetate paper
Ignitability Screen	Ignitability screen[1]	Cup and match
Compatibility	Bucket test[1]	5-gallon bucket, thermometer
Free Liquids	SW-846 Method 9095B	Paint filter apparatus
Total Halogens	SW-846 Method 9077	Chlor-D-Tect sampling kits
Visual Screening	Physical Description[1]	Transparent containers

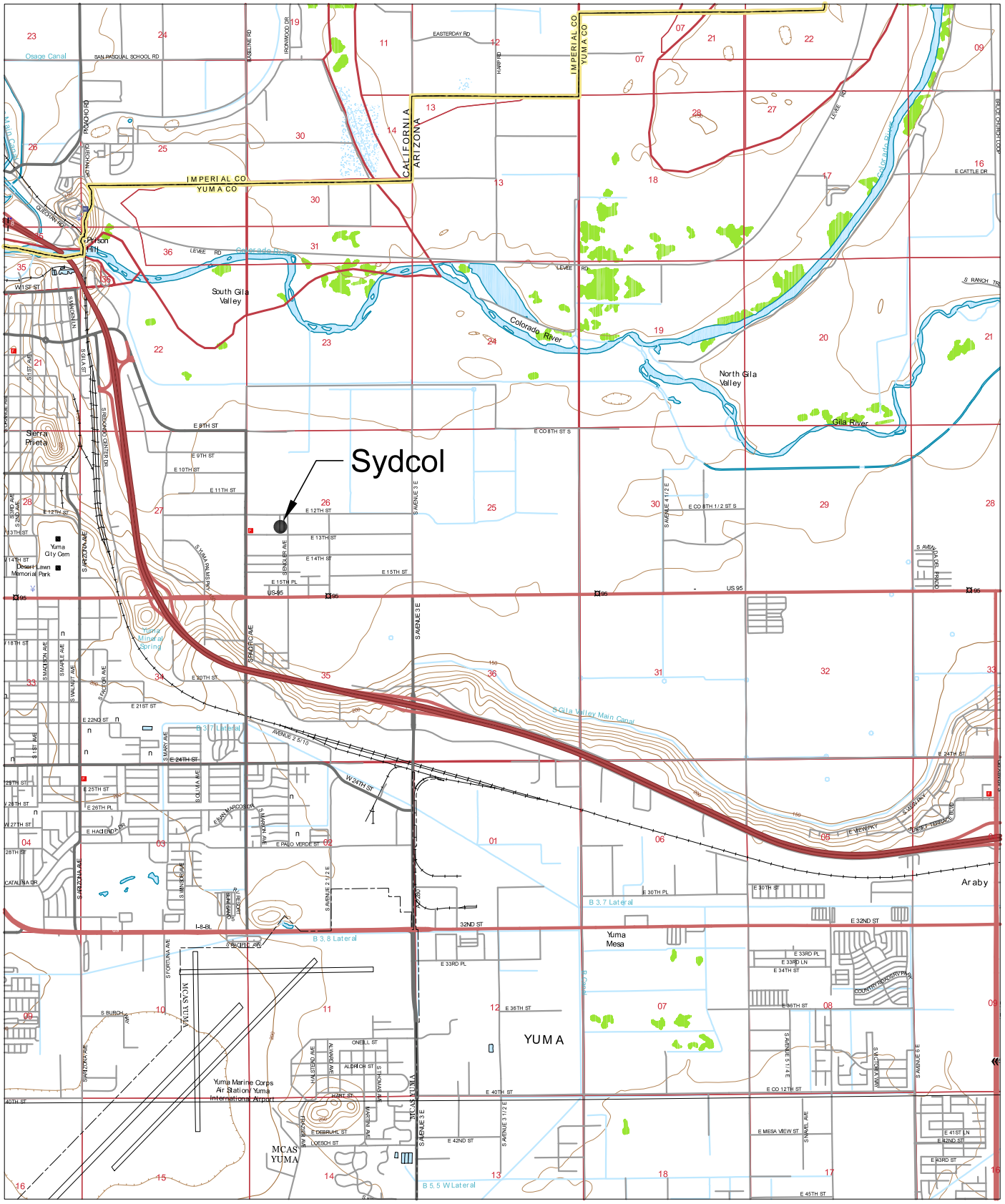
Notes:
SW-846: EPA Test Methods for Evaluating Solid Waste
ASTM: American Society for Testing Materials
1: Method described in Appendix C

Table 5
Third-party Laboratory Analysis Methods

Analyte	Test Method
Cyanide	SW-846 Methods 9010C, 9012B, 9013, 9014
pH	SW-846 Method 9040C; pH Electrometric
Oxidizer Screen	ASTM D4981-12
Specific Gravity & Bulk Density	ASTM D6111-13A
Acidity	SM 2310
Alkalinity	SM 2320
Sulfide Screen	ASTM D4978-95
Oil & Grease	SW-846 Method 9074 Total Recoverable Oil & Grease SW-846 Method 9071B Oil & Grease Grease Extraction SM 5520
Flash Point	SW-846 Method 1010A Pensky-Martens Closed-Cup SW-846 Method 1020B Setaflash Closed-Cup
Ignitable Solids	SW-846 Method 1030
Compatibility	ASTM D-5058A
Semi-Volatile Organic Compounds	SW-846 Method 8270D
Pesticides/Herbicides	SW-846 Method 8081B, 8141B
Volatile Organic Compounds	SW-846 Method 8260B
Paint Filter	SW-846 Method 9095B Paint Filter Liquids Test
Metals	SW-846 Method 6010B, 7470A, 7471, 1311, 7199
SW-846	EPA Test Methods for Evaluating Solid Waste
SM	Standard Methods for the Examination of Water and Wastewater
ASTM	American Society for Testing Materials

Notes:

FIGURES


Sydcol
IMPERIAL CO
YUMA CO
CALIFORNIA
ARIZONA
Colorado River
Gila River
South Gila Valley
North Gila Valley
Sierra Prieta
Yuma City Cem
Desert Lawn Memorial Park
Yuma Mineral Spring
S Gila Valley Main Canal
B 3.7 Lateral
B 3.8 Lateral
B 5.5 W Lateral
Yuma Mesa
YUMA
Araby
Yuma Marine Corps Air Station/Yuma International Airport
MCAS YUMA
US 95
I-8-BL
E 8TH ST
E 9TH ST
E 10TH ST
E 11TH ST
E 12TH ST
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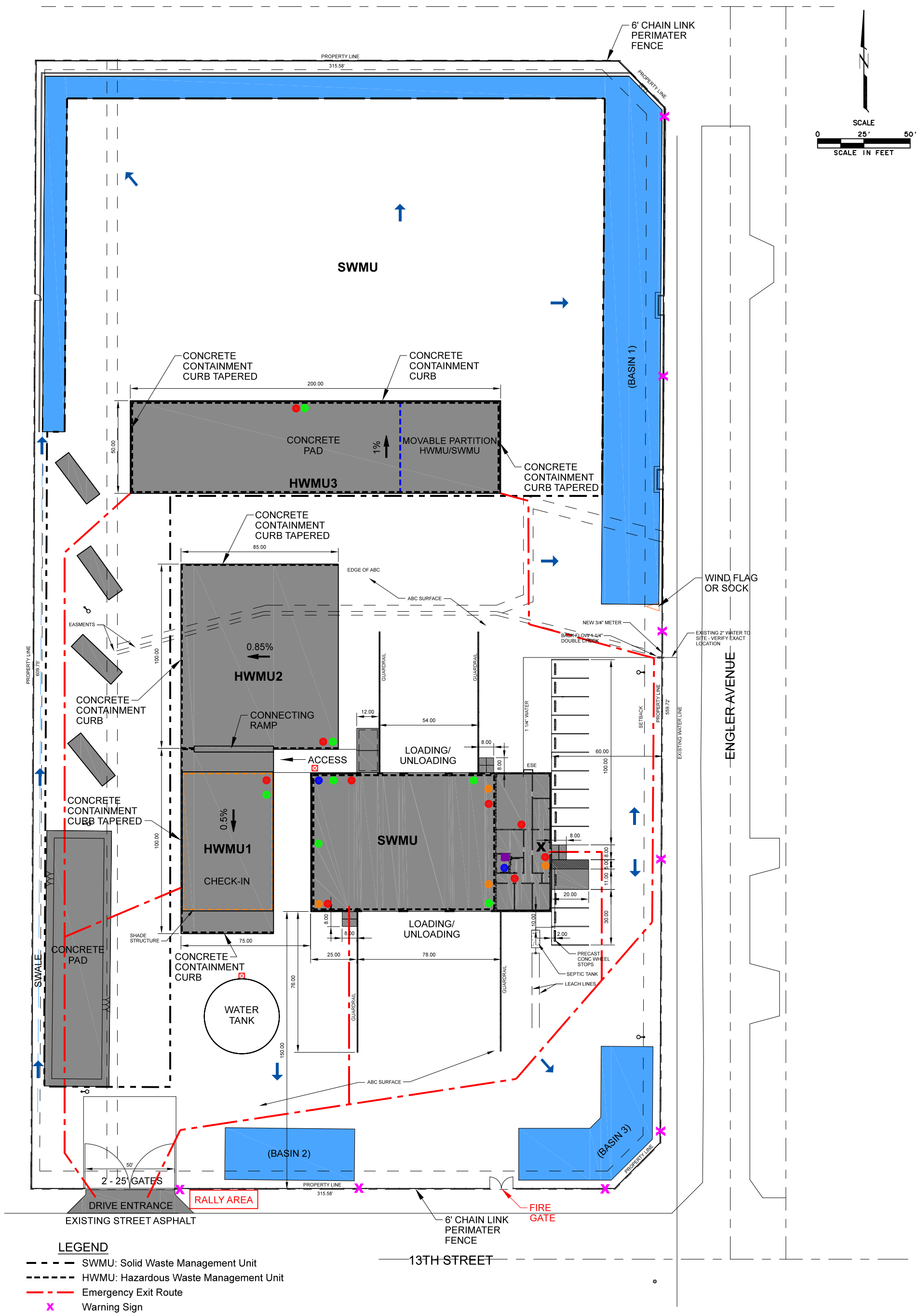
S MAIN ST
S GILA ST
S FORTUNA AVE
S MARY AVE
S COLMA AVE
S MCKEEN AVE
S MAPLE AVE
S WALNUT AVE
S PACIFIC AVE
S SENDER AVE
S MCLEAN AVE
S MCCAS YUMA
S MCTOWNSEND AVE
S MCTOWNSEND PL
S MCTOWNSEND LN
S MCTOWNSEND WAY
S MCTOWNSEND CT
S MCTOWNSEND TER
S MCTOWNSEND RD
S MCTOWNSEND PKWY
S MCTOWNSEND BLVD



LEGEND

- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Emergency Exit Route
- Warning Sign
- Spill Kit
- Fire Alarm
- Fire Extinguisher (ABC)
- Eyewash
- Shower
- Facility Report
- Fire Hose Connection
- Concrete Surface
- Drainage Direction
- Drainage Basin

Figure 2
SITE PLAN
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: SYDCOL02
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services

APPENDICES

APPENDIX A

EXAMPLE WASTE PROFILE FORM

Use Only	
Quote #:	WS#:
Business Type: Repeatable: ☐	Non-Repeatable: ☐
Product Code:	Price:

Please review instructions before completing this form.

1. GENERATOR INFORMATION ( )	
Generator Name	
Address	
City, State	
Zip, County	
Tech. Contact Name	
Phone	Fax
24 Hour Emergency Number	
E-mail Address	
US EPA ID Number	
State ID Numbers	
Status LQG ☐ SQG ☐ CESQG ☐ Non-hazardous ☐	

2. BILLING INFORMATION ( )	
Customer Name	
Address	
City, State	
Zip, County	
Contact Name	
Phone	Fax
E-mail Address	
3. MANIFEST MAIL ADDRESS *(If different from generator)*	
Contact Name	
Company Name	
Address	
City, State, Zip	

4. Generator SIC Code	If 3312, generated from Coke Oven Byproduct Recovery Operations? Yes ☐ No ☐	If 28_ _, 2911, 3312, or 4953, what is the Total Annual Benzene (TAB) in Megagrams/year?
5. Common Name		
6. Process Generating Waste		
7. DOT Description		

8.	Identify US EPA waste codes	
9.	D001-D043, F001-F005, or F039 underlying or hazardous constituents present? Yes☐ No☐ NA☐ If yes, list in Section 12.	
10.	US EPA Form Code	US EPA Source Code
11.	Identify state waste codes	

12. Waste Composition: Using specific chemical names and/or descriptions of waste composition, list all constituents present in the wastestream, and identify those that are underlying hazardous constituents (UHCs), or F001-F005/F039 hazardous constituents. Attach available analysis or MSDSs. **Total composition must equal or exceed 100%.**

Constituents	Range	Units	UHC?	F-Listed?
Choose an item.			Yes ☐	Yes ☐
Choose an item.			Yes ☐	Yes ☐
			Yes ☐	Yes ☐
			Yes ☐	Yes ☐
			Yes ☐	Yes ☐
			Yes ☐	Yes ☐
			Yes ☐	Yes ☐

13.	Color	Odor	

14.

14a. Chemical Properties				14b. Physical Properties at 70°F			
Flash Point (F°)	< 73	☐	BTU/lb Range	Solid	☐	Free Liquids/Fail Paint Filter?	Yes ☐ No ☐
	73-<100	☐		Liquid	☐	Will waste dump out of drums?	Yes ☐ No ☐
	100-<140	☐		Sludge	☐	Is the waste pumpable?	Yes ☐ No ☐
	140-<200	☐	Low	Semi-solid	☐	Will heat improve flow?	Yes ☐ No ☐
	>= 200	☐		Powder	☐	Debris?(List type in Section 12)	Yes ☐ No ☐
			High	Gas	☐	Dust hazard?	Yes ☐ No ☐
Boiling Point (F°)	< 100	☐	pH Range	% Solids		% Liquids	
	> 100	☐					

Common Name (same as Item #5): s

15. Check all that apply. Marking any of these may require additional documentation or follow-up information for approval. ***** Marks new sections.**

*15a. Potential High Hazards			
Air Reactive	☐	Shock Sensitive	☐
Autoignitable	☐	Spontaneously Combustible	☐
Cyanide	☐	Sulfide	☐
Explosive	☐	Temperature Control Required	☐
Metal Fines	☐	Temperature Sensitive	☐
Metal Powders	☐	Water Reactive	☐
Organic Peroxides	☐	Not Applicable	☐
Oxidizers	☐		
Peroxide Forming	☐		
Pyrophoric	☐		
Self Heating	☐		

15b. Other Properties			
Aerosols	☐	Infectious Agents	☐
Ammonia	☐	Insecticide	☐
Asbestos	☐	Lab Pack	☐
Biological	☐	Medical	☐
Carcinogen	☐	Pathogen	☐
Chelating Agent	☐	Pesticide	☐
Compressed Gas	☐	Polymerizable	☐
Dioxins,Furans	☐	Radioactive	☐
Etiological	☐	Sanitary	☐
Herbicide	☐	Sharps	☐

15e. Used oil? (40 CFR 279)
Yes ☐ No ☐

Used oil mixed with hazardous waste?
Yes ☐ No ☐

Total Halogens (TX) concentration?
< 1000 PPM ☐
> 1000 PPM ☐

15f. PCBs? (40 CFR 761)
Yes ☐ No ☐

If yes, PCB concentration?(ppm)
0-49 ☐
50-499 ☐
>= 500 ☐

Greater than 50 ppm source?
Yes ☐ No ☐

15g. Subject to Subpart CC? (40CFR 264/5. 1080-1091, LQG>26gal, >500ppmw VOC)
Yes ☐ No ☐

15h. Subject to Benzene NESHAP controls? (40 CFR 61.340-358)
Yes ☐ No ☐

15i. Does this material require any special handling related to employee safety, storage conditions, spill clean-up, sampling, etc.? Yes ☐ No ☐
If yes, explain below: _____

15j. Do any exclusions/exemptions apply? Yes ☐ No ☐
If yes, describe: _____

15k. Is this material overpacked? Yes ☐ No ☐
If yes, explain why: _____

15l. Does this material have potential to build pressure in the container? Yes ☐ No ☒
If yes, explain: _____

15c. Have the containers been stored outside? Yes ☐ No ☒ If yes, condition? _____

15m. Has this material been rejected from another facility? Yes ☐ No ☒
If yes, explain why: _____

15d. Does this waste have any undisclosed hazards or prior incidents associated with it, which could affect the way it should be handled? Yes ☐ (If yes, attach detailed explanation) No ☐

15n. Additional Comments/ Special Waste Type: Yes ☐ No ☐
_____

16. Transporter: Heritage Transport ☐ Other ☐ (Complete below)
Transporter Name _____
Address _____
City, State, Zip _____
Contact/Phone _____
US EPA ID No. _____

17. Packaging:		Size:	18. Volume:
Bulk Liquid	☐	_____	
Bulk Solid	☐	_____	
Cu Yd Bag/Box	☐	_____	_____/Year
Cylinder	☐	_____	
Drum	☐	_____	_____/Shipment
Tote (Metal)	☐	_____	
Tote (Poly)	☐	_____	

19. Check or List Attachments: Lab Data ☐ MSDS ☐ Cylinder Form ☐ Packing List ☐ Other (list) ☐ _____

20. CERTIFICATION Sign and date the certification. I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator, that all information submitted herein and attached documentation contains true, accurate and complete descriptions of this material. Any sample submitted for analysis or attached laboratory data is representative of the material being offered for approval. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I will notify Heritage Environmental Services, LLC or Heritage-WTI, Inc. of any changes in generator status, any information on this form, or any information on the attachments. This certification and signature apply to this form, to all attachments checked in section 19, and to the land disposal restriction notification (LDR) generated from this information. For Lab Packs only: To the best of my knowledge, all labels on the inner and outer containers, and all information recorded on the packing inventory sheet for each Lab Pack, correctly identifies the contained chemicals. Where testing has been necessary to characterize material in the lab pack, I have used test methods equivalent to those specified in the Permittee's current operating permit Lab Pack Procedure.

Signature _____ Printed Name _____ Date _____ Company _____

21. **COMPLETE THIS SECTION FOR NON-HAZARDOUS MATERIAL**

21a. Is this waste a listed waste? (U, P, K, or F codes) Yes ☐ No ☐

21b. This waste is not characteristically hazardous for D001-D043 based on attached lab data (**mark LD**), attached MSDS (**mark MSDS**), or generator knowledge(**mark GK**).

D001 (Ignitability)			D038 Pyridine
D002 (Corrosivity)	**TCLP VOLATILES**	**TCLP SEMI-VOLATILES**	D041 2,4,5-Trichlorophenol
D003 (Reactivity)	D018 Benzene	D023 o-Cresol	D042 2,4,6-Trichlorophenol
TCLP METALS	D019 Carbon Tetrachloride	D024 m-Cresol	
	D021 Chlorobenzene	D025 p-Cresol	**HERBICIDES & PESTICIDES**
D004 Arsenic	D022 Chloroform	D026 Cresol	D012 Endrin
D005 Barium	D028 1,2 –Dichloroethane	D027 1,4-Dichlorobenzene	D013 Lindane
D006 Cadmium	D029 1,1-Dichloroethylene	D030 2,4-Dinitrotoluene	D014 Methoxychlor
D007 Chromium	D035 Methyl Ethyl Ketone	D032 Hexachlorobenzene	D015 Toxaphene
D008 Lead	D039 Tetrachloroethylene	D033Hexachlorobutadiene	D016 2,4-D
D009 Mercury	D040 Trichloroethylene	D034 Hexachloroethane	D017 2,4,5-TP(Silvex)
D010 Selenium	D043 Vinyl Chloride	D036 Nitrobenzene	D020 Chlordane
D011 Silver		D037 Pentachlorophenol	D031 Heptachlor

APPENDIX B

EXAMPLE LDR NOTIFICATION/CERTIFICATION FORM

Land Disposal Restrictions One-Time Notification/Certification

1. Generator information:	**2. Receiving facility information (if applicable):**
Name _____	Name _____
Address _____	Address _____
_____	_____
EPA ID No. _____	EPA ID No. _____
	Manifest No._____

3. Waste description at point of generation:

Line item	Waste description	Hazardous waste code(s)	LDR Subcategory	WW/ NWW	Underlying hazardous constituents [§268.2(i)][1]
1					
2					
3					
4					

4. Waste disposition:

Line item	Subtitle C exclusion subsequent to point of generation (if applicable)	Current disposition of waste	§268.45, Table 1 technology used to treat debris (if applicable)	Date shipped (if applicable)
1				
2				
3				
4				

5. Was the waste hazardous at the point of generation but subsequently became excluded from the definition of hazardous waste or exempt from Subtitle C regulation (including characteristic wastes managed in wastewater treatment systems discharging under the CWA)? ☐ Yes ☐ No (If yes, this constitutes the §268.7(a)(7) one-time notification.)[2]

6. Was the waste characteristic at the point of generation, treated onsite to remove all characteristics, and treatment residues then shipped to a Subtitle D land disposal facility? ☐ Yes ☐ No (If yes, complete Certification 1, 2, 3, or 4.)[2]

7. Was the waste "debris" that was hazardous at the point of generation but subsequently became excluded from the definition of hazardous waste under §261.3(f)(1) by treating it using an extraction or destruction technology in §268.45, Table 1? ☐ Yes ☐ No (If yes, complete Certification 5.)[3]

8. Was the waste "debris" that was hazardous at the point of generation but subsequently became excluded from the definition of hazardous waste under §261.3(f)(2) by receiving a "no-longer-contains" determination from EPA or the authorized state? ☐ Yes ☐ No (If yes, this constitutes the §268.7(d)(1) one-time notification.)[4]

9. Was the waste "soil" that was hazardous at the point of generation but subsequently became excluded from the definition of hazardous waste via a "no-longer-contains" determination from EPA or the authorized state or by the generator determining that the soil no longer exhibits a characteristic? ☐ Yes ☐ No (If yes, this notice and all supporting information and documentation must be maintained in the facility files for at least three years per §268.7(e).)

10. Is the waste residue from treating K061, K062, and/or F006 wastes in high-temperature metals recovery (HTMR) units that 1) meets the generic exclusion levels in §261.3(c)(2)(ii)(C), 2) does not exhibit any characteristics, and 3) is shipped to a Subtitle D land disposal facility? ☐ Yes ☐ No (If yes, complete Certification 6.)[5]

Land Disposal Restrictions One-Time Notification/Certification (Continued)

1.☐ Waste that has been treated to remove characteristics and that did not contain underlying hazardous constituents at the point of generation. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 *CFR* 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.	Applies to manifest line items: _____ _____ *Reference: §§268.7(b)(4) and 268.9(d)*
2.☐ Waste that has been treated to remove characteristics and to meet universal treatment standards for underlying hazardous constituents. I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 *CFR* 268.40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in §268.2(i) have been treated on-site to meet the §268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.	Applies to manifest line items: _____ _____ *Reference: §§268.7(b)(4)(v) and 268.9(d)*
3.☐ Waste that has been treated to remove characteristics but does not meet universal treatment standards for underlying hazardous constituents. I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 *CFR* 268.40 or 268.49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.	Applies to manifest line items: _____ _____ *Reference: §§268.7(b)(4)(iv) and 268.9(d)*
4.☐ Soil that has been treated to meet the alternative treatment standards. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 *CFR* 268.49 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.	Applies to manifest line items: _____ _____ *Reference: §268.7(b)(4)*
5.☐ Debris that has been treated to meet the alternative treatment standards. I certify under penalty of law that the debris has been treated in accordance with the requirements of 40 *CFR* 268.45. I am aware there are significant penalties for making a false certification, including the possibility of fine and imprisonment.	Applies to manifest line items: _____ _____ *Reference: §268.7(d)(3)(iii)*
6.☐ HTMR residue from treating K061, K062, and/or F006 wastes. I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.	Applies to manifest line items: _____ _____ *Reference: §261.3(c)(2)(ii)(C)*
Generator's signature Printed/typed name & title	Date

[1]Use an attachment if necessary. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any on this notification.

[2]This one-time notification is placed in the facility's onsite files only. For compliance with the §268.9(d) one-time notification and certification, if the waste does not meet universal treatment standards for underlying hazardous constituents (i.e., Certification 3 above), the generator must somehow communicate the need for UHC treatment to the Subtitle D facility; the notification and certification must be updated if the process or operation generating the waste changes and/or if the Subtitle D receiving facility changes.

[3]This one-time notification must be sent to EPA or the authorized state and placed in the facility's files. It is not sent with the shipment to the Subtitle D receiving facility. The notification must be updated if 1) a different type of debris is treated, 2) a different §268.45, Table 1 technology is used to treat the debris, and/or 3) the Subtitle D receiving facility changes. The certification (Certification 4 above) must be placed in the facility's files for each shipment of treated debris.

[4]This one-time notification must be sent to EPA or the authorized state and placed in the facility's files. It is not sent with the shipment to the Subtitle D receiving facility. The notification must be updated if the Subtitle D receiving facility changes.

[5]This one-time notification and certification must be sent to EPA or the authorized state and placed in the facility's files. It is not sent with the shipment to the Subtitle D receiving facility. The notification and certification must be updated if the process or operation generating the waste changes and/or if the Subtitle D receiving facility changes.

Source: McCoy and Associates, Inc.

APPENDIX C

INDUSTRY-STANDARD UNPUBLISHED METHODS

Reactive Sulfide Screen

1. Collect a representative sample of the waste.
2. Place approximately 5 milliliters (mL) of the sample in a test tube.
3. Remove a piece of Cyantesmo paper from the dispenser and crimp.
4. In the fume hood, add 1 mL concentrated sulfuric acid to the test tube and swirl to mix.

Note: Only add a small amount of sulfuric acid. A strong reaction can occur with alkaline materials.

5. Take the Cyantesmo paper and hang it in the test tube placing the paper so that approximately 10 millimeters of paper is actually immersed in the liquid, but making certain that part of the paper remains in the gas zone above the liquid level.
6. Just above the liquid level is the most reactive zone for the test paper. Look at this area immediately. IF high concentrations of cyanide are present, it will show up quickly, but the paper may become saturated and turn back to white, so it is important that you watch closely.
7. If there was no immediate indication of cyanide presence, you must wait a minimum of 15 minutes before it is safe to make the call that a material does not contain cyanide.
8. If a blue color has developed, the sample should be considered positive for cyanide, and submitted to the laboratory for further testing.
9. If the result is negative, verify that the pH of the solution is <2. If not, then repeat steps 4 through 7.

Oxidizer screen

1. Collect a representative sample of the waste.
2. Dip one end of a piece of potassium iodide (KI) starch paper into the sample. If the sample is a solid, mix dry waste with water at 1:1 ration.
3. If the KI paper develops a brown or black color, the sample should be considered oxidizer positive.

Reactive Sulfide Screen

1. Collect a representative sample of the waste.
2. Place approximately 5 mL of the sample in a test tube.
3. Remove a piece of the lead-acetate paper from the dispenser, moisten with water and crimp.
4. In the fume hood, add 1 mL concentrated sulfuric acid to the test tube and swirl to mix.

   Note: Only add a small amount of sulfuric acid. A strong reaction can occur with alkaline materials.
5. Take the lead-acetate paper and hang it in the test tube placing the paper in the vapor phase of the test tube. Do not let the paper touch the liquid.
6. Let stand undisturbed for at least one minute.
7. If a brown or black color has developed, the sample should be considered positive for sulfides.
8. If the result is negative, verify that the pH of the solution is < 2, If the pH is > 2, repeat steps 4 through 7.

Ignitability Screen (Flash)

1. Collect a representative sample of the waste.
2. Under the fume hood, transfer enough waste into an aluminum burning dish to just cover the bottom of the dish.
3. Take a match and hold the flame approximately one inch above the material to determine whether the vapors will ignite. If the vapors ignite then the flashpoint should be considered less than 70 degrees F.
4. If the vapors do not ignite, put the lit match directly into the waste. If the waste ignites and continues to burn, the flashpoint should be considered less than 100 degrees F.
5. If the vapors do not ignite, and the waste cannot be made to burn by the introduction of a flame, then it can be presumed that the flashpoint is greater than 140 degrees F.

Waste Compatibility (Bucket test)

General overview: Representative samples from each container to be consolidated are placed into the same collection container (bucket) in the order in which the containers are to be consolidated. Signs of a reaction such as fuming, bubbling, and temperature change are noted. If no reactions occur, then the wastes can be consolidated. If there are signs of reaction, the order of the consolidation of containers may change or the material will not be consolidated. Document the consolidation on the attached form.

Wear PPE appropriate for processing the waste. Minimally gloves, eyeglasses, and respiratory protection.

Test procedure:

1. Determine if all the containers being sampled are at the same temperature. If not, sample the containers from warmest to coolest. If containers are approximately the same temperature, sample the containers in the desired order of consolidation. Number the containers in the order to be sampled.

2. Place a sample from the first container into the bucket along with a graduated thermometer with a range of 0 to 100 degrees C. The sample should be at least ½ pint for drum quantities, or 1 pint for quantities greater than 100 gallons.

3. Make note of the temperature of the first sample. Leaving the thermometer in the bucket, obtain a sample from the second container. Slowly add the sample from the second container into the bucket. Use caution to avoid potential splatter.

4. Make note of any splatter, bubbling, or fuming. If any of these reactions occur, or if the temperature increases more than 10 degrees C, consider the materials to be incompatible and discontinue the test. Reconsider the containers to be consolidated and restart the test with the revised list of consolidation containers.

5. Continue to sample the remainder of the containers, checking the bucket after every addition and making not of any reactions. Record the order in which the containers are sampled and note any reaction.

6. If all samples are consolidated in the bucket without reaction or temperature increase, allow the bucket to sit for 15 minutes wit a cover placed loosely over the top. Note the temperature and appearance after 15 minutes. If the temperature has increased more than 10 degrees C, or if the sample has foamed, jelled, or increased in volume, consider the materials to be incompatible and discontinue consolidation operations.

7. If no reactions or temperature increase occurs, the materials are acceptable for consolidation. The containers to be consolidated and their order of consolidation must be observed during consolidation of the containers.

AA Sydcol, LLC
Bucket Test Documentation

Date:

Technician performing test:	**Signature:**
Approving supervisor/manager:	**Signature:**

Container	Temperature (°C)	Reaction (Y/N)	Comments:

Time elapsed for temperature check: **(required 15 minues)**

ATTACHMENT D

AA SYDCOL, LLC

CONTAINER MANAGEMENT PLAN

[40 CFR 270.15]

October 20, 2021

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June 25, 2021

1.0 INTRODUCTION

This Attachment describing process information on containers (Container Management Plan) has been prepared in support of the Sydcol RCRA Part B permit application for the Facility. A list of all acronyms and a definition of key terms used in this description is provided with General Information provided in Attachment A of the RCRA Part B permit application.

The Facility is a waste transfer station in Yuma, Arizona that will accept a variety of hazardous and non-hazardous wastes with separate waste management units for hazardous and non-hazardous wastes. The Facility will consolidate, bulk, repackage, and store the wastes for shipment to approved off-site reuse, treatment, and/or disposal facilities, fuel blenders or wastewater treatment plants. The Facility will not be the designated Facility for any hazardous wastes temporarily stored at the Facility. Figure 1 illustrates the site location, and Figure 2 provides a site plan for the Facility.

Sydcol uses the warehouse building as well as the northern 185 feet and the western 75 feet of the Facility as a solid waste transfer station involved in storing, consolidating, and repackaging non-hazardous wastes and shipping them off site to reuse, treatment, and/or disposal facilities. Designated areas in the southern portion of the Facility are used as a transfer station for hazardous wastes (including universal wastes) and used oil. This section provides process information concerning the hazardous waste management activities conducted at the Facility.

Hazardous wastes will typically be transported to the Facility in tankers, roll-offs, and/or smaller containers (e.g. 55-gallon drums, totes) on flat-bed trucks, van trailers, or other vehicles. Hazardous wastes will be liquid, semisolid, and/or solid in nature and will be processed and stored in roll-off or end dump containers or smaller containers such as drums or totes. Consolidated wastes may be transferred to tanker trucks or containers of various capacities. No stationary tanks, waste piles, surface impoundments, or containment buildings will be used for management of wastes accepted at the Facility. No treatment equipment, including incinerators, boilers, industrial furnaces, or other equipment will be used at the Facility. Further, the Facility will not have any landfills, drip pads or other areas where wastes would be treated and/or disposed.

Acceptable wastes include characteristic wastes (D wastes), listed wastes (F, P, and U wastes), flammable and combustible materials (such as used oil, waste fuels, etc.), contaminated soil, universal wastes (such as batteries, mercury-containing equipment, mercury-containing lamps/bulbs, and certain pesticides), metal-containing filter cake, and other wastes listed in the WAP.

Containerized wastes, including lab packs, accepted at the Facility may be staged and/or stored prior to consolidation or shipment offsite in accordance with the procedures outlined below. Site

developments include three HWMUs where wastes are staged, consolidated, and stored. These units are described as follows:

- HWMU1 includes a concrete pad with a shade structure adjacent and west of the main building;
- HWMU2 includes a concrete pad northwest of the main building; and
- HWMU3 includes a concrete pad north of the main building.

Hazardous wastes in tanks or containers subject to hazardous waste transporter requirements in 40 CFR §263 may be stored in a designated transfer storage area for up to 10 days prior to removal from the site. The designated 10-day storage area for temporary storage of tanks or containers on transfer vehicles is the SWMU area along the northern and western portions of the Facility but not the warehouse building. Hazardous wastes being consolidated for off-site transport will be staged in a designated waste consolidation area in one of the HWMUs where liquid waste containers are consolidated into bulk tanks for transport. All hazardous wastes at the Facility that are not in transportation will be stored within the HWMUs.

The waste management units are constructed and maintained to isolate incompatible hazardous wastes processed at the Facility. Smoking or open flames are allowed only in designated areas that are so marked. Any work involving open flames (i.e. welding) must be performed under a safe work permit ("hot work" permit) consistent with OSHA standards for welding, cutting, and brazing.

2.0 CONTAINERS

2.1 Container Description

All containers used at the Facility must comply with the requirements described in 49 CFR 178 Subpart L – *Non-Bulk Performance-Oriented Packaging Standards* and/or 49 CFR 173.32 – *Requirements for the use of Portable Tanks*. Typical container sizes shipped to the facility are 55-gallon steel or plastic drums and 275 to 330-gallon plastic intermediate buck containers (IBCs, totes). Typical lab pack containers will be from 1-gallon to 85-gallon steel, fiber, plastic containers, or 1-cubic yard (or larger) boxes. The Facility will accept any DOT-approved containers provided they are compatible with the hazardous waste they contain and have the necessary physical and mechanical properties to ensure they can be safely handled and stacked without being damaged.

Lab pack documentation will include a packing list that indicates the contents of the lab pack. Each hazardous waste container will receive an additional Sydcol label which will contain a unique identification number, the date the container arrived at the Facility, the hazard classification for the waste, and other information used to process the container. Sydcol labels identify containers by the manifest number, line-item number on the manifest, and individual container number under the manifest using the label provided in Appendix A or with a universal product code (UPC) system suitable for digitally scanning container information. The identification number will be entered into Sydcol records along with the waste profile data, conformance test results (if any), and incoming and outgoing manifests. Containers that have gone through processing and are ready to ship offsite will be labeled in accordance with DOT regulations and are manifested in accordance with Federal and State regulations. Containers of used oil will be labelled "Used Oil" consistent with 40 CFR §279.54(f)(1).

A check in sheet is prepared for each hazardous waste shipment that indicates the container type and contents, whether solid, liquid, or a mix of solid and liquids. All containers are inspected upon receipt at the Facility to confirm container quantity and labelling matches the record on the manifest, confirm the accuracy of the check in sheet, and to evaluate the condition of the container. Should a container be found to exhibit conditions suggesting imminent failure or be leaking, the container will be repackaged. Repackaging containers will be checked to assure compatibility with the waste in the damaged container. The generator will be notified and additional information will be obtained so the container can be processed or shipped back to the generator. An example of the check-in sheet is provided in Appendix B. Check-in sheets will be maintained in a file on-site for a minimum of 3 years.

The number of containers to be stored in each HWMU area is described below in Subsection 4.0.

2.2 Containers with Free Liquids

2.2.1 Storage of Containers with Free Liquids

Containers with free liquids can be stored in HWMU1, HWMU2, or HWMU3. Waste containers with free liquids may be placed directly on the HWMU surface in HWMU1 or HWMU2. Containers with free liquids in HWMU3 must be placed on containment pallets engineered and prefabricated to have secondary containment for 10 percent of the total volume of the containers on the pallet or the volume of the largest container, whichever is greater.

All HWMUs have secondary containment curbs on three sides and concrete floor surface that is sloped to drain to one side of the unit with a 10-mil HDPE liner underlying the concrete slab. The HDPE liner for HWMU1 and HWMU2 is incorporated into the secondary containment system by extending the liner on all sides to the top of the concrete slab with leak-proof, welded seams on all corners and edges.

Containers of liquid hazardous waste will be consolidated in HWMU1 or HWMU2. Tanker trailers are parked adjacent to the secondary containment of the HWMU when transferring waste liquids to or from smaller containers within the HWMU.

Lab packs typically consist of small containers packed with absorbent into larger shipping containers. The shipping container provides a secondary containment for the wastes such that lab pack containers may be placed in any HWMU.

2.2.2 Determination of Free Liquids in Containers

Depending on container type, some hazardous waste materials such as powders and debris can be visually determined to be absent of free liquids. Cubic yard boxes, super sacks, and containment totes can be visually observed for free liquids. For containers of purportedly solid waste materials that cannot be visually evaluated, a minimum of 10 percent of the containers from each shipment will be randomly selected and opened for visual inspection to confirm there are no free liquids in the container. Determination of free liquids will be made so as to confirm whether or not the contents pass the Paint Filter Test (SW-846 9095) as noted in the WAP. Alternatively, containers may be placed in areas with secondary containment (HWMU1, HWMU2, or on containment pallets in HWMU3). Lab packs may be placed in HWMU1, HUMU2, or HWMU3.

Waste materials that are determined to be without free liquids will be stored in HWMU1, HWMU2, or HWMU3.

3.0 CONTAINER MANAGEMENT PRACTICES

Facility staff will direct each vehicle transporting hazardous waste to the designated receiving area prior to unloading and checking in waste containers. Incoming containers are unloaded from transport vehicles using forklifts or hand conveyance equipment and placed in HWMU1, which is designated as the check-in station as shown in Figure 2. Wastes may be checked in in other areas within one of the HWMUs if the designated check-in station is not available to receive the containers for check in.

Containers are transported within the Facility using various mechanical equipment including forklifts, bobcats, drum dollies, and lab carts. Once the waste is classified and labeled, it is moved from the check-in station to the appropriate area within HWMU1, HWMU2, or HWMU3 for storage, consolidation, or shipment offsite. Employees are trained in the proper techniques for moving containers to ensure that the containers are handled in a manner that would not cause the container to rupture or leak.

3.1 Initial Inspection and Waste Classification

All incoming waste undergoes waste acceptance procedures in accordance with the procedures described in the WAP. This includes an inspection of the shipment, including containers, lab packs, and tanker trucks; review of the waste manifest, pre-acceptance waste profile information, and other information with the manifest; and conducting fingerprint analyses to verify waste characteristics as applicable. The waste acceptance analysis may include additional sampling of the waste materials for laboratory testing.

Waste accepted at the Facility will be tracked through the entire receiving, storage, staging, consolidation, and off-site shipping using the Sydcol electronic data base. The Facility Manager is responsible for directing where the containers are to be stored at the Facility.

Sydcol will make a determination of acceptability within 30 days of receipt of waste. If circumstances necessitate more than 30 days, Sydcol will document the reasons for the additional time. All wastes rejected will be sent to an alternative facility or returned to the generator within 60 days of the rejection.

3.2 Container Storage

All containers used for storage of wastes will be made of or lined with a material that will not react and is compatible with the material to be placed in the container. During the initial inspection, incoming wastes are segregated for chemical compatibility based on analyses performed in

accordance with the WAP, knowledge of the waste, supplemental analyses, and compatibility information from chemical literature. During the consolidation process, incompatible wastes will not be placed in the same container, or in an un-washed container that previously held an incompatible waste. Non-lab pack containers of incompatible wastes will not be stored adjacent to each other and will be separated by an aisle, berm, a wall, containment pallet, or other appropriate means. Lab pack containers inherently provide secondary containment and may be stored within the same storage and secondary containment area. Lab packs with incompatible wastes stored in the same HWMU should be separated by aisles, berms, or other containment structures.

During storage, containers will be single or stacked and placed in rows. Aisles between rows will be 3 feet plus the width of any equipment with a minimum width of 4 feet. A space of 18 inches will be maintained between stored containers and around the perimeter of each HWMU. Containers may be stacked provided the capacity of the storage area volume is not exceeded, there is sufficient containment volume, and the lower containers or any pallet structures are capable of supporting the load of the second container. Individual containers will always be stacked such that smaller containers are on larger containers. The maximum height of stacked containers (not including any pallet height) will be limited to 9 feet. No more than two 55-gallon drums or two 330-gallon totes will be stacked on each other.

All containers are to be maintained in a closed condition, with the tops secured during storage except when samples are obtained or when waste is added to or removed from the container.

All storage areas will be inspected at least weekly for the presence of leaking containers, deterioration of containers, condition of secondary containment pallets or other notable conditions. If a container is found to be leaking, the wastes will be consolidated into another container with compatible wastes or transferred to a larger over pack container. The results of all inspections and any remedial activities will be recorded on an inspection log. Information on the inspection log will be entered into the Facility data base to track the transfer of any waste from one container to another. All container storage areas are outdoors and well ventilated.

3.3 Container Handling

When moving hazardous waste containers within the Facility, Sydcol will use designated equipment that may include small front-end loaders, forklifts, or drum carts designed specifically for drum handling. Drums are also sometimes moved manually. Personnel moving drums will be trained in the proper use of container handling equipment, including the capacity limits of handling equipment.

Prior to moving containers, handling personnel will determine the most appropriate sequence in for moving containers within the Facility. Attention shall be given to equipment access needs, Facility traffic, and visibility limitations. Containers will be checked to ensure they are closed and sealed prior to moving. Exercise extreme caution in handling drums that are not intact and tightly sealed.

3.4 Waste Consolidation

Liquid and non-liquid wastes are consolidated into DOT-approved containers including but not limited to tanker trucks and bulk and non-bulk containers (i.e., tote tanks or drums). Consolidation operations are performed under the supervision of the Facility Manager or other qualified professional in all four HWMUs. All waste transfer operations are conducted by personnel trained in proper material transfer practices and response to spills.

During consolidation, it is often necessary to place the liquid portion of a waste in one consolidation container and the solid portion into another consolidation container. The consolidation process can also include phase separation where liquids are separated from liquids and solids are separated from solids. The wastes will be pumped, poured, dumped, or scooped from one container to another. Waste consolidations may require testing to assure wastes are compatible.

Transportation tanks are labelled with the maximum fill volume allowable in the transport tank. When consolidating liquid wastes into transportation tankers, the tank will be gauged to allow visual identification of the fill level in the tank. Rate of filling is governed by the maximum vacuum created by a set standard on each vacuum trailer as well as the fluid viscosity of the liquid waste. Each tank will be filled with a minimum of 4 percent of the tank capacity left unfilled to provide headspace and minimize the potential for overfilling or spilling during transfer. The gauge will be marked with a maximum fill line.

When consolidating wastes in drums or totes, 2 to 3 inches of headspace will be left in each drum to prevent overfill. Translucent polyethylene totes have a maximum fill line on the exterior of the tote to indicate when the tote is at capacity. When consolidating solid wastes in roll-off containers, the container will be filled to no more than 1 to 2 inches from the top of the container and covered with a tarp or hard cover.

Solid and liquid waste consolidation from small containers such as drums to large containers such as lab packs, totes or roll offs can occur in all three HWMUs. The consolidation process can involve the following:

- Transferring wastes from one container to another without removing the waste from the container. An example of this type of transfer would involve moving a liquid in a lab pack into a larger lab pack or transferring one-gallon cans of paint into a larger container;
- Transferring the contents of small containers into a larger container by pouring the waste liquid into the large container. An example of this would be the transfer of liquids in one-gallon containers into a 55-gallon container.
- Transferring the contents of smaller containers such as drums into larger containers such as totes.
- Transferring the contents of containers, typically 55-gallons or higher in volume, into a tanker trailer. An example of this process would be pumping from the smaller container into a tanker truck using the pump on the tanker truck or a portable pump from the container.

The wastes in both consolidation containers will be tracked in the Facility data base.

3.5 Staging of Outgoing Containers

Containers ready for off-site transport will be staged in a designated area within a specific HWMU selected at the time of staging. The staging area will be inspected both before staging and after loading each shipment. Records from the Facility data base are assembled, waste manifests are prepared, and each container receives a new DOT label. Containers are loaded onto flat-bed trucks, tractor trailers, or other vehicles appropriate for transportation of hazardous waste.

In the event outbound wastes need to be staged outside of a HWMU, all containers will be loaded into transport within 24 hours of being staged outside of a HWMU.

3.6 Container Reuse

Some containers received at the Facility will be used as bulking containers. Additional labels are placed on the container identifying the added contents. Used containers that are empty consistent with 40 CFR §261.7 (RCRA empty) may be returned to the generator, recycled, or disposed of. For RCRA empty containers that are reused, the existing labels will be removed and the container relabeled to clearly identify the new contents in the container. If labels cannot be readily removed from the empty container, the label is painted over to render it illegible.

4.0 SECONDARY CONTAINMENT SYSTEM DESIGN AND OPERATION

Hazardous wastes are stored and processed in three areas at the Facility: HWMU1, HWMU2, and HWMU3. Each HWMU has been designed and constructed with secondary containment curbs around three of the perimeter sides and with a floor surface that slopes to one side of the unit. A figure showing the design details of the floor slabs and containment for the HWMUs, including height of containment curbs, floor surface slopes, and containment volumes is presented in Figure 3. An estimate of maximum storage capacity is provided in Figure 4.

The concrete slabs for HWMU1 and HWMU2 will be underlain by a 4-inch aggregate base, which in turn will be underlain by a 60-mil HDPE geomembrane liner with sides raised and anchored to the concrete containment curb with 2-inch battens as shown in Figure 3. Seams at the corners of each HWMU will be extrusion welded so as to provide full containment within the HDPE geomembrane liner. The liner underlying the aggregate base material will be protected by a non-woven geotextile liner installed immediately above the HDPE geomembrane liner. The containment systems within HWMU1 and HWMU2 meet the design and operation requirements for secondary containment provided in 40 CFR §264.175.

HWMU3 provides adequate secondary containment as per 40 CFR 264.175, however the pad is underlain by a 10-mil clear poly liner that is not raised on the sidewalls of the containment slab. Hazardous waste may be stored in drums or totes in HWMU3 on containment pallets engineered with secondary containment sufficient to store the contents of the largest container stored on the pallet or 10 percent of the total contents stored on the pallet, whichever is greater.

The HWMUs will not be designated for storage of specific types of waste. Incompatible wastes will not be stored within 20 feet of each other, and flammable liquids will not be stored within 25 feet of a strong oxidizer waste. Table 1 lists incompatible wastes for determining separation.

4.1 Containment System Drainage

Waste containers are located outdoors on concrete pads engineered with a slope and perimeter berm to provide secondary containment. HWMU1 has a metal shade structure which minimizes precipitation accumulation within the HWMU. Liquids from unanticipated leaks, spills, or precipitation will collect in accumulation area on the south side of HWMU1, the west side of HWMU2, and on the north side of HWMU3. Contained liquids will be removed from HWMUs using a vacuum truck to extract liquids collected along the berm at the low end of the pad. Design drawings showing the height of containment curbs and the slopes for the floor surfaces are presented in Figure 3.

4.2 Containment System Capacity

Two storage scenarios were considered to evaluate storage capacity; (1) standard-sized 55-gallon drums placed over the entire pad spaced 12-inches apart, placed in groups of 16 with 4-foot access aisles every

fourth drum, and (2) standard IBC 330-gallon totes placed over the entire pad, spaced 12-inches apart, placed in rows with aisles after every second tote. Aisles were assumed to be 11-feet wide, as representative of the minimum aisle width for a standard, narrow-aisle counterbalanced forklift. An 18-inch buffer from the secondary containment berm was established along the perimeter of each pad. Industry-standard containment pallets were assumed for drum and tote storage on HWMU3.

The HWMU1 container storage area is a concrete pad approximately 50 feet wide by 100-feet long. Secondary containment is provided by concrete curbs on three sides of the concrete pad, and the pad is sloped at 0.5 percent from north to south to provide a curb depth of 6 inches at the south end of the pad. The storage area is sufficiently designed to store up to 600 55-gallon drums (33,000 gallons) or 180 totes (up to 39,600 gallons). Total secondary containment capacity is 9,350 gallons. Storage of the maximum capacity of drums will displace 1,762 gallons, reducing the total containment capacity to 7,588 gallons, exceeding the required secondary containment capacity of 3,300 gallons when storing drums at full capacity. Totes are elevated on a steel frame pallet for forklift loading, effectively eliminating displacement. The containment capacity of 9,350 gallons exceeds the secondary containment requirement of 3,960 gallons when storing totes at full capacity. . Secondary containment calculations for HWMU1 are included in Figure 3. Maximum HWMU` storage capacity is illustrated in Figure 4 for drum storage and Figure 5 for tote storage.

The HWMU2 container storage area is a concrete pad approximately 100 feet wide by 85-feet long. Secondary containment is provided by concrete curbs on three sides of the concrete pad, and the pad is sloped from east to west at 1 percent to provide a curb depth of 10.2 inches at the west end of the pad. The storage area is sufficiently designed to store up to 1,100 55-gallon drums (60,500 gallons) or 320 totes (up to 105,600 gallons). Total secondary containment capacity is 27,022 gallons. Storage of the maximum capacity of drums will displace 2,745 gallons, reducing the total containment capacity to 24,270 gallons, exceeding the required secondary containment capacity of 6,500 gallons when storing drums at full capacity. The containment capacity of 27,022 gallons when storing totes on steel pallets exceeds the secondary containment requirement of 10,560 gallons when storing totes at full capacity. Secondary containment calculations for HWMU2 are included in Figure 3. Maximum HWMU` storage capacity is illustrated in Figure 4 for drum storage and Figure 5 for tote storage.

The HWMU3 container storage area is a concrete pad approximately 50 feet wide by 200 feet long. Drums or totes of liquid hazardous waste will be stored on containment pallets engineered to provide adequate secondary containment for the drums or totes within the sump of the pallet. The storage area is sufficiently designed to store 1,512 55-gallon drum equivalents (83,160 gallons) or 252 tote equivalents (83,160 gallons) on secondary containment pallets. The pad itself provides tertiary containment capacity is 18,750 gallons. Tertiary containment calculations are included in Figure 3.

Table 2 summarizes containment capacities for each of the HWMUs when storing drums. Table 3 summarizes containment capacities for each of the HWMUs when storing totes.

4.3 Control of Run-on

The hazardous waste storage and processing activities at the Facility are conducted in contained areas. The Facility is located in a relatively flat area of Yuma County and has been graded to drain to low areas around the perimeter of the site. A perimeter berm has been constructed around the property boundary to prevent off site stormwater from running onto the site or for site stormwater to run off from the site. All HWMUs are constructed above grade to prevent stormwater from running into the containment area. This will mitigate the run-off of hazardous waste from the Facility. General drainage features for the site are shown in Figure 2.

The HWMU1, HWMU2, and HWMU3 storage areas are designed to slope from the front end of the concrete pad to concrete berm at the back of the pad with tapered concrete berms on the sides of the pad to contain stormwater run-off within the pad. Each of the outdoor HWMUs have been constructed above the surrounding grade to eliminate run-on from areas outside the units.

4.4 Removal of Liquids from Containment Systems

Liquids from unanticipated leaks, spills, or precipitation will collect against the containment berm on the south side of HWMU1, the west side of HWMU2 and on the north side of HWMU3. Accumulated liquids in these areas will be removed within one business day of detection by pumps, vacuums, absorbents, or other methods. Stormwater runoff collected from the HWMU surface areas will be analytically tested for hazardous waste characteristics. Runoff that exhibits a toxicity characteristic or exceeds a presumptive contained-in concentration will be profiled for disposal as a hazardous waste. Rainwater with concentrations of constituents in excess of presumptive contained-in thresholds will be presumed to be a listed hazardous waste and profiled for disposal. Rainwater that contains concentrations of compounds below toxicity characteristic levels and below presumptive contained-in thresholds will be profiled for disposal as a non-hazardous solid waste. Additional compound-specific contained-in thresholds may be submitted to ADEQ for consideration as a contained-in quantity on a case-by-case basis.

Recovered liquid wastes from spills and stormwater collected from HWMU containment areas will be placed in containers and reintroduced to the processing schedule. As shown on the site plan in Figure 2, all the containment areas of HWMU1, HWMU2, and HWMU3 are accessible on at least three sides.

Information and data concerning the quantities of liquid recovered from leak, spill, and precipitation events will be recorded in the Facility records data base. Records will include the quantities and types of wastes recovered and the container numbers involved in the incident.

TABLES

Table 1
Examples of Incompatible Wastes

Type A wastes	Type B Wastes	Type A wastes	Type B Wastes
Group 1: Potential consequences from mixing Type A with Type B:	**Heat generation; violent reaction.**	**Group 4: Potential consequences from mixing Type A with Type B:**	**Fire, explosion, or violent reaction.**
Acetylene sludge	Acid sludge	Alcohols	Concentrated 1-A or 1-B wastes
Alkaline caustic liquids	Acid and water	Aldehydes	Group 2-A wastes
Alkaline cleaner	Battery acid	Halogenated hydrocarbons	
Alkaline corrosive liquids	Chemical cleaners	Nitrated hydrocarbons	
Alkaline corrosive battery fluid	Electrolyte, acid	Unsaturated hydrocarbons	
Caustic wastewater	Etching acid liquid or solvent	Other reactive organic compounds and solvents	
Lime sludge and other corrosive alkalies	Pickling liquor and other corrosive acids		
Lime wastewater	Spent acid		
Lime and water	Spent mixed acid		
Spent caustic	Spent sulfuric acid		
Group 2: Potential consequences from mixing Type A with Type B:	**Fire or explosion; generation of flammable hydrogen gas.**	**Group 5: Potential consequences from mixing Type A with Type B:**	**Generation of toxic hydrogen cyanide or hydrogen sulfide gas.**
Aluminum	Any waste in 1-A or 1-B	Spent cyanide and sulfide solutions	Group 1-B wastes
Beryllium			
Calcium		**Group 6: Potential consequences from mixing Type A with Type B:**	**Fire, explosion, or violent reaction.**
Lithium		Chlorates	Acetic acid
Magnesium		Chlorine	Other organic acids
Potassium		Chlorites	Concentrated mineral acids
Sodium		Chromic acid	Group 2-A wastes
Zinc powder		Hypochlorites	Group 4-A wastes
Other reactive metals and metal hydrides		Nitrates	Other flammable and combustible wastes
Group 3 - Potential consequences from mixing Type A with Type B:	**Fire, explosion, or heat, flammable/toxic gas generation.**	Nitric acid, fuming	
Alcohols	Any concentrated waste in 1-A or 1-B	Perchlorates	
Water	Calcium, lithium, potassium	Permanganates	
	Metal hydrides	Peroxides	
	SO_2 Cl_2, $SOCl_2$, PCl_3, CH_3 $SiCl_3$	Other strong oxidizers	
	Other water-reactive waste		

Table 2
HWMU Storage Capacity (Drums)

HWMU Capacities	**HWMU1[1]**	**HWMU2**	**HWMU3[2]**
Area (square feet)	5,000	8,500	10,000
Drum stacks (2 drums/stack)	300	550	NA
Pallets (4 drums/pallet)	NA	NA	189
Estimated storage capacity (Drum-equivalent)	600	1,100	1,512
Estimated storage capacity (gallons)	33,000	60,500	83,160
Required spill containment (10%) (gallons)	3,300	6,050	8,316
Total containment (cubic feet)	1,250	3,613	2,500
Total containment (gallons)	9,350	27,022	18,700
Maximum displacement area (square feet)[3]	942	1,727	1,578
Average displacement depth (feet)	0.25	0.21	0.25
Maximum displacement (cubic feet)	236	367	395
Maximum displacement (gallons)	1,762	2,745	2,951
Effective containment capacity (gallons)	7,588	24,276	15,749
Required Containment w/displacement (gallons)	5,062	8,795	11,267
Capacity for precipitation (gallons)	4,288	18,226	7,433
Capacity for precipitaton (inches)	5.50	3.44	1.19

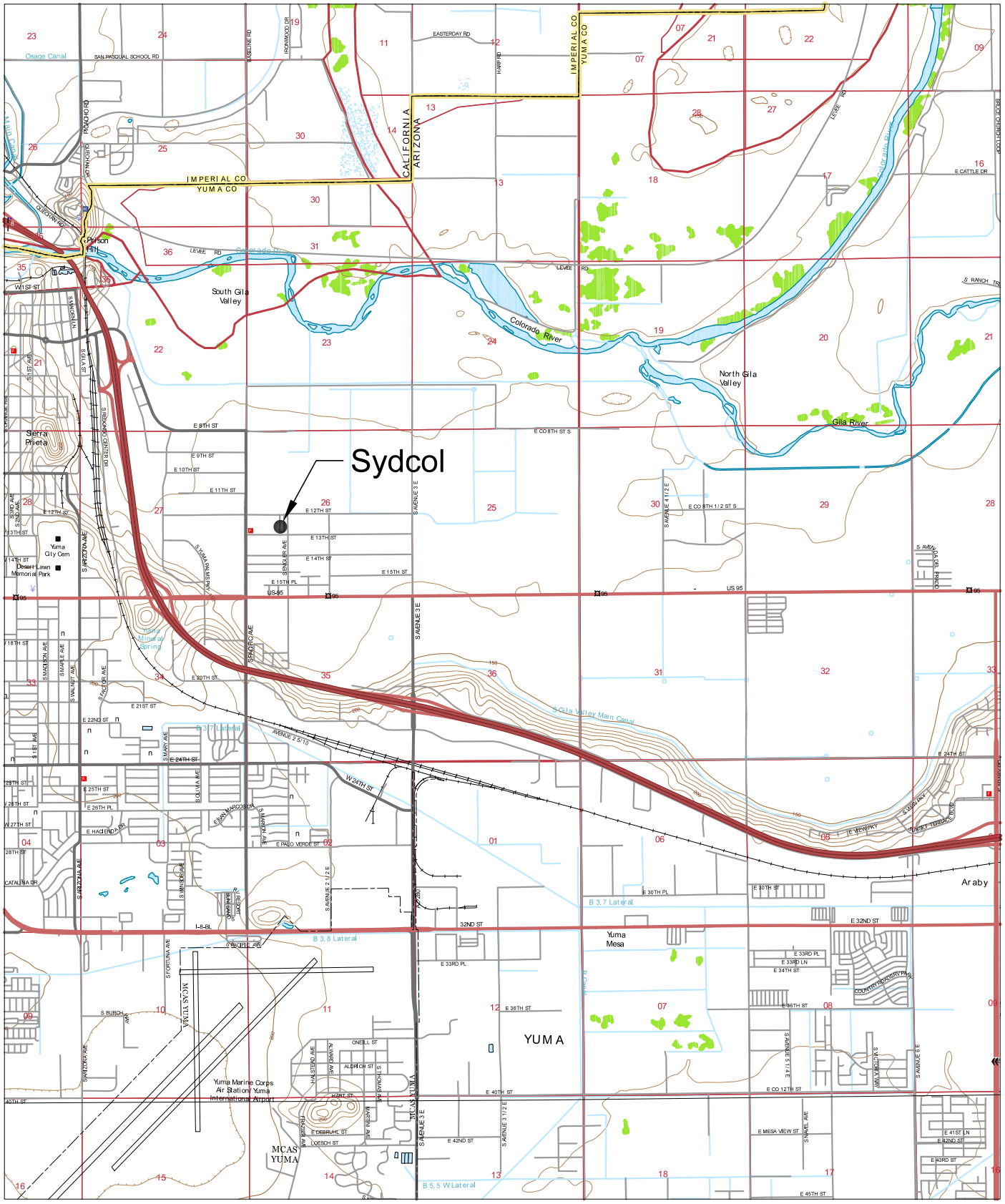
Notes:
NA: Not applicable
1: HWMU1 is 75% covered from shade structure. One-quarter of area subject to precipitation.
2: Secondary containment for HWMU3 is provided by pallet structures. Containment values shown are tertiary containment capacities.
3: Assume displacement area of drum = 3.14 square feet, pallet = 8.35 square feet.

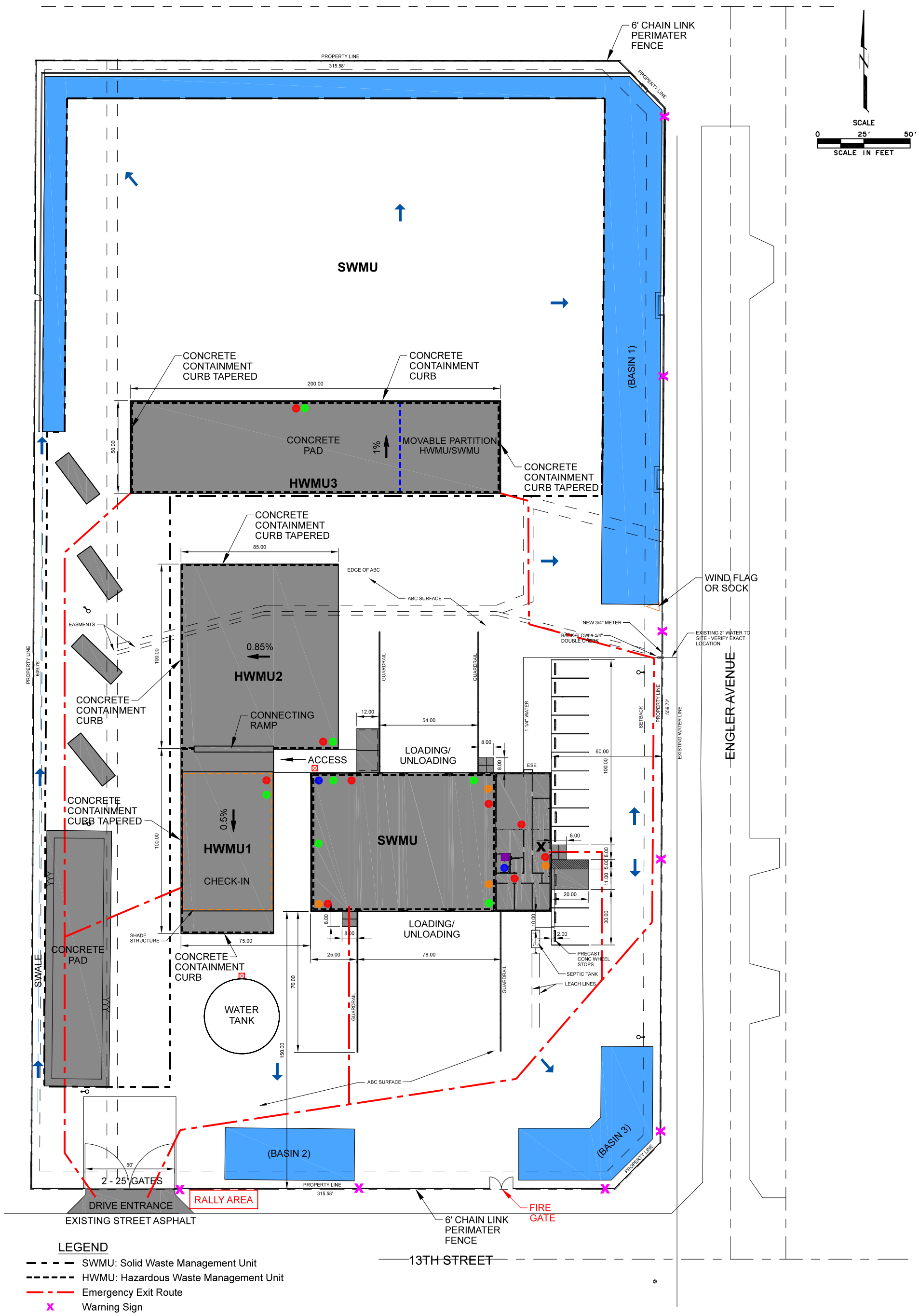
Table 3
HWMU Storage Capacity (Totes)

HWMU Capacities	**HWMU1[1]**	**HWMU2**	**HWMU3[2]**
Area (square feet)	5,000	8,500	10,000
Tote stacks (2 totes/stack)	90	160	NA
Pallets (2 totes/pallet)	NA	NA	126
Estimated storage capacity (Tote-equivalent)	180	320	252
Estimated storage capacity (gallons)	59,400	105,600	83,160
Required spill containment (10%) (gallons)	5,940	10,560	8,316
Total containment (cubic feet)	1,250	3,613	2,500
Total containment (gallons)	9,350	27,022	18,700
Maximum displacement area (square feet)[3]	1,200	2,133	3,363
Average displacement depth (feet)	0.25	0.21	0.25
Maximum displacement (cubic feet)	300	453	841
Maximum displacement (gallons)	2,243	3,390	6,289
Effective containment capacity (gallons)	7,107	23,631	12,411
Required Containment w/displacement (gallons)	8,183	13,950	14,605
Capacity for precipitation (gallons)	1,167	13,071	4,095
Capacity for precipitaton (inches)	1.50	2.47	0.66

Notes:
NA: Not applicable
1: HWMU1 is 75% covered from shade structure. One-quarter of area subject to precipitation.
2: Secondary containment for HWMU3 is provided by pallet structures. Containment values shown are tertiary containment capacities.
3: Assume displacement area of tote = 0.0 square feet, pallet = 26.69 square feet.

FIGURES


Sydcol
IMPERIAL CO
YUMA CO
CALIFORNIA
ARIZONA
Colorado River
Gila River
South Gila Valley
North Gila Valley
Sierra Prieta
Yuma City Cem
Desert Lawn Memorial Park
Yuma Mineral Spring
S Gila Valley Main Canal
B 3.7 Lateral
B 3.8 Lateral
B 5.5 W Lateral
Yuma Mesa
YUMA
Araby
Yuma Marine Corps Air Station/Yuma International Airport
MCAS YUMA
US 95
I-8-BL
E 8TH ST
E 9TH ST
E 10TH ST
E 11TH ST
E 12TH ST
E 13TH ST
E 14TH ST
E 15TH ST
E 20TH ST
E 24TH ST
W 24TH ST
32ND ST
E 40TH ST
E 42ND ST
E 45TH ST
E CO 8TH ST S
E CO 8TH 1/2 ST S
E CO 12TH ST
S AVENUE 3 E
S AVENUE 2 1/2 E
S AVENUE 3 1/2 E
S AVENUE 5 1/2 E
S AVENUE 1 E
S ARIZONA AVE
S MAIN ST
S GILA ST
S FORTUNA AVE
S MARY AVE
S COLMA AVE
S MCKEEN AVE
S MAPLE AVE
S WALNUT AVE
S PACIFIC AVE
S SENDER AVE
S MCLEAN AVE
S MCCAS YUMA
S MCTOWNSEND AVE
S MCTOWNSEND PL
S MCTOWNSEND LN
S MCTOWNSEND WAY
S MCTOWNSEND CT
S MCTOWNSEND TER
S MCTOWNSEND RD
S MCTOWNSEND PKWY
S MCTOWNSEND BLVD



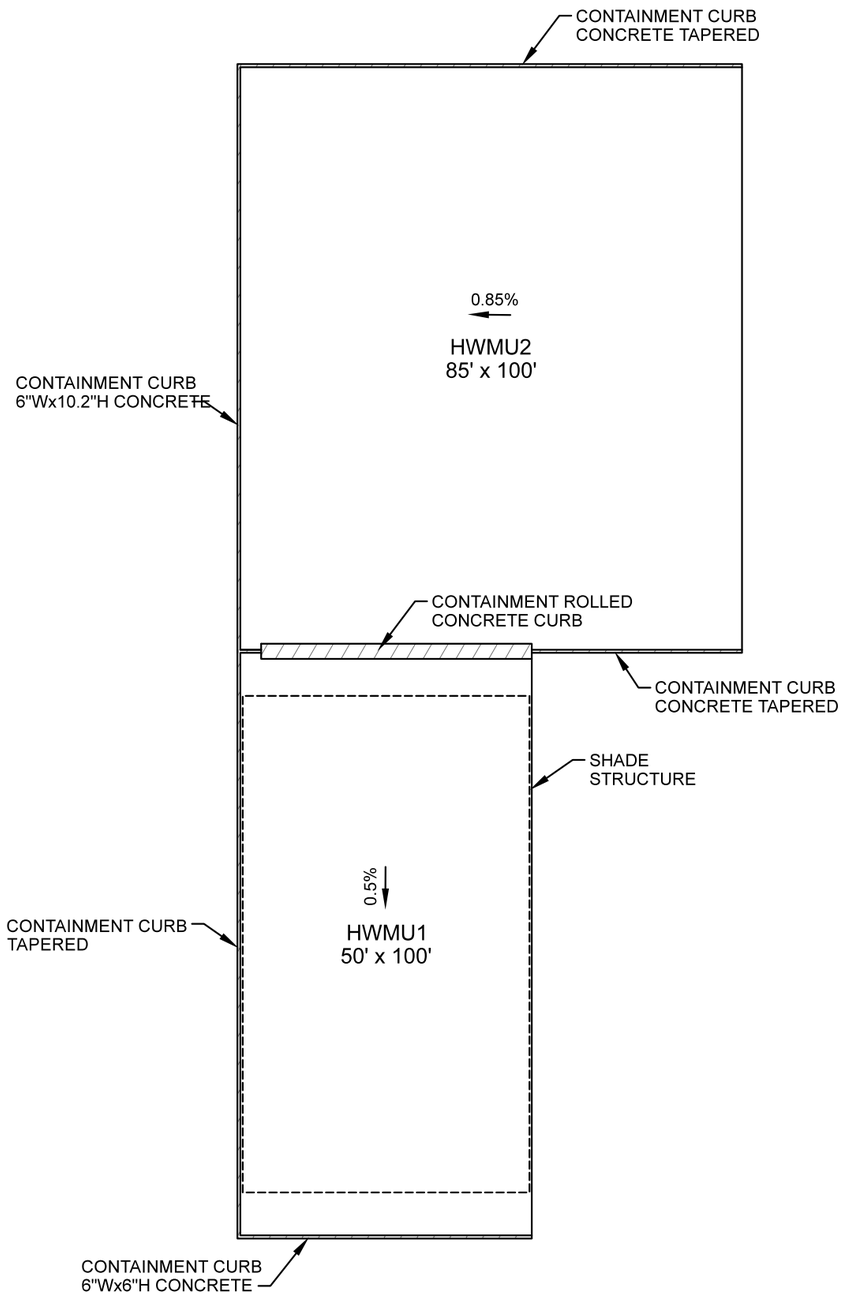
LEGEND

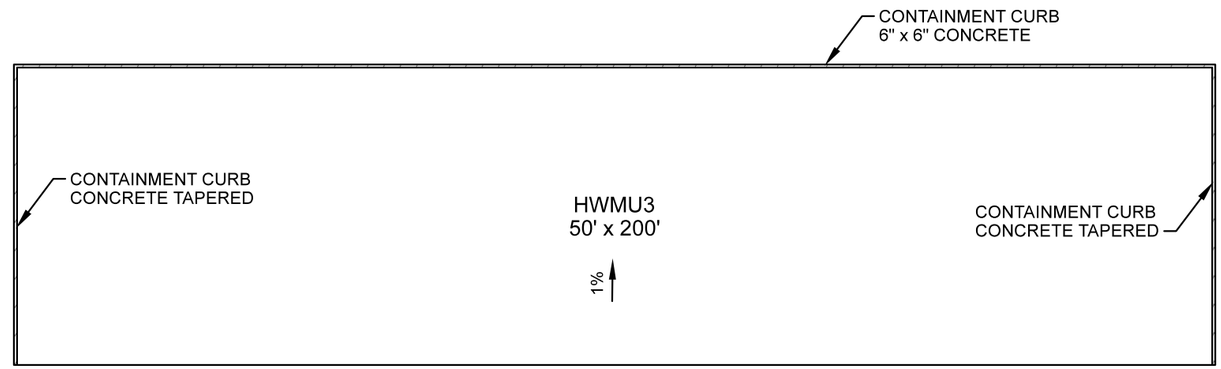
- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Emergency Exit Route
- Warning Sign
- Spill Kit
- Fire Alarm
- Fire Extinguisher (ABC)
- Eyewash
- Shower
- Facility Report
- Fire Hose Connection
- Concrete Surface
- Drainage Direction
- Drainage Basin

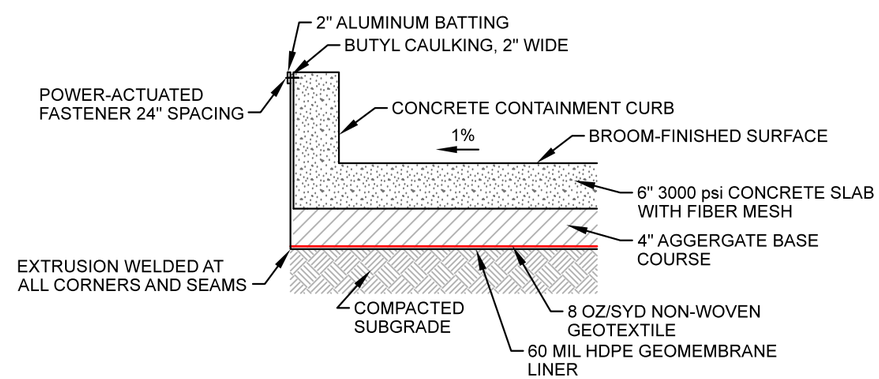
Figure 2
SITE PLAN
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: SYDCOL02
REVISION:	

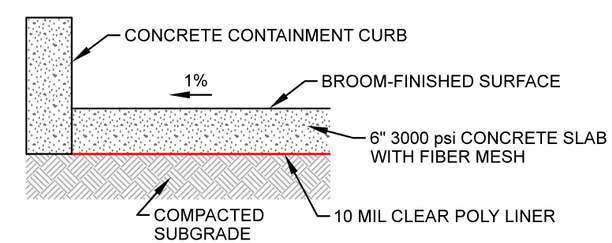
JGP Consulting, PLC
Environmental Compliance Services







HWMU1 and HWMU2 DETAIL



HWMU3 DETAIL

Secondary Containment Volumes

HWMU1 = 0.5' x 50' x 100'/2 = 1,250 cft = 9,350 gallons

HWMU2 = 0.85' x 85' x 100'/2 = 3,613 cft = 27,022 gallons

Tertiary Containment Volumes

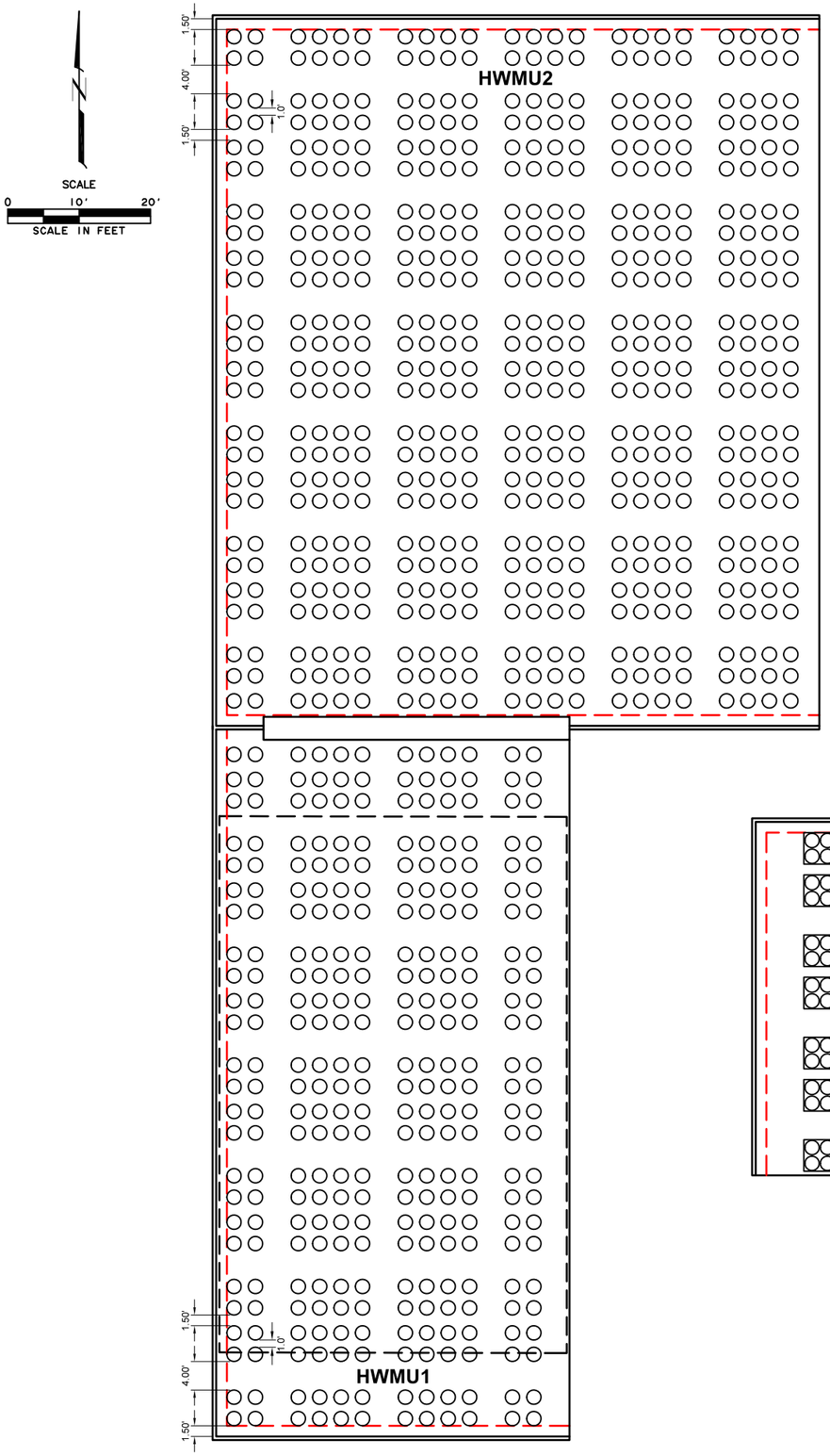
HWMU3 = 0.5' x 200' x 50'/2 = 2,500 cft = 18,700 gallons

Figure 3
CONTAINMENT
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 6/24/21
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL09
REVISION:	

JGP Consulting, PLC

Environmental Compliance Services



HWMU Drum Capacity Calculations:			
HWMU	Drum Stacks (2 drums/stack)	Pallets (4 drums/pallets)	Drum - equivalents
1	300	-	600
2	550	-	1100
3	-	189	1512

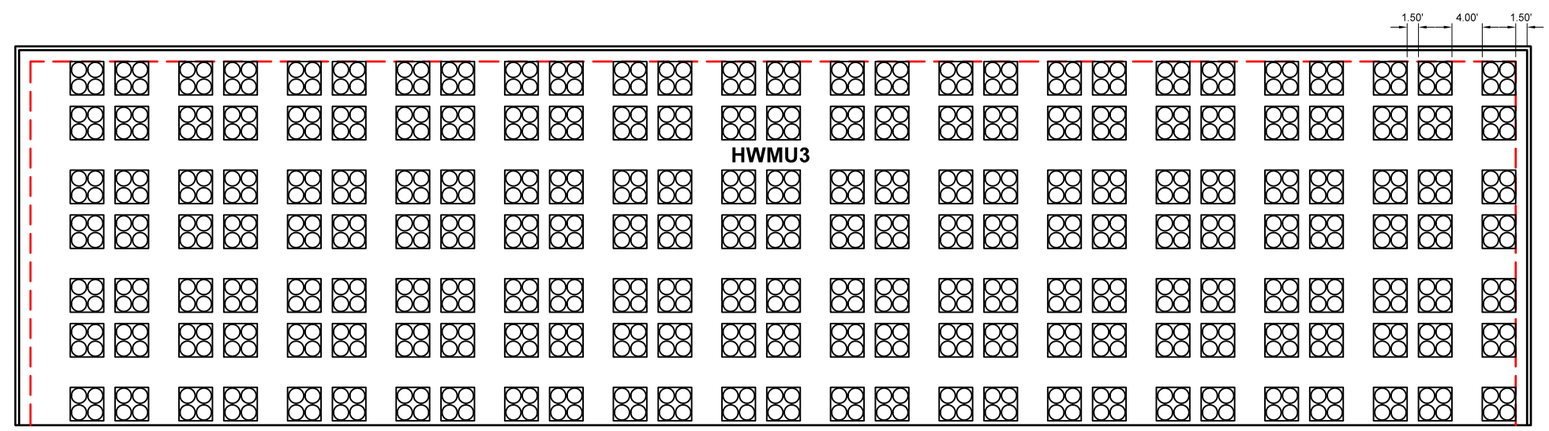
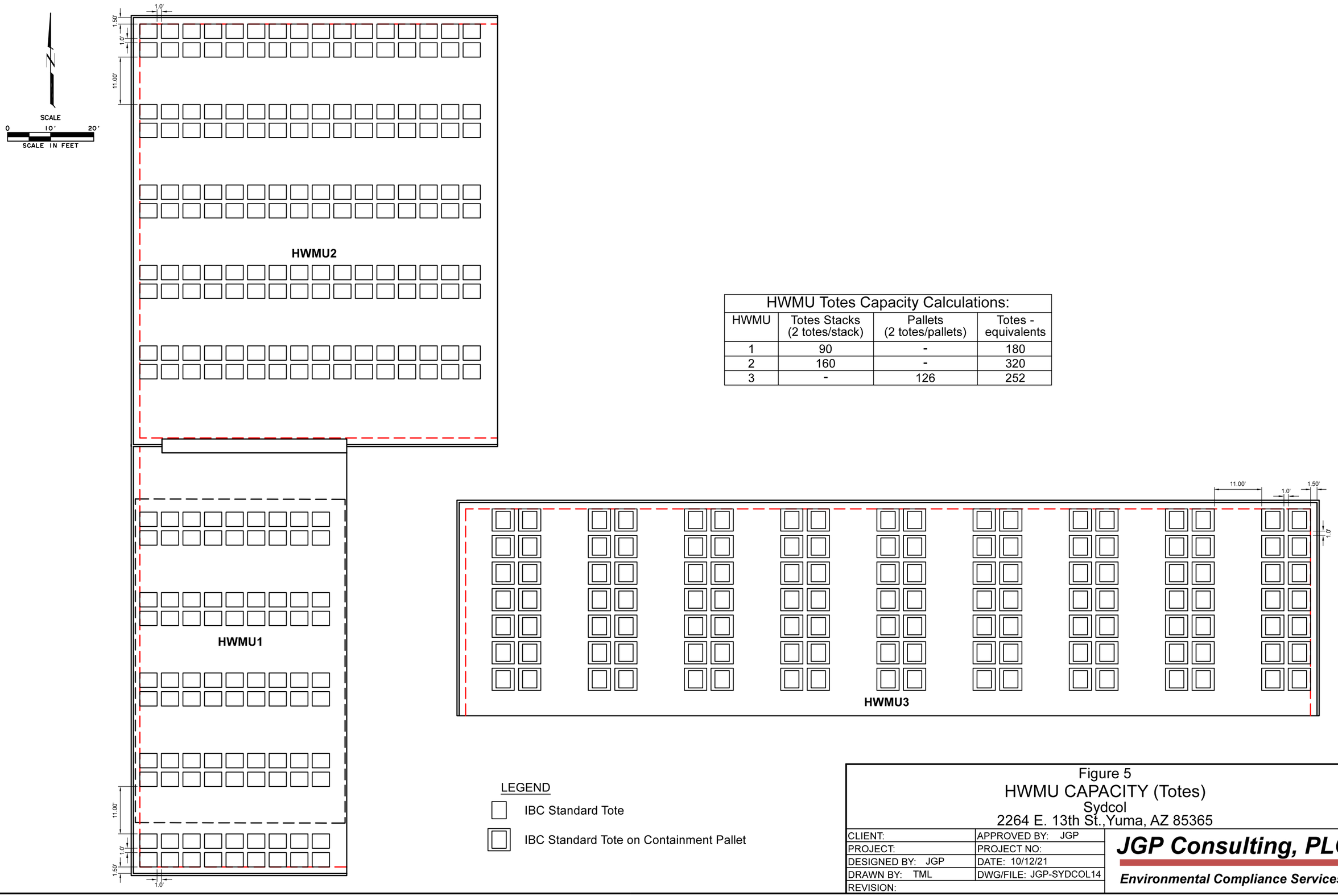


Figure 4
HWMU CAPACITY (Drums)
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 10/12/21
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL13
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services



HWMU Totes Capacity Calculations:			
HWMU	Totes Stacks (2 totes/stack)	Pallets (2 totes/pallets)	Totes - equivalents
1	90	-	180
2	160	-	320
3	-	126	252

LEGEND

IBC Standard Tote

IBC Standard Tote on Containment Pallet

Figure 5
HWMU CAPACITY (Totes)
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 10/12/21
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL14
REVISION:	

JGP Consulting, PLC

Environmental Compliance Services

APPENDIX A

CONTAINER LABEL

Appendix A

Container Label

CONTAINER ID#:	020719339-1 (3/10)
Date of Arrival:	2-1-2021
Hazard Class:	3
HWMU #:	1

Note: First 9 digits is the manifest #. "-1" is the manifest line item #, "3" is the third drum of "10" total drums in this particular manifest line item number.

APPENDIX B

EXAMPLE CHECK-IN SHEET

AA SYDCOL, LLC

CHECK-IN SHEET

Generator:	**Manifest №:**
Bill to:	**Line item №:**
Profile №:	**№ of containers:**
Waste desc:	**Date received:**
	Management Method:
Special instructions:	
	HWMU No.:

CONTAINER № QTY.	CONTAINER SIZE	CONTAINER TYPE	SOLID	LIQUID	MIXED	SAMPLE TAKEN	PRICE	DATE	ENTIRE	DATE	PARTIAL
TOTALS			S	L	M				“E”		“P’

MATERIALS MANAGEMENT SHEET 1 OF _____ jremitio@cox.net

ATTACHMENT E

SYDCOL WASTE TRANSFER FACILITY

GROUNDWATER MONITORING

[40 CFR 270.14(c)]

June 13, 2019

Applicability

The Sydcol Waste Transfer Facility (Facility) does not operate a surface impoundment, waste pile, land treatment unit, or landfill, and therefore 40 CFR 264.91 through 100 regarding groundwater detection or compliance monitoring do not apply. The Facility is subject to corrective action requirements described in 40 CFR 264.100, and will develop a corrective action plan in the event it is determined that there has been an impact to groundwater quality that exceeds a groundwater quality protection standard established consistent with 40 CFR 264.101(a) at the Facility point of compliance. General groundwater conditions are described in Attachment B.

ATTACHMENT F

AA SYDCOL, LLC

PROCEDURES TO PREVENT HAZARDS

[40 CFR 270.14(b)(4) and (5))]

October 29, 2021

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E. Notice to Authorities

1.0 INTRODUCTION

This description of procedures to prevent and address hazards at the Facility has been prepared in support of the Sydcol RCRA Part B permit application. A list of all acronyms and a definition of key terms used in this description is provided with General Information provided in Appendix A of Attachment A of the RCRA Part B permit application.

The Facility is a hazardous and non-hazardous waste transfer station located in Yuma, Arizona at the location shown in Figure 1. The Facility accepts a variety of hazardous and non-hazardous wastes; classifies the wastes and consolidates, bulks, and repackages the wastes for shipment to approved off-site reuse, treatment, and/or disposal facilities. Non-hazardous solid waste operations at the Facility consist of transfer station activities with two areas designated for solid waste handling: the western 75 feet of the Facility, the northern 185 feet of the Facility, and the concrete pad at the northern end of the Facility, and the concrete pad in the warehouse building. Three areas in the southern portion of the Facility are used as a transfer station for hazardous wastes and are designated as HWMUs. Figure 2 illustrates the waste management units at the Facility. This section describes the procedures used at the Facility to prevent hazards associated with storage and processing of hazardous waste.

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2.0 SECURITY

AA Sydcol has developed security provisions to minimize the potential for unauthorized contact with and exposure to the wastes stored and processed at the Facility. The Facility is not open to the public and entry to active waste management areas is limited to employees, waste transportation personnel, and escorted visitors. The Site Plan provided in Figure 2 illustrates the solid and hazardous waste management units, property lines, security fences, entry gates, and the location of warning signs is presented in Figure 2.

2.1 Security Procedures and Equipment

Multiple measures of security are used at the Facility during operating and non-operating hours. These measures include perimeter fencing, limited access, lighting, security cameras, signage, building alarms, and third-party monitoring.

The perimeter of the entire Facility is delineated with a six-foot high chain-link fence topped with 3-stranded barb wire mounted on 45-degree angle arms on the north, east, and south property boundaries and vertical arms on the west property boundary. Access to the Facility is limited to one gated entry located along 13th Street. The access gate is kept locked when the Facility is closed such that the entire Facility is surrounded by a barrier fence. A second emergency gate is located on the southeast corner of the property and is kept locked at all times. The gate is a fire gate, or "crash-through" gate, by which emergency responders can gain access to the site by crashing the gate in an emergency. The perimeter fence and access gates are kept free of trees that may take root and that could compromise the fence or its foundations.

Signage posted at the Facility entrance will identify the Facility, operating hours, and direct all entrants to report to the main building for checking into the Facility. All visitors or other entrants will be required to sign in and be given the safety and security procedures for the Facility. Any on-site visitors are accompanied at all times by Facility personnel. Visitors are required to sign out upon leaving the Facility. Vehicle speed limits are posted at the Facility entrance, and limited to 15 miles per hour while on the Facility property. A 6-inch layer of 3-inch minus aggregate base course rock will be placed for 50 feet in the approach to the entrance gate for traffic exiting the facility and in front of the loading docks on the south side of the warehouse building to control trackout as shown in Figure 2. Overhead lights are located at the entrance gate, on the north and south sides of the main building, and at HWMU1, HWMU2, and HWMU3. Light sensors control the operation of the overhead lighting at the Facility so it is illuminated from dusk until dawn.

.

The typical operating hours at the Facility are 7:00 A.M. to 4:00 P.M., Monday through Friday. Operations may be conducted on evenings and the weekends, if needed. In the event of an evacuation, facility personnel will control access to the Facility as described in the Evacuation Plan in the Contingency Plan.

2.2 24-Hour Surveillance System

Outside of operating hours, a combination of remotely monitored surveillance equipment are used to secure the Facility. The monitoring equipment includes security cameras and motion detectors monitored intermittently by the Facility Manager. The surveillance system includes 17 weather-proof 2.0 megapixel bullet IP full HD real time day/night 2.8-12mm lens video cameras that are strategically located throughout the Facility. The security cameras cover the entire property. all corners of warehouse, office, parking lot, shop area, truck loading and unloading area, access driveway and main gate. Video recording from the security cameras is maintained on-site for a minimum of 10 days. Motion sensors are also located at key positions around the Facility and inside the main building to cover the main gate, office areas, and the warehouse building. When the motion detectors are triggered after hours, the offsite third-party security company is alerted to observe the video cameras to identify the cause. Any concerns that need further investigation are immediately called to the Emergency Coordinator or an alternate Emergency Coordinator on call to investigate the situation.

2.3 Barrier and Prevention of Unauthorized Entry

A chain link fence 6 feet in height with 3-strand barbed wire suspended on mounting arms surrounds the Facility. Site access is provided at a gated entrance on the south side of the Facility from 13th Street. The main gate is kept closed and locked at all times unless authorized vehicles are entering the facility. Signage at the entrance gate identifies the office number to call for access to the Facility. Transporters must contact the administrative office to gain access during operating hours. The access gate is kept locked outside of operating hours. An additional emergency gate is located on the southeast corner of the Facility and kept locked at all times. Figure 2 shows the location of fences and gate at the Facility.

2.4 Warning Signs

Warning signs are posted at the entry gate and along the publicly-accessible perimeter fencing used to secure the Facility along the north, east, and south property boundaries at 100-foot spacing intervals so as to be visible from any approach. Warning signs are printed in English and Spanish with a minimum 2½-inch letters to be legible from a distance of at least 30 feet. The signs read as follows:

DANGER	**PELIGRO**
UNAUTHORIZED	**PROHIBIDA LA ENTRADA**
PERSONNEL	**A PERSONAS**
KEEP OUT	**NO AUTORIZADAS**

2.5 Injury to Intruder

Injury to an unauthorized intruder is limited because all hazardous waste at the Facility is received, stored, and processed in various size containers, all of which are labelled and kept closed except during sampling and consolidation activities. All equipment is parked and locked after operating hours.

2.6 Violation Caused by Intruder

Releases caused by an intruder would be minimized because containers are within secondary containment areas that are lighted and monitored by a surveillance system.

3.0 INSPECTION SCHEDULE

AA Sydcol has developed an inspection program for the Facility that provides for discovery, investigation, and repair/remediation of hazards to prevent harm to human health and the environment. The program is integrated with the normal course of duties carried out by Facility personnel so possible issues are identified and resolved quickly and efficiently. All employees are responsible for reporting or correcting (if appropriate) any non-conforming issue upon discovery. Non-emergency issues discovered by Facility personnel may not be recorded on a formalized Inspection Report if the issue can be corrected before a formalized inspection could be completed.

3.1 General Inspection Requirements

Inspections will be conducted by personnel appropriately trained for the inspection. Hazardous Waste Technicians, Facility Supervisors, and the Facility Manager will be trained to conduct inspections of the waste containment systems, the security system, and operation of the fire suppression system.

All inspections will be documented. Inspection records will include an Inspection Log and Inspection Reports. The Inspection Log will be used to record all inspections and track any issues identified in an inspection. Information on the Inspection Log includes date, time, name of person conducted the inspection, type of inspection; and any issues identified during the inspection. along with a follow-up date to inspect repairs or other remedial work. The Facility Manager will review the Inspection Log weekly and track issues identified during inspections to assure that remedial work is complete. A copy of the Inspection Log is Provided in Appendix A.

Findings made during an inspection will be recorded on Inspection Reports, which will document the date and time of the inspection along with a checklist of items inspected. The Inspection Report will also identify the person who performed the inspection and provide details of any issues identified; dates and description of any repairs and/or remedial actions taken; and describe the final resolution for the issue. Typical information on an Inspection Report for a container issue would include the container identification number, the location of the container (HWMU and row number), and a description of the issue. All identified releases are to be documented in the Inspection Report. If similar issues are identified in an inspection, such as damaged labels, the report would include information on all of the container labels that are damaged and note that new labels were generated to correct the issue. All Inspection Reports are reviewed by the Facility Manager.

If inspections reveal that non-emergency maintenance and repair is needed, the issue will be addressed as soon as possible to preclude further issues and reduce the need for emergency repairs. If an inspection reveals an issue that is considered an imminent hazard, remedial action will be

taken immediately in accordance with the procedures outlined in the Contingency Plan in Attachment G. In the event of an uncontrolled release of hazardous waste, all efforts will be directed toward containment. Facility inspection records may change based on changes in regulations, changes in operations at the Facility, or following modification of the facility hazardous waste permit.

The records may be maintained and stored electronically. Hard copies of the inspection records will be maintained for a minimum of 3 years from the date of the inspection.

There are five types of inspections conducted at the Facility based on the frequency of the inspection; daily (during days of operation), weekly, monthly, quarterly, and annual. Daily inspections will include containers and containment systems. Weekly inspections will be conducted on safety and emergency response equipment. Monthly inspections will be conducted on Facility security measures, including an inspection for damage to security cameras and motion detectors. Quarterly inspections will be conducted on fire suppression system monitoring and laboratory equipment used at the Facility. The 3rd-party service provider for the security system performs a quarterly inspection and tests the operation of all security cameras and motion detectors. Annual inspections will include testing of the fire suppression system.

3.1.1. Daily Inspections

HWMU1, HWMU2, and HWMU3 are inspected each day the Facility is operating. Daily inspections will include inspection of containers for indications of leakage and deterioration. leaks and spills, cracking, deterioration, and other signs of possible loss of integrity. The concrete surfaces and containment areas for HWMU1, HWMU2, and HWMU3 are inspected for cracks, deterioration, joints and seams in concrete surfaces, damage to containment berms, leaks, and spills. The containment pallets used to contain liquid hazardous wastes in HWMU3 are inspected for damage, The overall Facility is inspected during each normal business day. The Facility inspection includes security fences and general facility housekeeping.

Any damage or deterioration of containers or containment systems will be remedied as quickly as possible to ensure that the issue is not an environmental or human health hazard. Releases from containers will be addressed and cleaned-up immediately upon discovery. Leaking containers will be placed in over-packs or the waste materials will be placed in another container.

All releases are reported to the Facility Manager. Repairs and remedial work to correct emergency conditions which represent hazards to human health and the environment will be initiated within 24 hours of discovery and will be completed as expeditiously as possible. Repairs and remedial work to correct non-emergency issues will be initiated within 7 days and will be completed as expeditiously as possible. All issues and remedial work will be documented on the Inspection Log

and in Inspection Reports. When remedial work is completed, it will be so noted on the Inspection Log. A copy of the Daily Inspection Report form is presented in Appendix B.

3.1.2. Weekly Inspections

In addition to the daily inspections, Qualified Facility personnel will inspect safety and emergency response equipment on a weekly basis. These inspections ensure the emergency response equipment will function and ample emergency response supplies will be on hand when needed. This inspection includes an inventory of personal protective equipment (PPE), spill response supplies (such as over-pack drums and absorbent), fire suppression monitoring system (including gauges and valve seals), fire extinguishers, safety showers, eyewashes, first aid supplies, decontamination equipment and supplies, and other emergency response equipment such as pumps, hoses, and forklifts. Qualified Facility personnel to conduct weekly inspections includes the Facility Manager, Compliance Manager, Yard Manager, and Yard Supervisor. A copy of the inspection report form used for weekly and monthly inspections is presented in Appendix C.

3.1.3. Monthly Inspections

The security system is inspected on a monthly basis. This inspection includes the perimeter fencing and warning signage; the entrance gate and lighting; Facility lighting; the surveillance system and motion sensors; the communication system, and building doors and locks. These inspections include equipment functionality and checking calibration dates. If required, equipment is recalibrated as part of the inspection. A subcontractor will also be used to calibrate laboratory equipment if required. A copy of the inspection report form used for weekly and monthly inspections is presented in Appendix C.

3.1.4. Quarterly and Annual Inspections

Laboratory and fire suppression system equipment will be inspected on a quarterly basis by the Facility Manager or Compliance Manager. The quarterly inspection will include all monitoring and laboratory equipment as well as the fire suppression system. Laboratory test equipment will be checked for damage, and laboratory supplies checked to ensure an adequate supply of test and calibration materials are available on site. PID and gas detector instrumentation will be checked for damage and usability. All water flow alarm devices, supervisory signal devices, control valves, hydraulic nameplates, signage, hand-wheels, and fire department connections will be inspected. A copy of the Quarterly Inspection Report form is presented in Appendix D.

On an annual basis, a fire safety subcontractor will inspect sprinkler heads, pipes and fittings, spare sprinklers, control valves, the main drain, pressure test the backflow prevention valve, perform a partial trip test and internal inspection for all dry valves, test fire extinguishers, waterflow alarms,

and test the performance of the fire pump. Details of the annual inspection and testing of the fire suppression system will be documented in an annual report prepared by the fire safety contractor. Rural Metro will be notified in advance of any temporary shutdown of the fire suppression system during the annual inspection and testing.

3.1.5. Types of Problems and Inspection Frequency

The inspection schedule for items that may pose a hazard at the Facility is shown in the table below:

ITEM	TYPE OF PROBLEM	INSPECTION FREQUENCY
Safety and emergency response equipment and supplies (1)	Functionality of equipment. Inventory depletion of supplies.	Weekly
Monitoring and Laboratory Equipment (2)	Functionality and malfunction of equipment. Calibration. Inventory depletion of calibration supplies. Inventory depletion of laboratory supplies.	Quarterly
Fire suppression system and fire extinguishers	Gauges and seals on control valves. Inspect water flow alarm devices, supervisory signal devices, valve supervisory alarm devices, control valves, hydraulic nameplates, signage, hand-wheels, and fire department connections. Check testing dates of extinguishers. Pressure test the backflow prevention valve, sprinkler heads, pipes and fittings, spare sprinklers, control valves, the main drain, perform a partial trip test and internal inspection for all dry valves, test waterflow alarms, and performance test on the fire pump	Weekly Quarterly Annually
Security Equipment and Devices	Functionality and malfunction of surveillance equipment Integrity and breaches of perimeter fencing. Loss or damage to warning signs. Functionality of entry gate. Lighting.	Monthly
Containment (3)	Deterioration of or damage to sealants and joint compound. Cracks in concrete containment system. Damage to containment pallets. Presence of standing liquids or wastes outside of containers.	Daily

	Lighting. Run-on and run-off for HWMUs.	
Containers	Leakage Bulging Deterioration Improper or damaged labeling Improper stacking of containers. Open containers (except if adding or removing waste)	Daily

Notes: (1) See list of safety and emergency response equipment in Table 1.
(2) See list of monitoring equipment in Table 1.
(3) Containment includes the surfaces, curbs, and sumps in HWMU1, HWMU2, and HWMU3; individual container pallets; berms and other devices used to separate incompatible wastes.

3.2 Specific Process Inspection Requirements

Hazardous wastes will typically be transported to the Facility in tankers and/or containers (e.g. 55-gallon drums, totes) on flat-bed trucks, tractor trailers, or other vehicles. Hazardous wastes will be processed and stored in boxes, bags, drums, totes, or roll-offs. Consolidated wastes may be placed in roll-offs, end dumps, tanker trucks or mobile containers including drums, pails, or totes of various capacities. No stationary tanks, waste piles, surface impoundments, or containment buildings will be used for management of wastes accepted at the Facility. No treatment equipment, including incinerators, boilers, industrial furnaces, or other equipment will be used at the Facility. Further, the Facility will not have any landfills, drip pads or other areas where wastes would be treated and/or disposed.

The management areas at the Facility that will be inspected include HWMU1, HWMU2,and HWMU3. Structures, equipment, and containers at each management unit are regularly inspected for functionality, deterioration, failure, operator error or other issues that could represent hazards to human health and/or the environment.

3.3 Container Inspection

Potential issues associated with containers to be stored and processed at the Facility include the following:

- Damaged and deteriorated containers;
- Leaking or open containers;
- Spills and releases during loading, unloading, and transport within the Facility;
- Improper handling, stacking, or placement of containers; and

- Failure and/or deterioration of secondary containment system or structure.

The containers and the container storage areas are inspected daily as part of the day-to-day operations conducted at the Facility. The inspections are tracked on an inspection log and documented on inspection report forms. Should any issue be discovered during the inspection, the issue is noted on the inspection log and the inspection report. The issue remains as an open item on the inspection log until resolved with any repairs or remedial work completed. Repair and remedial work are documented on supplemental inspection reports. The Facility database is updated should any waste be removed from a damaged container and placed in another container or consolidated with other wastes in a larger container.

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4.0 PREPAREDNESS AND PREVENTION REQUIREMENTS

The Facility has developed a hazard prevention program to address unanticipated issues that may occur at the site. The program includes equipment, procedures, and arrangements with subcontractors and public emergency response agencies to address issues that may impact human health and the environment.

4.1 Equipment Requirements

The Facility maintains various types of equipment that may be used if an imminent danger or emergency condition exists. This equipment includes internal and external communication systems; fire suppression equipment; monitoring and testing equipment; equipment for spill control; small amounts of emergency medical supplies; and personal protection equipment (PPE).

4.1.1. Internal Communications

Internal communications will be via an alarm system for immediate notifications and a voice communication system for issuing instructions. The initial notification to on-site personnel will be by an alarm system, which monitors for fire and security. Alarm system panels are located at strategic locations so that the Facility Manager and/of the Emergency Coordinator (EC) can identify where and what triggered the alarm. The alarm system is electrically operated and is equipped with a battery back-up to ensure operation during power outage.

Manual alarm devices (pull stations) are located adjacent to the Facility exit and at entry and exit doors for the main building. The alarms will sound an audible warning signal to employees inside and outside the buildings. All employees are trained in the activation process for the manual alarms.

The alarm system is monitored by an outside third party. The third party will contact the Facility Manager, EC, or designated Emergency Contact during business hours for further direction. After business hours, the third party will first alert the local authorities of the alarm and then notify the Facility Manager and EC.

Internal telephone and radio systems allow communication throughout the Facility for use in notifying employees of a potential or existing emergency. This will be used in conjunction with the alarm system. Because of the relatively small size of the Facility, voice is "capable of providing immediate emergency instruction (voice or signal) to facility personnel" as required at 40 CFR §264.32(a). In addition to the alarm and internal telephone/radio system, the Facility has a public address system (PA) that can be used to notify employees of emergencies or provide instructions. All Facility personnel involved with hazardous waste operations are equipped with a radio that can

transmit and receive signals at all locations within the Facility. The Facility Manager and EC are equipped with cellular phones and can be reached at any time during operating hours. Total plant evacuation is initiated only by an emergency coordinator or the activation of the alarm system. Internal communications concerning all emergency conditions will follow the Contingency Plan in Attachment G.

4.1.2. External Communications

The Facility has land-line telephones and cellular phones issued to the Facility Manager and the EC for use in communicating to entities outside the Facility. These Facility telephones will be used to contact local and state agencies or other entities of emergency conditions. The telephones are located in the office and the laboratory areas within the main building. Emergency phone numbers are posted near the telephone at the exits of the main building.

4.1.3. Emergency Equipment

The Facility maintains various types of emergency equipment including equipment for spill control, small amounts of emergency medical supplies, and PPE, as listed in Table 1. Emergency equipment includes, but is not limited to, the following:

1. Portable fire extinguishers. At least one ABC Dry Chemical Type, minimum 10-pound capacity, ABC fire extinguishers is maintained adjacent to each HWMU. In addition to hand-held A/B/C fire extinguishers, the Facility has 9 fire extinguishers rated B/C for flammable liquid and electrical fires fire extinguishers located at each HWMU. Additional portable fire extinguishers have been placed at strategic locations throughout the Facility. Each is marked by red panels painted on the wall, column, post or other fixture where the fire extinguisher is located. Extinguishers are checked on a quarterly basis, with annual testing and maintenance performed by an outside contractor. The records are maintained in the Facility office by the EC or designee.
2. Spill response material. Spill kits are maintained and located at multiple locations throughout the Facility including but not limited to (1) the loading dock, 2) in the staging area (specially equipped for the material stored in these areas), and 3) the quarantine area in the main building. Additional spill response material is stored in each HWMU. The equipment is inventoried and maintained by the EC or designee.
3. Oil and chemical spill containment and control equipment is located in the main building container storage area and in various areas throughout the Facility. The containment and control equipment including booms and absorbent clay are also located in various locations throughout the Facility. Additional equipment is located in each HWMU. Additional spill response equipment is listed in the Contingency Plan in Attachment G.

4.1.4. Fire and Water Control

The Facility is designed with a 121,000-gallon water tank for exclusive use in fire suppression that was designed to provide a water supply of sufficient and pressure and volume as required by the Rural Metro Fire Department. A six-inch pressurized water line runs from the water tank to the northwest corner of the warehouse building, which services an internal sprinkler system for the warehouse. The main building is equipped with an automatic sprinkler system that was installed when the building was constructed. Fire line connections are provided on the six-inch line to service the HWMUs with fire suppression water. The fire suppression system is inspected quarterly by trained personnel and tested annually by an outside contractor. Fire suppression system testing records are maintained in the Facility office.

In addition to the fire suppression system and the main building sprinkler system, the Facility is protected by conventional ABC fire extinguishers located in the main building and at various other locations on the site. In addition to hand-held A/B/C fire extinguishers, the Facility has nine fire extinguishers rated B/C for flammable liquid and electrical fires. Facility personnel have been trained in fire response by the local fire department. Fire extinguisher locations are shown on Figure 2.

The Facility is a no-smoking facility except in designated area where signage indicates smoking is permitted. AA Sydcol requires a "Safe Work" permit for all welding or other "hot work" that may generate sparks or other sources of ignition. Safe Work permitted activities are only allowed in designated locations on the site and these areas are so marked.

4.1.5. Testing and Maintenance of Equipment

As part of the Facility inspection program, emergency response equipment will be inspected on a weekly basis. These inspections ensure the emergency response equipment will function and ample emergency response supplies will be on hand when needed. In addition to checking the inventory of emergency response supplies, this inspection includes a check of equipment functionality and of testing dates for fire extinguishers and the Facility fire suppression system. AA Sydcol has contracts with suppliers to provide annual inspections and testing of fire extinguishers and the Facility fire suppression system. Should the testing date be approaching, the Facility Manager will be notified to assure the supplier inspection takes place.

The security and alarm systems are inspected on a monthly basis. These inspections include the perimeter fencing and warning signs; the entrance gate and lighting; Facility lighting; the surveillance system and motion sensors; the fire alarm system, the communication system, and building doors and locks. These inspections will include testing of the functionality of item to assure they will work when needed.

All monitoring and laboratory equipment is inspected on a quarterly basis. These inspections include equipment functionality and checking calibration dates. If required, equipment is recalibrated as part of the inspection.

The Facility uses subcontractors to complete the inspections of the fire suppression system and fire extinguishers. A subcontractor will also be used to calibrate laboratory equipment if required.

4.1.6. Access to Communication or Alarm System

All Facility personnel involved with hazardous waste operations are equipped with a radio that can transmit and receive signals at all locations within the Facility. The Facility Manager and EC are equipment with cellular phones and can be reached at any time during operating hours.

Manual alarm devices (pull stations) are located adjacent to the Facility exit and at entry and exit doors for the main building. There are additional alarms located in strategic areas around the site, including at HWMU2 and HWMU3. All employees are trained in the activation process for the manual alarms.

4.2 Aisle Space Requirement

Containment pallets and waste containers are stored in double rows separated by aisles to access containers on either side of each aisle. Aisle widths between double rows of containers or containment pallets are at least 3 feet wider than the width of equipment accessing the aisle with a minimum width of 4 feet, to allowing for access by personnel, emergency equipment, and spill control equipment. All HWMUs have no obstructions around their perimeter, allowing for access for container inspections, fire protection, and spill control from all four sides of each management unit.

4.3 Documentation of Outside Response Arrangements

Arrangements have been made with outside entities to provide assistance in response efforts should an emergency be beyond the capabilities of on-site resources.

4.3.1. Police and Fire Departments

The Facility is located within the jurisdiction of the Yuma County, which will provide municipal services for the Facility and its vicinity. The applicable local authority for emergency response at the Facility is the Yuma County Rural Metro, which will respond from one of its stations in or near the City of Yuma. The Rural Metro Fire Department would generally respond to all fire, release, explosion, medical (paramedic), or other emergency events which require that outside

assistance be brought to the site. AA Sydcol has a subscription with Rural Metro Fire Department under Subscription No. SA36599511.

The Yuma County Sheriff's Department will provide additional municipal services, such as traffic and pedestrian control that may be required during an emergency event. A copy of a letter from AA Sydcol to the Yuma County Sheriff's department provides notification of activities to be conducted at the Facility is included in Appendix E.

4.3.2. Emergency Response Teams

No arrangements with other emergency response entities (such as State emergency response teams, emergency response contractors, or equipment suppliers) due to the size of the Facility and the nature of hazardous waste management activities conducted at the Facility. Such arrangements are not deemed necessary in addition to on-site and Yuma County Fire Department capabilities. However, that does not preclude the utilization of a private emergency response contractor, if judged to be necessary and appropriate for quick response and ability to effectively handle many different situations.

4.3.3. Local Hospitals

The Yuma Regional Medical Center at 2400 South Avenue A in has been contacted and familiarized with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases on site. If new activities change the types and/or severity of potential injuries, the EC will provide the hospital with additional information regarding the new activities.

Copies of the letter to Yuma Regional Medical Center providing notification of Facility activities are included in Appendix E.

4.3.4. Document Agreement Refusal

Sydcol has not received any refusal for arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes, or to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

5.0 PREVENTION PROCEDURES, STRUCTURES, AND EQUIPMENT

Waste shipments entering the Facility are typically directed to the receiving area on the south side of the main building where dock-high loading bays are located. Incoming non-bulk and bulk containers are unloaded from transport vehicles using forklifts or hand conveyance equipment and transported to the Check in Station. Forklifts or other conveyance equipment can drive directly into a truck to unload containers. Once the waste is classified and labeled, it is moved from the Check in Station to the appropriate area within HWMU1, HWMU2, or HWMU3 for storage, consolidation, or shipment offsite. Employees are trained in the proper techniques for moving containers to ensure that the containers are handled in a manner that would not cause the container to rupture or leak.

5.1 Unloading Procedures

Possible hazards in loading and unloading containers include puncturing containers; tipping containers during transfer; releases from equipment used to transfer from one container to another; and placing a container in an area with incompatible wastes.

Container unloading, consolidation, and loading activities are performed in designated areas. Typically, containers are moved between the check-in station and HWMU1, HWMU2, HWMU3 and HWMU4 via forklift, using pallets or drum grabbers, or using other methods, such as drum dollies, hand trucks, or by tilting and rolling. Containers may also occasionally be transported on trailers pulled by forklifts. All equipment used to move containers are specialized equipment designed for that use so containers are not damaged. All containers are labeled or marked with information on where they are to be stored and/or processed.

Containers that are found to be leaking when received at the Facility or at another stage of processing will be placed immediately in a drum over-pack or transferred into another container. Absorbent is used to collect any leaked material from the area of the release and containerized and incorporated into processing at the Facility.

Tanker truck loading is performed within HWMU2 and HWMU3. Waste materials are transferred to and from tanker trucks using quick-couple hoses, valves, and pumps. The pump may be on the tanker truck. All hose-to-hose and hose-to truck couplings are cam-lock couplings, which will be secured in portion using duct tape and/or another means to minimize the potential for decoupling during waste transfer activities. Drip pans will be positioned beneath each coupling to collect any liquid spills during attachment and detachment of the hoses. If a hose is found to be leaking during use, the pump will be shut off and the hose will be repaired or removed from service and replaced.

All loading and unloading activities will be supervised by Facility personnel. Spills will be contained with absorbent material and free liquids will be pumped into containers. All resulting materials from cleanup, including waste, waste absorbent, and PPE, will be incorporated into processing at the Facility and will be containerized and disposed with similar and compatible material generated at the Facility.

5.2 Runoff Prevention

The hazardous waste storage and processing activities at the Facility are conducted in otherwise contained areas. The Facility is located in a relatively flat area of Yuma County and has been graded to drain to low areas in the interior portions of the site. A perimeter berm contains stormwater runoff on site. All HWMUs are constructed above grade to prevent stormwater from running into the containment area. This will mitigate the run-off of hazardous waste from the Facility. An engineered system of retention basins is located along the perimeter of the site to retain stormwater runoff generated on-site. General drainage features for the site are shown in Figure 2.

The HWMU1, HWMU2, and HWMU3 storage areas are designed to provide secondary containment. Each of these HWMUs have been constructed above the surrounding grade to eliminate run-on from areas outside the units. Runoff from these units is prevented as they have sloped floors that drain to a low point on one side of each unit.

Stormwater that collects in the low point areas of HWMU1, HWMU2, and HWMU3 in sufficient quantity to be removed by pumping will be pumped from the containment sumps into totes for temporary holding pending waste characterization. Transfer of stormwater to totes will begin within 24 hours of precipitation accumulating in a given HWMU low point in quantities sufficient to pump into a container. Totes containing stormwater collected from HWMUs will be held within the containment area of the same HWMU and labelled “containment stormwater” and “waste characterization pending”.

Rainwater will be sampled for waste characterization within 10 days of accumulating quantities of rainwater sufficient to fill one or more totes in a given HWMU. A representative sample of the rainwater from each HWMU will be collected consistent with the sampling methods described in the WAP and analyzed for eight RCRA metals by EPA Method 6010C, standard VOCs by EPA Method 8260B, standard SVOCs by EPA method 8270C, and organo-chlorine pesticides by EPA Method 8081B using an Arizona-certified environmental laboratory following internal QA/QC protocols consistent with their certification. Analytical results will be compared to toxicity characteristics listed in 40 CFR 261.24 and contained-in thresholds established by permit as the

universal treatment standards for wastewater promulgated in the EPA's land disposal restrictions in 40 CFR 268.48.

Rainwater that exhibits a toxicity characteristic or exceeds a presumptive contained-in concentration will be profiled for disposal as a hazardous waste. Rainwater with concentrations of constituents in excess of presumptive contained-in thresholds will be presumed to be a listed hazardous waste and profiled for disposal. Rainwater that contains concentrations of compounds below toxicity characteristic levels and below presumptive contained-in thresholds will be profiled for disposal as a non-hazardous solid waste. Additional compound-specific contained-in thresholds may be submitted to ADEQ for consideration as a contained-in quantity on a case-by-case basis. Sydcol may apply for an Aquifer Protection Permit from ADEQ to utilize clean stormwater for dust control or other applications at the Facility.

Depending on the analytical test results, stormwater could be used for dust control or pumped to unpaved areas on the site for evaporation (uncontaminated stormwater) or be pumped into containers and processed with other waste materials at the Facility as either hazardous or non-hazardous liquid waste.

Rainwater will be removed from any containment area containing RCRA waste in as timely a manner as necessary to prevent overflow of the containment area. If any RCRA waste is present, accumulated precipitation in the tank farm will be removed within 24 hours after results of the testing are available.

5.3 Protection of Water Supplies

The primary protection of water supplies is the storage of all liquid hazardous wastes within secondary containment so as to provide a physical barrier between liquid hazardous wastes and the public water supply. Hazardous wastes are staged, stored, and processed in management units that are constructed with concrete floors. HWMU1, HWMU2, and HWMU3 have containment curbs on three sides with sloped floor surfaces to low area along one of the curbed sides. HWMU1 and HWMU2 are constructed with a 60-mil HDPE geomembrane liner underlying the concrete pad with the liner extended up the sidewalls of the pad. HWMUs have chemicals resistant sealant and joint compounds applied to the concrete surfaces to prevent migration of wastes through the concrete. During daily inspection of these areas, spills or leaks of liquid wastes will be identified quickly and will be immediately cleaned up to prevent migration of wastes into the concrete or underlying soils. By preventing the migration of hazardous waste constituents into site soils, the possibility of impacting a water supply is negligible.

In the unlikely event that wastes from a spill in one of the management units migrates beyond the concrete containment curbs, procedures followed at the Facility are designed to minimize the

impact of such an incident. Containers and containment areas are inspected daily so such a release could be addressed quickly to control the extent of the release. Facility personnel will immediately contain such a release and begin efforts to containerize any free liquids as soon as practical. Following removal of the waste material, remedial activities will begin in accordance with the procedures outline in the Contingency Plan in Attachment G. A Watts Series LF009 1.5-inch reduced pressure zone assembly backflow prevention valve has been installed on the water service line connecting the Facility to public water supplies upstream of all HWMUs.

5.4 Equipment and Power Failure

A power failure will not significantly affect waste processing activities at the Facility. Equipment used to load, unload, and transport containers within the Facility are either fueled by propane gas (such as the forklifts) or are manually operated. Should a power failure occur, waste processing activities will be limited to those which can be conducted using non-electrical equipment.

A power failure will impact consolidation activities at the Facility. Should a power failure occur during pumping activities using an electrically driven pump, the pump power switch will be placed in the off position and the appropriate valves will be closed to contain waste materials in the transfer hoses until power is available. Since air driven pumps are generally operated with an electrical air compressor, they will not operate during a power failure. Some tanker trucks are equipped with pumps that are self-powered and these will not be affected by a power failure at the Facility.

If pump failure occurs during waste transfer, the pump power switch will be moved to the off position and valves at both ends of the transfer hose will be turned to the closed position. If there are bleed valves in the pump, they will be used to drain the content of the pump into the container being pumped into. These containers will be marked with a new number generated by the Facility database for tracking. The pump will be decontaminated and then sent out for repairs. Should a replacement pump be available, it will be placed in position with the containers and hoses, valves will be opened, and pumping operations will resume. If a replacement pump is not immediately available, the hoses will be drained into containers and decontaminated. The containers will be re-labeled as necessary for tracking.

The alarm system at the Facility contains a battery back-up power source. The battery charge is monitored within the alarm system and displays a warning when battery charge is low. The security and alarm system inspection is conducted on a monthly basis and will be sufficient to identify deficient battery charge before batter power is fully drained. The Facilities fire suppression system has a backup power supply. A contractor performs an inspection of the alarm system annually and this includes checking the status of the backup battery source.

5.5 Personal Protection Procedures

The Facility has implemented a personnel protection program to prevent undue exposure of personnel to hazardous waste using engineering controls and administrative measures. Engineering controls include the use of PPE; requiring the use of DOT approved containers; use of specialized drum handling equipment; and providing safety showers and eyewash units at strategic locations throughout the Facility. Administrative measures include training for hazardous waste operators and restrictions on Facility access.

PPE is to be used during all waste processing activities conducted at the Facility, including drum sampling, loading/unloading, spill cleanup, or waste transfer. PPE is to include safety glasses with side shields or face shields, hard hats, steel-toed boots; individual respiratory protection devices and appropriate cartridges; chemically resistant gloves; and coveralls and/or aprons. Additional PPE maintained at the Facility includes supplied air respirators and full body protective suits that are acid and solvent resistant.

All visitors must sign in at the main building office and wear a hard hat and safety glasses and be accompanied by a Facility employee if entering the yard or any management unit.

5.6 Procedures to Minimize Releases to the Atmosphere

Waste processing activities are conducted at the Facility in a manner that minimizes releases to the atmosphere. The primary pollutants are particulate emissions and vapor emissions. Particulate emissions are generated during vehicular travel on unpaved areas of the site and from consolidation of solid non-liquid wastes. Engineering controls used to minimize these emissions include limited vehicular traffic to posted speeds of 15 mph or less, periodic application of moisture or dust control applications to unpaved surfaces, and controlling the rate at which solid waste materials are transferred from one container to another. A six-inch layer of gravel has been placed at the Facility entrance to minimize trackout from outgoing traffic. Bulking of solid materials into rolloff bins is not performed when wind conditions are such that the bulking transfer cannot be completed without debris being windblown from the transfer.

Vapor emissions are limited by keeping all containers closed when not in use. Liquid wastes are typically transferred by pumping the waste from one container to another. While liquid is removed from the container, air will flow into it replacing the liquid volume, which will minimize the vapor emissions. Tanker trucks used for consolidation of liquid waste also have vents that are equipped with back pressure devices to prevent emissions.

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6.0 PREVENTION OF REACTION OF IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE

AA Sydcol uses a combination of engineering controls and administration procedures at the Facility to classify and properly isolate ignitable and reactive wastes during storage and processing.

6.1 General Precautions of Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste

All waste accepted at the Facility is classified at the Check-in Station prior to processing in accordance with procedures described in the Waste Analysis Plan is Attachment C. The classification process identifies wastes that are reactive, what are the reactants, and what other wastes they may be compatible with. Following classification, the wastes are transferred to an isolation area with similar and compatible waste. During consolidation, reactive wastes are carefully monitored to assure they are not mixed with an incompatible material. Facility procedures to isolate reactive wastes in specified storage areas and limit consolidation activities to materials within the isolation area will minimize hazards in processing reactive materials.

6.2 Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes

The primary source of ignition to waste materials in containers stored and processed at the Facility are external to the container. All HWMUs are located greater than 50 feet from the perimeter fence, providing a buffer zone from ignition source outside the Facility. The Facility is a no-smoking facility except in designated area where signage indicates smoking is permitted. AA Sydcol requires a "Safe Work" permit for all welding or other "hot work" that may generate sparks or other sources of ignition. Safe Work permitted activities are only allowed in designated locations on the site and these areas are so marked.

Only Hazardous Waste Technicians trained in hazardous waste operations are allowed to handle waste on site, including ignitable and reactive waste. Wastes on site are sampled and tested pursuant to the WAP contained in the Facility's RCRA Permit application, Attachment C. As described in the WAP, waste is not handled until an appropriate compatibility evaluation has been conducted. That evaluation varies depending on waste type, and where and how the waste is to be handled.

Hazardous waste stored and processed at the Facility is at ambient temperature. Waste materials that are thermally unstable at the ambient temperatures experienced at the Facility are not acceptable and will be rejected during the profiling process. All containers used at the Facility are waterproof so they can be placed in HWMU1, HWMU2, or HWMU3

Equipment used to transfer ignitable or reactive wastes from one container to another are spark and explosion proof. The transfer lines, including containers, pumps, hoses and valves, will be grounded to prevent static sparks when in use. Proper grounding for the transfer line will be provided by using a grounding wire with spring clamps to a grounding bus or copper grounding rod driven a minimum of 8 feet into the ground. When pumping liquids to/from a container from/to a tanker, the tanker and container will be bonded to prevent a static charge from being developed.

6.3 Documentation of Adequacy of Procedures

Equipment and operating practices will follow NFPA standards for the transfer of ignitable wastes, including NFPA 69 *Standard on Explosion Prevention Systems*, NFPA 430 *Code for the Storage of Liquid and Solid Oxidizers*, NFPA 484 *Standard for Combustible Metals*, NFPA 654 *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Particulate Solids*, and NFPA 30 *Flammable and Combustible Liquids Code*. The Training Manager will be responsible for incorporating relevant materials in these standards in personnel training for methods of materials consolidation and bulking techniques. A copy of these standards will be maintained at the Facility in the administrative office area.

6.4 Management of Ignitable or Reactive Wastes in Containers

All hazardous waste containers are stored and processed within the four management units, HWMU1, HWMU2, or HWMU3. Each of these units are located at least 50 feet from perimeter fencing around the Facility. Containers are never stacked taller than the equivalent of two 330-gallon totes; with smaller containers always placed on larger containers. The only ignition sources with the management units are electrical outlets in HWMU1. All electrical outlets in HWMU1 have explosion-proof receptacles.

Container handling procedures used at the Facility and documented in the Container Management Plan include precautions to prevent accidental fire or explosion of ignitable or reactive hazardous wastes. These procedures dictate proper container labeling, stacking, and sealing; storage isolation using dikes or other barriers; placement of warning signs; and an inspection schedule.

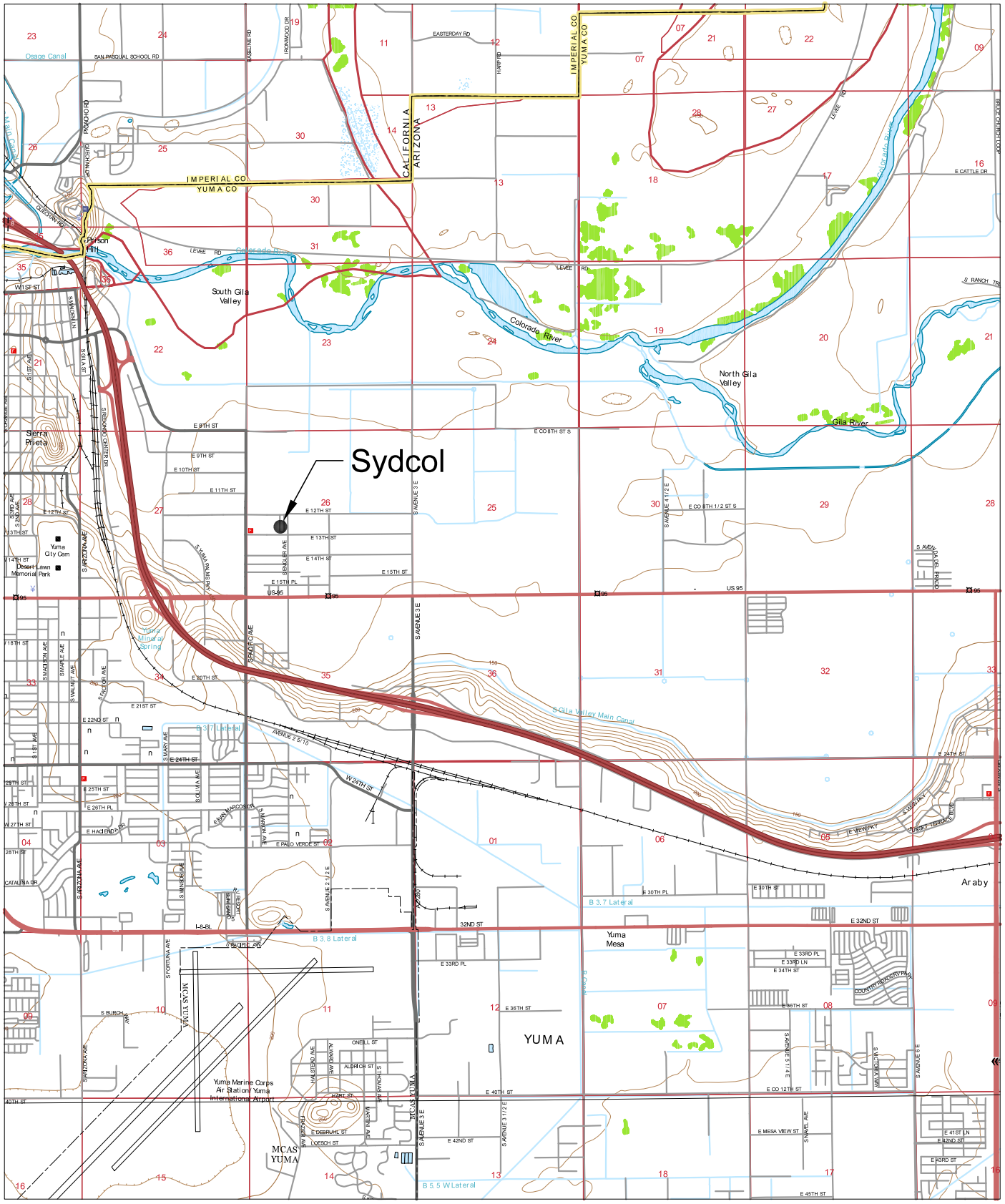
Containers with incompatible wastes are stored and processed in separate and isolated areas within the management units consistent with the Container Management Plan. Berms, walls, containment pallets, or other appropriate means are used to isolate incompatible wastes. Since lab packs provide secondary containment, lab packs with incompatible wastes may be isolated by aisle space separation.

TABLE

Table 1
List of Safety, Emergency, and Monitoring Equipment

Item/Description	Capability	Number	Storage Area
Rubber Gloves	Hand Protection	20	Warehouse, office area
Ear Plugs	Hearing Protection	100	Warehouse, office area
Safety Glasses & Shields	Eye Protection	10	Office area
Hard Hats	Head Protection	12	Office area
Respirators	Respiratory Protection	10	Office area
Disposable Tyveks (coveralls)	Skin Protection	10	Office area
Safety Shoes	Foot Protection	4	Office area
Fire Extinguishers	Fire Protection	9	All HWMUs, office area
Medical Supplies	Injured Personnel	1	Office area
Shovels	Contaminated Material Movement	5	Warehouse, office area
Absorbent Brooms (10’ x 8”)	Floating Contaminant Absorption	5	All HWMUs, office area
Absorbent Pillows (18” x 8”)	Floating Contaminant Absorption	5	All HWMUs, office area
Absorbent Pads (3/8 x17”x\19”)	Floating Contaminant Absorption	5	All HWMUs, office area
Absorbent Rolls (144’ x 38”)	Floating Contaminant Absorption	5	All HWMUs, office area
Oil-Dry Absorbent (~6,000 lbs.)	Contaminant absorption	5	All HWMUs, office area
Two-Way Radio Base Station	Communication	1	Office area
Two-Way Radios	Communication	8	All HWMUs, office area
Telephone System	Communication	1	Warehouse, office area
Portable pumps	Consolidation	4	Warehouse, office area
Hoses and Valves	Consolidation	4	Warehouse, office area
Decon Kits	Decontamination	2	Warehouse, office area
Hand Scoops	Clean up/Consolidation	10	All HWMUs, office area
Photoionization Detector	Monitoring	1	Office area
Multi Gas Meter (O2 and LEL)	Monitoring	1	Office area
Compatibility Bucket	Waste Analysis	1	Office area
Glass Sampling Tubes	Waste Analysis	20	Office area
Windsock	Wind direction, relative strength	1	East property boundary

FIGURES


Sydcol
IMPERIAL CO
YUMA CO
CALIFORNIA
ARIZONA
Colorado River
Gila River
South Gila Valley
North Gila Valley
Sierra Prieta
Yuma City Cem
Desert Lawn Memorial Park
Yuma Mineral Spring
S Gila Valley Main Canal
B 3.7 Lateral
B 3.8 Lateral
B 5.5 W Lateral
Yuma Mesa
YUMA
Araby
Yuma Marine Corps Air Station/Yuma International Airport
MCAS YUMA
US 95
I-8-BL
E 8TH ST
E 9TH ST
E 10TH ST
E 11TH ST
E 12TH ST
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E 15TH ST
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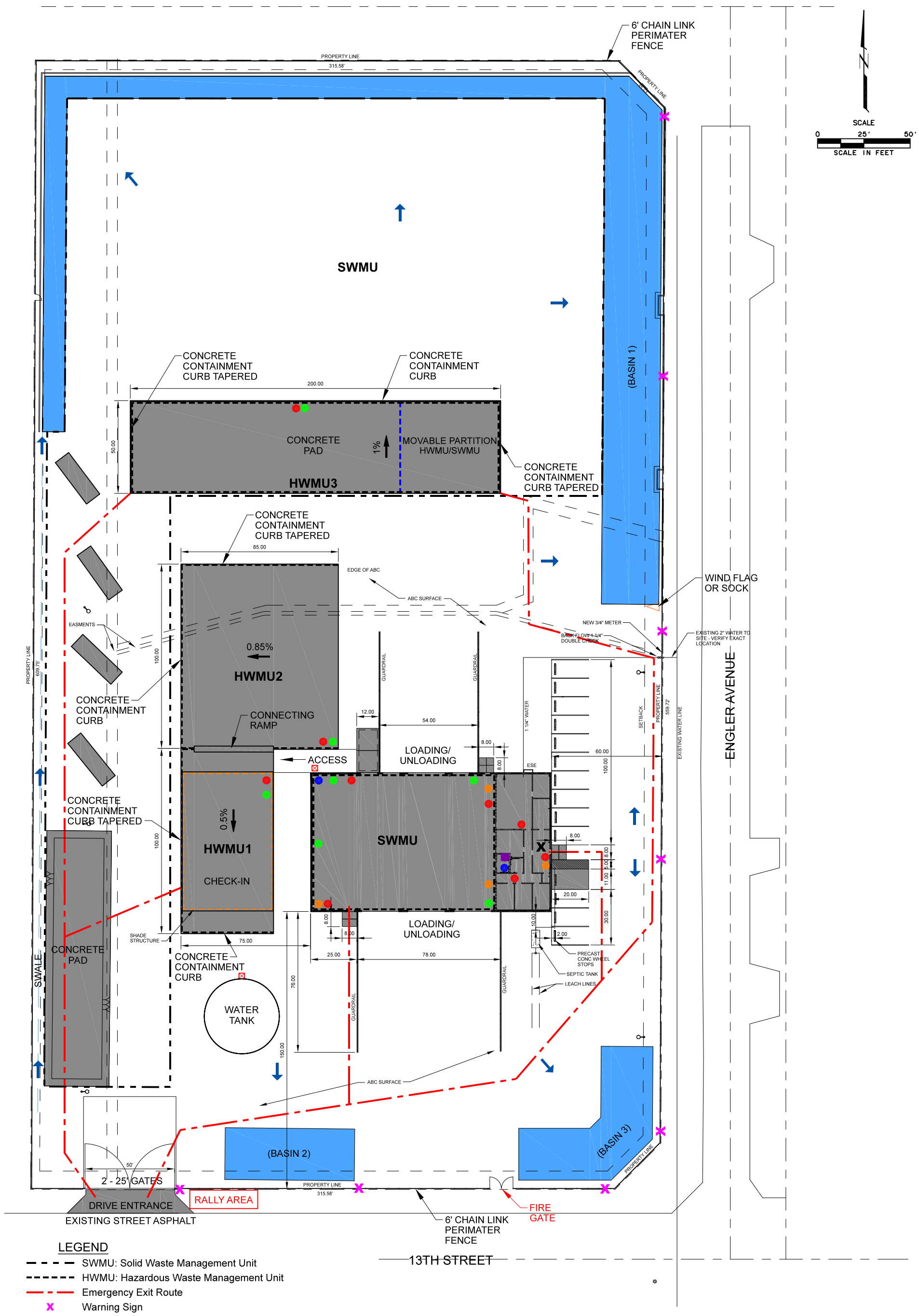
E CO 12TH ST
S AVENUE 3 E
S AVENUE 2 1/2 E
S AVENUE 3 1/2 E
S AVENUE 5 1/2 E
S AVENUE 1 E
S ARIZONA AVE
S MAIN ST
S GILA ST
S FORTUNA AVE
S MARY AVE
S COLMA AVE
S MCKEEN AVE
S MAPLE AVE
S WALNUT AVE
S PACIFIC AVE
S SENDER AVE
S MCLEAN AVE
S MCCAS YUMA
S MCTOWNSEND AVE
S MCTOWNSEND PL
S MCTOWNSEND LN
S MCTOWNSEND WAY
S MCTOWNSEND CT
S MCTOWNSEND TER
S MCTOWNSEND RD
S MCTOWNSEND PKWY
S MCTOWNSEND BLVD



LEGEND

- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Emergency Exit Route
- Warning Sign
- Spill Kit
- Fire Alarm
- Fire Extinguisher (ABC)
- Eyewash
- Shower
- Facility Report
- Fire Hose Connection
- Concrete Surface
- Drainage Direction
- Drainage Basin

Figure 2
SITE PLAN
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: SYDCOL02
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services

Appendix A.

Inspection Log

AA SYDCOL, LLC.
INSPECTION LOG

DATE	TIME	INSPECTOR NAME	INSPECTOR INITIALS	INSPECTION TYPE	ISSUE IDENTIFIED (use one line per issue)	DATE ISSUE RESOLVED

Appendix B

Daily Inspection Report

AA Sydcol, LLC
Daily Inspection Report

INSPECTOR NAME: _____ DATE OF INSPECTION _____

TIME OF INSPECTION _____

ITEMS INSPECTED:

HWMU1	Containers	☐	Containment Pallets	☐ Surface Sealant	☐
	Labels	☐	Containment Structures	☐ Spills/Leaks	☐
			Aisle Space	☐	
HWMU2	Containers	☐	Containment berms	☐ Surface Sealant	☐
	Labels	☐	Aisle Space	☐ Spills/Leaks	☐
HWMU3	Containers	☐	Containment berms	☐ Surface Sealant	☐
	Labels	☐	Aisle Space	☐ Spills/Leaks	☐

ISSUES IDENTIFIED

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REPAIRS AND/OR REMEDIAL WORK PERFORMED

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FINAL REPAIR/RESOLUTION OF OUTSTANDING ISSUE

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INSPECTOR SIGNATURE _____

Appendix C

Weekly/Monthly Inspection Report

AA Sydcol, LLC
Weekly/Monthly Inspection Report

INSPECTION TYPE: □ Weekly □ Monthly DATE OF INSPECTION _____

INSPECTOR NAME: _____ TIME OF INSPECTION _____

ITEMS INSPECTED WEEKLY:

EQUIPMENT	PPE	☐	Fire Extinguishers	☐	Eye Wash	☐
	Pumps	☐	Hoses	☐	Forklifts	☐
	Monitoring Equipment	☐	Decon Equipment	☐	Overpacks	☐
	Lab Equipment	☐				
SUPPLIES	Respirator Cartridges	☐	Gloves	☐	Tyvek Suits	☐
	Containment Supplies	☐	First Aid Supplies	☐	Decon Supplies	☐
	Lab Supplies	☐	Spill Response Kits	☐		
COMMUNICATIONS	Radios	☐	Telephoned	☐		
FIRE SUPPRESSION	Gauges/seals	☐	Extinguishers	☐		

ITEMS INSPECTED MONTHLY:

SECURITY	Fencing	☐	Warning Signs	☐	Yard Lighting	☐
	Entry Gate	☐	Gate Lighting	☐	Gate Camera	☐
	Surveillance System	☐	Motion Sensors	☐		
	Radios	☐				

ISSUES IDENTIFIED

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REPAIRS AND/OR REMEDIAL WORK PERFORMED

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_____
_____
_____
_____
_____

FINAL REPAIR/RESOLUTION OF OUTSTANDING ISSUE

_____
_____
_____
_____
_____

INSPECTOR SIGNATURE _____

Appendix D

Quarterly Inspection Report

AA Sydcol, LLC
Quarterly Inspection Report

INSPECTOR NAME: _____ DATE OF INSPECTION _____

TIME OF INSPECTION _____

ITEMS INSPECTED:			**COMMENTS:**
EQUIPMENT	PID Monitor	☐	
	FID Monitor	☐	
	Lab Equipment	☐	
	Lab Supplies	☐	
FIRE SUPPRESSION	Water flow alarms	☐	
	Supervisory signals	☐	
	Control valves	☐	
	Hydraulic nameplates	☐	
	Signage	☐	
	Hand wheels	☐	
	Fire Dept. connections	☐	

ISSUES IDENTIFIED

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REPAIRS AND/OR REMEDIAL WORK PERFORMED

_____

_____

_____

_____

_____

_____

_____

FINAL REPAIR/RESOLUTION OF OUTSTANDING ISSUE

_____

_____

_____

_____

_____

INSPECTOR SIGNATURE: _____

Appendix E

Notice to Authorities

AA Sydcol, LLC
Site: 2264 E. 13th Street, Yuma, Az 85365 • Mailing: 3155 Golden Willow Ct., Yorba Linda, Ca 92886
Phone: 928-783-3676 • Fax: 928-783-1766
www.sydcol.com

November 12, 2019

Yuma County Sheriff Department
141 S. 3rd Avenue
Yuma, AZ 85364

Subject: Hazardous waste facility operations

To Whom it May Concern:

AA Sydcol, LLC is in the process of preparing a permit application to operate a hazardous waste facility located at 2264 E. 13th Street on heavy industrial-zoned property in unincorporated Yuma County, Arizona. The operation will be managed consistent with Federal and State regulations for hazardous waste facilities and subject to permit requirements issued by the Arizona Department of Environmental Quality. It is estimated that the facility will handle 2,300 tons of hazardous waste each month, primarily wastes that are hazardous due to toxic characteristics but also corrosive, flammable, and reactive hazardous wastes. Operations at the facility will include receipt of containers of hazardous waste and consolidation of hazardous wastes for transport off-site for disposal at approved hazardous waste disposal facilities. We will not be receiving or managing radioactive wastes, biohazardous medical wastes, Class 1 explosives, and industry-specific hazardous wastes.

Attached is a site location map and site plan that illustrate the location where hazardous waste management operations will occur. We would like to make arrangements to meet with your representatives and review the layout of the facility, the properties of hazardous waste handled and the associated hazards, places where facility personnel will normally be working, access for entrance to and within the facility, and possible evacuation routes. We would also like to discuss any agreements that are necessary for emergency services from your organization.

Please contact me at your earliest convenience to make arrangements to review our operations with your staff.

Sincerely,

Charles M. Templer
Managing Member

AA Sydcol, LLC
Site: 2264 E. 13th Street, Yuma, Az 85365 • Mailing: 3155 Golden Willow Ct., Yorba Linda, Ca 92886
Phone: 928-783-3676 • Fax: 928-783-1766
www.sydcol.com

November 12, 2019

Rural Metro Fire Department
2029 S. Arizona Avenue
Yuma, AZ 85364

Subject: Hazardous waste facility operations

To Whom it May Concern:

AA Sydcol, LLC is in the process of preparing a permit application to operate a hazardous waste facility located at 2264 E. 13th Street on heavy industrial-zoned property in unincorporated Yuma County, Arizona. The operation will be managed consistent with Federal and State regulations for hazardous waste facilities and subject to permit requirements issued by the Arizona Department of Environmental Quality. It is estimated that the facility will handle 2,300 tons of hazardous waste each month, primarily wastes that are hazardous due to toxic characteristics but also corrosive, flammable, and reactive hazardous wastes. Operations at the facility will include receipt of containers of hazardous waste and consolidation of hazardous wastes for transport off-site for disposal at approved hazardous waste disposal facilities. We will not be receiving or managing radioactive wastes, biohazardous medical wastes, Class 1 explosives, and industry-specific hazardous wastes.

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Please contact me at your earliest convenience to make arrangements to review our operations with your staff.

Sincerely,

Charles M. Templer
Managing Member

AA Sydcol, LLC
Site: 2264 E. 13th Street, Yuma, Az 85365 • Mailing: 3155 Golden Willow Ct., Yorba Linda, Ca 92886
Phone: 928-783-3676 • Fax: 928-783-1766
www.sydcol.com

November 12, 2019

Yuma Regional Medical
2400 S. Avenue A
Yuma, AZ 85364

Subject: Hazardous waste facility operations

To Whom it May Concern:

AA Sydcol, LLC is in the process of preparing a permit application to operate a hazardous waste facility located at 2264 E. 13th Street on heavy industrial-zoned property in unincorporated Yuma County, Arizona. The operation will be managed consistent with Federal and State regulations for hazardous waste facilities and subject to permit requirements issued by the Arizona Department of Environmental Quality. It is estimated that the facility will handle 2,300 tons of hazardous waste each month, primarily wastes that are hazardous due to toxic characteristics but also corrosive, flammable, and reactive hazardous wastes. Operations at the facility will include receipt of containers of hazardous waste and consolidation of hazardous wastes for transport off-site for disposal at approved hazardous waste disposal facilities. We will not be receiving or managing radioactive wastes, biohazardous medical wastes, Class 1 explosives, and industry-specific hazardous wastes.

Attached is a site location map and site plan that illustrate the location where hazardous waste management operations will occur. We would like to make arrangements to meet with your representatives and review the layout of the facility, the properties of hazardous waste handled and the associated hazards, places where facility personnel will normally be working, access for entrance to and within the facility, and possible evacuation routes. We would also like to discuss any agreements that are necessary for emergency services from your organization.

Please contact me at your earliest convenience to make arrangements to review our operations with your staff.

Sincerely,

Charles M. Templer
Managing Member

ATTACHMENT G

AA SYDCOL, LLC
CONTINGENCY PLAN
FOR RCRA HAZARDOUS WASTES
[270.A (270.14(b)(7); 264.d]

July 13, 2021

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A. Hazardous Waste Operations Notices
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1.0 INTRODUCTION

1.1 Contingency Plan Regulations

This Contingency Plan for the AA Sydcol, LLC Facility has been prepared in support of the AA Sydcol RCRA Part B permit application. This CP was developed in accordance with the requirements of 40 CFR 264 Subpart D in support of the AA Sydcol RCRA Part B permit application. A list of acronyms and a definition of key terms used in this description is provided with General Information provided in Appendix A of Attachment A of the RCRA Part B permit application.

1.2 Contingency Plan Purpose

This CP describes the methods, procedures, and equipment that will be used to respond to fires, explosions, or unplanned releases of hazardous wastes or hazardous waste constituents at the Facility and to document the response efforts. The plan includes an Evacuation Plan should conditions at the facility require evacuation of all or part of the Facility.

The CP will also serve as an employee training manual and handbook for prevention of and response to emergency situations at the facility and documentation of emergency responses for regulatory compliance.

A copy of this CP (final permitted version) will be kept on file at the Facility and will be made available for inspection and will be issued to local agencies as indication in Section 10.0.

1.3 Contingency Plan Requirements

This CP identifies and describes the following requirements:

- The actions to be taken in response to fires, explosions, natural disasters, or unplanned sudden or non-sudden releases of hazardous wastes or hazardous waste constituents to the air, soil, or surface water at the Facility;
- Arrangements made with local governmental agencies (police, fire, state and local emergency response teams) and other entities (hospitals, contractors) to coordinate emergency response actions;
- Names, addresses, and phone numbers for all persons qualified to act as emergency coordinators, including a primary and alternate emergency coordinators;
- A list of emergency equipment at the facility and their location and capabilities (Section 6.0);
- An Evacuation Plan with a map of evacuation routes (Figure 2); and
- A map to the nearest hospital (Figure 3).

1.4 Amendments to the Plan

The plan will be reviewed and amended, if necessary, annually or when one or more of the following occur:

- The Facility permit is revised;

- A major change in material usage, production, or storage; or changes in facility design or construction which may materially increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes in the responses necessary in the event of an emergency;
- The plan fails in an emergency;
- A major change in the amount or changes in the types of materials received, generated, or stored at the Facility;
- A change in the facility emergency coordinators; or
- A substantial change in the emergency equipment at the facility.

If no amendment to the plan is necessary based on the annual review, it will be documented in the Record of Plan Revision. Revisions to the plan will be distributed to those individuals and groups listed in section 10.0. Each revision will bear the date of revision. The updated pages will be inserted in the proper location within the plan and the obsolete pages will be discarded. The holder of the plan is to record the receipt of each revision in the Record of Plan Revisions.

2.0 FACILITY INFORMATION

2.1 General Facility Information

Facility Name: AA Sydcol, LLC
Primary Industrial Activity: Hazardous waste management facility NAICS Code(s) – 562112, 484230
Owner/Operator: Syd-Cole Properties, LLC/AA Sydcol, LLC
Physical Location: 2264 East 13th Street. Yuma, AZ 85365
Latitude/Longitude: 32° 42' 18.20" N, 114° 35' 42.26" W
Mailing Address: 2264 East 13th Street Yuma, AZ 85365
Primary Contact Person: Charles M. Templer (928) 783-3676 **Alternate Contact Person:** Juvi Remitio (928) 210-7077

2.2 Facility Location

The Facility is a hazardous waste transfer facility located at 2264 E. 13th Street, Yuma, Arizona 85365, at Latitude 32º 42'18.20 N and Longitude 114 º 35' 42.26" W (the Site). A site location map is included as Figure 1. The Facility intends to accept hazardous waste from off-site generators and will generate hazardous waste from the process of handling off-site wastes. Many of the characteristic and listed hazardous wastes from 40 CFR 261, Subparts C and D are likely to be present in wastes handled at the Facility.

2.3 Facility Operations

The Facility will consolidate, bulk, repackage, and store a variety of hazardous and non-hazardous wastes for shipment to approved off-site reuse, treatment, and/or disposal facilities, fuel blenders or wastewater treatment plants. Wastes will typically be transported in tankers, roll-off bins and/or containers (e.g. 55-gallon drums, totes) and will be liquid, semisolid, and/or solid in nature. Generators, or customers, utilizing the Facility will include commercial waste generators, industrial waste generators, LQGs, SQGs, and VSQGs of hazardous waste. Wastes will be received from

generators or through third-party waste brokers under contract with hazardous and non-hazardous waste generators.

2.4 Facility Description

The Facility consists of a 4.75-acre fenced lot with a main building, two concrete pads, and a water tank for fire control. The main building is a metal-frame structure subdivided into separate segregation areas based on hazard classes, shipping and receiving loading docks, a warehousing area for checking in, managing and storing hazardous waste, non-conforming (quarantine) areas, a laboratory, an office, and an emergency eyewash and shower area. The two concrete pads are also used as to manage and store hazardous waste.

Types of acceptable hazardous waste could include flammable and combustible materials (such as oils, waste fuels, etc.), corrosives, contaminated soils and metal-containing filter cake, and other similar bulk or containerized materials classified as RCRA hazardous waste. A site plan of the Facility is provided in Figure 2.

2.5 Hazardous Waste Management Units

There are three designated HWMUs at the Facility; a concrete pad with shade structure adjacent to and on the west side of the main building (HWMU1), a large concrete pad northwest of the main building and north of HWMU1 (HWMU2), and a concrete pad north of the warehouse area (HWMU3). Temporary storage of hazardous wastes in transport may be present in tanks and containers on trucks in the designated SWMU. All HWMUs are designed and operated to accommodate segregated hazardous waste to meet the special requirements for ignitable, reactive, and incompatible waste. The Facility is constructed and maintained to take precautions to prevent adverse reactions of the received hazardous wastes such as:

1. Generating extreme heat or pressure, fire or explosions, or violent reactions;
2. Producing uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
3. Producing uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; or
4. Damaging the structural integrity of the container or the Facility.

The Facility will carefully manage mixtures of hazardous wastes to prevent undesirable or uncontrolled reactions. During the waste acceptance process, the Facility will inspect incoming loads, and will review relevant data (such as profile sheets, LDRs, manifests, and laboratory results) to determine the hazard class of the waste. The Facility will manage the waste consistent with its identified hazard class for storage and/or transportation.

Hazardous wastes classified as highly toxic chemicals will not be stored on site in excess of threshold quantities specified in 40 CFR 1910.119 Appendix A. Segregation of waste codes and the acceptable waste codes for each of the HWMUs are listed in Table 1.

Once the hazard characteristics of a waste are identified the waste material is transferred to the appropriate HWMU. The HWMUs have hazard class areas for ignitable, corrosive, toxic, and reactive wastes. These areas are separated by adequate aisle space, berms, catch basins or other physical barriers that prevent a reaction caused by mixing potentially incompatible wastes.

Ignitable or reactive RCRA hazardous waste are separated and protected from sources of ignition or reaction. Smoking at the facility is limited to specially designated areas and "No Smoking" signs are conspicuously placed throughout the Facility including, but not limited to entrances. Ignitable or reactive wastes in containers are stored at least 50 feet from the property line.

2.6 Acceptable Wastes

The waste streams accepted at the Facility will generally include characteristic wastes (D wastes) and/or listed wastes (F, P, and U waste), used oil, and universal waste (such as batteries, mercury-containing equipment, mercury-containing lamps/bulbs, and certain pesticides). Listed below are some examples of the types of waste received at the Facility:

1. Liquid paint, thinners, fuels, resins;
2. Alkaline sludge;
3. Alkaline liquid;
4. Mixed organic solvents;
5. Spent activated carbon;
6. Paint sludge, adhesives, resins;
7. Filter cake sludge;
8. Mercury batteries for mercury consolidation;
9. Halogenated organic solvents;
10. Soil and absorbent with organics;
11. Inorganic solid debris;
12. Nickel cadmium batteries;
13. Lead shot and wheel weights;
14. Automobile batteries;
15. Solid and liquid pesticides;
16. Rags and debris;
17. Acids with organics;
18. Mineral/organic acid liquid; and
19. Poison and flammable aerosols.

Hazardous waste codes to be accepted at the Facility are listed in Table 1.

2.7 Unacceptable Wastes

Waste streams prohibited from acceptance at the Facility include:

1. Polychlorinated biphenyls of a type or level regulated by the Toxic Substances Control Act

(TSCA) (see 40 CFR Part 761), unless exempted, excluded or otherwise authorized pursuant to TSCA regulations (i.e. PCB waste in quantities greater than 500 gallons at concentrations greater than 50 parts per million (PPM);

2. Mixed Waste (wastes that contain both a hazardous component regulated under Subtitle C of RCRA and a radioactive component consisting of source, special nuclear, or byproduct material regulated under the Atomic Energy Act);
3. Department of Transportation (DOT) "Class 1" Explosives as defined in 49 CFR 173.50 and Forbidden Explosives as defined in 49 CFR 173.54;
4. Biohazardous Medical Waste as defined by AAC R 18-13-1401;
5. K-Listed Industrial Specific wastes;
6. F-Listed Dioxin-containing wastes;
7. Lithium-ion batteries.

3.0 EMERGENCY RESPONSE COORDINATORS

3.1 Emergency Coordinators

In the event of an emergency, at least one person from the following list of Emergency Coordinators (ECs) should be contacted immediately. The EC is to act on behalf of AA Sydcol, LLC in the initiation of procedures described in this CP and has the authority to commit the resources of AA Sydcol, LLC in addressing emergency conditions at the Facility. In the event of an emergency requiring evacuation of local areas, the EC will be available to assist local authorities in determining which areas to be evacuated.

TABLE 3.1 EMERGENCY COORDINATORS	
PRIMARY	Dan Drewek, Facility Manager
Cell Phone No.	(760) 460-1499
Office Telephone No.	(928) 783-3676
Office Address	2264 E. 13th Street, Yuma, Arizona 85365
Home Telephone No.	
Home Address	
ALTERNATE	Alexander Hayden, Operations Manager
Cell Phone No	(928) 580-5734
Office Telephone No.	(928) 783-3676
Office Address	2264 E. 13th Street, Yuma, Arizona 85365
Home Telephone No.	
Home Address	
SECONDARY ALTERNATE	Juvi Remitio
Cell Phone No	(928) 210-7077
Office Telephone No.	(928) 783-3676
Office Address	2264 E. 13th Street, Yuma, Arizona 85365
Home Telephone No.	
Home Address	

3.2 Emergency Coordinator Responsibilities

The EC's purpose during an emergency condition at the Facility is to minimize potential hazards to human health or the environment from fires, reactions, explosions, releases, or other contamination that may occur as a result of a release of hazardous waste or hazardous waste constituents to the air, water, and/or soil. During an emergency, the EC's priority is to:

- Ensure human health and safety,
- Minimize actual and potential adverse effects to the environment; and
- Minimize and/or prevent damage to private and public property.

The EC will either be on-site at the Facility or on-call at all times. If the Primary EC is not available, he/she shall designate an Alternate EC. The EC's responsibilities include coordinating all emergency response measures during both operating and non-operating hours, including weekends and holidays. The EC will have a cellular telephone to communicate with on-site personnel while traveling to the facility in an emergency.

The EC will be thoroughly familiar with all aspects of the CP, all operations and activities conducted at the Facility, the location and characteristics of hazardous waste handled at the Facility, and the location of all records at the facility.

The EC is responsible for implementing this CP when there is an imminent or actual fire, explosion, or release at the Facility which could threaten human health or the environment. These responsibilities include:

- Direct Facility personnel during and following an emergency;
- Request assistance from off-site emergency response teams and/or hire commercial contractors to assist with an emergency;
- Purchase equipment or services required for an emergency condition; and
- Direct Facility operations and activities during an emergency condition.

During an emergency event, the EC should make the following initial internal notifications.

TABLE 3.2
AA SYDCOL INTERNAL EMERGENCY NOTIFICATION CONTACTS

Name	Title	Office Ext.	Home No.
Chuck Templer	Owner	(928) 783-3676	(714) 273-8150

3.3 Emergency Spokesperson

Should it become necessary to have an Emergency Spokesperson for AA Sydcol facility, the EC will notify the appropriate AA Sydcol personnel. If an Emergency Spokesperson is necessary, that individual will be available at any given time and, as such, will be responsible to coordinate the communication with the community as necessary to implement this CP.

4.0 IMPLEMENTATION

The CP will be implemented whenever there is emergency situation consisting of an imminent or actual incident involving fire, explosion, or unplanned release of hazardous waste or hazardous waste constituents that threatens the security of the Facility or the safety of its personnel, or which may threaten human health or the environment outside the Facility. The CP must be implemented whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment. Such conditions are considered emergencies for the purposes of this CP. An employee identifying a situation that they believe poses an emergency condition will immediately notify the EC noted in this plan. If the EC is not available, the employee will notify the first available Alternate EC. In the event of an emergency, any employee can activate the nearest internal alarm if available and immediately report the incident to 911 if warranted.

The EC or closest supervisor will immediately evacuate personnel from the affected area of the Facility according to the Facility Evacuation Plan.

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5.0 EMERGENCY ACTION PROCEDURES

In the event of an emergency, the EC will immediately assess the situation. If it is determined that an actual or imminent emergency exists, the CP will be implemented.

5.1. Notifications

The initial notification to on-site personnel will be by an alarm system. The alarm system monitors for fire and security. System panels are located at strategic locations so that the EC can identify where and what triggered the alarm. The alarm system is electrically operated and is equipped with a battery back-up to ensure operation during power outage.

Manual alarm devices (pull stations) are located adjacent to each Facility exit and at entry and exit doors. The alarms will sound an audible warning signal to employees inside and outside the buildings. There are additional alarms located in strategic areas around the site. All employees are trained in the activation process for the manual alarms.

The alarm system is monitored by an outside third party. The third party will contact the EC or designated Emergency Contact in the event of an emergency for further direction. The EC will contact local authorities for emergencies warranting an authority response. The EC will have a specific password setup with the third-party monitoring company to provide verification that the appropriate person (or procedure) is responding to the event.

5.1.1 Internal Notifications

Internal phone and radio systems allow communication throughout the Facility for use in notifying employees of an emergency. This will be used in conjunction with the alarm system. Because of the relatively small size of the Facility, voice is "capable of providing immediate emergency instruction (voice or signal) to facility personnel" as required at 40 CFR §264.32(a). The Facility also has a land-line telephone for use in contacting local and state agencies of emergency conditions if necessary. Emergency phone numbers are posted near the telephone at the exits of the Facility building.

5.1.2 External Notifications

Arrangements have been made with outside entities to provide assistance in response efforts should an emergency be beyond the capabilities of on-site resources.

The facility is located within the jurisdiction of Yuma County, which will provide municipal services for the Facility and its vicinity. The applicable local authority for emergency response at the Facility is the Yuma County Rural Metro. The Rural Metro Fire Department would generally respond to all fire, release, explosion, medical (paramedic), or other emergency events which required that outside assistance be brought to the site. The Yuma County Sheriff will provide additional municipal services, such as traffic and pedestrian control that may be required during an emergency event.

No arrangements with other emergency response entities (such as State emergency response teams, emergency response contractors, or equipment suppliers) due to the size of the Facility and the nature of hazardous waste management activities conducted at the Facility. Such arrangements are not

deemed necessary in addition to on-site and Rural Metro Fire Department capabilities. However, that does not preclude the utilization of a private emergency response contractor, if judged to be necessary and appropriate for quick response and ability to effectively handle many different situations.

The current emergency medical contractor for the facility is the Yuma Regional Medical Center at 2400 South Avenue A. AA Sydcol has contacted and familiarized the Yuma Regional Medical Center with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases on site. A map showing the location of the Yuma Regional Medical Center is provided in Figure 3. The Yuma Regional Medical Center's roles will be to provide medical response for the types of injuries or illnesses which could result from fires, explosions, or sudden or non-sudden releases on the Facility. If the emergency medical contractor is changed in the future, the new contractor will also be familiarized with the waste properties and possible injuries or illnesses

Emergency notifications that may be required are shown the in following table.

Table 5.1
EMERGENCY TELEPHONE NUMBERS

Type of Emergency	Organization		Phone
Injury / Illness	Ambulance		911
	Yuma Regional Medical Center 2400 S Avenue A Yuma, AZ 85364 10 to 15 minutes		(928) 344-2000
Fire / Explosion	Yuma County Rural Metro #9		911/(928) 349-6421
	Yuma County Sheriff		911/(928) 783-4427
	Arizona Public Safety (Highway Patrol 24-hour)		(520) 746-4500
Hazardous Material Emergency			
Spill, Release or Other Emergency	Primary Emergency Coordinator	Dan Drewek	Address: 2264 E. 13th St, Yuma Cell: 760-460-1499
	Alternate Emergency Coordinator	Alexander Hayden	Address: 2264 E. 13th St, Yuma (928) 580-5734

Any Spill or Release of a Reportable Quantity*	National Response Center	(800) 424-8802
	ADEQ	(800) 234-5677
	Yuma County Emergency Planning Committee	(928) 373-1093
	AZERC (Chris Nutter)	(602) 771-4065
	USEPA Region 9	(800) 300-2193
Other Contacts		
Environmental Response Contractor	Patriot Environmental Services 3464 Picket Street, San Diego, CA	(619) 449-9014

Note that telephone notification to ADEQ and the National Response Center 24-hour number must be provided at the earliest practical moment in the event of any release of a reportable quantity of hazardous substances that escapes containment or reaches off-site surface waters for a release of oil or petroleum product that reaches surface waters, or for a release of more than 120 gallons of petroleum products, including oils or fuels.

5.2 Identification of Hazardous Materials

The initial response to an emergency is to stop work activities in the affected area(s). This stop work order will be directed by the EC, or if the EC has not reached the area, by the on-site personnel who first observed the emergency and sounded an alarm. All personnel will have full authority to stop work activities in the event of a potential or actual emergency condition.

Following the stop work order, the EC will immediately identify hazardous waste that are or may be impacted in order to determine the type of response that will be implemented. Should the emergency condition involve releases of hazardous waste or hazardous waste constituents, the EC will identify the character, source, amount and extent of the release. The initial identification method may consist of physical (color, odor, appearance) and visual (location, source) observations to describe the material released. The EC or designee may inquire of individuals that were working in the area of the emergency when it was first reported to gain information on the waste materials that may be impacted. The EC will also consider the type of container, information provided on the manifest and profile, or other information to identify the waste involved.

The types of materials handled at the Facility lend themselves to easy physical and visual identification. In addition, waste materials are handled and stored in specific areas within the Facility to aid in identifying the general type material released. If, for some reason, the released material cannot be readily identified, the material is to be isolated and sampled for characterization purposes.

5.3 Hazard Assessment

Following identification of the hazardous waste involved in the emergency condition, the EC will

assess potential hazards to human health or the environment. The initial step in the assessment will be how to contain any fire or releases that have occurred. The assessment will consider both direct and indirect effects of the event, including the effects of any toxic, irritating, or asphyxiating gases that may be generated, and the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions. The assessment will also consider the potential for off-site impacts resulting from the emergency or from the response to the emergency.

If the EC determines that the Facility has had a release, fire, or explosion which could threaten human health or the environment outside the Facility, then the EC will proceed with the appropriate actions called for in Section 5.4 of this CP.

The assessment will include classifying emergencies as Level 1, 2, or 3 according to the general guidelines in Table 5.2 below. Level 1 emergencies are considered small releases that require response but do not pose an imminent threat to human health and the environment. Level 2 emergencies are more substantial releases that require response and pose an imminent threat to human health and the environment. Level 3 emergencies are serious hazards that require evacuation of the Facility and the support of county, state, or federal responders.

The level of classification of an emergency will be assessed at the time of identification. The classification can be changed at any time due to changes in spill parameters, personal injury, or other factors. Table 5.2 summarizes conditions for classifying emergencies.

TABLE 5.2 EMERGENCY CLASSIFICATION	
Level 1	• The quantity of released materials is below the Reportable Quantity (RQ) • The material involved is a solid material that cannot blow away from the spill site. • Emergency medical personnel are not needed • Outside response personnel are not required (i.e. fire, police, or emergency responders)
Level 2	• The quantify of release materials exceeds the RQ • The release involves an unknown material • The work area where the release occurred needs assistance • More than one work area is involved or jeopardized by the incident • Discharge to the environment and off-site areas in inevitable • Discharge is continuous • Injury is associated with the release • Two or more incompatible materials are involved • Flammable materials are involved • Discharge to a drain or sewer is a risk • PCB-contaminated materials are involved • The fire or the amount of released material is spreading

Level 3	• A large area of the Facility is impacted such that the event poses an extreme threat to human life and the environment • The type and quantity of hazardous waste involved poses a hazard for generating a toxic/corrosive vapor cloud or causing a fire or an explosion that cannot be controlled with control procedures identified in Section 5.4. • The event requires large scale evacuation of the Facility or of adjoining properties • The event requires resources of county, state, or federal agencies

5.4 Control Procedures

The control procedures described in this subsection are designed to effect safe and appropriate responses to fire, explosion, and unplanned release events which may occur as a result of activities and operations conducted at the Facility. When an emergency conditions becomes known, all facility personnel are to initiate their designated responsibilities (e.g., equipment shutdown, close containers, etc.) and evacuate the facility by going to a pre-designated area to assist the EC. Only the EC can announce "all clear" for re-entry of personnel and operations to resume.

Response tasks to be undertaken in the event of an emergency are:

1. Stop work activities in the affected area;
2. Identify the emergency condition;
3. Take immediate life-saving and/or environmental protection measures as necessary;
4. Complete internal facility notifications and evacuate facility area(s) if necessary;
5. Assess the situation and classify the emergency;
6. Complete the external notifications and evacuate neighboring area(s) if necessary;
7. Implement the appropriate control procedures as described below;
8. Implement remediation measures; and
9. Complete post-incident evaluation and reporting.

5.4.1 Level 1 Response Procedures

A Level 1 emergency will be contained, cleaned up, and mediated in accordance with this plan under the direction of the EC. Personnel will conduct the following procedures:

1. Restrict access to the area and maintain security.
2. Don appropriate personal protective equipment (PPE) (refer to profiles and SDS).
3. If a spill has occurred:
    a. Isolate release and, if possible, safely stop the release at its source.

b. Encircle the release with absorbent material.

c. Using absorbent socks or other containment materials, prevent the spill from reaching on-site and off-site storm drains, drainage channels or waterways.

d. Clean up the released materials and collect the chemical residue at the direction of the EC.

e. Ensure that all contaminated materials are transported and disposed in accordance with Department of Transportation (DOT), federal, and state regulations. Do not wash released materials into a storm drain or sewer system or place them in a dumpster.

4. If a minor fire has occurred:

   a. Extinguish fire with appropriate fire extinguishing material.

   b. The EC must confirm fire is completely out.

   c. Confirm no secondary emergencies have arisen from the fire.

   d. Clean up the impacted area and collect burned and fire extinguishing material.

   e. Appropriately dispose of contaminated material under the direction of the EC. Do not wash released materials into a storm drain or sewer system.

5.4.2 Level 2 Response Procedures

A Level 2 emergency requires a more coordinated effort by the Facility to address a release or potential release. The EC should initiate the following activities:

1. Evacuate personnel and areas, as appropriate.
2. Restrict unauthorized access to the area where the fire, explosion, or spill has occurred.
3. If a RQ has been exceeded, the EC will notify off-site organizations and follow up with a written report.
4. Under no circumstances will anyone but the EC initiate any response actions for Level 2 responses. The EC is responsible for the following measures:

   a. Assess the identity of the hazardous materials releases, the severity of the spill, the quantity released, the cause of the spill, and the source of the discharge.

   b. Establish an isolation perimeter.

   c. Implement appropriate actions to stop the release, if the discharge is continuous.

   d. Implement appropriate actions to contain the spill and prevent released materials from leaving the site.

   e. Ensure that all contaminated materials are transported and disposed in accordance with DOT, state, and federal regulations.

5. A Level 2 spill that poses a threat to human health and safety and degradation to the environment and property may require the following response procedures:
    a. Evacuate off-site area and personnel, as appropriate.
    b. Notify state and local officials.
    c. Utilize contract assistance as appropriate.
    d. Implement appropriate actions to contain the spill and prevent released materials from leaving the site.
    e. Repair or clear drainage structures.
    f. Prepare a written report.
    g. Additional monitoring and remediation.

5.4.3 Level 3 Response Procedures

The EC will implement the following for a Level 3 emergency:

1. Evacuate personnel and areas as appropriate.
2. Notify state and local officials.
3. Request additional resources or assistance from off-site agencies or organizations as necessary.
4. Evaluate the need for and extent of any site remediation necessary as a result of the release.
5. Utilize contract assistance as appropriate.
6. Repair or clear drainage structures.
7. Prepare a written report.
8. Additional monitoring and remediation.

5.5 Prevention of Recurrence of the Spread of Fires, Explosions, or Releases

Should an emergency condition occur at the Facility, all personnel are to safely and effectively contain the condition to the impacted area and minimize the potential for the emergency to grow and affect other areas and materials at the Facility. For a fire condition, personnel are to take appropriate measures necessary to prevent the spread of the fire by shutting down any pumps or processes that may be adding additional material to the fire. Ensure that response media such as water, dry chemical fire extinguisher propellant, or foam fire extinguisher propellant are compatible with burning material by checking the effectiveness of a small amount of the response media against a small portion of the fire. Apply the response media to the base of the fire. The first priority is to apply response media to that portion of the fire which may expand to neighboring waste or property. Using forklifts or other equipment, move any waste and/or property that can be safely moved out of the area or out of the actual or potential path of the fire.

If an explosion has occurred, mitigate the area by spraying an appropriate fire suppressant on the effected drum or container, releasing the pressure from a drum or tank, if it can be done safely; and using forklifts or other equipment to move waste or other materials away of the impacted area. Check the area to identify the cause of the explosion and observe nearby areas and note the presence of any flammable materials that need to be moved to prevent further explosions.

If a release has occurred, shut down pumps or processes that may be part of the release. Ensure that response media such as clay sorbent, vermiculite, foam fire extinguisher propellant, or water are compatible with released material by checking the effectiveness of a small amount of the response media against a small portion of the release. The first priority is containing the release from impacting neighboring waste or property by creating a dike of sorbent material in front of and around the released material to stop and contain the spill. If necessary, use on-site soil to dike the areas around the release. Using forklifts or other equipment, move any waste and/or property that can be safely moved out of the area or out of the actual or potential path of the release.

Good housekeeping will, and always should be practiced in order to maintain a clean and safe environment in order to prevent possible spill and safety hazards. Practices including scheduled clean-up times, maintaining well organized work areas, and proper training and education for the employees. During an emergency event, good housekeeping is essential to preventing the spread of the emergency to other areas of the facility.

5.6 Monitor for Leaks, Pressure Buildup, Gas Generation, or Ruptures

During an emergency event, the EC and designee will utilize Facility personnel to monitor other areas of the Facility to ensure no other leaks or emergency conditions are being created by pressure buildup, gas generation or rupturing. Personnel assigned to monitor other areas should be cautious to prevent exposure to potentially hazardous conditions. Should the emergency be large enough that other areas could be affected; the EC should inform local authorities of areas of concern and actions taken to prevent potential hazards from boiling liquids.

5.7 Storage, Treatment, and Disposal of Released Material

Following an emergency event, the EC will make sure that all recovered waste is stored in a proper location pending removal for off-site disposal. Materials contaminated as part of the emergency response actions, including water used to stop fires, are also to be removed from the Facility and transported to a disposal facility. Contaminated materials are to be disposed of in accordance with all applicable State and Federal regulations.

Following clean-up operations, the recovered materials will be disposed as follows:

1. Liquid products will be collected and stored in an appropriate waste management unit prior to disposal.
2. Absorbent materials and similar clean-up materials will be collected into appropriately-sized drums or containers, labeled, and stored in an appropriate waste management unit pending off-

site disposal.

3. Hazardous wastes will be collected into appropriate and compatible containers, labeled, and disposed in accordance with federal and state regulations. Absorbent and clean-up materials used in containing hazardous wastes releases are considered hazardous waste and shall be treated as such.

Upon completion of clean-up procedures, the following activities will be conducted:

1. The impacted area will be inspected by the EC or designee, and incompatible materials will be isolated from the spill scene until the affected area is entirely cleaned up.
2. Upon final clean up, the EC will verify that all emergency response equipment is clean and fit for immediate use in the event of another spill.
3. The EC will notify ADEQ that the previous two requirements have been met after a release of hazardous waste prior to resuming operations at the Facility.

5.8 Incompatible Waste

During and following an emergency event involving fire, explosion, or releases of hazardous waste, the EC will ensure that incompatible materials if present near the impacted area are moved and isolated until response actions are complete. Incompatible materials are not to be stored together in the same area.

5.9 Post-Emergency Equipment Maintenance

Following an emergency event, all affected areas will be decontaminated. The decontamination process may vary due to the nature of the hazardous waste constituents involved in the release and type of material contaminated.

All equipment utilized during an emergency event is either decontaminated following the completion of response activities or properly disposed. Decontamination procedures for various pieces of emergency equipment are as follows:

- Tools – All tools used during clean-up should be wiped clean, washed with an appropriated cleaning solution, rinsed with clean water, and allowed to air dry. The contaminated rags and cleaning solution should be discarded along with the other waste.
- Respirators – Certain parts of contaminated respirators, such as the harness assembly and leather or cloth components are difficult to decontaminate. If grossly contaminated, they may have to be discarded. Rubber components can be soaked in soap and water and scrubbed with a brush. Regulators must be maintained according to manufacturer's recommendations. Persons responsible for decontaminating respirators should be thoroughly trained in respirator maintenance.
- Sanitizing of Personnel Protective Equipment (PPE) – Reusable protective clothing and other

personal articles not only must be decontaminated before being reused, but also sanitized. The inside of hard hats, clothing, and other PPE becomes soiled by body oils and perspiration. If practical, protective clothing should be machine washed after a thorough decontamination; otherwise it must be cleaned by hand or disposed of properly.

- Sampling and monitoring equipment – All sampling and monitoring equipment should be wiped clean using an appropriate spray cleaning solution. Sampling equipment should be rinsed following washing and be allowed to air dry.

Following decontamination, all tools, sampling equipment, and other equipment used in emergency response actions shall be returned to their assigned storage area. Any equipment that is damaged shall be repaired or replaced prior to placing in storage. The EC or designee shall inventory PPE and other disposable supplied and restock as necessary.

5.10 Notification of Federal, State and Local Authorities before Resuming Operations

At the conclusion of an emergency event involving fire, explosion, or release of hazardous waste, the EC shall conduct a post-incident evaluation of the incident and response(s) along with involved Facility personnel. The intent of the evaluation is to determine methods to improve responses (such as via additional equipment and/or training). The CP will subsequently be amended, as necessary.

In addition, the EC will prepare an incident report and report the emergency event to ADEQ within 15 days of the incident. Spill and release reporting requirements are provided in Section 9.0.

If the EC determines that the Facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, they will report their findings immediately to the local fire authority, the local police, and ADEQ. If their assessment indicates that evacuation of the local off-site areas may be advisable, they will attempt to immediately notify the appropriate local authorities and will be available to help appropriate officials decide whether local areas should be evacuated. The Emergency Spokesperson will be notified to assist in the external communications.

Should the EC need to notify the National Response Center (NRC) at (800) 424-8802, the following information will be required:

1. Name and telephone number of reporter
2. Name and address of facility
3. Time, duration, and type of incident
4. Name and quantity of materials(s) involved, to the extent known
5. The extent of injuries, if any

6. The possible hazards to human health, or the environment, outside the facility

7. The names and telephone number of the person of persons to be contacted for further information.

Following completion of the response actions and before operations are resumed in the affected area(s) of the Facility, the EC or designee will notify the ADEQ and appropriate local fire and police authorities that the facility is in compliance with paragraph (h) of 40 CFR Section 264.56.

6.0 SPILL AND EMERGENCY RESPONSE EQUIPMENT

The Facility maintains various types of emergency equipment including equipment for spill control, small amounts of emergency medical supplies, and personal protection equipment (PPE). The Facility is equipped with the following emergency equipment:

1. Portable fire extinguishers. At least one ABC Dry Chemical Type, minimum 10-pound capacity, fire extinguishers will be maintained within each HWMU, with 3 class ABC fire extinguishers in the warehouse building. Additional portable class ABC fire extinguishers have been placed at the front desk in the office area, the hallway, and in the laboratory. Each is marked by red panels painted on the wall, column, post or other fixture where the fire extinguisher is located. Extinguishers are checked on a monthly basis, with annual testing and maintenance performed by an outside contractor. The records are maintained in the Facility office by the EC or designee.
2. Fire suppression water. The Facility is designed with a 121,000-gallon water tank for exclusive use in fire suppression. A six-inch pressurized water line runs from the water tank to the northwest corner of the warehouse building, which services an internal sprinkler system for the warehouse building. Fire line connections are provided on the six-inch line to service HWMU1 and HWMU2 with fire suppression water. The fire suppression system is tested quarterly by the EC and annually by an outside contractor. Fire suppression system testing records are maintained by the EC in the Facility office.
3. Spill response material. Spill kits are maintained and located at multiple locations throughout the Facility including but not limited to (1) the loading dock, 2) in the staging area (specially equipped for the material stored in these areas), and 3) the quarantine area. The equipment is inventoried and maintained by the EC or designee.
4. Alarm system which notifies a third-party service for summoning immediate emergency assistance.

Oil and chemical spill containment and control equipment is located in the warehouse area and in various areas throughout the Facility. The containment and control equipment including booms and absorbent clay are also located in various locations throughout the Facility. Additional equipment is located in the warehouse building and HWMU2 areas. In the unlikely event that heavy equipment is needed to contain or control a spill or release, the facility has plenty of soil from unpaved areas on the Facility available for containment of needed. Available spill response equipment is as follows:

TABLE 6.1
LIST OF EMERGENCY EQUIPMENT

Item/Description	Capability	Storage Area
Rubber Gloves	Hand Protection	Warehouse area
Gauntlets	Hand & Forearm Protection	Warehouse area

TABLE 6.1 LIST OF EMERGENCY EQUIPMENT		
Item/Description	**Capability**	**Storage Area**
Ear Plugs	Hearing Protection	Administrative Offices
Safety Glasses & Shields	Eye Protection	Administrative Offices
Hard Hats	Head Protection	Administrative Offices
Respirators	Respiratory Protection	Administrative Offices
Disposable Tyveks (coveralls)	Skin Protection	Administrative Offices
Fireproof Safety Clothing	Skin Protection	Administrative Offices
Safety Shoes	Foot Protection	Administrative Offices
Fire Extinguishers (class A/B/C)	Fire Protection	Warehouse (x3), HWMU2, HWMU3, laboratory, front desk, office hallway (see Figure 2)
Fire Extinguisher (class D)	Fire suppression	NOS for storing LION batteries
Stretchers	Disable Person Transport	Warehouse area
Medical Supplies	Injured Personnel	Administrative Offices
Shovels, square tipped	Contaminated Material Movement	Warehouse area
Absorbent Brooms (10’ x 8”)	Floating Contaminant Absorption	Warehouse area
Absorbent Pillows (18” x 8”)	Floating Contaminant Absorption	Warehouse area
Absorbent Pads (3/8” x 17” x 19”)	Floating Contaminant Absorption	Warehouse area
Absorbent Rolls (144’ x 38”)	Floating Contaminant Absorption	Warehouse area
Sweep brooms and dust pans	Sweep up of spilled solids	Warehouse area
Oil-Dry Absorbent	Contaminant absorption	HWMU1, HWMU2, HWMU3
Two-Way Radio Base Station	Communication	Administrative Offices
Two-Way Radios	Communication	Several locations
Telephone System	Communication	Administrative Offices
LIST OF DECONTAMINATION EQUIPMENT		
Item/Description	**Capability**	**Storage Area**
Eye wash station	Flushing eyes, face/head wash	Warehouse, office area (bathroom)
Shower	Full-body decontamination	Office area (bathroom)

7.0 COORDINATION REQUIREMENTS

Arrangements have been made with the various local authorities that may be called upon to assist in an emergency. These local authorities and their responsibilities are provided Section 10.0. Notification of hazardous waste operations has been provided by letter to local authorities as documented in Appendix A.

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8.0 EVACUATION PLAN

8.1 Emergency Evacuation

In the event a fire, explosion, or release of hazardous waste was to occur at the Facility such that evacuation of the Facility is required, the EC will use the telephone and two-way radio systems to notify Facility personnel to evacuate. The EC will indicate which evacuation route(s) to use. Possible evacuation routes are shown on Figure 2.

In an emergency, the EC will notify the appropriate state or local agencies with response roles if their help is needed and will immediately identify the character, source, amount and extent of released materials.

The following tasks are to be conducted during an evacuation. Prompt, orderly evacuation is critical in preventing unnecessary injuries. The following should be implemented:

1) Cut power to equipment.
2) Leave promptly (do not go to retrieve your lunch box, jacket, or other items)
3) Follow the evacuation route out of the Facility (as shown on Figure 2)
4) Once out of the building, **immediately** go to the rally point(s) designated on Figure 2.
5) Find your supervisor at the rally point area and report in.
6) Supervisors are responsible for determining if their employees are in the rally point area.
7) Any employees missing should be immediately reported to the EC, safety manager, medical personnel, firemen, etc. These individuals will decide on the best way to attempt a rescue.
8) **Do not** return to the Facility until the all clear has been given by the EC or designee.

8.2 Emergency Response Affecting the Local Area

If the EC determines that the Facility has fire, explosion, and/or release condition that could threaten human health or the environment outside the Facility, they will notify the appropriate state or local agencies with response roles if their help is needed and will immediately identify the character, source, amount and extent of released materials. The EC will remain at a rally point and be available to local authorities to provide information on materials and processes conducted at the Facility.

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9.0 REQUIRED PROCEDURES FOR RECORDKEEPING AND REPORTING

Sydcol will maintain a Facility Report that identifies the types and quantities of solid and hazardous wastes at the Facility, their location, locations where employees are operating, general Facility layout, and the entrances and roads in the facility for possible evacuation. Sydcol shall weekly review the contents of the Facility Report and update the report, as necessary. The Facility Report will be maintained in the administrative office area as shown on Figure 2 and be made readily available to emergency response personnel.

For emergency response actions, the EC will submit a written report to ADEQ within 15 days after an emergency event causing implementation of this CP. The report will include the following:

- Name, address, and telephone number of the owner or operator of the Facility;
- Name, address, and telephone number of the Facility;
- Date, time, and type of incident (e.g., fire, explosion); Name and quantity of material(s) involved;
- Extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- Estimated quantity and disposition of recovered material that resulted from the incident.
- A copy of the incident report will be retained on site in the facility operating record.

10.0LOCATION AND DISTRIBUTION OF CONTINGENCY PLAN

The primary copy of this CP will be maintained by the EC and kept in the office at the Facility. The EC will update the CP as required.

The following agencies/entities have been notified of the activities to be conducted at the Facility concerning the presence of hazardous waste and hazardous wastes constituents and offered to make arrangements to familiarize the agencies with the Facility layout and operations. Each of the agencies/entities listed below are to be provided a copy of this CP and any amended versions of the CP. The EC will provide updates to the CP when as they are made.

- **State of Arizona**
  ARJZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
  1110 West Washington Street
  Phoenix, AZ 85007
  Phone No. 602-771-2300

  Response: Reportable spills and releases

- **Yuma County Rural Metro**
  2029 S Arizona Avenue
  Yuma, AZ 85364
  Phone No. 520-297-3600

  Response: Fires, releases, explosions, medical emergencies

- **Yuma County Sheriff's Office**
  141 S. 3rd Avenue
  Yuma, AZ 85364
  Phone No. 928-783-4427

  Response: Traffic/pedestrian control

- **Yuma Regional Medical Center**
  Emergency Department
  2400 South Avenue A
  Yuma, AZ 85364
  Phone No. 911 or 928-344-2000

  Response: Emergency medical care

A summary statement of preparedness and prevention information (PPI) is provided in Appendix B. A copy of the PPI has been provided to the Yuma County Emergency Planning Committee, care of Yuma County Office of Emergency Management, 2200 W. 28th Street, Yuma, Arizona 85364.

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11.0 AMENDMENTS TO THE CONTINGENCY PLAN

This CP will be reviewed, and immediately amended, if necessary, whenever:

(a) The Facility permit is revised;

(b) The CP is implemented in an emergency;

(c) The Facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

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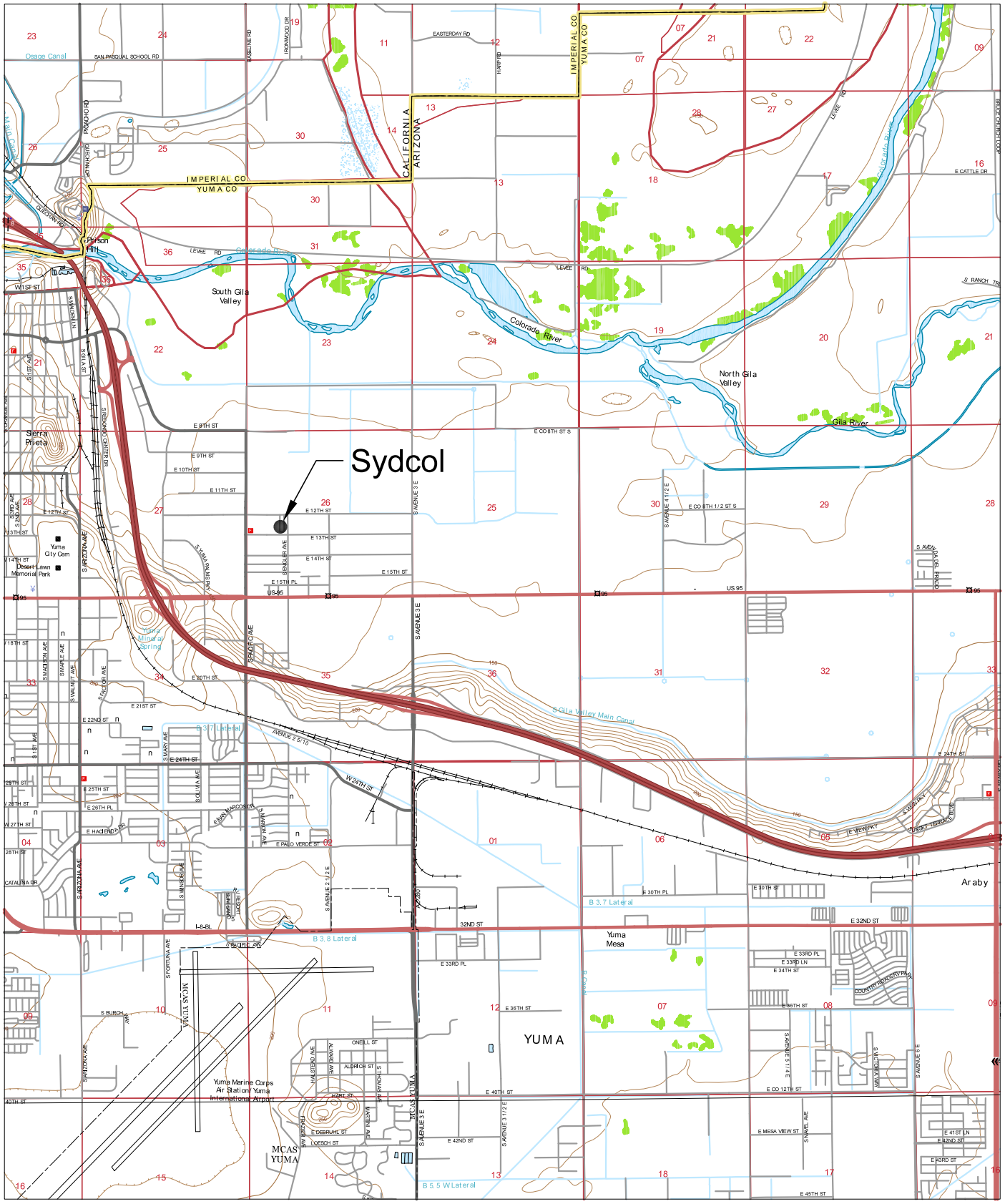
TABLES

Table 1
AA Sydcol Hazardous Wastes

Waste type	RCRA Waste Codes	HMWUs	Estimated Annual Quantity (tons)
Ignitables	D001	1, 2, 3	30,000
Corrosives	D002	1, 2, 3	20,000
Reactives	D003	1, 2, 3	200
Toxicity: Heavy metals	D004-011	1, 2, 3	100
Toxicity: pesticides/herbicides	D012-017, 020, 031	1, 2, 3	100
Toxicity: Volatile organics	D018-019, 021-022, 028-029, 035, 039-040, 043	1, 2, 3	32,500
Toxicity: Semi-volatile organics	D022-027, 032-034, 036-038, 041-042,	1, 2, 3	200
2,4-dinitrotoluene, nitrobenzene	D030, D036	1, 2, 3	2
Halogenated compounds: degreasing	F001	1, 2, 3	4,000
Halogenated compounds: solvents	F002	1, 2, 3	4,000
non-Halogenated compounds solvents	F003-005	1, 2, 3	8,000
Listed electroplating wastes	F006-009	1, 2, 3	11,000
Listed metal finishing wastes	F010-012, 019	1, 2, 3	2,500
Chlorinated aliphatic hydrocarbons	F024-026	1, 2, 3	10
Listed wood-preserving wastes	F032, F034-035	1, 2, 3	10
Refinery WW treatment sludges	F037-038	1, 2, 3	10
Hazardous leachates	F039	1, 2, 3	10
P-listed commercial chemicals	P001-P205	1, 2, 3	100
Commercial grade acetone	U002	1, 2, 3	100
Commercial grade benzene	U019	1, 2, 3	100
Commercial grade 1-butanol	U031	1, 2, 3	20
Commercial grade methanol	U154	1, 2, 3	100
Commercial grade methyl-ethyl ketone	U159	1, 2, 3	100
other U-listed commercial chemicals	U001, 003-018, 020-030, 032-153, 154-158, 160-411	1, 2, 3	200
Total			113,362

FIGURES


Sydcol
IMPERIAL CO
YUMA CO
CALIFORNIA
ARIZONA
Colorado River
Gila River
South Gila Valley
North Gila Valley
Sierra Prieta
Yuma City Cem
Desert Lawn Memorial Park
Yuma Mineral Spring
S Gila Valley Main Canal
B 3.7 Lateral
B 3.8 Lateral
B 5.5 W Lateral
Yuma Mesa
YUMA
Araby
Yuma Marine Corps Air Station/Yuma International Airport
MCAS YUMA
US 95
I-8-BL
E 8TH ST
E 9TH ST
E 10TH ST
E 11TH ST
E 12TH ST
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E 40TH ST
E 42ND ST
E 45TH ST
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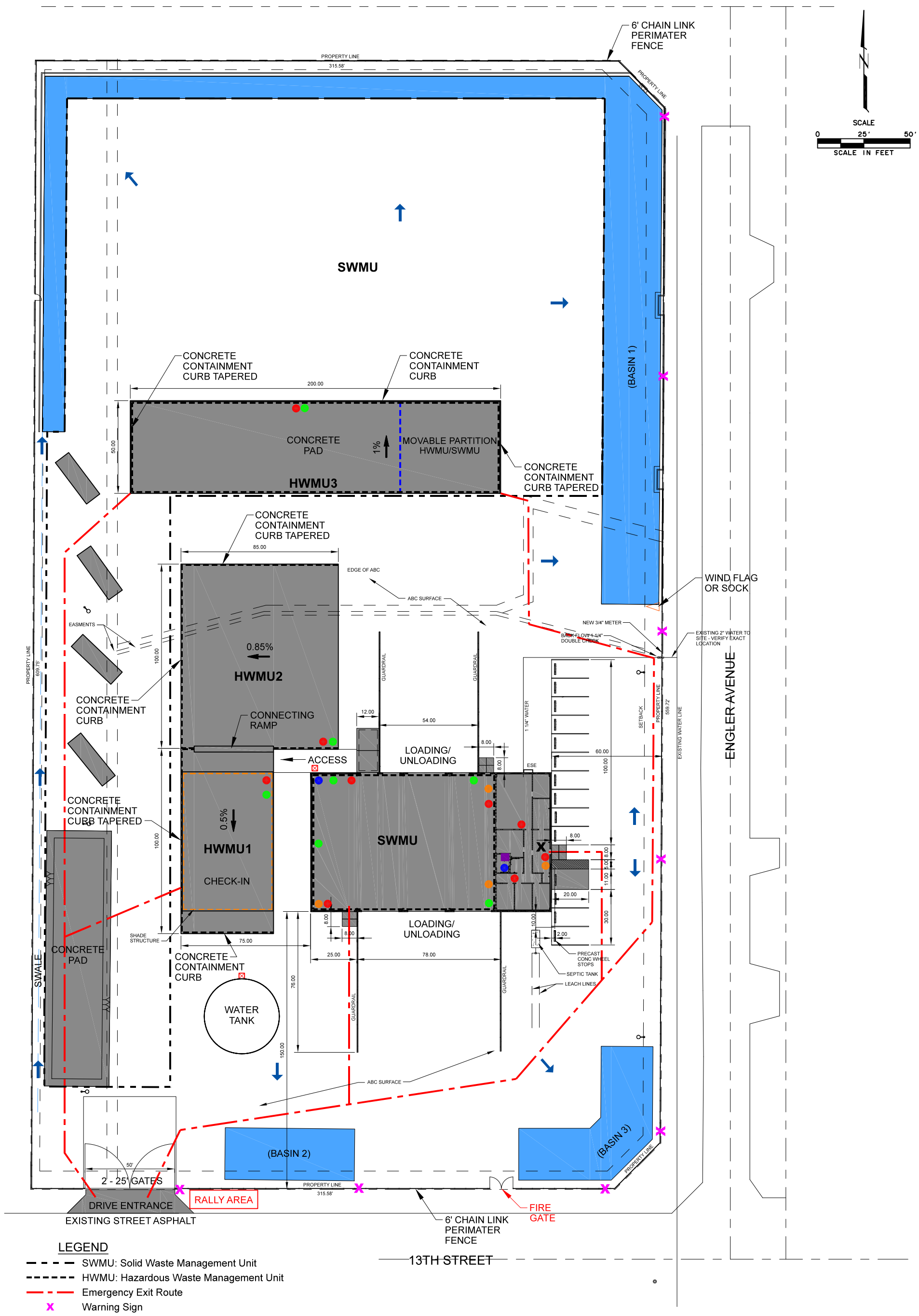
E CO 8TH 1/2 ST S
E CO 12TH ST
S AVENUE 3 E
S AVENUE 2 1/2 E
S AVENUE 3 1/2 E
S AVENUE 5 1/2 E
S AVENUE 1 E
S ARIZONA AVE
S MAIN ST
S GILA ST
S FORTUNA AVE
S MARY AVE
S COLMA AVE
S MCKEEN AVE
S MAPLE AVE
S WALNUT AVE
S PACIFIC AVE
S SENDER AVE
S MCLEAN AVE
S MCCAS YUMA
S MCTOWNSEND AVE
S MCTOWNSEND PL
S MCTOWNSEND LN
S MCTOWNSEND WAY
S MCTOWNSEND CT
S MCTOWNSEND TER
S MCTOWNSEND RD
S MCTOWNSEND PKWY
S MCTOWNSEND BLVD



LEGEND

- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Emergency Exit Route
- Warning Sign
- Spill Kit
- Fire Alarm
- Fire Extinguisher (ABC)
- Eyewash
- Shower
- Facility Report
- Fire Hose Connection
- Concrete Surface
- Drainage Direction
- Drainage Basin

Figure 2
SITE PLAN
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: SYDCOL02
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services

N

SCALE

0 800' 1,600'

SCALE IN FEET

LEGEND

X Hospital

Route to Hospital

Figure 3

Route to Hospital

Sydcol

2264 E. 13th St., Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 4/7/20
DRAWN BY: TML	DWG/FILE: JGP-SYDCOL11
REVISION:	

JGP Consulting, PLC

Environmental Compliance Services

APPENDIX A

HAZARDOUS WASTE OPERATIONS NOTICES

AA Sydcol, LLC
Site: 2264 E. 13th Street, Yuma, Az 85365 • Mailing: 3155 Golden Willow Ct., Yorba Linda, Ca 92886
Phone: 928-783-3676 • Fax: 928-783-1766
www.sydcol.com

November 12, 2019

Yuma County Sheriff Department
141 S. 3rd Avenue
Yuma, AZ 85364

Subject: Hazardous waste facility operations

To Whom it May Concern:

AA Sydcol, LLC is in the process of preparing a permit application to operate a hazardous waste facility located at 2264 E. 13th Street on heavy industrial-zoned property in unincorporated Yuma County, Arizona. The operation will be managed consistent with Federal and State regulations for hazardous waste facilities and subject to permit requirements issued by the Arizona Department of Environmental Quality. It is estimated that the facility will handle 2,300 tons of hazardous waste each month, primarily wastes that are hazardous due to toxic characteristics but also corrosive, flammable, and reactive hazardous wastes. Operations at the facility will include receipt of containers of hazardous waste and consolidation of hazardous wastes for transport off-site for disposal at approved hazardous waste disposal facilities. We will not be receiving or managing radioactive wastes, biohazardous medical wastes, Class 1 explosives, and industry-specific hazardous wastes.

Attached is a site location map and site plan that illustrate the location where hazardous waste management operations will occur. We would like to make arrangements to meet with your representatives and review the layout of the facility, the properties of hazardous waste handled and the associated hazards, places where facility personnel will normally be working, access for entrance to and within the facility, and possible evacuation routes. We would also like to discuss any agreements that are necessary for emergency services from your organization.

Please contact me at your earliest convenience to make arrangements to review our operations with your staff.

Sincerely,

Charles M. Templer
Managing Member

AA Sydcol, LLC
Site: 2264 E. 13th Street, Yuma, Az 85365 • Mailing: 3155 Golden Willow Ct., Yorba Linda, Ca 92886
Phone: 928-783-3676 • Fax: 928-783-1766
www.sydcol.com

November 12, 2019

Rural Metro Fire Department
2029 S. Arizona Avenue
Yuma, AZ 85364

Subject: Hazardous waste facility operations

To Whom it May Concern:

AA Sydcol, LLC is in the process of preparing a permit application to operate a hazardous waste facility located at 2264 E. 13th Street on heavy industrial-zoned property in unincorporated Yuma County, Arizona. The operation will be managed consistent with Federal and State regulations for hazardous waste facilities and subject to permit requirements issued by the Arizona Department of Environmental Quality. It is estimated that the facility will handle 2,300 tons of hazardous waste each month, primarily wastes that are hazardous due to toxic characteristics but also corrosive, flammable, and reactive hazardous wastes. Operations at the facility will include receipt of containers of hazardous waste and consolidation of hazardous wastes for transport off-site for disposal at approved hazardous waste disposal facilities. We will not be receiving or managing radioactive wastes, biohazardous medical wastes, Class 1 explosives, and industry-specific hazardous wastes.

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Please contact me at your earliest convenience to make arrangements to review our operations with your staff.

Sincerely,

Charles M. Templer
Managing Member

AA Sydcol, LLC
Site: 2264 E. 13th Street, Yuma, Az 85365 • Mailing: 3155 Golden Willow Ct., Yorba Linda, Ca 92886
Phone: 928-783-3676 • Fax: 928-783-1766
www.sydcol.com

November 12, 2019

Yuma Regional Medical
2400 S. Avenue A
Yuma, AZ 85364

Subject: Hazardous waste facility operations

To Whom it May Concern:

AA Sydcol, LLC is in the process of preparing a permit application to operate a hazardous waste facility located at 2264 E. 13th Street on heavy industrial-zoned property in unincorporated Yuma County, Arizona. The operation will be managed consistent with Federal and State regulations for hazardous waste facilities and subject to permit requirements issued by the Arizona Department of Environmental Quality. It is estimated that the facility will handle 2,300 tons of hazardous waste each month, primarily wastes that are hazardous due to toxic characteristics but also corrosive, flammable, and reactive hazardous wastes. Operations at the facility will include receipt of containers of hazardous waste and consolidation of hazardous wastes for transport off-site for disposal at approved hazardous waste disposal facilities. We will not be receiving or managing radioactive wastes, biohazardous medical wastes, Class 1 explosives, and industry-specific hazardous wastes.

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Please contact me at your earliest convenience to make arrangements to review our operations with your staff.

Sincerely,

Charles M. Templer
Managing Member

APPENDIX B

PREPAREDNESS AND PREVENTION INFORMATION

AA Sydcol, LLC
Preparedness and Prevention Information

1.) **Facility Name**: AA Sydcol, LLC

2.) **Facility Description:** A solid and hazardous waste storage facility that receives a variety of hazardous and non-hazardous wastes from commercial waste generators and industrial waste generators. The wastes are profiled, classified, stored, consolidated and/or repackaged and shipped to approved off-site facilities for reuse, treatment, and/or disposal.

3.) **Solid Waste Management Units:** One. On North and west ends of the Facility.

4.) **Hazardous Waste Management Units:** Four.

HWMU1: A 5,000 square-foot concrete slab located outside on the west side of the warehouse. Stores hazardous wastes in drums and totes in separated rows. Estimated capacity: 600 drum equivalents.

HWMU2: An 8,500 square-foot concrete slab located outside on the north side of HWMU2, northwest of the warehouse. Stores hazardous wastes in drums and totes in separated rows. Estimated capacity: 980 drum equivalents.

HWMU3: A 10,000 square-foot concrete slab located outside to the north of the warehouse. Stores hazardous wastes in drums and totes in separated rows. Estimated capacity: 1,100 drum equivalents.

Total Facility Capacity: 756 drum-equivalents.

5.) **Current Inventory:** See Facility Report.

6.) **Internal Communications:**

Internal phone system.

Internal alarm system with pull stations at each entrance/exit. Alarm provides audible signal and notifies the Emergency Coordinator of the location where the alarm is activated. Alarm is monitored by 3rd-party service for notice to the Emergency Coordinator.

Primary Emergency Response Coordinator: Dan Drewek, (760) 460-1499

Alternate Emergency Response Coordinators: Alexander Hayden (928) 580-5734,
Juvi Remitio (928) 210-7077

7.) **External Communications:**

Emergency Response: Yuma County Rural Metro; (520) 297-3600

Police/Traffic Control: Yuma County Sheriff; (928) 783-4427

Medical emergency room: Yuma Regional Medical Center; 911 or (928) 344-2000

Fire Fighting Equipment: Fire extinguishers (ABC) in all HWMUs and office areas. Class D extinguisher in HWMU2.

8.)Emergency Water Supply:

A 121,000-gallon tank providing pressurized water to six-inch fire line with hose connection on northwest corner of warehouse.

ATTACHMENT H

AA SYDCOL, LLC

PERSONAL TRAINING

[40 CFR 270.14(b)(4) and (5))]

July 15, 2021

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Appendix A: Training Review Report

1.0 INTRODUCTION

All personnel working at the AA Sydcol, LLC (Facility) will receive training pertinent to their job functions and responsibilities. Personnel training will generally be provided by AA Sydcol employees, contracted persons, or contracted entities that are qualified in the safety aspects of handling hazardous wastes. The sections below provide an outline of the personnel training program implemented by AA Sydcol with an emphasis on how the program applies to individual job positions at the Facility.

2.0 OUTLINE OF INTRODUCTORY AND CONTINUING TRAINING PROGRAMS

Two types of personnel training will be provided to Facility personnel; initial training and refresher training. Personnel training will be integrated with human resource functions such that training is oriented toward the duties and responsibilities for each job position at the Facility. To achieve this, training will be packaged into modules.

Training will include classroom instruction and hands-on training of specific processing tasks at the Facility. All training will be provided by qualified instructors or persons experienced in performing the specific processing task at the Facility or at a similar facility. Some classroom instruction may be provided by contracted entities electronically via the internet for coursework related to certification or certification renewal provided the coursework is recognized by certifying entities.

2.1 Job Title/Job Description

AA Sydcol human resource program includes job descriptions for the various job titles/positions that are required for efficient waste processing operations at the Facility. Job positions at the Facility may include the following:

- Facility Manager. Manages Facility operations.
- Compliance Manager. Responsible for ensuring environmental regulatory compliance.
- Health and Safety Manager. Responsible for workplace safety, including safety and health regulations governing Facility operations.
- Training Manager. Responsible for all worker training at the Facility.
- Yard Manager. Responsible for managing and maintaining equipment and materials in the solid and hazardous waste management units.
- Emergency Coordinator. Responsible for implementing the Contingency Plan during emergency situations.

- Yard Supervisor. Supervises activities occurring in each of the waste management units.
- Chemist/Laboratory Technician. Responsible for all on-site laboratory and compliance testing.
- Hazardous Waste Technician I. Inexperienced technician handling hazardous waste containers at the Facility.
- Hazardous Waste Technical II. Experienced technician handling hazardous waste containers at the Facility.
- Driver. Driver of hazardous waste transportation vehicles.
- Administrative Assistant/Clerical Assistant. Provides administrative and office support services.

Multiple job roles may be performed by individual employees. All personnel information including employee names, job positions, job descriptions, and training records are maintained at the Facility. These files are maintained by the Training Manager and are accessible to all Manager Positions. Training records on current personnel are kept until closure of the Facility; training records on former employees are kept for at least three years from the date the employee last worked at the Facility.

2.2 Description of How Training will be Designed to Meet Actual Job Tasks

Personnel training will include classroom instruction and hands-on on-the-job training at the Facility. Classroom instruction will provide employees with understanding of overriding requirements for the work performed at the Facility, such as company policies, hazardous waste definitions, and OSHA Hazard Communications Standards. Other classroom instruction and on-the-job training will focus on specific processing tasks that are performed at the Facility, such as forklift safety, container handling, and materials consolidation and bulking.

Training will be directed by the Facility Manager and the Training Manager. On-the-job training will be provided by Facility employees that are experienced in performing the specific processing task to be mastered by the student employee. Hands-on training may also be provided by qualified instructors that are contracted to provide the training or by vendor/supplier training personnel for equipment used at the Facility.

Classroom instruction will be provided by instructors that are qualified to teach specific training module subjects. For example, company organization and policy may be provided by AA Sydcol corporate officers. Other classroom instruction may be provided by outside companies that specialize in hazardous waste handling and processing training. For specific processes that are

unique to AA Sydcol, training will be provided by Facility personnel that are experienced and qualified to give instruction.

The Facility Manager and the Training Manager will meet annually to review the training program. This review will include identifying any changes in processing methods used at the Facility, safety incidents that may have occurred during the previous year, and changes in regulations that may apply to the Facility. The training program will be modified to incorporate any required changes that are identified in this annual review. Should there be changes in processing methods or regulations that require immediate modification of training, the training modules will be revised to incorporate such changes at the earliest possible time. The Facility Manager will document the training review in a Training Review Report and maintain records of the review on-site in the Facility's operating record. A copy of the Training Review Report form is provided in Appendix A.

2.3 Training Manager

The Training Manager is responsible for all training conducted at the Facility, including selecting in-house trainers and instructors and contracted training entities. The Training Manager is also responsible for monitoring the type, frequency, and quality of personnel training and evaluating any problems at the Facility that may be minimized or eliminated by modifying the training program.

Qualifications for the Training Manager include a high school degree and possession of a 4-year college degree or at least 5 years of experience in the waste processing field, and a professional certification (such as an Associate Safety Professional (ASP), Certified Safety Manager (CSM), Certified Environmental, Safety & Health Trainer (CET) or an equivalent certification).

2.4 Relevance of Training to Job Description:

Two types of personnel training will be provided to Facility personnel; initial training and refresher training. Training will be designed so personnel are knowledgeable of the tasks they are responsible for at the Facility.

2.5 Initial Training

Initial training will include a program of classroom instruction and on-the-job training provided during the first six months of employment or assignment to a new position at the Facility. Personnel cannot work in an unsupervised capacity until the initial training has been completed. Initial training includes the following:

2.5.1 Managers (Facility Manager, Compliance Manager, Health and Safety Manager, Training Manager, Yard Manager)

- AA Sydcol organization and company policies;
- Hazard Communication;
- Facility Security - Alarm and Communications;
- Facility fire suppression system;
- Facility Contingency Plan;
- OSHA Hazardous Waste Operations, 40-hour Training with annual refresher;
- RCRA Organic Air Emissions Standards;
- Universal waste management;
- Land Disposal Restrictions;
- DOT Classifications System;
- Waste Analysis and Classification;
- General Health and Safety;
- Personal Protection Equipment (PPE);
- Waste Manifests – Incoming Review and Outgoing Completion;
- Container Storage, Transport, and Management;
- Forklift Safety;
- Materials Consolidation and Bulking Techniques and Methods;
- Land Disposal Restrictions;
- Preparedness and Prevention; and
- Emergency Response.

2.5.2 Supervisors (Emergency Coordinator, Yard Supervisor)

- AA Sydcol organization and company policies;
- Hazard Communication;
- Facility Security - Alarm and Communications;
- Facility fire suppression system;
- Facility Contingency Plan;
- OSHA Hazardous Waste Operations;
- RCRA Organic Air Emissions Standards;
- Equipment monitoring for leaks and equipment repair;
- Universal waste management;
- Waste Analysis and Classification;

- General Health and Safety;
- Personal Protection Equipment (PPE);
- Waste Manifests – Incoming Review and Outgoing Completion;
- Container Storage, Transport, and Management;
- Forklift Safety;
- Materials Consolidation and Bulking Techniques and Methods;
- Land Disposal Restrictions;
- Preparedness and Prevention; and
- Emergency Response.

2.5.3 Technicians (Chemist/Laboratory Technician, Hazardous Waste Technician I, Hazardous Waste Technican II, Drivers)

- AA Sydcol organization and company policies;
- Hazard Communication;
- Facility Security - Alarm and Communications;
- Facility fire suppression system;
- Facility Contingency Plan;
- OSHA Hazardous Waste Operations, 40-hour Training;
- RCRA Organic Air Emissions Standards;
- Equipment monitoring for leaks and equipment repair;
- Universal waste management;
- General Health and Safety;
- Personal Protection Equipment (PPE);
- Container Storage, Transport, and Management;
- Forklift Safety; and
- Materials Consolidation and Bulking Techniques and Methods.

2.5.4 Office and Administrative Personnel (Administrative Assistant, Clerical Assistant)

- AA Sydcol organization and company policies;
- Hazard Communication;
- Facility Security - Alarm and Communications; and
- Facility Contingency Plan.

2.6 Refresher Training

Refresher Training provides for annual instruction at least once each year. Annual Refresher Training usually takes up to eight hours, and includes similar topics but is not as comprehensive as the Initial Training. Refresher training includes the following:

2.6.1 Managers (Facility Manager, Compliance Manager, Health and Safety Manager, Training Manager, Yard Manager):

- Hazard Communication;
- Facility Security - Alarm and Communications;
- Facility Contingency Plan;
- OSHA Hazardous Waste Operations, 8-hour refresher
- Land Disposal Restrictions;
- DOT Classifications System;
- Waste Analysis and Classification;
- General Health and Safety;
- Universal waste management;
- Personal Protection Equipment (PPE);
- Waste Manifests – Incoming Review and Outgoing Completion;
- Container Storage, Transport, and Management;
- Forklift Safety;
- Materials Consolidation and Bulking Techniques and Methods;
- Land Disposal Restrictions;
- Preparedness and Prevention; and
- Emergency Response

2.6.2 Supervisors (Emergency Coordinator, Yard Supervisor):

- Hazard Communication;
- Facility Security - Alarm and Communications;
- Facility Contingency Plan;
- OSHA Hazardous Waste Operations, 8-hour refresher;
- Equipment monitoring for leaks and equipment repair (triannual);
- Waste Analysis and Classification;
- Universal waste management;
- General Health and Safety;
- Personal Protection Equipment (PPE);
- Waste Manifests – Incoming Review and Outgoing Completion;

- Container Storage, Transport, and Management;
- Forklift Safety;
- Materials Consolidation and Bulking Techniques and Methods;
- Land Disposal Restrictions;
- Preparedness and Prevention; and
- Emergency Response.

2.6.3 Technicians (Chemist/Laboratory Technician, Hazardous Waste Technician I, Hazardous Waste Technical II, Drivers):

- Hazard Communication;
- Facility Security - Alarm and Communications;
- Facility Contingency Plan;
- OSHA Hazardous Waste Operations, 8-hour refresher;
- Equipment monitoring for leaks and equipment repair; (triannual)
- Universal waste management;
- General Health and Safety;
- Personal Protection Equipment (PPE);
- Container Storage, Transport, and Management;
- Forklift Safety; and
- Materials Consolidation and Bulking Techniques and Methods.

2.6.4 Office and Administrative Personnel (Administrative Assistant, Clerical Assistant):

- Hazard Communication;
- Facility security - Alarm and Communications; and
- Facility Contingency Plan.

2.7 Training for Emergency Response

All Facility personnel are trained to be familiar with the initial responses to an emergency. This training is provided in the Facility Contingency Plan module and includes the following:

- Location and use of telephones, radios, intercoms and the security alarm systems.
- Initial response to fire or explosion to prevent loss of life;
- Identity of emergency response agencies and contracted entities that are to be notified if the Facility is to be evacuated; and
- Facility evacuation procedures.

Managers, Supervisors, and Technicians are also trained as necessary in the following:

- Inspecting and using emergency response equipment such as fire extinguishers and respirators;
- Calibrating, field testing, and using monitoring equipment;
- Using pumps and other devices in the handling of hazardous waste materials and instruction on how to shut down for emergency conditions;
- Inspecting and using decontamination equipment such as eyewash and showers;
- Precautions and procedures for container and tank filling and overflow prevention;
- Basic instructions in fire prevention and response;
- Instruction in spill prevention and response; and
- Basic instruction in planned and unplanned Facility shutdowns.

3.0 MAINTENANCE OF TRAINING RECORDS/COPY OF PERSONNEL TRAINING DOCUMENTS

Training records are maintained at the Facility and are managed by the Training Manager. These records include employee files containing employee name, position, job description, dates of instruction and training, and training certificates with general descriptions of the training received. Training records will be maintained by AA Sydcol until the Facility is closed.

APPENDIX A

TRAINING REVIEW REPORT

AA Sydcol, LLC
Training Review Report

Facility Manager _____ Date of Review _____
Training Manager _____ Date of Prior Review _____
Other Participants _____ _____
_____ _____

1. Review of Process Changes (new tools and equipment, facility changes, operational changes)
2. Review of Individual Training Compliance (employee training requirements, certificates)
3. Review of Safety Record/Incidents (OSHA 300, notable minor incidents)
4. Review of Training Proram (identify any changes/additions needed for personnel training)
5. Review Training Schedule (summary for individual staff needs for the review period)

Attach supporting information as necessary.

Signatures:
Facility Manager: _____ Date: _____
Training Manager: _____ Date: _____

ATTACHMENT I

AA SYDCOL, LLC
CLOSURE PLAN
[40 CFR 270.14(b)(13)]

November 8, 2021

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1.0 INTRODUCTION

1.1 Background

This Closure Plan (Plan) to assess closure costs at the AA Sydcol, LLC Facility has been prepared to address closure requirements applicable to the AA Sydcol, LLC facility (Facility) detailed in 40 CFR 264, Subparts G and financial assurance requirements detailed in 40 CFR 264, Subpart H, and A.A.C. R18-8-264.A.in support of the AA Sydcol RCRA Part B permit application. A list of all acronyms and a definition of key terms used in this Plan is provided with General Information provided in Appendix A of Attachment A of the RCRA Part B permit application.

The Facility operates as a waste transfer station where hazardous wastes and non-hazardous wastes are separately accumulated, bulked, and transferred off site for treatment or disposal at permitted facilities. Universal wastes are also received at the Facility for bulking, treating/recycling, and transfer to a universal waste destination facility. Figure 1 illustrates the location of the Facility.

The design and planned operation of the Facility is for the storage and consolidation of solid and liquid hazardous wastes in three hazardous waste management units (HWMUs) as described in this Plan. Non-hazardous solid wastes are received at the Facility and stored and consolidated in a solid waste management unit (SWMU). A site plan illustrating the location of HWMUs and SWMUs is provided in Figure 2.

1.2 Closure Performance Standard

The intent of this Plan is to provide a clean closure to all hazardous waste operations such that all hazardous wastes and hazardous waste residues are removed from the facility without imposing restrictions on post-closure use. This Plan provides the steps necessary to close out all hazardous waste operations at the facility at any point during or at the completion of its operating life.

The objectives of Facility closure are to:

- Minimize the need for post closure maintenance
- To the extent necessary to protect human health and the environment, minimize or eliminate the post-closure escape of hazardous waste, hazardous constituents, leachate or contaminated run-off, or hazardous waste decomposition products to the environment, and,
- Comply with all applicable partial closure and final closure requirements.

All work under this Plan will be conducted in accordance with applicable local, state, and federal regulations. Partial closure of the Facility is not anticipated in this Plan.

1.3 Schedule for Final Closure of the Facility

The intended life of the Facility for hazardous waste activities is estimated to be 30 years, however the actual operational life will be dependent on the local and regional solid and hazardous waste market and not on-site constraints. Closure is therefore projected to occur in or after 2051, depending on market conditions.

Closure activities will begin by submitting notice to the ADEQ Hazardous Waste Program of intent to close hazardous waste activities at the Facility. The notice to ADEQ will be provided at least 45 days prior to the date Sydcol expects to begin final closure. A health and safety plan (HASP) will be prepared and submitted to ADEQ Hazardous Waste Program at least 30 days prior to the date Sydcol expects to begin final closure. Closure activities will begin on or prior to the final day of hazardous waste receipt at the Facility. Hazardous waste management units (HWMUs) HWMU1, HWMU2, and HWMU3 will be closed concurrently. The estimated schedule for conducting all closure activities under this Plan is as follows:

- Initial closure assessment: 5 weeks/35 days
- Inventory removal (HWMU1, 2, and 3): 6 weeks/42 days
- Facility decontamination (HWMU1, 2, and 3): 8 weeks/56 days
- Confirmation sampling: 2 weeks/14 days
- Closure certification: 2 weeks/14 days
- Total: 23 weeks/161 days

All treatment, removal and disposal of hazardous waste is anticipated to be completed within 90 days of receipt of the last shipment of waste. Decontamination of removal the Facility inventory is anticipated to be completed within 150 days of receipt of the last shipment of waste. The completion of closure on the site is expected to be completed within 180 days of the final receipt of hazardous waste at the Facility.

As closure of the Facility is anticipated to be complete within 180 days of commencing closure activities, there are no requests for extension of the closure time is anticipated in this Plan. Should additional time be required for completion of closure, a request for an extension will be made through the permit modification process with ADEQ.

2.0 HAZARDOUS WASTE MANAGEMENT UNITS

Sydcol will receive both listed and characteristic hazardous wastes, such as solvent wastes, corrosive wastes, and treated effluent wastes. Hazardous waste codes that may be handled at the Facility are listed in Table 1. All hazardous wastes will be stored in one of three HWMUs. HWMU1 is a sloped concrete pad located adjacent to the warehouse building, HWMU2 is a sloped concrete pad located adjacent to and north of HWMU1, and HWMU3 is a sloped concrete pad located north of the warehouse building. HWMU2 measures 50 feet by 100 feet, HWMU3 measures 85 feet by 100 feet, and HWMU measures 50 feet by 200 feet. Hazardous wastes that are solid and have been confirmed to be free of liquids can be stored in any of the HWMUs. Containers of liquid hazardous wastes can be stored within HWMU1, HWMU2, and on containment pallets within HWMU3. The three HWMUs are shown in Figure 2.

All HWMUs are located outside, each with a sloped 6-inch fibermesh-reinforced concrete slab on a compacted 4-inch layer of ABC. A concrete lip berm is provided along three sides for each of the sloped HWMUs to provide secondary containment for the HWMU. HWMU1 and HWMU2 are underlain by a 60-mil HDPE geomembrane liner formed and sealed to the concrete pad to render the containment sufficiently impermeable to any spills or leaks in the HWMU. HWMU3 is underlain by a 10-mil polyethene liner but not formed and sealed to the concrete pad. Liquid hazardous waste containers stored in HWMU3 will be stored on containment pallets with adequate secondary containment for the stored containers. Any leaks or spills of hazardous waste are promptly cleaned up using absorbent (if necessary) and placed in a container for storage and off-site disposal as hazardous waste. Additional detail on the HWMUs is provided in Attachment D to the application, Process Information: Containers.

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3.0 CLOSURE PROCEDURES

Closure of the Facility HWMU will consist of the following steps:

1. Health and Safety Plan (pre-closure)
2. Initial Closure Assessment
3. Inventory Removal
4. Facility Decontamination
5. Confirmation Sampling
6. Demolition of Structures
7. Closure Certification

3.1 Health and Safety Plan

Sydcol will prepare a HASP to address workplace hazards associated with implementing this Plan. Personnel will be equipped with appropriate health and safety equipment as identified in the HASP. This equipment is anticipated to include, but will not be limited to, acid and solvent resistant protective clothing, head protection, and full-face respirators with organic vapor and acid gas filter cartridges or equivalent consistent with personnel protective equipment designated for OSHA Level C hazardous waste operations. Chemical neutralizers and spill control pads will be available to personnel in the event spills occur during periods of pipe drainage, disconnection, or dismantling processes. All Occupational Health and Safety Administration (OSHA) requirements for personal protection and monitoring will be adhered to at all times. The HASP will be submitted to ADEQ Hazardous Waste Program at least 30 days prior to initiating closure activities.

An estimated 60 hours for a Field Engineer, 60 hours for a Health and Safety Specialist, 40 hours of clerical time and 20 hours of a Project Manager's time are anticipated in preparing the HASP including a visit to the site by professional staff preparing the HASP.

3.2 Initial Closure Assessment

Upon initiating closure and prior to removal of inventory, Sydcol will review Facility history and operational records to identify and categorize waste types stored in the HWMUs. The Project Manager and the Field Engineer implementing the closure will perform the initial closure assessment. Sydcol's Facility Manager and/or Compliance Officer will assist in assessment. Unless the operating records indicate otherwise, it will be presumed that all waste types have been stored in each HWMU.

All HWMU areas will be inspected to look for potential hazards such as visible contamination, chemical hazards and/or physical hazards following removal of all hazardous wastes from the

HWMU. A photographic log of each HWMU inspection will be maintained for a summary report of the initial closure assessment. Any potential safety hazard identified in the inspection will be addressed in the HASP before closure begins. Based on the potential wastes stored in these areas, sampling to verify areas have been decontaminated will be analyzed for a variety of parameters as identified in Section 4 of this Plan.

It is anticipated that it will take approximately 2 weeks to review operational records and prepare for the initial closure assessment, one day to inspect the condition of all HWMUs, and approximately 2 weeks to prepare an initial closure assessment report, to be included in the final closure report.

3.3 Inventory Removal

The projected inventory to be managed during the closure includes hazardous waste from operations that remains on-site. All hazardous wastes and hazardous waste containers will be removed from the Facility and transported under hazardous waste manifest for off-site treatment and disposal at a licensed recycling, treatment or disposal facility prior to closure.

For cost estimating purposes, Sydcol conservatively assumes that each HWMU will be at capacity and storing all wastes in drums. The total inventory is 600 drum-equivalents in HWMU1, 1,100 drum-equivalents in HWMU2, and 1,512 drum-equivalents in HWMU3, for a total inventory of 3,212 drum-equivalents. Removal crews will bulk compatible liquids into waste hauling trucks by transferring the waste from drums into the tanker truck hold at a rate estimated of 30 drums per hour. Empty drums will be disposed of as scrap. Drums of P-listed wastes will not be bulked but will be transferred directly to a hazardous waste disposal facility. Sydcol estimates that it will take removal crews one week to remove containers from HWMU1, two weeks to remove containers from HWMU2, and three weeks to remove containers from HWMU3 for a total of six weeks of inventory removal. A Health and Safety Specialist has been included for oversight of the inventory removal while removal activities are being conducted at the Field Engineer level. A detailed summary of maximum waste inventory for the Facility is provided in Table 2.

3.4 Non-inventory Waste Management

Following the removal of all stored hazardous wastes from the Facility, Facility equipment will be either disposed of as bulk solid waste, bulk hazardous waste, or decontaminated by pressure washing to remove hazardous waste residues that may negatively impact their future use. Each HWMU will be decontaminated by pressure washing exposed surfaces. This section details the disposal of non-inventory items and steps necessary to decontaminate structures, equipment, and soils at the Facility as a component of Facility closure.

Non-hazardous bulk solid wastes will be disposed of in rented roll off containers. An estimated 15 tons in three 20-yard roll off containers are included for cost estimating purposes. Any hazardous wastes generated during closure, which may include washwater, rinsate, disposable clothing, contaminated tools and equipment, contaminated soils, and other miscellaneous closure wastes are included in the cost estimate as a separate item from the stored hazardous waste inventory. Wastes generated during closure will be assessed to determine if they are mixtures that include a listed hazardous waste or whether they exhibit a hazardous waste characteristic.

An estimated two tons of miscellaneous equipment (tools, tool cabinets, containers, etc.) will be disposed of as bulk hazardous waste solids. An estimated one ton of bulk hazardous waste solids will also be generated from cleaning equipment used during the decontamination of all HWMUs (absorbent, brushes, brooms, rags, etc). For disposal of containment pallets used for receiving liquid hazardous wastes in HWMU3, this Plan conservatively accounts for up to 189 containment pallets for totes at 400 pounds each for a total of 37.8 tons of bulk solids to be disposed of as hazardous waste. A total of 40.8 tons of bulk hazardous waste solids will be generated during site closure and will require an estimated eight 20-cyd rolloffs for storage and transport to the disposal facility.

Any metal items and equipment that are destined for reuse or to be recycled as scrap metal will be cleaned within the secondary containment area of one of the HWMUs along with containment structures and other equipment described below in Facility Decontamination. An estimated 15 tons of metal tools and equipment will be cleaned and disposed of as scrap, requiring an estimated three 20-cyd rolloff containers. An estimated 14 20-cyd rolloff containers will be required to containerize bulk solids, including recyclable materials, hazardous waste and non-hazardous waste solids. An estimated 3,212 steel drums to be disposed of as scrap are assumed as the maximum drum capacity of the facility. Assuming 80 pounds per drum, an estimated 128 tons of drums will be bulk shipped to the recycling facility.

Non-hazardous solid wastes will be sent to a local or regional solid waste landfill. South Yuma County Landfill located approximately 15 miles south of the Facility was used for the purposes of this cost estimate. Recyclable scrap will be sent to a local recycling facility that will accept the type of scrap anticipated in this closure plan. The Republic Services Waste Transfer Facility located approximately 5 miles south of the Facility was used for the purposes of this cost estimate. Bulk solid wastes and recyclable scrap were both assumed to cost an estimated $30 per ton for disposal. Hazardous solid wastes will be sent to a regional hazardous waste facility permitted to accept bulk solid hazardous wastes. The US Ecology-Nevada facility located approximately 398 miles north of the Facility was used for the purposes of this cost estimate at $140 per ton to dispose of listed hazardous waste bulk solids.

3.5 Decontamination

All equipment and HWMU surfaces will be decontaminated using a high-pressure detergent wash and rinse. A commercial medium-duty pressure washer at 5 gallons per minute will be used for the pressure wash. Other decontamination equipment is anticipated to include a 5,000-gallon trailer-mounted water tank with tractor, two 50-foot long and 3-inch diameter discharge hoses, two laborers and a truck driver to operate the water tank tractor. Any operating equipment at the Facility that is intended for reuse will be thoroughly cleaned with a high-pressure wash system with detergent to remove any loose debris or surface stains prior to reuse. Decontamination of operating equipment will be conducted within a contained HWMU, either HWMU1 or HWMU2. Pumps and transfer lines used to transfer hazardous waste are to be flushed using water from containment area and equipment decontamination.

Reusable equipment is anticipated to consist of three forklifts and six forklift attachments, six pallet jacks and 10 drum dollies, and a variety of miscellaneous tools and pumps that will be suitable for reuse. A commercial medium-duty pressure washer at 5 gallons per minute will be used to pressure wash equipment and concrete pad surfaces. Each forklift is estimated to require 10 minutes of detergent pressure washing and 2 minutes to rinse, or 36 minutes total of washing and rinsing. The forklift attachments are estimated to require a combined 10 minutes of detergent pressure washing and 2 minutes of rinsing. The remaining tools and equipment are estimated to require 30 minutes of detergent pressure washing and 10 minutes of rinsing. It is estimated that a total of 88 minutes of washing and rinsing is required which will generate approximately 440 gallons or 8 drum-equivalents of wash water will be generated in cleaning miscellaneous tools and pumps.

Concrete surfaces in all will be thoroughly cleaned using a high-pressure detergent wash system followed by a high-pressure rinse once all hazardous waste inventory has been removed from the Facility. Any areas which appear to have a buildup of material will be more aggressively cleaned using a suitable solvent or cleanser in combination with high pressure washing. Wash water from the concrete cleaning operation will be collected concurrent with the washing using a portable vacuum pump to collect waste wash water as it is being generated and stored in drums, totes, or portable containers in sufficient size and number to contain all washwater. It is estimated that rate of washing concrete pad surfaces is 200 square feet (sft) per minute. The washwater generation for decontaminating each of the HWMUs is as follows:

- HWMU1 (5,000 sft): 125 gallons or 3 drum-equivalents
- HWMU2 (8,500 sft): 213 gallons/4 drum-equivalents
- HWMU3 (10,000 sft): 250 gallons/6 drum-equivalents

The estimated total washwater generated in decontaminating equipment and structures is 1,028 gallons or 21 drum equivalents. All washwater will be stored in portable tanks, totes, or drums within HWMU1 or HWMU2 pending profiling and off-site disposal. For the purposes of this cost estimate, all washwater will be stored in drums.

All pressure washing wastewater will be profiled for off-site disposal at a licensed hazardous waste facility. Analytical data from a representative sample of the washwater from each of the HWMUs and the washwater for equipment and miscellaneous tools will be included in support of the profile. Samples will be analyzed for parameters required by the receiving facility and is anticipated to include one sample from each HWMU and one sample from the equipment washwater for total metals, pesticides and herbicides, VOCs, SVOCs, pH and flashpoint.

All expendable items used in cleaning concrete surfaces and equipment will be treated as hazardous waste and disposed of off-site as bulk hazardous waste solids as described above in Section 3.3. An estimated 21 drum-equivalents of washwater and expendable materials will be generated following inventory removal. For the purposes of this cost estimate, all bulk hazardous waste washwater will be sent to Pacific Resource Recovery Services (PRR) located approximately 269 miles west of the Facility.

Each HWMU will be visually inspected after decontamination to ensure all surfaces are free of debris, soil and staining. Areas with sampling results indicating actionable levels of contamination will be cleaned again with additional confirmation testing or, at Sydcol's discretion, the structure will be removed and disposed at a permitted oft-site facility subject to the appropriate treatment standards.

Following decontamination, the suitability of the Facility for clean closure will be evaluated through environmental sampling consistent with Section 4 of this Plan.

3.6 Demolition of Structures

Sydcol intends to leave the existing warehouse, storage pads, and associated structures intact for post-closure operations at the site. No demolition of structures is anticipated under this Plan.

3.7 Closure Certification

To certify that final closure activities at the facility have been completed under the approved plan, Sydcol will submit a closure certification report to ADEQ documenting all closure activities and sampling results. Within 60 days of completion of closure, a closure certification report will be

submitted by registered mail, verifying the facility has been closed in accordance with the specifications and procedures in the approved closure plan. This certification will be signed by Sydcol and by an independent registered professional engineer in accordance with 40 CFR 270.A 270.11(b) and (d)).

4.0 CLOSURE SAMPLING AND ANALYSIS PLAN

The purpose of the CSAP is to verify and document clean closure of the HWMUs such that all residues from hazardous waste operations have been sufficiently removed through the process of inventory removal and decontamination to render the Facility suitable for post-closure use. All sampling will be performed by properly trained and qualified personnel at the Field Engineer level with experience collecting environmental samples. Sampling personnel will be required to have active OSHA hazardous waste operations and emergency response certification. All samples will be analyzed by an Arizona certified laboratory using certified QA/QC procedures.

This CSAP provides a sampling plan, sample collection and analytical methodologies, and data validation requirements in sufficient detail to meet sampling and analysis quality assurance requirements necessary for site closure. The closure cost estimate includes professional time in the event a more detailed project-specific quality assurance project plan (QAPP) is required under federal or state project funding requirements.

Samples will be collected from 10 background locations, from each HWMU concrete slab, from soils underlying each concrete slab, and from selected locations adjacent to the HWMU concrete slabs in areas of exposed soil. Judgmental sampling based on inspections consistent with this CSAP will be used to determine sample locations unless otherwise described in this section. A total of 20 background soil samples, 42 concrete samples, 76 soil samples for detection of contamination, and 152 contingent soil samples dependent on results of detection soil samples are anticipated under this CSAP. A summary of the samples to be collected under this CSAP and their general location is provided in Table 3. Specific sample locations will be determined from the Initial Closure Assessment consistent with this CSAP.

In the event the visual inspection does not identify a sufficient number of areas with suspect contamination for judgmental sampling, samples will be collected at randomly determined locations in or adjacent to the HWMU.

4.1 Inspection of Concrete Pad Areas

Clean concrete surfaces in the HWMUs will be inspected for cracks by a licensed civil or structural engineer knowledgeable about concrete and damage to concrete structures. The inspector will use the American Concrete Institute's Guide for Conduction Visual Inspections of Concrete in Service or other industry-standard method for evaluating the condition of concrete floor slabs. All areas where the floor slab meets the sidewall foundations and the locations of known saw cuts in the floor slab will be included in the inspection. Locations where significant cracking that could potentially penetrate the slab is identified will be visually examined using penetrant dyes and

removing the surficial concrete layer near the crack to determine if the crack penetrates into the interior of the slab. The inspecting engineer will document the inspection with a technical memorandum report including photographic record of observations made during the inspection.

If necessary, the civil engineer will develop a concrete integrity assessment plan using destructive or non-destructive concrete test methods to determine the location of any cracks that penetrate the entire thickness of the concrete slab. These areas will be further evaluated by coring the concrete slab for subsurface soil sampling using the sampling and analysis methods identified in this Plan.

Samples will also be collected at the low point in each of the four loading dock bays accessing the warehouse building.

4.2 Inspection of Exposed Soil Areas

All hazardous waste storage and processing at the Facility occurs on concrete surfaces to minimize the potential for contamination of soils at the Facility. Nonhazardous solid waste storage and processing occur both on concrete pads as well as in areas of exposed soil in the SWMU. A visual inspection of areas at the Facility where hazardous waste transport vehicles were known to have been present will be performed by a Field Engineer properly trained to identify areas suspected of soil contamination that may be the result of leaked or spilled hazardous waste, in addition to the sampling locations used on the known areas of hazardous waste management. The inspector will prepare a technical memorandum report with recommendations on soil sampling locations that includes a photographic record of observations made during the inspection.

In particular, exposed soils near the loading/unloading bay doors in the warehouse building and the soils adjacent to the concrete storage surfaces in HWMU1, HWMU2, and HWMU3 will be inspected for suspect contamination. Indicators of soil that may require further investigation include:

- Visible discoloration or abnormally wet soils.
- Any areas which soil exhibits a chemical odor.
- Adjacent to stained areas of the concrete pad, particularly areas where the concrete containment curb is stained.
- Areas adjacent to the concrete slab where large spills of liquid hazardous waste are known to have occurred.

A PID instrument will be used to screen shallow soils for VOC contamination. Ambient concentrations of VOCs will be determined using a calibrated PID in ambient air at a location upwind of the Facility and recorded. Any exposed soils designated for further investigation will be first screened for organic compounds using a PID and the total VOC above background content

noted. For screening in exposed soil areas, a surface sample and a sample at one-foot depth will be collected consistent with this CSAP. If the soil to be sampled is beneath a concrete slab, the concrete will be cored and screening samples collected consistent with this CSAP. The top of the soil underneath the concrete slab will be screened for VOCs no more than 6 inches below the concrete slab and any underlying base course gravel.

A screening threshold of 100 ppm VOC content above background will be indicative of soil contamination in determining the depth of soil samples subject to laboratory analysis consistent with this CSAP.

4.3 Stormwater Basin and Septic Line Samples

In addition to soil sample locations determined from the visible inspection, soil samples will be collected within each of the three stormwater runoff basins and near the septic line feeding the septic tank and from the primary leach field area of the septic system. Six sample locations are anticipated for detection sampling in the large linear basin along the northern perimeter of the site and two sample locations are anticipated in each of the smaller retention basins on the east and south property boundaries. Two sample locations are anticipated along the septic line.

4.4 Sampling Methodology

Samples of concrete will be collected from concrete cores produced when drilling the concrete slab with a core barrel drill. Concrete core sample locations must include expansion joins and cold joints where the slab joins the concrete containment berm for each HWMU. Each concrete sample shall be placed in a ziplock bag after coring, labelled, and stored on ice in a cooler pending transport to the analytical laboratory. A complete core of the concrete slab will be considered a representative sample of the concrete slab.

Soils underlying concrete slabs will be accessed for sampling through core holes drilled through the concrete slab. Samples will be collected from the top 6 inches of native soil beneath the concrete core and any base course aggregate as well as at depths of 1 and 5 feet below the top of native soil. Similarly, at sample locations in exposed soil areas, samples will be collected from the surface soil material and at depths of 1 and 5 feet below the ground surface. The soil core will be examined for staining or odors being emitted. A hand auger, hollow-stem auguer, or direct-push soil sampler will be used to collect soil below the concrete and aggregate base course material. A hollow-stem auger rig is assumed for the purposes of this cost estimate.

Collected samples will be placed in laboratory-supplied containers immediately upon collection. Samples for VOCs will be collected using a field extraction sample container such as En Core®

samplers or equivalent volumetric sampling device. For both soil samples underneath concrete slabs and soil samples in uncovered areas, the sample taken at the soil surface will be analyzed for all parameters listed Table 4. If analytical results for all parameters are non-detect or below RSRLs and VOCs were not detected above PID screening levels, no further action will be taken. If one of these parameters is above the RSRL or VOCs were detected above screening levels, additional analysis for the respective parameters will be analyzed for each of the deeper samples. This will be repeated until the extent of contamination has been defined. If necessary, additional samples will be collected from depths greater than 5 feet below the top of native soil.

Sampling boreholes will be backfilled with clean soil. A concrete fill patch installed to repair the concrete slab for sample locations within the HWMUs. The repair will be epoxy-sealed consistent with the concrete slab surface.

All samples will be labelled to include, at a minimum, the following information.

- Sample Identification Number
- Date
- Time
- Sampling Personnel
- Matrix

As each sample is collected, a record will be made in the field notebook which further identifies the sample. All samples will be taken to a central staging area where they will be checked and recorded on a chain-of-custody form. Chain-of-custody procedures provide documentation of the handling of each sample from the time it is collected until it is destroyed. To maintain a record of sample collection, transfer between personnel, shipment, and receipt and handling by the laboratory, a "Chain-of-Custody Record" will be included with each sample shipment. This document will record pertinent information about each sample included in that shipment. Each time the samples are transferred to another custodian, signatures of the person relinquishing the sample and receiving the sample, as well as the time and date, will document the transfer.

Chain-of-custody records will have each sample identified with the station number, date and time of collection, matrix, number of containers per station, analytical constituents, and any special instructions for the analytical laboratory. A copy of the chain-of custody will be retained by the sampler while the original is shipped with the samples.

The Chain-of-custody record will be placed inside the shipping container. A sealable plastic bag or other sheet protector will be used to protect the chain-of-custody form during shipment. All samples will be delivered directly to or shipped by the most expedient method to the analytical

laboratory. Samples will be packed to prevent container breakage. The shipping container will be sealed with evidence tape to provide evidence of any tampering with samples during transport.

Sampling personnel will be properly trained and experienced in environmental sample collection consistent with sampling methodologies. Sampling personnel will also be trained consistent with OSHA HAZWOPER requirements for work at a hazardous waste management facility with current HAZWOPER certification. The HASP will be followed by all contractors working onsite.

All sample bottle preparation, sample preservation, sample size and maximum holding times shall conform to the procedures described in the analytical method. Sample containers will be prepared by the analytical laboratory and will be used as received. The analytical laboratory will be responsible for disposing of all samples in accordance with local, state and federal regulations. Soil samples collected for VOC will be appropriately collected and either sub-sampled or field extracted in accordance with EPA Method 5035. Liquid samples will be collected directly into the sample container, collected and transferred to the sample container using a pond sampler, or collected through a peristaltic pump with Teflon tubing.

Sampling equipment will be decontaminated after each use and before reusing by the following steps:

- Detergent wash followed by a clean water rinse
- Isopropyl alcohol rinse
- Triple rinse with deionized water and air dry
- Covered to minimize open exposure

Cleaning solutions and rinses will be collected into drums, totes or a portable tank and characterized for off-site disposal at an approved disposal facility.

4.5 Analytical Methods

Heavy metals, VOCs, SVOCs, and to a lesser extent pesticides and herbicides are present in a wide variety of waste streams accepted at the Facility. The analysis procedures listed below are expected to provide a good indication of the possible contaminants that could be present at the time of closure. Analytical procedures and detection limits of the most recent version of each of the following methods published in EPA Hazardous Waste Test Methods/SW-846 are to be used in analyzing for specific compounds in closure samples:

- Method 6010 (metals: As, Ba, Cd, Cr, Pb, Hg, Se, Ag, Be, Ni, Tl and Zn)
- Method 8260 (VOCs)
- Method 8270 (SVOCs)

- Method 8082 (organochlorine pesticides)
- Method 8141 (organophosphorous pesticides)
- Method 8151 (chlorinated herbicides)

Sixteen background samples will be collected at 8 locations depicted in Figure 2. Background samples will be collected at the surface and at one (1) foot depth for the same constituents as soil samples collected under this CSAP. The background concentration will be established as the upper confidence limit of the mean (UCL) with 95 percent confidence. The background distribution will be established as a tolerance interval with a 95 percent confidence and 90 percent coverage, with the upper tolerance limit (UTL) established as a screening level. Additional background samples will be collected if distributional assumptions necessary to establish a UCL or a tolerance interval are not satisfied with eight background samples using standard statistical tests for data normality as detailed by EPA in "Data Quality Assessment: Statistical Methods for Practitioners," EPA QA/G-9S, February 2006 (EPA Guidance). Non-detect data will be handled consistent with EPA Guidance.

Soil samples will be analyzed for total concentrations for each of 12 heavy metals. The soil concentrations for total metals will be compared statistically to the background data set. Statistical comparison of analytical results in soil samples collected from operational areas will be compared to those of uncontaminated background samples using a student's t-test or other appropriate statistical test for each distribution. Sydcol may propose an alternate statistical procedure with ADEQ approval of an amendment to this Plan if determined to be necessary or appropriate.

4.6 Data Validation

Analytical laboratory data will be validated by reviewing the precision and accuracy of the data. The precision, or degree of agreement between measurements, is determined by the standard deviation of a single measurement from the mean of the data set. Duplicates of the same sample will be analyzed by the laboratory as a routine precision check consistent with the laboratory's QA/QC plan. Field duplicates will be collected at a rate of ten percent (10 %) of samples for each sampling media, selected at random, to be analyzed as a check on sampling and analytical technique.

The accuracy of a sample measurement is reported as percent spike recovery which represents the percentage recovery of a known quantity of compound which is added to the original sample and subsequently analyzed. The methods used in sample analyses will contain quality control audit standards, including sample spiking, to be implemented to ensure data reliability.

The analytical laboratory will prepare quality assurance documentation for all samples analyzed for each sampling event. The level of detail will be sufficient to document all quality assurance activities specified by the method and shall include periodic assessment of measurement data accuracy, precision, and completeness, results of performance audits, results of systems audits, and significant quality assurance problems and resolutions.

The analytical laboratory will analyze the samples using the procedures outlined in EPA guidance publication SW 846 for all analyzed compounds. All analytical reports received from the laboratory will be included in the closure certification report and will include quality assurance test results, analytical methods, detection limits and dates. Analytical data will be summarized in tabular form for ease of presentation in a certification report. Statistical analysis of soil sample results will be prepared and submitted with the report.

4.7 Data Analysis

Analytical results for samples in exposed areas of soil will be compared to UTL screening level as a preliminary indication of whether or not the results are representative of the background distribution. For samples with contaminants exceeding the UTL, additional judgment samples for the contaminants exceeding the UTL screening level will be collected on a step-out pattern of 10 feet from the sampling location where UTLs were exceeded. The step out pattern of judgment sampling will continue until the extent of contamination is characterized by an area with maximum concentration of contaminants identified.

Areas where contaminants are identified above RSLs will be evaluated in relation to Arizona health-based guidance levels designated as RSRLs and NRSRLs. In the event analytical results indicate that the soils contain contaminants above the Arizona NRSRL's, the affected soils as defined by step-out samples will be excavated and treated or disposed at a permitted site. A minimum of one additional sample will be collected and analyzed six inches below each excavation to determine whether all contaminated soils have been removed. Larger excavations may require additional samples. Should contaminated soils remain on site at levels above the RSRLs but below the NRSRLs, Sydcol will prepare a DEUR for areas where soil contamination exists above RSRLs.

In addition to comparison with Arizona health-based guidance levels, Sydcol will determine whether Arizona GPLs are warranted to for any contaminants detected in soil samples. Sydcol will use ADEQ guidance and methods for establishing GPLs for the contaminants of concern. Soils with contaminants above GPLs will be considered to not meet clean closure criteria under this Plan.

Impacted soil that does not meet the clean closure criteria will be removed and treated or disposed in an off-site permitted facility in accordance with appropriate State and Federal regulations. If the extent or location of contamination makes removal impractical based on technical or economic reasons, it may be necessary to use other methods to address the impacted area. This may include in-situ treatment or it may involve post-closure care. A plan to address soil corrective action, a site-specific risk analysis, or a Post Closure Plan, will be developed if necessary.

4.8 Additional Sampling

In the event contamination is discovered in samples collected at a depth of 5 feet bgs, additional samples will be collected at the location of the detection at a depth of 10 feet bgs and at the depth of the water table, anticipated to be approximately 15 feet bgs. A grab sample of groundwater will be collected from the top of the aquifer using a disposal or decontaminated sampling bailer. Additional soil and groundwater samples will be tested for the constituents detected in soils at a depth of 5 feet.

5.0 FINANCIAL ASSURANCE

5.1 Closure Cost Estimate

A closure cost estimate is presented in Appendix A. The closure cost estimate contains a summary page as Table A-1 and several supporting spreadsheets to calculate an estimated cost for each element of the Facility closure. For clarity of presentation, professional services provided throughout the closure process are calculated separately on a single spreadsheet provided in Attachment A-2. The cost of loading, transport, and disposal of all hazardous waste in the Facility's inventory at closure are presented in Table A-3, including management costs associated with inventory removal. Attachment A-4 presents costs for decontaminating the Facility and the cost for loading and removing non-inventory wastes, including waste generated in the process of decontamination. Attachment A-5 presents costs associated with confirmation sampling at the Facility to confirm clean closure.

One of the spreadsheets assumes a diversity of waste types extrapolated to the maximum RCRA waste inventory based on past waste streams arriving at the facility. The costs of labor and equipment to remove the waste from site have also been included with the waste removal estimate.

The closure cost estimates are based on closure costs involving third parties for inventory disposal, transportation, site/equipment decontamination, labor, and administrative and engineering certifications. Where appropriate, relevant reference values were used for necessary equipment and services published in RS Means (RS Means, 2020). Published values that include contractor O&P were used in all line items to adequately account for O&P in the itemized total. Each RS Means value was adjusted for the RS Means location factor for Phoenix, Arizona, as well as for inflation to adjust prices from 2020 levels to 2021 levels. Inflation factors published by ADEQ (ADEQ, 2021) were used in the inflation adjustment. Per diem rates for crew travel were obtained from current published GSA values for Yuma, Arizona. Cost for hazardous waste disposal were obtained from third-party disposal facilities in 2020 and adjusted for inflation using ADEQ inflation factors. A current third-party laboratory quote was used as representative of analytical costs for the analytical methods anticipated under this Plan. Engineering estimates were made for the cost of PPE, vehicle fuel consumption and cost, non-hazardous waste disposal and recycling facility costs, miscellaneous sampling materials costs, and shipping costs associated with sample shipments to an analytical laboratory. Cost estimate source values are provided in Appendix B.

The total direct costs for the Facility closure are estimated at $570,510. A contingency of 20 precent of the total direct costs was applied for an additional $114,142, and a project management cost of 10 percent o f the total direct costs applied for an additional $57,051. The total estimated costs for Facility closure financial assurance is estimated to be $741,663.

5.2 Financial Assurance Mechanism for Closure

Sydcol will execute and provide to ADEQ a closure insurance policy as described in 40 CFR 264.143(e) as the financial assurance mechanism for closing the Facility consistent with this Plan. The closure insurance policy provides funds for closure of the existing units based on the closure cost estimates provided herein in the event Sydcol is unable to provide the financial resources needed for closure. The amount of closure insurance policy is to be adjusted annually by a new estimate of the maximum cost of closure in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor will be determined by dividing the latest published annual Deflator by the Deflator for the previous year.

The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate. Subsequent adjustments are to be made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

5.3 Post Closure Care

Post closure care and subsequent funding will not be necessary at the Facility since all hazardous components and materials will be removed from the site during closure activities. If hazardous components or contaminated soils are found at the site during closure and the Facility demonstrates that not all contaminated soils can be practically removed or decontaminated, post closure care will be performed as specified in 40 CFR 264.197. A post closure plan will be prepared in accordance with all applicable post closure requirements under 40 CFR 264.117 through 264.120.

As this Plan anticipates clean closure of the Facility, a post-closure care cost estimate and post-closure care financial assurance mechanism is not applicable.

6.0 MISCELLANEOUS PROVISIONS

6.1 Notice in Deed

If contamination above the RSRLs remains after closure, Sydcol will comply with deed notice requirements in 40 CFR 270.14(b) (14).

6.2 Liability Insurance

Liability coverage for sudden accidental occurrence with a one million dollar ($1,000,000) per occurrence and an annual aggregate amount of two million dollars ($2,000,000) has been secured by the Facility. Such liability coverage is demonstrated by a Hazardous Waste Certificate of Liability Insurance. A copy of the liability coverage document is provided in Appendix C.

6.3 Amending the Closure Plan

Sydcol may amend this closure plan at any time through the permit modification process during the life of the facility to incorporate any changes in operating plans, Facility design, or waste streams. If a modification is required, the request for modification will be submitted in accordance with 40 CFR 264.112 (c)(3).

6.4 Pre-Closure Corrective Action

Section 3004 (u) of the Resource Conservation and Recovery Act, 42, USC §6924, as amended by section 206 of the Hazardous and Solid Waste Amendments of 1984 (JHSWA), and 40 CFR 264.101, requires that all permits address corrective action for releases of hazardous waste or hazardous constituents from any solid waste management unit (SWMU), regardless of when waste was placed in the unit or whether the unit closed. As of this date of this Closure Plan, there have been no releases of hazardous waste or hazardous waste constituents from a SWMU or HWMU at the Facility.

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TABLES

Table 1
Estimated Annual Hazardous Waste

Waste type	RCRA Waste Codes	HWMUs	Estimated Annual Quantity (tons)	Percentage of total
Ignitables	D001	1, 2, 3*	30,000	26.46%
Corrosives	D002	1, 2, 3*	20,000	17.64%
Reactives	D003	1, 2, 3*	200	0.18%
Toxicity: Heavy metals	D004-011	1, 2, 3*	100	0.09%
Toxicity: pesticides/herbicides	D012-017, 020, 031	1, 2, 3*	100	0.09%
Toxicity: Volatile organics	D018-019, 021-022, 028-029, 035, 039-040, 043	1, 2, 3*	32,500	28.67%
Toxicity: Semi-volatile organics	D022-027, 032-034, 036-038, 041-042,	1, 2, 3*	200	0.18%
2,4-dinitrotoluene, nitrobenzene	D030, D036	1, 2, 3*	2	0.00%
Halogenated compounds: degreasing	F001	1, 2, 3*	4,000	3.53%
Halogenated compounds: solvents	F002	1, 2, 3*	4,000	3.53%
non-Halogenated compounds solvents	F003-005	1, 2, 3*	8,000	7.06%
Listed electroplating wastes	F006-009	1, 2, 3*	11,000	9.70%
Listed metal finishing wastes	F010-012, 019	1, 2, 3*	2,500	2.21%
Chlorinated aliphatic hydrocarbons	F024-026	1, 2, 3*	10	0.01%
Listed wood-preserving wastes	F032, F034-035	1, 2, 3*	10	0.01%
Refinery WW treatment sludges	F037-038	1, 2, 3*	10	0.01%
Hazardous leachates	F039	1, 2, 3*	10	0.01%
P-listed commercial chemicals	P001-P205	1, 2, 3*	100	0.09%
Commercial grade acetone	U002	1, 2, 3*	100	0.09%
Commercial grade benzene	U019	1, 2, 3*	100	0.09%
Commercial grade 1-butanol	U031	1, 2, 3*	20	0.02%
Commercial grade methanol	U154	1, 2, 3*	100	0.09%
Commercial grade methyl-ethyl ketone	U159	1, 2, 3*	100	0.09%
other U-listed commercial chemicals	U001, 003-018, 020-030, 032-153, 154-158, 160-411	1, 2, 3*	200	0.18%
Total			113,362	100%

* Containers with free liquids or listed wastes FO20, FO21, FO22, FO23, FO26, and FO27 to be placed on containment pallets in HWMU3.

Table 2
Maximum Inventory by Waste Class

Waste type	Percentage	Drum-equivalents
Ignitables	26.46%	850
Corrosives	17.64%	567
Reactives	0.18%	6
Toxicity: Heavy metals	0.09%	3
Toxicity: Pesticides	0.09%	3
Toxicity: Volatile organics	28.67%	921
Toxicity: Semi-volatile organics	0.18%	6
Listed: F	26.06%	837
Listed: P/U	0.64%	20
Totals	100%	3,212

Maximum capacity: 3212 drum-equivalents

Table 3
Sample Locations

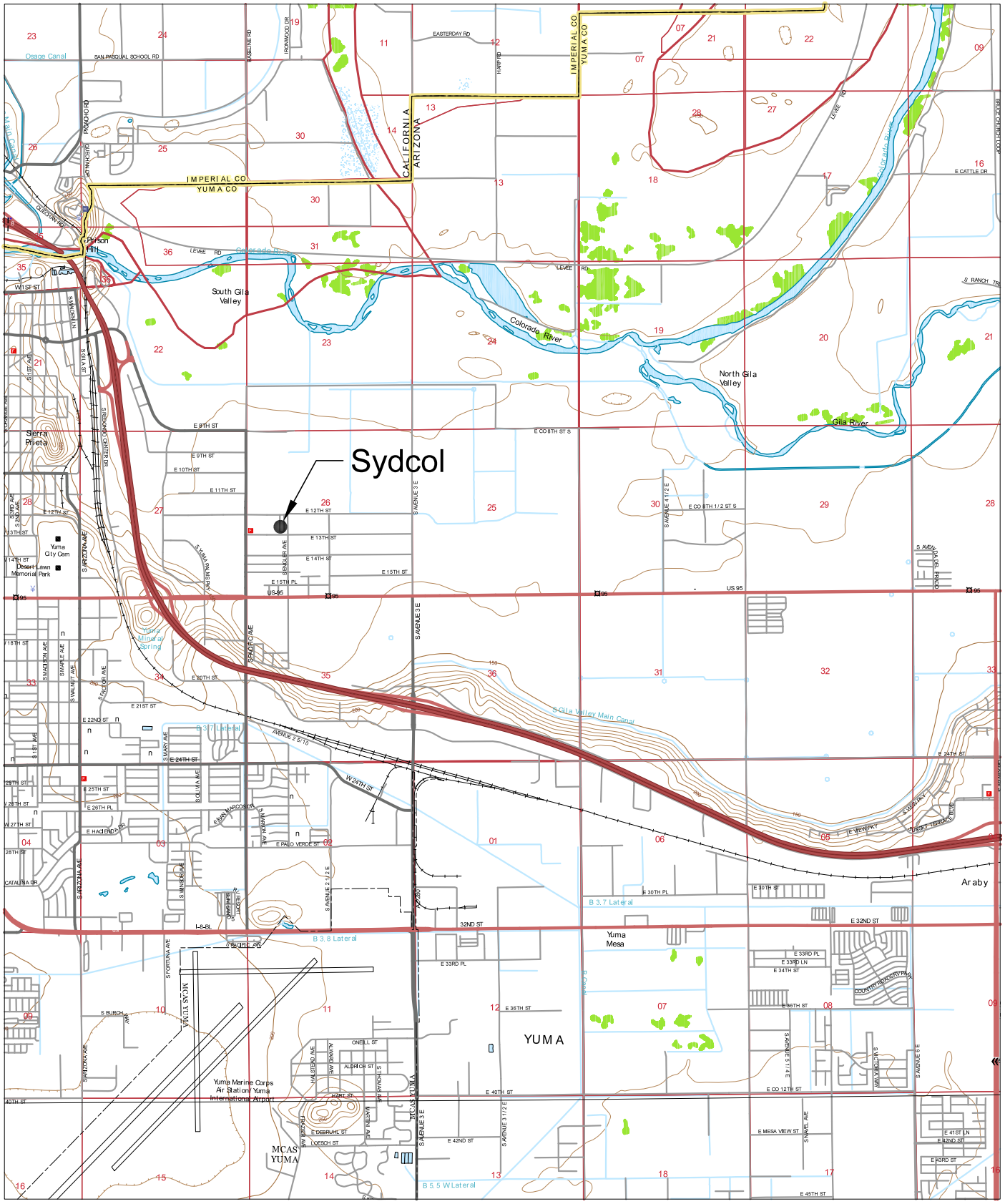
Sampling Area	Number of locations	Concrete samples	Primary Soil Samples	Contingent Soil samples	Rinsate Samples
General					
Background	10	0	20	0	0
Loading dock bays	4	4	4	8	2
Runoff retention basins	10	10	10	20	2
Septic system	2	0	2	4	0
Totals (general)	26	14	36	32	4
HWMU1					
Concrete pad area	10	10	10	20	2
Adjacent soils	6	0	6	12	0
Totals (HWMU1)	16	10	16	32	2
HWMU2					
Concrete pad area	12	12	12	24	2
Adjacent soils	8	0	8	16	0
Totals (HWMU2)	20	12	20	40	2
HWMU3					
Concrete pad area	16	16	16	32	2
Adjacent soils	8	0	8	16	0
Totals (HWMU3)	24	16	24	48	2
Totals	**86**	**52**	**96**	**152**	**10**

Total primary samples 158
Total contingency samples: 152

Table 4
Analytical Parameters

Analytical Parameters	EPA SW-846 Method	Concrete Samples	Soil Samples	Rinsate Samples
Heavy metals	6010A	X	X	X
Volatile organic compounds (VOCs)	8260B	X	X	X
Semi-volatile organic compounds (SVOCs)	8270D	X	X	X
Polychlorinated biphenols (PCBs)	8082		X	
Organochlorine pesticides	8081A		X	
Organophosphorous pesticides	8141B		X	
Chlorinated herbicides	8151A		X	

FIGURES


Sydcol
IMPERIAL CO
YUMA CO
CALIFORNIA
ARIZONA
Colorado River
Gila River
South Gila Valley
North Gila Valley
Sierra Prieta
Yuma City Cem
Desert Lawn Memorial Park
Yuma Mineral Spring
S Gila Valley Main Canal
B 3.7 Lateral
B 3.8 Lateral
B 5.5 W Lateral
Yuma Mesa
YUMA
Araby
Yuma Marine Corps Air Station/Yuma International Airport
MCAS YUMA
US 95
I-8-BL
E 8TH ST
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S MAIN ST
S GILA ST
S FORTUNA AVE
S MARY AVE
S COLMA AVE
S MCKEEN AVE
S MAPLE AVE
S WALNUT AVE
S PACIFIC AVE
S SENDER AVE
S MCLEAN AVE
S MCCAS YUMA
S MCTOWNSEND AVE
S MCTOWNSEND PL
S MCTOWNSEND LN
S MCTOWNSEND WAY
S MCTOWNSEND CT
S MCTOWNSEND TER
S MCTOWNSEND RD
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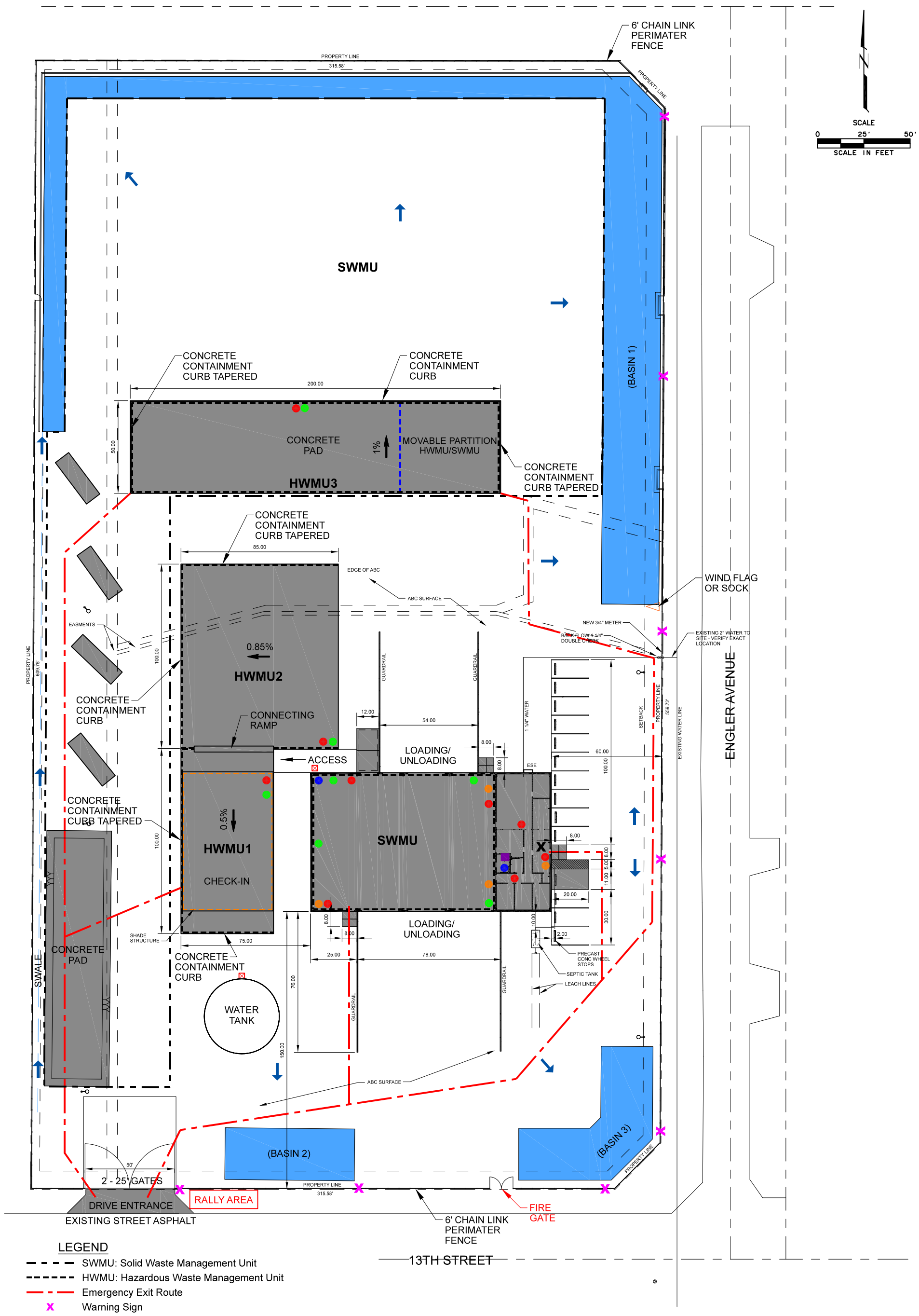

LEGEND

- SWMU: Solid Waste Management Unit
- HWMU: Hazardous Waste Management Unit
- Emergency Exit Route
- Warning Sign
- Spill Kit
- Fire Alarm
- Fire Extinguisher (ABC)
- Eyewash
- Shower
- Facility Report
- Fire Hose Connection
- Concrete Surface
- Drainage Direction
- Drainage Basin

Figure 2
SITE PLAN
Sydcol
2264 E. 13th St.,Yuma, AZ 85365

CLIENT:	APPROVED BY: JGP
PROJECT:	PROJECT NO:
DESIGNED BY: JGP	DATE: 11/5/21
DRAWN BY: TML	DWG/FILE: SYDCOL02
REVISION:	

JGP Consulting, PLC
Environmental Compliance Services

APPENDICES

APPENDIX A

CLOSURE COST ESTIMATE

Table A-1
AA Sydcol Waste Transfer Station
Summary of Closure Costs

Closure Activity	Estimated Cost	Supporting information
Health and Safety Plan	$9,831	Table A-2
Initial closure assessment	$10,123	Table A-2
Inventory removal	$340,052	Table A-3
Waste/recycling disposal and decontamination	$71,388	Table A-4
Confirmation sampling	$121,566	Table A-5
Closure sampling report	$10,289	Table A-2
Closure Certification	$7,260	Table A-2
Total Direct Cost	$570,510	
Contingency (20%)	$114,102	
Project management (10%)	$57,051	
Total Project Cost	**$741,663**	

Table A-2
AA Sydcol Waste Transfer Station
Closure Costs for Services

Service Item	Health and Safety Plan	Initial Closure Assessment	Sampling Report	Closure Certification
Labor costs				
Project Manager: Weeks	0.5	1	1	1
Project Manager w/O&P (01-31-13.20 0220): Rate ($/wk)	3,876	3,876	3,876	3,876
Project Manager total:	$1,938	$3,876	$3,876	$3,876
Field Engineer: Weeks	1	2	2	1
Field Engineer w/O&P (01-31-13.20 0120): Rate ($/wk)	2,487	2,487	2,487	2,487
Field Engineer total:	$2,487	$4,973	$4,973	$2,487
Safety Specialist: Weeks	1	0	0.2	0
Safety Specialist w/O&P (01-31-13.20 0280): Rate ($/wk)	3,607	3,840	3,840	3,840
Safety Specialist total:	$3,607	$0	$768	$0
Clerical support: Weeks	1	1	1	1
Clerical w/O&P (01 31 13.20 0020): Rate ($/Wk)	672	672	672	672
Clerical support total:	$672	$672	$672	$672
Total labor cost	$8,703	$9,521	$10,289	$7,034
Expenses				
Expenses: Per diem lodging (GSA): ($96/day)	$96	$96	$96	$96
Expenses: Per diem meals (GSA) ($55/day)	$55	$55	$55	$55
Expenses: PPE (engineering estimate) ($75 /day)	$225	$150	$0	$75
Travel: person-days	3	2	0	1
Total expenses	$1,128	$602	$0	$226
Project Totals				
Total cost (labor and expenses)	$9,831	$10,123	$10,289	$7,260
	$37,504			

Notes:

All RS Means costs adjusted for location and inflation.

RS Means location factor index (Phoenix):	0.886
Inflation factor (2020-2021):	1.01139

Table A-3
Sydcol Waste Transfer Station
Closure Costs for Inventory Removal

Inventory Removal Safety Oversight

Item	RSMeans or Item	Rate	Units	Quantity	Cost
Safety Specialist	01-31-13.20 0280	3,607	week	6	$21,641
Vehicle (pickup)	01-54-33.40 7100	497	Month	1.5	$746
Fuel	Engineering estimate	30	Day	10	$300
PPE	Engineering estimate	75	Person-day	30	$2,250
Per diem lodging	GSA 2021	96	Person-day	30	$2,880
Per diem meals	GSA 2021	55	Person-day	30	$1,650
Totals:					**$29,467**

Loading, Transport, and Disposal Costs

Facility capacity: 3212 Drum-eq

Inventory Description	Quantity (Drum-eq)	Loading cost	Loads (5000 g/l)	Disposal Facility	Distance (miles)	Transport Cost	Disposal Cost/unit^3	Total Cost
Ignitables	850	5648	10	Veolia	258	20001.45	$46,277	$71,926
Corrosives	567	4434	7	Veolia	258	14001.02	$30,851	$49,287
Reactives	6	45	1	Veolia	258	2000.15	$315	$2,360
Toxicity: Metals	3	23	1	Veolia	258	2000.15	$157	$2,180
Toxicity: Pesticides	3	23	1	Veolia	258	2000.15	$157	$2,180
Toxicity: VOCs	921	7207	11	Veolia	258	22001.60	$50,142	$79,351
Toxicity: SVOCs	6	45	1	Veolia	258	2000.15	$315	$2,360
Listed: F	837	6554	10	Veolia	258	20001.45	$45,595	$72,150
Listed: P/U	21	4902	1	Crosby	274	2124.19	18268.25	$25,294
Totals (2020):	3,213	28,880	43			86,130	192,077	307,088
Totals (2021):								**$310,586**

Total cost for task: **$340,052**

Notes:

1. Loading costs: RS Means 02 81 20.10 3120 with O&P ($265/hour), adjusted for location (Phoenix) (2020)
   Load 30 drum contents per hour.
2. Transport costs: RS Means 02 81 20.10 3400 ($8.75/mile/ load) adjusted for location (Phoenix)
3. Independent price quote from disposal facility (2020)
   Veolia: $0.99/gallon bulk hazardous liquid, Crosby: $875/drum for acute hazardous waste (P-list)

RS Means location factor index: 0.886 Phoenix

Inflation factor (2020-2021): 1.01139

Table A-4
AA Sydcol Waste Transfer Station
Closure Costs for Non-inventory Waste Removal and Decontamination

A-4.1 Non-inventory waste loading

Description	RSMeans	Units	Quantity	Unit Cost	Total Cost
Rolloffs for bulk solids, haz/non-haz (20 cyd)	02 41 19.19 0725	week	14	625	$8,750
Rolloff loading (0-50' wheeled)	02 41 19.19 2005	cyd	120	27.5	$3,300
Listed HW: bulk solids	02 81 20.10 1130	ton	41	210	$8,610
Listed HW: washwater	02 81 20.10 1100	drum	24	655	$15,720
Total:					$36,380

A.4-2 Non-inventory waste disposal

Description (non-inventory Wastes)	RSMeans	Units	Quantity	Disposal Facility	Transport Cost ($/unit-mile)[1]	Disposal ($/unit)[2]	Total Cost
Nonhazardous bulk solids	02 81 20.10 1270	tons	15	MSWLF (15 miles)	0.40	30	$539
Scrap recycling	02 81 20.10 1270	tons	143	Republic (5 miles)	0.40	30	$4,574
Listed: Bulk solids	02 81 20.10 1270	tons	41	US Ecology (398 mi)	0.40	142	$12,288
Listed: Washwater	02 81 20.10 1270	Drum-eq	21	PRR (269 mi)	0.09	255	$5,857
Total:							**$18,145**

A.4-3 Decontamination costs

Description	RSMeans	Units	Quantity	Unit Cost	Total Cost
Pressure wash crew and equipment (Crew B-9B)	Crew B-9B	Day	5	2221	$11,103
Fuel	Engineering est.	Week	1	700	$700
PPE[3]	Engineering est.	Man-Day	15	75	$1,125
Waste profiling	3rd-party	Sample	4	795	$3,180
Expenses: Per diem lodging (GSA)	GSA	Day	5	96	$480
Expenses: Per diem meals (GSA)	GSA	Day	5	55	$275
					$16,863

Total for non-inventory waste removal and decontamination: **$71,388**

Notes:

1. Transport costs: RS Means 02 81 20.10 1270 ($7.98/mile/ load, 80 drums or 18 tons per load) adjusted for location (Phoenix) and inflation.
2. Engineering estimate for solid wastes and recycling. Independent price quote from disposal facility for hazardous wastes (2020, adjusted to 2021)
3. Engineering estimate for PPE costs include tyvek cover, disposable respirator cartridges, and latex boot covers

Location factor index for all RSMeans costs (Phoenix): 0.886
Inflation factor (2020-2021): 1.01139

Table A-5
AA Sydcol Waste Transfer Station
Closure Costs for Sampling

Description	RSMeans[2] or source	Units	Quantity	Unit Cost	Total Cost
Field Engineer	01 31 13.20 0200	Week	1	2487	$2,487
Concrete coring	03 82 13.10 0300	Hole	42	73	$3,067
Drill rig and crew	02 32 13.10 1400	Day	5	2599	$12,993
PPE[1]	Eng. Estimate	Person-day	15	75	$1,125
Sample analytical costs (concrete)	3rd-party quote	Sample	42	350	$14,700
Sample analytical costs (soils)	3rd-party quote	Sample	86	795	$68,370
Sample analytical costs (rinsate)	3rd-party quote	Sample	8	350	$2,800
Sample duplicate analytical costs (soils)	3rd-party quote	Sample	14	795	$10,812
Sampling materials	Eng. Estimate	Lump	1	2000	$2,000
Sample shipping	Eng. Estimate	Lump	1	400	$400
Vehicle (pickup)	01 54 33.40 7100	Day	5	99	$497
Fuel	Eng. Estimate	Day	5	10	$50
Expenses: Per diem lodging (GSA)	GSA	Day	15	96	$1,440
Expenses: Per diem meals (GSA)	GSA	Day	15	55	$825
Samplig total					$121,566

Notes:

1. Estimated PPE costs include tyvek cover, dispoal respirator cartridges, and latex boot covers
2. Costs from RS Means are adjusted for location (Phoenix) and inflation (2020-2021)

   Location factor index for all RSMeans costs (Phoenix): 0.886

   Inflation factor (2020-2021): 1.01139

APPENDIX B

COST ESTIMATE REFERENCES

01 21 Allowances

01 21 55 – Job Conditions Allowance

01 21 55.50 Job Conditions

		Crew	Daily Output	Labor-Hours	Unit	Material	2020 Bare Costs Labor	Equipment	Total	Total Incl O&P
0600	Inexperienced, add				Project				10%	10%
0700	Labor availability, surplus, deduct								1%	1%
0800	Shortage, add								10%	10%
0900	Material storage area, available, deduct								1%	1%
1000	Not available, add								2%	2%
1100	Subcontractor availability, surplus, deduct								5%	5%
1200	Shortage, add								12%	12%
1300	Work space, available, deduct								2%	2%
1400	Not available, add								5%	5%

01 21 57 – Overtime Allowance

01 21 57.50 Overtime

0010	**OVERTIME** for early completion of projects or where R012909-90									
0020	labor shortages exist, add to usual labor, up to				Costs		100%			

01 21 63 – Taxes

01 21 63.10 Taxes

0010	**TAXES** R012909-80									
0020	Sales tax, State, average				%	5.08%				
0050	Maximum					7.50%				
0200	Social Security, on first $118,500 of wages R012909-85						7.65%			
0300	Unemployment, combined Federal and State, minimum R012909-86						.60%			
0350	Average						9.60%			
0400	Maximum						12%			

01 31 Project Management and Coordination

01 31 13 – Project Coordination

01 31 13.20 Field Personnel

0010	**FIELD PERSONNEL**									
0020	Clerk, average				Week		495		495	750
0100	Field engineer, junior engineer						1,241		1,241	1,877
0120	Engineer						1,825		1,825	2,775
0140	Senior engineer						2,400		2,400	3,625
0160	General purpose laborer, average	1 Clab	.20	40			1,675		1,675	2,525
0180	Project manager, minimum						2,175		2,175	3,300
0200	Average						2,500		2,500	3,800
0220	Maximum						2,850		2,850	4,325
0240	Superintendent, minimum						2,125		2,125	3,225
0260	Average						2,325		2,325	3,525
0280	Maximum						2,650		2,650	4,025
0290	Timekeeper, average						1,350		1,350	2,050

01 31 13.30 Insurance

0010	**INSURANCE** R013113-40									
0020	Builders risk, standard, minimum				Job				.24%	.24%
0050	Maximum								.64%	.64%
0200	All-risk type, minimum R013113-50								.25%	.25%
0250	Maximum								.62%	.62%
0400	Contractor's equipment floater, minimum R013113-60				Value				.50%	.50%
0450	Maximum				"				1.50%	1.50%
0600	Public liability, average				Job				2.02%	2.02%
0800	Workers' compensation & employer's liability, average									
0850	by trade, carpentry, general				Payroll		11.97%			

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02 21 Surveys

02 21 13 – Site Surveys

02 21 13.09 Topographical Surveys

		Crew	Daily Output	Labor-Hours	Unit	Material	2020 Bare Costs Labor	Equipment	Total	Total Incl O&P
0010	**TOPOGRAPHICAL SURVEYS**									
0020	Topographical surveying, conventional, minimum	A-7	3.30	7.273	Acre	23.50	415	9.30	447.80	660
0100	Maximum	A-8	60	53.333	"	63	2,975	51	3,089	4,600

02 21 13.13 Boundary and Survey Markers

0010	**BOUNDARY AND SURVEY MARKERS**									
0300	Lot location and lines, large quantities, minimum	A-7	2	12	Acre	36	690	15.35	741.35	1,075
0320	Average	"	1.25	19.200		63.50	1,100	24.50	1,188	1,750
0400	Small quantities, maximum	A-8	1	32		76.50	1,775	30.50	1,882	2,800
0600	Monuments, 3' long	A-7	10	2.400	Ea.	35.50	138	3.07	176.57	249
0800	Property lines, perimeter, cleared land	"	1000	.024	L.F.	.08	1.38	.03	1.49	2.19
0900	Wooded land	A-8	875	.037	"	.10	2.04	.04	2.18	3.21

02 21 13.16 Aerial Surveys

0010	**AERIAL SURVEYS**									
1500	Aerial surveying, including ground control, minimum fee, 10 acres				Total				4,700	4,700
1510	100 acres								9,400	9,400
1550	From existing photography, deduct								1,625	1,625
1600	2' contours, 10 acres				Acre				470	470
1850	100 acres								94	94
2000	1000 acres								90	90
2050	10,000 acres								85	85

02 32 Geotechnical Investigations

02 32 13 – Subsurface Drilling and Sampling

02 32 13.10 Boring and Exploratory Drilling

0010	**BORING AND EXPLORATORY DRILLING**									
0020	Borings, initial field stake out & determination of elevations	A-6	1	16	Day		845	31	876	1,300
0100	Drawings showing boring details				Total		335		335	425
0200	Report and recommendations from P.E.						775		775	970
0300	Mobilization and demobilization	B-55	4	6			263	305	568	730
0350	For over 100 miles, per added mile		450	.053	Mile		2.34	2.69	5.03	6.45
0600	Auger holes in earth, no samples, 2-1/2" diameter		78.60	.305	L.F.		13.40	15.40	28.80	37
0650	4" diameter		67.50	.356			15.60	17.95	33.55	43.50
0800	Cased borings in earth, with samples, 2-1/2" diameter		55.50	.432		20.50	18.95	22	61.45	75
0850	4" diameter		32.60	.736		29	32.50	37	98.50	122
1000	Drilling in rock, "BX" core, no sampling	B-56	34.90	.458			22	43.50	65.50	80.50
1050	With casing & sampling		31.70	.505		20.50	24	48	92.50	111
1200	"NX" core, no sampling		25.92	.617			29.50	58.50	88	109
1250	With casing and sampling		25	.640		21	30.50	60.50	112	136
1400	Borings, earth, drill rig and crew with truck mounted auger	B-55	1	24	Day		1,050	1,200	2,250	2,900
1450	Rock using crawler type drill	B-56	1	16	"		760	1,525	2,285	2,825
1500	For inner city borings, add, minimum								10%	10%
1510	Maximum								20%	20%

02 32 19 – Exploratory Excavations

02 32 19.10 Test Pits

0010	**TEST PITS**									
0020	Hand digging, light soil	1 Clab	4.50	1.778	C.Y.		75		75	112
0100	Heavy soil	"	2.50	3.200			135		135	202
0120	Loader-backhoe, light soil	B-11M	28	.571			28.50	8.30	36.80	51.50
0130	Heavy soil	"	20	.800			39.50	11.60	51.10	72
1000	Subsurface exploration, mobilization				Mile				6.75	8.40

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02 41 19.18 Selective Demolition, Disposal Only

		Crew	Daily Output	Labor-Hours	Unit	2020 Bare Costs Material	Labor	Equipment	Total	Total Incl O&P
0010	**SELECTIVE DEMOLITION, DISPOSAL ONLY** R024119-10									
0015	Urban bldg w/salvage value allowed									
0020	Including loading and 5 mile haul to dump									
0200	Steel frame	B-3	430	.112	C.Y.		5.25	5.40	10.65	13.80
0300	Concrete frame		365	.132			6.20	6.35	12.55	16.30
0400	Masonry construction		445	.108			5.10	5.20	10.30	13.35
0500	Wood frame		247	.194			9.15	9.35	18.50	24

02 41 19.19 Selective Demolition

0010	**SELECTIVE DEMOLITION**, Rubbish Handling R024119-10									
0020	The following are to be added to the demolition prices									
0050	The following are components for a complete chute system									
0100	Top chute circular steel 4' long, 18" diameter R024119-30	B-1C	15	1.600	Ea.	285	68.50	20.50	374	440
0102	23" diameter		15	1.600		310	68.50	20.50	399	465
0104	27" diameter		15	1.600		330	68.50	20.50	419	490
0106	30" diameter		15	1.600		355	68.50	20.50	444	515
0108	33" diameter		15	1.600		380	68.50	20.50	469	545
0110	36" diameter		15	1.600		405	68.50	20.50	494	570
0112	Regular chute, 18" diameter		15	1.600		214	68.50	20.50	303	360
0114	23" diameter		15	1.600		238	68.50	20.50	327	390
0116	27" diameter		15	1.600		262	68.50	20.50	351	415
0118	30" diameter		15	1.600		268	68.50	20.50	357	420
0120	33" diameter		15	1.600		310	68.50	20.50	399	465
0122	36" diameter		15	1.600		330	68.50	20.50	419	490
0124	Control door chute, 18" diameter		15	1.600		405	68.50	20.50	494	570
0126	23" diameter		15	1.600		430	68.50	20.50	519	595
0128	27" diameter		15	1.600		450	68.50	20.50	539	620
0130	30" diameter		15	1.600		475	68.50	20.50	564	650
0132	33" diameter		15	1.600		500	68.50	20.50	589	675
0134	36" diameter		15	1.600		520	68.50	20.50	609	700
0136	Chute liners, 14 ga., 18"-30" diameter		15	1.600		228	68.50	20.50	317	375
0138	33"-36" diameter		15	1.600		284	68.50	20.50	373	440
0140	17% thinner chute, 30" diameter		15	1.600		233	68.50	20.50	322	385
0142	33% thinner chute, 30" diameter		15	1.600		176	68.50	20.50	265	320
0144	Top chute cover	1 Clab	24	.333		155	14.05		169.05	192
0146	Door chute cover	"	24	.333		155	14.05		169.05	192
0148	Top chute trough	2 Clab	12	1.333		530	56		586	665
0150	Bolt down frame & counter weights, 250 lb.	B-1	4	6		4,325	257		4,582	5,125
0152	500 lb.		4	6		6,375	257		6,632	7,375
0154	750 lb.		4	6		11,100	257		11,357	12,600
0156	1000 lb.		2.67	8.989		12,000	385		12,385	13,800
0158	1500 lb.		2.67	8.989		14,000	385		14,385	16,000
0160	Chute warning light system, 5 stories	B-1C	4	6		8,525	257	77.50	8,859.50	9,850
0162	10 stories	"	2	12		14,800	515	155	15,470	17,200
0164	Dust control device for dumpsters	1 Clab	8	1		158	42		200	238
0166	Install or replace breakaway cord		8	1		28	42		70	94
0168	Install or replace warning sign		16	.500		11.10	21		32.10	43.50
0600	Dumpster, weekly rental, 1 dump/week, 6 C.Y. capacity (2 tons)				Week	415			415	455
0700	10 C.Y. capacity (3 tons)					480			480	530
0725	20 C.Y. capacity (5 tons) R024119-20					565			565	625
0800	30 C.Y. capacity (7 tons)					730			730	800
0840	40 C.Y. capacity (10 tons)					775			775	850
2000	Load, haul, dump and return, 0'-50' haul, hand carried	2 Clab	24	.667	C.Y.		28		28	42

	02 41 19.19 Selective Demolition	Crew	Daily Output	Labor-Hours	Unit	Material	2020 Bare Costs Labor	Equipment	Total	Total Incl O&P
2005	Wheeled	2 Clab	37	.432	C.Y.		18.20		18.20	27.5
2040	0'-100' haul, hand carried		16.50	.970			41		41	61.5
2045	Wheeled		25	.640			27		27	40.5
2050	Forklift	A-3R	25	.320			16.95	10.25	27.20	37
2080	Haul and return, add per each extra 100' haul, hand carried	2 Clab	35.50	.451			18.95		18.95	28.5
2085	Wheeled		54	.296			12.45		12.45	18.7
2120	For travel in elevators, up to 10 floors, add		140	.114			4.81		4.81	7.2
2130	0'-50' haul, incl. up to 5 riser stairs, hand carried		23	.696			29.50		29.50	44
2135	Wheeled		35	.457			19.25		19.25	29
2140	6-10 riser stairs, hand carried		22	.727			30.50		30.50	46
2145	Wheeled		34	.471			19.80		19.80	30
2150	11-20 riser stairs, hand carried		20	.800			33.50		33.50	50.5
2155	Wheeled		31	.516			21.50		21.50	32.5
2160	21-40 riser stairs, hand carried		16	1			42		42	63.5
2165	Wheeled		24	.667			28		28	42
2170	0'-100' haul, incl. 5 riser stairs, hand carried		15	1.067			45		45	67.5
2175	Wheeled		23	.696			29.50		29.50	44
2180	6-10 riser stairs, hand carried		14	1.143			48		48	72.5
2185	Wheeled		21	.762			32		32	48
2190	11-20 riser stairs, hand carried		12	1.333			56		56	84.5
2195	Wheeled		18	.889			37.50		37.50	56
2200	21-40 riser stairs, hand carried		8	2			84		84	127
2205	Wheeled		12	1.333			56		56	84.5
2210	Haul and return, add per each extra 100' haul, hand carried		35.50	.451			18.95		18.95	28.5
2215	Wheeled		54	.296			12.45		12.45	18.7
2220	For each additional flight of stairs, up to 5 risers, add		550	.029	Flight		1.22		1.22	1.8
2225	6-10 risers, add		275	.058			2.45		2.45	3.6
2230	11-20 risers, add		138	.116			4.88		4.88	7.3
2235	21-40 risers, add		69	.232			9.75		9.75	14.6
3000	Loading & trucking, including 2 mile haul, chute loaded	B-16	45	.711	C.Y.		31.50	12.75	44.25	61.5
3040	Hand loading truck, 50' haul	"	48	.667			29.50	11.95	41.45	57.5
3080	Machine loading truck	B-17	120	.267			12.40	5.35	17.75	24.5
5000	Haul, per mile, up to 8 C.Y. truck	B-34B	1165	.007			.34	.49	.83	1.0
5100	Over 8 C.Y. truck	"	1550	.005			.25	.37	.62	.7

02 41 19.20 Selective Demolition, Dump Charges

0010	SELECTIVE DEMOLITION, DUMP CHARGES R024119-10									
0020	Dump charges, typical urban city, tipping fees only									
0100	Building construction materials				Ton	74			74	81
0200	Trees, brush, lumber					63			63	69.5
0300	Rubbish only					63			63	69.5
0500	Reclamation station, usual charge					74			74	81

02 41 19.21 Selective Demolition, Gutting

0010	SELECTIVE DEMOLITION, GUTTING R024119-10									
0020	Building interior, including disposal, dumpster fees not included									
0500	Residential building									
0560	Minimum	B-16	400	.080	SF Flr.		3.54	1.43	4.97	6.9
0580	Maximum	"	360	.089	"		3.94	1.59	5.53	7.6
0900	Commercial building									
1000	Minimum	B-16	350	.091	SF Flr.		4.05	1.64	5.69	7.9
1020	Maximum	"	250	.128	"		5.65	2.29	7.94	11

02 65 Underground Storage Tank Removal

02 65 10 – Underground Tank and Contaminated Soil Removal

02 65 10.30 Removal of Underground Storage Tanks

			Crew	Daily Output	Labor-Hours	Unit	2020 Bare Costs Material	Labor	Equipment	Total	Total Incl O&P
0401	For cleaning/transporting tanks (1.5 lb./100 gal. cap)	G	1 Clab	500	.016	Lb.	1.22	.67		1.89	2.35
0503	Disconnect and remove piping	G	1 Plum	160	.050	L.F.		3.22		3.22	4.82
0603	Transfer liquids, 10% of volume	G		1600	.005	Gal.		.32		.32	.48
0703	Cut accessway into underground storage tank	G	1 Clab	5.33	1.501	Ea.		63		63	95
0813	Remove sludge, wash and wipe tank, 500 gal.	G	1 Plum	8	1			64.50		64.50	96.50
0823	3,000 gal.	G		6.67	1.199			77.50		77.50	116
0833	5,000 gal.	G		6.15	1.301			84		84	125
0843	8,000 gal.	G		5.33	1.501			96.50		96.50	145
0853	10,000 gal.	G		4.57	1.751			113		113	169
0863	12,000 gal.	G		4.21	1.900			122		122	183
1020	Haul tank to certified salvage dump, 100 miles round trip										
1023	3,000 gal. to 5,000 gal. tank					Ea.				760	830
1026	6,000 gal. to 8,000 gal. tank									880	960
1029	9,000 gal. to 12,000 gal. tank									1,050	1,150
1100	Disposal of contaminated soil to landfill										
1110	Minimum					C.Y.				145	160
1111	Maximum					"				400	440
1120	Disposal of contaminated soil to										
1121	bituminous concrete batch plant										
1130	Minimum					C.Y.				80	88
1131	Maximum									115	125
1203	Excavate, pull, & load tank, backfill hole, 8,000 gal. +	G	B-12G	50	.32	Ea.		1,625	1,900	3,525	4,525
1213	Haul tank to certified dump, 100 miles rt, 8,000 gal. +	G	B-34K	1	8			390	855	1,245	1,525
1223	Excavate, pull, & load tank, backfill hole, 500 gal.	G	B-11C	1	16			790	214	1,004	1,400
1233	Excavate, pull, & load tank, backfill hole, 3,000-5,000 gal.	G	B-11M	.50	32			1,575	465	2,040	2,875
1243	Haul tank to certified dump, 100 miles rt, 500 gal.	G	B-34L	1	8			425	196	621	850
1253	Haul tank to certified dump, 100 miles rt, 3,000-5,000 gal.	G	B-34M	1	8			425	820	1,245	1,525
2010	Decontamination of soil on site incl poly tarp on top/bottom										
2011	Soil containment berm and chemical treatment										
2020	Minimum	G	B-11C	100	.160	C.Y.	7.65	7.90	2.14	17.69	22.50
2021	Maximum	G	"	100	.160		9.90	7.90	2.14	19.94	25
2050	Disposal of decontaminated soil, minimum									135	150
2055	Maximum									400	440

02 81 Transportation and Disposal of Hazardous Materials

02 81 20 – Hazardous Waste Handling

02 81 20.10 Hazardous Waste Cleanup/Pickup/Disposal

0010	HAZARDOUS WASTE CLEANUP/PICKUP/DISPOSAL										
0100	For contractor rental equipment, i.e., dozer,										
0110	Front end loader, dump truck, etc., see 01 54 33 Reference Section										
1000	Solid pickup										
1100	55 gal. drums					Ea.				240	265
1120	Bulk material, minimum					Ton				190	210
1130	Maximum					"				595	655
1200	Transportation to disposal site										
1220	Truckload = 80 drums or 25 C.Y. or 18 tons										
1260	Minimum					Mile				3.95	4.45
1270	Maximum					"				7.25	7.98
3000	Liquid pickup, vacuum truck, stainless steel tank										
3100	Minimum charge, 4 hours										
3110	1 compartment, 2200 gallon					Hr.				140	155

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03 81 Concrete Cutting

03 81 13 – Flat Concrete Sawing

03 81 13.75 Concrete Saw Blades

		Crew	Daily Output	Labor-Hours	Unit	2020 Bare Costs Material	Labor	Equipment	Total	Total Incl O&P
3200	42" diameter				Ea.	2,450			2,450	2,700

03 81 16 – Track Mounted Concrete Wall Sawing

03 81 16.50 Concrete Wall Cutting

0010	CONCRETE WALL CUTTING									
0750	Includes blade cost, layout and set-up time									
0800	Concrete walls, hydraulic saw, plain, per inch of depth	B-89B	250	.064	L.F.	.04	3.21	.6	9.25	11.45
0820	Rod reinforcing, per inch of depth		150	.107		.06	5.35	10.05	15.46	19.10

03 82 Concrete Boring

03 82 13 – Concrete Core Drilling

03 82 13.10 Core Drilling

0010	CORE DRILLING									
0015	Includes bit cost, layout and set-up time									
0020	Reinforced concrete slab, up to 6" thick									
0100	1" diameter core	B-89A	17	.941	Ea.	.20	45.50	6.70	52.40	76.50
0150	For each additional inch of slab thickness in same hole, add		1440	.011		.03	.54	.08	.65	.94
0200	2" diameter core		16.50	.970		.26	47	6.90	54.16	79
0250	For each additional inch of slab thickness in same hole, add		1080	.015		.04	.72	.11	.87	1.25
0300	3" diameter core		16	1		.40	48.50	7.15	56.05	81.50
0350	For each additional inch of slab thickness in same hole, add		720	.022		.07	1.08	.16	1.31	1.86
0500	4" diameter core		15	1.067		.45	51.50	7.60	59.55	87
0550	For each additional inch of slab thickness in same hole, add		480	.033		.07	1.62	.24	1.93	2.78
0700	6" diameter core		14	1.143		.65	55.50	8.15	64.30	93
0750	For each additional inch of slab thickness in same hole, add		360	.044		.11	2.15	.32	2.58	3.72
0900	8" diameter core		13	1.231		1.07	59.50	8.80	69.37	101
0950	For each additional inch of slab thickness in same hole, add		288	.056		.18	2.69	.40	3.27	4.70
1100	10" diameter core		12	1.333		1.20	64.50	9.50	75.20	109
1150	For each additional inch of slab thickness in same hole, add		240	.067		.20	3.23	.48	3.91	5.60
1300	12" diameter core		11	1.455		1.84	70.50	10.40	82.74	119
1350	For each additional inch of slab thickness in same hole, add		206	.078		.31	3.77	.55	4.63	6.65
1500	14" diameter core		10	1.600		1.84	77.50	11.40	90.74	132
1550	For each additional inch of slab thickness in same hole, add		180	.089		.31	4.31	.63	5.25	7.55
1700	18" diameter core		9	1.778		3.06	86	12.70	101.76	147
1750	For each additional inch of slab thickness in same hole, add		144	.111		.51	5.40	.79	6.70	9.55
1754	24" diameter core		8	2		4.15	97	14.30	115.45	166
1756	For each additional inch of slab thickness in same hole, add		120	.133		.69	6.45	.95	8.09	11.55
1760	For horizontal holes, add to above						20%	20%		
1770	Prestressed hollow core plank, 8" thick									
1780	1" diameter core	B-89A	17.50	.914	Ea.	.27	44.50	6.55	51.32	74.50
1790	For each additional inch of plank thickness in same hole, add		3840	.004		.03	.20	.03	.26	.37
1794	2" diameter core		17.25	.928		.35	45	6.60	51.95	75.50
1796	For each additional inch of plank thickness in same hole, add		2880	.006		.04	.27	.04	.35	.50
1800	3" diameter core		17	.941		.53	45.50	6.70	52.73	77
1810	For each additional inch of plank thickness in same hole, add		1920	.008		.07	.40	.06	.53	.75
1820	4" diameter core		16.50	.970		.60	47	6.90	54.50	79.50
1830	For each additional inch of plank thickness in same hole, add		1280	.013		.07	.61	.09	.77	1.09
1840	6" diameter core		15.50	1.032		.87	50	7.35	58.22	84.50
1850	For each additional inch of plank thickness in same hole, add		960	.017		.11	.81	.12	1.04	1.47
1860	8" diameter core		15	1.067		1.43	51.50	7.60	60.53	88
1870	For each additional inch of plank thickness in same hole, add		768	.021		.18	1.01	.15	1.34	1.88

For customer support on your Building Construction Costs with RSMeans data, call 800.448.8182.

01 54 33 | Equipment Rental

		UNIT	HOURLY OPER. COST	RENT PER DAY	RENT PER WEEK	RENT PER MONTH	EQUIPMENT COST/DAY
6830	Cable pulling rig	Ea.	73.77	28.50	85	255	607.15
6850	Portable cable/wire puller, 8000 lb max pulling capacity		3.70	120	360	1,075	101.60
6900	Water tank trailer, engine driven discharge, 5000 gallons		7.16	158	475.09	1,425	152.25
6925	10,000 gallons		9.75	215	645.50	1,925	207.10
6950	Water truck, off highway, 6000 gallons		71.75	835	2,504.54	7,525	1,075
7010	Tram car for high voltage line work, powered, 2 conductor		6.88	28.50	85	255	72.05
7020	Transit (builder's level) with tripod		.10	17.55	52.67	158	11.30
7030	Trench box, 3000 lb., 6' x 8'		.56	96.50	290.22	870	62.50
7040	7200 lb., 6' x 20'		.72	187	560	1,675	117.75
7050	8000 lb., 8' x 16'		1.08	186	557.71	1,675	120.15
7060	9500 lb., 8' x 20'		1.20	232	697.14	2,100	149.05
7065	11,000 lb., 8' x 24'		1.26	219	655.83	1,975	141.25
7070	12,000 lb., 10' x 20'		1.49	263	790.09	2,375	169.95
7100	Truck, pickup, 3/4 ton, 2 wheel drive		9.24	61.50	184.87	555	110.85
7200	4 wheel drive		9.48	167	500	1,500	175.85
7250	Crew carrier, 9 passenger		12.66	108	325	975	166.25
7290	Flat bed truck, 20,000 lb. GVW		15.26	133	397.63	1,200	201.60
7300	Tractor, 4 x 2, 220 H.P.		22.25	215	645.50	1,925	307.10
7410	330 H.P.		32.33	294	883.04	2,650	435.25
7500	6 x 4, 380 H.P.		36.09	340	1,022.47	3,075	493.25
7600	450 H.P.		44.23	415	1,239.36	3,725	601.75
7610	Tractor, with A frame, boom and winch, 225 H.P.		24.74	293	877.88	2,625	373.50
7620	Vacuum truck, hazardous material, 2500 gallons		12.79	310	929.52	2,800	288.25
7625	5,000 gallons		13.02	440	1,316.82	3,950	367.55
7650	Vacuum, HEPA, 16 gallon, wet/dry		.85	122	365	1,100	79.80
7655	55 gallon, wet/dry		.78	25.50	76.50	230	21.50
7660	Water tank, portable		.73	160	480.25	1,450	101.90
7690	Sewer/catch basin vacuum, 14 C.Y., 1500 gallons		17.31	665	1,988.14	5,975	536.15
7700	Welder, electric, 200 amp		3.81	33.50	100	300	50.50
7800	300 amp		5.55	103	310	930	106.40
7900	Gas engine, 200 amp		8.95	58.50	175	525	106.55
8000	300 amp		10.13	110	330	990	147
8100	Wheelbarrow, any size		.06	11.15	33.50	101	7.20
8200	Wrecking ball, 4000 lb.		2.50	60	180	540	56
0010	**HIGHWAY EQUIPMENT RENTAL** without operators R015433-10						
0050	Asphalt batch plant, portable drum mixer, 100 ton/hr.	Ea.	88.41	1,550	4,621.78	13,900	1,632
0060	200 ton/hr.		101.99	1,650	4,931.62	14,800	1,802
0070	300 ton/hr.		119.86	1,925	5,783.68	17,400	2,116
0100	Backhoe attachment, long stick, up to 185 H.P., 10.5' long		.37	25.50	76.43	229	18.25
0140	Up to 250 H.P., 12' long		.41	28.50	85.72	257	20.45
0180	Over 250 H.P., 15' long		.56	39	116.71	350	27.85
0200	Special dipper arm, up to 100 H.P., 32' long		1.16	79.50	238.58	715	56.95
0240	Over 100 H.P., 33' long		1.44	100	299.51	900	71.45
0280	Catch basin/sewer cleaning truck, 3 ton, 9 C.Y., 1000 gal.		35.39	420	1,265.18	3,800	536.15
0300	Concrete batch plant, portable, electric, 200 C.Y./hr.		24.18	560	1,678.30	5,025	529.15
0520	Grader/dozer attachment, ripper/scarifier, rear mounted, up to 135 H.P.		3.15	63.50	190.04	570	63.20
0540	Up to 180 H.P.		4.13	95.50	287.12	860	90.50
0580	Up to 250 H.P.		5.85	153	459.60	1,375	138.75
0700	Pvmt. removal bucket, for hyd. excavator, up to 90 H.P.		2.16	58	174.54	525	52.20
0740	Up to 200 H.P.		2.31	74.50	223.08	670	63.05
0780	Over 200 H.P.		2.52	91	273.69	820	74.90
0900	Aggregate spreader, self-propelled, 187 H.P.		50.60	740	2,220.52	6,650	848.90
1000	Chemical spreader, 3 C.Y.		3.17	96.50	290	870	83.35
1900	Hammermill, traveling, 250 H.P.		67.35	515	1,550	4,650	848.80
2000	Horizontal borer, 3" diameter, 13 H.P. gas driven		5.42	232	695	2,075	182.35
2150	Horizontal directional drill, 20,000 lb. thrust, 78 H.P. diesel		27.58	530	1,590	4,775	538.65
2160	30,000 lb. thrust, 115 H.P.		33.90	615	1,850	5,550	641.20
2170	50,000 lb. thrust, 170 H.P.		48.60	710	2,135	6,400	815.80

Crew No.	Bare Costs		Incl. Subs O&P		Cost Per Labor-Hour	
Crew B-6C	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
2 Labor Foremen (outside)	$44.10	$705.60	$66.25	$1060.00	$42.77	$64.25
4 Laborers	42.10	1347.20	63.25	2024.00		
1 S.P. Crane, 4x4, 12 Ton		428.30		471.13		
1 Flatbed Truck, Gas, 3 Ton		820.40		902.44		
1 Butt Fusion Mach., 8"-24" diam.		1076.00		1183.60	48.43	53.27
48 L.H., Daily Totals		$4377.50		$5641.17	$91.20	$117.52
Crew B-6D	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
0.5 Labor Foreman (outside)	$44.10	$176.40	$66.25	$265.00	$48.36	$72.49
1 Laborer	42.10	336.80	63.25	506.00		
1 Equip. Oper. (medium)	56.75	454.00	84.85	678.80		
1 Hydro Excavator, 12 C.Y.		1262.00		1388.20	63.10	69.41
20 L.H., Daily Totals		$2229.20		$2838.00	$111.46	$141.90
Crew B-7	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$44.10	$352.80	$66.25	$530.00	$44.88	$67.35
4 Laborers	42.10	1347.20	63.25	2024.00		
1 Equip. Oper. (medium)	56.75	454.00	84.85	678.80		
1 Brush Chipper, 12", 130 H.P.		392.80		432.08		
1 Crawler Loader, 3 C.Y.		1169.00		1285.90		
2 Chain Saws, Gas, 36" Long		82.50		90.75	34.26	37.68
48 L.H., Daily Totals		$3798.30		$5041.53	$79.13	$105.03
Crew B-7A	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
2 Laborers	$42.10	$673.60	$63.25	$1012.00	$45.73	$68.57
1 Equip. Oper. (light)	53.00	424.00	79.20	633.60		
1 Rake w/Tractor		339.45		373.39		
2 Chain Saws, Gas, 18"		104.00		114.40	18.48	20.32
24 L.H., Daily Totals		$1541.05		$2133.40	$64.21	$88.89
Crew B-7B	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$44.10	$352.80	$66.25	$530.00	$45.46	$68.21
4 Laborers	42.10	1347.20	63.25	2024.00		
1 Equip. Oper. (medium)	56.75	454.00	84.85	678.80		
1 Truck Driver (heavy)	48.95	391.60	73.35	586.80		
1 Brush Chipper, 12", 130 H.P.		392.80		432.08		
1 Crawler Loader, 3 C.Y.		1169.00		1285.90		
2 Chain Saws, Gas, 36" Long		82.50		90.75		
1 Dump Truck, 8 C.Y., 220 H.P.		428.05		470.86	37.01	40.71
56 L.H., Daily Totals		$4617.95		$6099.19	$82.46	$108.91
Crew B-7C	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$44.10	$352.80	$66.25	$530.00	$45.46	$68.21
4 Laborers	42.10	1347.20	63.25	2024.00		
1 Equip. Oper. (medium)	56.75	454.00	84.85	678.80		
1 Truck Driver (heavy)	48.95	391.60	73.35	586.80		
1 Brush Chipper, 12", 130 H.P.		392.80		432.08		
1 Crawler Loader, 3 C.Y.		1169.00		1285.90		
2 Chain Saws, Gas, 36" Long		82.50		90.75		
1 Dump Truck, 12 C.Y., 400 H.P.		572.90		630.19	39.59	43.55
56 L.H., Daily Totals		$4762.80		$6258.52	$85.05	$111.76

Crew No.	Bare Costs		Incl. Subs O&P		Cost Per Labor-Hour	
Crew B-8	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$44.10	$352.80	$66.25	$530.00	$48.78	$73.09
2 Laborers	42.10	673.60	63.25	1012.00		
2 Equip. Oper. (medium)	56.75	908.00	84.85	1357.60		
1 Equip. Oper. (oiler)	50.55	404.40	75.55	604.40		
2 Truck Drivers (heavy)	48.95	783.20	73.35	1173.60		
1 Hyd. Crane, 25 Ton		580.85		638.93		
1 Crawler Loader, 3 C.Y.		1169.00		1285.90		
2 Dump Trucks, 12 C.Y., 400 H.P.		1145.80		1260.38	45.24	49.77
64 L.H., Daily Totals		$6017.65		$7862.81	$94.03	$122.86
Crew B-9	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$44.10	$352.80	$66.25	$530.00	$42.50	$63.85
4 Laborers	42.10	1347.20	63.25	2024.00		
1 Air Compressor, 250 cfm		201.50		221.65		
2 Breakers, Pavement, 60 lb.		107.00		117.70		
2 -50' Air Hoses, 1.5"		48.50		53.35	8.93	9.82
40 L.H., Daily Totals		$2057.00		$2946.70	$51.42	$73.67
Crew B-9A	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
2 Laborers	$42.10	$673.60	$63.25	$1012.00	$44.38	$66.62
1 Truck Driver (heavy)	48.95	391.60	73.35	586.80		
1 Water Tank Trailer, 5000 Gal.		152.25		167.47		
1 Truck Tractor, 220 H.P.		307.10		337.81		
2 -50' Discharge Hoses, 3"		9.00		9.90	19.51	21.47
24 L.H., Daily Totals		$1533.55		$2113.99	$63.90	$88.08
Crew B-9B	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
2 Laborers	$42.10	$673.60	$63.25	$1012.00	$44.38	$66.62
1 Truck Driver (heavy)	48.95	391.60	73.35	586.80		
2 -50' Discharge Hoses, 3"		9.00		9.90		
1 Water Tank Trailer, 5000 Gal.		152.25		167.47		
1 Truck Tractor, 220 H.P.		307.10		337.81		
1 Pressure Washer		96.95		106.65	23.55	25.91
24 L.H., Daily Totals		$1630.50		$2220.63	$67.94	$92.53
Crew B-9D	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$44.10	$352.80	$66.25	$530.00	$42.50	$63.85
4 Common Laborers	42.10	1347.20	63.25	2024.00		
1 Air Compressor, 250 cfm		201.50		221.65		
2 -50' Air Hoses, 1.5"		48.50		53.35		
2 Air Powered Tampers		67.70		74.47	7.94	8.74
40 L.H., Daily Totals		$2017.70		$2903.47	$50.44	$72.59
Crew B-9E	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Cement Finisher	$49.95	$399.60	$73.45	$587.60	$46.02	$68.35
1 Laborer	42.10	336.80	63.25	506.00		
1 Chip. Hammers, 12 Lb., Elec.		32.40		35.64	2.02	2.23
16 L.H., Daily Totals		$768.80		$1129.24	$48.05	$70.58
Crew B-10	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (medium)	$56.75	$454.00	$84.85	$678.80	$51.87	$77.65
.5 Laborer	42.10	168.40	63.25	253.00		
12 L.H., Daily Totals		$622.40		$931.80	$51.87	$77.65
Crew B-10A	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (medium)	$56.75	$454.00	$84.85	$678.80	$51.87	$77.65
.5 Laborer	42.10	168.40	63.25	253.00		
1 Roller, 2-Drum, W.B., 7.5 H.P.		166.10		182.71	13.84	15.23
12 L.H., Daily Totals		$788.50		$1114.51	$65.71	$92.88

APPENDIX C

PROOF OF LIABILITY INSURANCE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 11/20/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Wood Gutmann & Bogart
15901 Red Hill Ave., Suite 100
Tustin CA 92780

CONTACT NAME:
PHONE (A/C, No, Ext): 714-505-7000
FAX (A/C, No): 714-573-1770
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Starr Indemnity & Liability Co	
INSURER B : Federal Insurance Co.	20281
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
AA Sydcol LLC
2264 E 13th Street
Yuma AZ 85365

INDUS-4

COVERAGES **CERTIFICATE NUMBER:** 251761856 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			1000065485191	4/1/2019	4/1/2020	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 50,000
	X Premises Poll						MED EXP (Any one person)	$ 5,000
	X Prof Liab/E&O						PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:						Pollution	$ 1,000,000
A	AUTOMOBILE LIABILITY			SISIPCA08288919	4/1/2019	4/1/2020	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
	X MCS90 / X Auto Polluti							$
A	UMBRELLA LIAB X OCCUR			1000336422191	4/1/2019	4/1/2020	EACH OCCURRENCE	$ 4,000,000
	X EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 4,000,000
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	N / A		100 000270904	4/1/2019	4/1/2020	X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH)						E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

General Liability coverage form includes premises pollution liability with a limit of $1,000,000 per incident/$2,000,000 general aggregate.

CERTIFICATE HOLDER

PROOF ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ATTACHMENT J

AA SYDCOL, LLC

SOLID WASTE MANAGEMENT UNITS

[40 CFR 270.14(D)]

November 9, 2021

This description of SWMUs at the Facility has been prepared in support of the Sydcol RCRA Part B permit application. A list of all acronyms and a definition of key terms used in this description is provided with General Information provided in Appendix A of Attachment A of the RCRA Part B permit application.

40 CFR 264/264 Subpart S defines SWMUs as "any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. In addition to the three HWMUs that are the subject of this application, SWMUs are used at the Facility to store and bulk solid wastes received at the Facility for transfer to an approved solid waste treatment or disposal facility. The SWMUs store roll-off containers, liquid totes, and mobile containers with non-hazardous wastes. The SWMUs are currently operational, having begun operations in January 2018.

There are two separate areas at the Facility operated as SWMUs. The largest SWMU is located in an open area located at the north end and along the west side of the property, covering approximately 1.93 acres. The concrete pad at the north end of the Facility property is included in the SWMU. Solid wastes will be separated from hazardous wastes on the pad using a portable fence partition. Solid wastes are also stored within the warehouse building as a separate SWMU covering approximately 7,000 square feet. The warehouse floor operated as a SWMU covers approximately 7,000 square feet.

The Site Plan provided in the Container Management Plan as Figure 2 in Attachment D of this application illustrates the SWMUs.

ATTACHMENT K

SYDCOL WASTE TRANSFER FACILITY

OTHER FEDERAL LAWS

[40 CFR 270.14(b)(20)]

July 1, 2019

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1.0 RCRA

RCRA is EPA's primary authority for regulating solid and hazardous wastes. The goal of the RCRA of 1976 is the protection of human health and the environment, the reduction of waste, the conservation of energy and natural resources, and the elimination of the generation of hazardous waste as expeditiously as possible. The Hazardous and Solid Waste Amendments of 1984 significantly expanded the scope of the RCRA by adding new corrective action requirements, land disposal restrictions, and technical requirements. The corresponding regulations in 40 CFR 260–299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste and are the subject of this RCRA application.

2.0 CERCLA AND SARA OF 1986

Congress enacted the CERCLA, commonly known as Superfund, on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act amended CERCLA on October 17, 1986. There are currently no closed and abandoned hazardous waste sites at the Facility subject to CERCLA.

3.0 EXTREMELY HAZARDOUS SUBSTANCES LIST (40 CFR 355 APP A)

This list is part of a regulation that establishes requirements for a facility to provide information necessary for developing and implementing State and local chemical emergency response plans, and requirements for emergency notification of chemical releases, including releases of Extremely Hazardous Substances as defined by the Comprehensive Environmental Response, Compensation, and Liability Act. The Facility does not manage extremely hazardous substances and therefore these standards are not applicable.

4.0 CHEMICAL ACCIDENT PREVENTION PROVISIONS (40 CFR 68)

The chemical accident prevention provisions were adopted to address chemical accident prevention at facilities using extremely hazardous substances. The provisions require all facilities that use or handle certain flammable and toxic materials to prepare a Risk Management Plan (RMP) that describes the materials used over the previous 5 years, a worst-case accident scenario and alternatives, a prevention program, and an emergency response program. New RMPs are required every 5 years. The Facility will not manage extremely hazardous substances such that the chemical accident prevention provisions do not apply.

5.0 ENDANGERED SPECIES ACT

The ESA provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The lead federal agencies for implementing ESA are the U.S. Fish and Wildlife Service (FWS) and the U.S. National Oceanic and Atmospheric Administration (NOAA) Fisheries Service. The FWS maintains a worldwide list of endangered species. Species include birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses, and trees.

The law requires federal agencies, in consultation with the FWS and/or the NOAA Fisheries Service, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a "taking" of any listed species of endangered fish or wildlife. Likewise, import, export, interstate, and foreign commerce of listed species are all generally prohibited.

The Facility is owned and operated by private enterprises and located on private land such that federal consultation with the FWS or NOAA Fisheries is not required. Based on information provided by the FWS' Information for Planning and Consultation web-based portal (https://ecos.fws.gov/ipac/), the site location is not within any designated critical habitat areas. Known threatened and endangered species in the vicinity of the Facility include the Southwestern Willow Flycatcher, the Yellow-Billed Cuckoo, and Yuma Clapper Rail, all bird species, and the Razorback Sucker, an endangered fish found in perennial rivers and streams. The Project is not expected to result in a taking of any listed or endangered fish or wildlife.

6.0 EMERGENCY PLANNING COMMUNITY RIGHT-TO-KNOW ACT

Also known as Title III of SARA, the EPCRA was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. To implement the EPCRA, Congress required each state to appoint a State Emergency Response Commission. The commissions were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee for each district. The EPCRA provides requirements for emergency release notification, chemical inventory reporting, and toxic release inventories for facilities that handle chemicals.

7.0 FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

The Federal Insecticide, Fungicide, and Rodenticide Act provides for federal regulation of pesticide distribution, sale, and use. All pesticides distributed or sold in the United States must be registered (licensed) by EPA. Before EPA may register a pesticide under the act, the applicant

must show, among other things, that using the pesticide according to specifications "will not generally cause unreasonable adverse effects on the environment."

8.0 FISH AND WILDLIFE COORDINATION ACT

The Fish and Wildlife Coordination Act (FWCA) of the United States was enacted March 10, 1934 to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The Act provides the basic authority for the involvement of the FWS in evaluating impacts to fish and wildlife from proposed water resource development projects. The Facility will not be impacting natural streams or bodies of water and the Facility is not subject to the FWCA.

9.0 HAZARDOUS MATERIALS TRANSPORTATION ACT

The Hazardous Materials Transportation Act was passed in 1975 to provide adequate protection against the risks to life and property associated with the transportation of hazardous material by creating a regulatory framework to address potential threats to health, welfare, and safety. A hazardous material, as defined by the Secretary of Transportation, is any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property" (OHSA n.d.).

10.0 HAZARDOUS WASTE TRANSPORTATION REGULATIONS (49 CFR 171, 180)

These regulations are standards for the transport of hazardous materials and hazardous wastes established by the DOT. The standards include requirements for labeling, packaging, and shipping hazardous materials and hazardous wastes, as well as training requirements for personnel completing shipping papers and manifests. The Facility is compliant with all provisions of DOT hazardous waste regulations.

11.0 INTERNATIONAL FIRE CODE

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what protective measures are required to protect life safety in relation to fire. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

12.0 NATIONAL HISTORIC PRESERVATION ACT

The National Historic Preservation Act (NHPA) is a federal statute intended to preserve historical and archaeological sites. The act created the National Register of Historic Places, the list of National Historic Landmarks, and provided for the establishment of State Historic Preservation Offices, including the Arizona State Historic Preservation Office (ASHPO). The Facility is owned and operated by private enterprises and located on developed private land such that historic preservation consultation is not required.

13.0 OCCUPATIONAL SAFETY AND HEALTH ACT

The Occupational Safety and Health Administration (OSHA) administers the Occupational Safety and Health Act, which requires special training for handlers of hazardous materials, notification to employees who work in the vicinity of hazardous materials, and acquisition of material safety data sheets from the manufacturer. A material safety data sheet describes the proper use of hazardous materials. The act also requires training of employees to remediate any hazardous material accidental releases.

14.0 WILD AND SCENIC RIVERS ACT

The National Wild and Scenic Rivers Act (NWSRA) of 1968 established a system to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The NWSRA is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection. There are no NWSRA designated rivers in Yuma County such that the NWRSA protections are not implicated at the Facility.

ATTACHMENT L

AA SYDCOL, LLC

CERTIFICATION

[40 CFR 270.11]

November 9, 2021

1.0 CERTIFICATION

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

Signature: C M. Tu

Printed Name: Charles M. Tempore

Title: Managing Member

Date: 11/9/21

ATTACHMENT M

SYDCOL WASTE TRANSFER FACILITY

PROCESS VENTS

[40 CFR 270.14(A)]

July 1, 2019

1.0 APPLICABILITY

The Facility does not operate a process vent associated with any of the following activities associated with hazardous waste management:

- Distillation
- Fractionation
- Thin film evaporation
- Solvent extraction
- Air/steam stripping

The process vent regulations in 40 CFR 264 subpart AA do not apply under the applicability criteria of 40 CFR 264.1030(b).

ATTACHMENT N

AA SYDCOL, LLC
EQUIPMENT LEAKS
[40 CFR 270.14(a), 270.15(d)]

November 9, 2021

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E. EPA Method 21: Determination of Volatile Organic Compound Leaks

1.0 APPLICABILITY

This section describes a program for controlling leaks from Facility equipment that contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight (OHW). This includes any pumps, valves, open-ended valves, and flanges associated with the transfer and consolidation of OHW within containers at the Facility.

2.0 FACILITY PERSONNEL AND EQUIPMENT

The Compliance Manager will be responsible for managing the equipment leak monitoring and repair program described in this Section. Hazardous Waste Technician II's will be responsible for performing the monitoring and repairs. The Facility Manager and all Supervisors and Hazardous Waste Technicians will receive training on RCRA air emissions standards. Supervisors and Hazardous Waste Technician II's will receive training for maintaining and repairing equipment subject to leak monitoring requirements described in this Attachment. The Training Manager will be responsible for ensuring that all personnel receive the proper training to perform equipment leak detection and repair obligations identified in this Attachment.

Sydcol may use third-party contractors to perform certain aspects of the equipment monitoring and leak repair program. All third-party contractors performing equipment monitoring or leak repairs will be required to demonstrate training in RCRA leak detection and repair.

Facility equipment is used consolidate hazardous waste materials from multiple containers into another container or transportation tank. These consolidation activities are conducted in batches overseen by Facility personnel. No continuous un-attended processing or automated processing of hazardous waste materials is conducted at the Facility. Facility equipment that is subject to the leak prevention program described herein may include pumps; control valves; open-ended valves, piping, and tubing; flanges and connectors. Equipment will not include any valves that are unsafe-to-monitor or difficult-to-monitor. All such Facility equipment shall be labelled "OHW" in easily identifiable red letters, and only equipment with the OHW label will be used in handling OHW.

Facility equipment that is in contact with OHW for less than 300 hours in a calendar year is exempt from equipment leak standards identified in this section. A log of equipment used to process OHW will be maintained to identify any process equipment with greater than 300 hours of use and is subject to OHW equipment leak monitoring. A copy of the equipment log is provided in Appendix A.

3.0 EQUIPMENT INSPECTIONS AND LEAK MONITORING

3.1 Pumps in Light Liquid Service

Some hazardous waste streams accepted at the Facility contains light liquids, defined as 20 percent or more of components with vapor pressures greater than 2.25 mm Hg at 68° F. When light liquids are processed at the Facility, the pump, valves, piping, flanges, connectors, and relief devices used will be visually inspected each calendar week in which batching operations occur for liquids dripping from the seals in the process line. Any pumps in light liquid service will be included in the list of equipment provided in Table 1. The results of visual inspections will be recorded in the equipment use log provided in Appendix A.

Each seal in pumps used for light liquids, including pumps used to transfer to or from tanks on transportation vehicles, will be monitored at least monthly for vapor leaks using a photoionization detector (PID) unless designated for no detectable emissions as described in this section. Monitoring will follow EPA Method 21 requirements for daily calibration, adjusting for the appropriate range and response, and using a response factor for the specific compounds being monitored. For an initial screen to determine if there are detectable emissions above 500 parts per million (PPM), Sydcol will use a RKI GX 6000 PID instrument (serial number 8Y3020239) with sensor calibration capability in the range of 0-6,000 ppm with a ±0.1 ppm resolution for the range 0-600 ppm and ±1.0 ppm resolution above 600 ppm. For monitoring equipment with leak indications above 600 ppm, a RAE MiniRAE 3000+ PID with a range of 1,000 to 15,000 ppm, with a resolution of ±1.0 ppm. PID instruments will each be kept in an individual case box and stored in the Facility laboratory. A copy of Method 21 is provided in Appendix E. Dual-sealed equipment that is operated with a barrier fluid system compliant with 40 CFR 264.1054(d) is exempt from monthly leak monitoring.

A leak is detected when liquids are observed to be dripping from a seal or when vapor monitoring indicates readings of 10,000 parts per million (ppm) above background levels. Monitoring for vapor leaks will be conducted at least once per month when processing of light liquids is conducted.

Any pump in light liquid service may be designated for no detectable emissions if the PID instrument reading is less than 500 ppm above background as determined using EPA Method 21. Pumps designated as having no detectable emissions is exempt from monthly monitoring for leaks requirements. Pumps designated as having no detectable emissions will be tested for compliance with this section initially upon designation, annually, and at other times as requested by ADEQ.

3.2 Open-Ended Valves or Lines

All open-ended valves in light liquid service to consolidate waste in containers or transfer light liquids to or from tanks on transportation vehicles will be included in the list of equipment provided in Table 1. Each open-ended valve or line handling OHW shall be equipped with a cap, blind flange, plug, or a second valve. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed. Similarly the open-ended valve must be closed when opening any second valve handling OHW.

When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall be equipped with a cap, blind flange, plug, or second valve at all other times.

3.3 Valves in Light Liquid Service

Equipment used to transfer light liquids between containers or between containers and tanks on transportation vehicles may include second valves in addition to an open-ended valve. Any second valves will be recorded on the list of equipment provided in Table 1. Each valve in light liquid service shall be monitored monthly to detect leaks by EPA Method 21. A copy of Method 21 is provided in Appendix E. An instrument reading of 10,000 ppm or greater indicates detection of a leak.

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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months.

Valves designated as having no detectable emissions is exempt from the monthly monitoring requirements of this section if the valve:

- Has no external actuating mechanism in contact with the hazardous waste stream.
- Is operated with emissions less than 500 ppm above background as determined by EPA Method 21.
- Is tested for compliance with this section initially upon designation, annually, and at other times as requested by ADEQ.

3.4 Pumps and Valves in Heavy Liquid Service, Flanges, and Other Connectors.

Pumps and valves in heavy liquid service and flanges and other connectors shall be monitored within 5 days by EPA Method 21 if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. The evidence of a potential leak and any comments or notes will be documented on the Equipment Use Log provided in Appendix A. This applies to all pumps and connectors that handle OHW liquids but are not in light liquid service. A copy of Method 21 is provided in Appendix E. An instrument reading of 10,000 ppm or greater indicates detection of a leak.

3.5 Inspection and Monitoring Methodology

The Facility Manager, Supervisors, or Hazardous Waste Technicians having been trained in the equipment monitoring and leak repair program will conduct inspections and use PID instruments to perform monitoring for leaks of equipment handling OHW. When inspecting equipment handling OHW, Sydcol will visually inspect the exterior components of the equipment for evidence of any defect that could result in a leak. Defects of interest include visible cracks, holes, gaps, or other open spaces when the equipment is operating. Visible vapor or liquid leakage may indicate a leak is present. Any visible evidence of defects shall be noted in the equipment use log and immediately reported to a Supervisor or the Facility Manager.

Instrument monitoring for equipment leaks will be performed while the equipment is handling a light liquid. If the equipment does not handle a light liquid during a given monitoring month, the equipment should be monitored while handling an OHW.

When monitoring equipment for a leak, the instrument will first be calibrated the same day as the monitoring consistent with manufacturer's instructions for instrument calibration. The instrument will be checked during each day of use for calibration drift consistent with instrument operating manual instructions. Sydcol will maintain record of instrument calibration and drift using the log sheet provided in Appendix B.

Following calibration, determine the background concentration using the procedures described in EPA Method 21. With the calibrated instrument running, traverse the instrument probe tip around all potential leak interfaces as close to the interface as possible. All potential leak interfaces should be monitored by the instrument probe.

If the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level is less than 500 ppm, the equipment can be considered to have no detectable emissions and the result indicated on the Equipment Use Log. If the difference

between the maximum organic concentration indicated on the instrument and the background level is equal to or greater than 500 ppm, the leak will be noted on the Equipment Use Log and the arithmetic difference noted in the comments section. The monitoring results indicating a leak will be immediately reported to a Supervisor or the Facility Manager.

4.0 LEAK REPAIR

When a leak is detected in any equipment contacting OHW, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the following best practices where practicable:

- Tightening of bonnet bolts.
- Replacement of bonnet bolts.
- Tightening of packing gland nuts.
- Injection of lubricant into lubricated packing.

Any equipment that cannot be repaired in compliance with leak standards will be replaced. Sydcol will only place valves in light liquid service in operation if they are safe to monitor and do not require elevation of monitoring personnel more than 2 meters above a permanent support surface.

5.0 DELAY IN LEAK REPAIRS

Delay of repair of equipment for which leaks have been detected will be allowed beyond 15 days if the equipment is isolated from the hazardous waste management unit and that does not continue to contain or contact OHW pending repair. The delay in repair will be documented in the Equipment Leak Repair Log provided in Appendix C.

6.0 DOCUMENTATION

Should a leak on OHW process equipment be detected, it will be reported as an issue on the Equipment Use Log maintained in the Facility office. An inspection report will be completed that includes the following information:

- Date leak was found;
- Type of equipment and inventory number;
- Description of the leak;
- Processing activity and HWMU;
- Waste stream and Facility container numbers involved;
- Results of monitoring; and

- Any immediate action taken.

All attempts to repair the equipment will be reported and documented. These reports will include descriptions of the repairs made. The final repair will be recorded on the Equipment Repair Log provided in Appendix C.

7.0 QUALITY ASSURANCE AND QUALITY CONTROL

Hazardous Waste Technicians performing inspections and monitoring will review and sign data collected on a daily basis. Supervisors will review inspection and monitoring records for completeness on a monthly basis. The Compliance Manager will quarterly review the daily monitoring reports generated in conjunction with recordkeeping and reporting requirements and verify the number of components monitored per technician and the time between monitoring events to identify any abnormal data patterns. The Compliance Officer will note a quarterly review of records and sign and date the Equipment Use Logs on the line immediately beneath the last entry on the log reviewed in the quarterly review.

The Compliance Officer will annually review all records pertaining to equipment monitoring and leak repair to ensure that all required records, logs, and databases are being maintained and are up to date. The annual review will include an inventory of Facility equipment to ensure and document that equipment subject to monitoring and leak repair requirements is properly identified and being monitored. Any equipment identified will be inspected to verify that is physically tagged with the equipment identification number.

During the annual review the Compliance Officer will observe the calibration and monitoring of instruments used for equipment monitoring. The instrument review will verify that the entire equipment interface is checked and the probe is held at the interface, not away from the interface. Any areas of noncompliance that are discovered will be reviewed with the Facility Manager. The Facility Manager will prepare and initiate a corrective action plan to resolve and document those issues. The corrective action plan will require implementation, as soon as practicable, of steps necessary to correct causes of noncompliance, and prevent, to the extent practicable, a recurrence of the cause of the noncompliance.

The Annual Review will be documented on an Annual Review form provided in Appendix D.

Sydcol will retain a 3rd Party consultant to independently review the equipment monitoring and repair program at least once every four years and prepare an audit report describing compliance with 40 CFR 264 Subpart BB equipment monitoring requirements. Sydcol will retain the audit reports and maintain a written record of the corrective actions taken in response to any deficiencies identified.

TABLE

Table 1
Equipment Handling Organic Hazardous Waste

Item	Item Number	Location	Portable (Y/N)	Gas or Liquid	Equipment Type	percent organics	Method of Compliance (visual/sound/smell/other)	Evidence of Leaks

Notes:
Applies to all equipment handling hazardous wastes with greater than 10% organic hydrocarbons.

Any equipment with evidence of leaks shall be monitored within 5 days and recorded on the equipment leak/repair log. Valves shall be inspected and recorded using the valve inspection/monitoring log.

APPENDICES

APPENDIX A

ORGANIC LIQUID EQUIPMENT USE LOG

AA Sydcol, LLC

Organic Liquid Equipment Use Log

Item/Item Number	Equipment Type:					Date	Start Time	Stop Time	Total time	Monitoring/ Inspection performed (Y/N)	Monitoring/ Inspection method	Leak Detected (Y/N)	Comments
	Pump	Control valve	Open-ended valve	Piping/tubing	Flange/Connector								

APPENDIX B

INSTRUMENT CALIBRATION LOG

AA Sydcol, LLC
Instrument Calibration Log

Equipment Identification	Equipment Type	Calibration Result - First Point	Calibration Result - Second Point	Notes	Technician Name	Technician Signature

APPENDIX C

EQUIPMENT LEAK REPAIR LOG

AA Sydcol, LLC
Equipment Leak Repair Log

Equipment ID	Leak Detection Date	Attempted Repair Date	Repair Method	Monitoring Results (ppm)	Instrument ID	Operator Name	Operator Initials	Comments

Notes:
1. Monitor reading after repair attempt must be < 10,000 ppm for the leak to be considered repaired.
2. First attempt to repair shall be made within 5 calendar days after leak detection, repaired within 15 calendar days of leak detection.
3. For repairs not completed within 15 calendar days of leak detection, complete a delay of repair log.

APPENDIX D

ANNUAL REVIEW DOCUMENTATION

AA Sydcol Facility
Annual Review Documentation

Review Item	Compliant (Y/N)	Comments
Accuracy of Equipment List		
Equipment Use Log		
Quarterly Monitoring Reviews		
Leak Monitoring		
Instrument Calibration and Calibration Drift Records		
Equpment Repair Program		
First Attempt Repair Records		
Delay in Repair Records		
Implementation of QA/QC Program		
Identification of persons implementing leak detection and repair program		
Tracking program for new valves and pumps		

Leak Detection and Repair Program Assessment:	Number	Frequency	
Number of pumps and valves identified			
Number of leaks detected			% of total pumps and valves
Number of first repair attempts beyond 5 days			% of total leaks.
Number of delayed repairs			% of total leaks.
Number of repairs beyond 30 days			% of total leaks.
Identification of chronic leaking equipment that is unrepaired			% of total pumps and valves

Annual Review Date: _____

Compliance Officer Name: _____

Compliance Officer Signature: _____

APPENDIX E

EPA METHOD 21: DETERMINATION OF VOLATILE ORGANIC COMPOUND LEAKS

While we have taken steps to ensure the accuracy of this Internet version of the document, it is not the official version. Please refer to the official version in the FR publication, which appears on the Government Printing Office's eCFR website:
(http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title40/40cfr60_main_02.tpl)

Method 21 - Determination of Volatile Organic Compound Leaks

1.0 Scope and Application

1.1 Analytes.

Analyte	CAS No.
Volatile Organic Compounds (VOC)	No CAS number assigned.

1.2 Scope. This method is applicable for the determination of VOC leaks from process equipment. These sources include, but are not limited to, valves, flanges and other connections, pumps and compressors, pressure relief devices, process drains, open-ended valves, pump and compressor seal system degassing vents, accumulator vessel vents, agitator seals, and access door seals.

1.3 Data Quality Objectives. Adherence to the requirements of this method will enhance the quality of the data obtained from air pollutant sampling methods.

2.0 Summary of Method

2.1 A portable instrument is used to detect VOC leaks from individual sources. The instrument detector type is not specified, but it must meet the specifications and performance criteria contained in Section 6.0. A leak definition concentration based on a reference compound is specified in each applicable regulation. This method is intended to locate and classify leaks only, and is not to be used as a direct measure of mass emission rate from individual sources.

3.0 Definitions

3.1 *Calibration gas* means the VOC compound used to adjust the instrument meter reading to a known value. The calibration gas is usually the reference compound at a known concentration approximately equal to the leak definition concentration.

3.2 *Calibration precision* means the degree of agreement between measurements of the same known value, expressed as the relative percentage of the average difference between the meter readings and the known concentration to the known concentration.

3.3 *Leak definition concentration* means the local VOC concentration at the surface of a leak source that indicates that a VOC emission (leak) is present. The leak definition is an instrument meter reading based on a reference compound.

3.4 *No detectable emission* means a local VOC concentration at the surface of a leak source, adjusted for local VOC ambient concentration, that is less than 2.5 percent of the specified leak definition concentration. that indicates that a VOC emission (leak) is not present.

3.5 *Reference compound* means the VOC species selected as the instrument calibration basis for specification of the leak definition concentration. (For example, if a leak definition concentration is 10,000 ppm as methane, then any source emission that results in a local concentration that yields a meter reading of 10,000 on an instrument meter calibrated with methane would be classified as a leak. In this example, the leak definition concentration is 10,000 ppm and the reference compound is methane.)

3.6 *Response factor* means the ratio of the known concentration of a VOC compound to the observed meter reading when measured using an instrument calibrated with the reference compound specified in the applicable regulation.

3.7 *Response time* means the time interval from a step change in VOC concentration at the input of the sampling system to the time at which 90 percent of the corresponding final value is reached as displayed on the instrument readout meter.

4.0 Interferences[Reserved]

5.0 Safety

5.1 Disclaimer. This method may involve hazardous materials, operations, and equipment. This test method may not address all of the safety problems associated with its use. It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to performing this test method.

5.2 Hazardous Pollutants. Several of the compounds, leaks of which may be determined by this method, may be irritating or corrosive to tissues (*e.g.*, heptane) or may be toxic (*e.g.*, benzene, methyl alcohol). Nearly all are fire hazards. Compounds in emissions should be determined through familiarity with the source. Appropriate precautions can be found in reference documents, such as reference No. 4 in Section 16.0.

6.0 Equipment and Supplies

A VOC monitoring instrument meeting the following specifications is required:

6.1 The VOC instrument detector shall respond to the compounds being processed. Detector types that may meet this requirement include, but are not limited to, catalytic oxidation, flame ionization, infrared absorption, and photoionization.

6.2 The instrument shall be capable of measuring the leak definition concentration specified in the regulation.

6.3 The scale of the instrument meter shall be readable to ±2.5 percent of the specified leak definition concentration.

6.4 The instrument shall be equipped with an electrically driven pump to ensure that a sample is provided to the detector at a constant flow rate. The nominal sample flow rate, as measured at the sample probe tip, shall be 0.10 to 3.0 l/min (0.004 to 0.1 ft^3 /min) when the probe is fitted with a glass wool plug or filter that may be used to prevent plugging of the instrument.

6.5 The instrument shall be equipped with a probe or probe extension or sampling not to exceed 6.4 mm (1/4in) in outside diameter, with a single end opening for admission of sample.

6.6 The instrument shall be intrinsically safe for operation in explosive atmospheres as defined by the National Electrical Code by the National Fire Prevention Association or other applicable regulatory code for operation in any explosive atmospheres that may be encountered in its use. The instrument shall, at a minimum, be intrinsically safe for Class 1, Division 1 conditions, and/or Class 2, Division 1 conditions, as appropriate, as defined by the example code. The instrument shall not be operated with any safety device, such as an exhaust flame arrestor, removed.

7.0 Reagents and Standards

7.1 Two gas mixtures are required for instrument calibration and performance evaluation:

7.1.1 Zero Gas. Air, less than 10 parts per million by volume (ppmv) VOC.

7.1.2 Calibration Gas. For each organic species that is to be measured during individual source surveys, obtain or prepare a known standard in air at a concentration approximately equal to the applicable leak definition specified in the regulation.

7.2 Cylinder Gases. If cylinder calibration gas mixtures are used, they must be analyzed and certified by the manufacturer to be within 2 percent accuracy, and a shelf life must be specified. Cylinder standards must be either reanalyzed or replaced at the end of the specified shelf life.

7.3 Prepared Gases. Calibration gases may be prepared by the user according to any accepted gaseous preparation procedure that will yield a mixture accurate to within 2 percent. Prepared standards must be replaced each day of use unless it is demonstrated that degradation does not occur during storage.

7.4 Mixtures with non-Reference Compound Gases. Calibrations may be performed using a compound other than the reference compound. In this case, a conversion factor must be determined for the alternative compound such that the resulting meter readings during source surveys can be converted to reference compound results.

8.0 Sample Collection, Preservation, Storage, and Transport

8.1 Instrument Performance Evaluation. Assemble and start up the instrument according to the manufacturer's instructions for recommended warm-up period and preliminary adjustments.

8.1.1 Response Factor. A response factor must be determined for each compound that is to be measured, either by testing or from reference sources. The response factor tests are required before placing the analyzer into service, but do not have to be repeated at subsequent intervals.

8.1.1.1 Calibrate the instrument with the reference compound as specified in the applicable regulation. Introduce the calibration gas mixture to the analyzer and record the observed meter reading. Introduce zero gas until a stable reading is obtained. Make a total of three measurements by alternating between the calibration gas and zero gas. Calculate the response factor for each repetition and the average response factor.

8.1.1.2 The instrument response factors for each of the individual VOC to be measured shall be less than 10 unless otherwise specified in the applicable regulation. When no instrument is available that meets this specification when calibrated with the reference VOC specified in the applicable regulation, the available instrument may be calibrated with one of the VOC to be measured, or any other VOC, so long as the instrument then has a response factor of less than 10 for each of the individual VOC to be measured.

8.1.1.3 Alternatively, if response factors have been published for the compounds of interest for the instrument or detector type, the response factor determination is not required, and existing results may be referenced. Examples of published response factors for flame ionization and catalytic oxidation detectors are included in References 1–3 of Section 17.0.

8.1.2 Calibration Precision. The calibration precision test must be completed prior to placing the analyzer into service and at subsequent 3-month intervals or at the next use, whichever is later.

8.1.2.1 Make a total of three measurements by alternately using zero gas and the specified calibration gas. Record the meter readings. Calculate the average algebraic difference between the meter readings and the known value. Divide this average difference by the known calibration value and multiply by 100 to express the resulting calibration precision as a percentage.

8.1.2.2 The calibration precision shall be equal to or less than 10 percent of the calibration gas value.

8.1.3 Response Time. The response time test is required before placing the instrument into service. If a modification to the sample pumping system or flow configuration is made that would change the response time, a new test is required before further use.

8.1.3.1 Introduce zero gas into the instrument sample probe. When the meter reading has stabilized, switch quickly to the specified calibration gas. After switching, measure the time required to attain 90 percent of the final stable reading. Perform this test sequence three times and record the results. Calculate the average response time.

8.1.3.2 The instrument response time shall be equal to or less than 30 seconds. The instrument pump, dilution probe (if any), sample probe, and probe filter that will be used during testing shall all be in place during the response time determination.

8.2 Instrument Calibration. Calibrate the VOC monitoring instrument according to Section 10.0.

8.3 Individual Source Surveys.

8.3.1 Type I—Leak Definition Based on Concentration. Place the probe inlet at the surface of the component interface where leakage could occur. Move the probe along the interface periphery while observing the instrument readout. If an increased meter reading is observed, slowly sample the interface where leakage is indicated until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately two times the instrument response time. If the maximum observed meter reading is greater than the leak definition in the applicable regulation, record and report the results as specified in the regulation reporting requirements. Examples of the application of this general technique to specific equipment types are:

8.3.1.1 Valves. The most common source of leaks from valves is the seal between the stem and housing. Place the probe at the interface where the stem exits the packing gland and sample the stem circumference. Also, place the probe at the interface of the packing gland take-up flange seat and sample

the periphery. In addition, survey valve housings of multipart assembly at the surface of all interfaces where a leak could occur.

8.3.1.2 Flanges and Other Connections. For welded flanges, place the probe at the outer edge of the flange-gasket interface and sample the circumference of the flange. Sample other types of nonpermanent joints (such as threaded connections) with a similar traverse.

8.3.1.3 Pumps and Compressors. Conduct a circumferential traverse at the outer surface of the pump or compressor shaft and seal interface. If the source is a rotating shaft, position the probe inlet within 1 cm of the shaft-seal interface for the survey. If the housing configuration prevents a complete traverse of the shaft periphery, sample all accessible portions. Sample all other joints on the pump or compressor housing where leakage could occur.

8.3.1.4 Pressure Relief Devices. The configuration of most pressure relief devices prevents sampling at the sealing seat interface. For those devices equipped with an enclosed extension, or horn, place the probe inlet at approximately the center of the exhaust area to the atmosphere.

8.3.1.5 Process Drains. For open drains, place the probe inlet at approximately the center of the area open to the atmosphere. For covered drains, place the probe at the surface of the cover interface and conduct a peripheral traverse.

8.3.1.6 Open-ended Lines or Valves. Place the probe inlet at approximately the center of the opening to the atmosphere.

8.3.1.7 Seal System Degassing Vents and Accumulator Vents. Place the probe inlet at approximately the center of the opening to the atmosphere.

8.3.1.8 Access door seals. Place the probe inlet at the surface of the door seal interface and conduct a peripheral traverse.

8.3.2 Type II—"No Detectable Emission". Determine the local ambient VOC concentration around the source by moving the probe randomly upwind and downwind at a distance of one to two meters from the source. If an interference exists with this determination due to a nearby emission or leak, the local ambient concentration may be determined at distances closer to the source, but in no case shall the distance be less than 25 centimeters. Then move the probe inlet to the surface of the source and determine the concentration as outlined in Section 8.3.1. The difference between these concentrations determines whether there are no detectable emissions. Record and report the results as specified by the regulation. For those cases where the regulation requires a specific device installation, or that specified vents be ducted or piped to a control device, the existence of these conditions shall be visually confirmed. When the regulation also requires that no detectable emissions exist, visual observations and sampling surveys are required. Examples of this technique are:

8.3.2.1 Pump or Compressor Seals. If applicable, determine the type of shaft seal. Perform a survey of the local area ambient VOC concentration and determine if detectable emissions exist as described in Section 8.3.2.

8.3.2.2 Seal System Degassing Vents, Accumulator Vessel Vents, Pressure Relief Devices. If applicable, observe whether or not the applicable ducting or piping exists. Also, determine if any sources exist in the ducting or piping where emissions could occur upstream of the control device. If the required ducting or piping exists and there are no sources where the emissions could be vented to the atmosphere upstream of

the control device, then it is presumed that no detectable emissions are present. If there are sources in the ducting or piping where emissions could be vented or sources where leaks could occur, the sampling surveys described in Section 8.3.2 shall be used to determine if detectable emissions exist.

8.3.3 Alternative Screening Procedure.

8.3.3.1 A screening procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that do not have continuously moving parts, that do not have surface temperatures greater than the boiling point or less than the freezing point of the soap solution, that do not have open areas to the atmosphere that the soap solution cannot bridge, or that do not exhibit evidence of liquid leakage. Sources that have these conditions present must be surveyed using the instrument technique of Section 8.3.1 or 8.3.2.

8.3.3.2 Spray a soap solution over all potential leak sources. The soap solution may be a commercially available leak detection solution or may be prepared using concentrated detergent and water. A pressure sprayer or squeeze bottle may be used to dispense the solution. Observe the potential leak sites to determine if any bubbles are formed. If no bubbles are observed, the source is presumed to have no detectable emissions or leaks as applicable. If any bubbles are observed, the instrument techniques of Section 8.3.1 or 8.3.2 shall be used to determine if a leak exists, or if the source has detectable emissions, as applicable.

9.0 Quality Control

Section	**Quality control measure**	**Effect**
8.1.2	Instrument calibration precision check	Ensure precision and accuracy, respectively, of instrument response to standard.
10.0	Instrument calibration	

10.0 Calibration and Standardization

10.1 Calibrate the VOC monitoring instrument as follows. After the appropriate warm-up period and zero internal calibration procedure, introduce the calibration gas into the instrument sample probe. Adjust the instrument meter readout to correspond to the calibration gas value.

Note: If the meter readout cannot be adjusted to the proper value, a malfunction of the analyzer is indicated and corrective actions are necessary before use.

11.0 Analytical Procedures[Reserved]

12.0 Data Analyses and Calculations[Reserved]

13.0 Method Performance[Reserved]

14.0 Pollution Prevention[Reserved]

15.0 Waste Management[Reserved]

16.0 References

1. Dubose, D.A., and G.E. Harris. Response Factors of VOC Analyzers at a Meter Reading of 10,000 ppmv for Selected Organic Compounds. U.S. Environmental Protection Agency, Research Triangle Park, NC. Publication No. EPA 600/2–81051. September 1981.

2. Brown, G.E., *et al.* Response Factors of VOC Analyzers Calibrated with Methane for Selected Organic Compounds. U.S. Environmental Protection Agency, Research Triangle Park, NC. Publication No. EPA 600/2–81–022. May 1981.

3. DuBose, D.A. *et al.* Response of Portable VOC Analyzers to Chemical Mixtures. U.S. Environmental Protection Agency, Research Triangle Park, NC. Publication No. EPA 600/2–81–110. September 1981.

4. Handbook of Hazardous Materials: Fire, Safety, Health. Alliance of American Insurers. Schaumberg, IL. 1983.

17.0 Tables, Diagrams, Flowcharts, and Validation Data[Reserved]

ATTACHMENT O

AA SYDCOL, LLC
AIR EMISSIONS STANDARDS
[40 CFR 270.14(a)]

May 10, 2020

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1. Common Organic Compounds with Vapor Pressure > 0.3 kPa

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1.0 APPLICABILITY

RCRA regulations specify three levels of air emission controls for containers depending on the size of the container, the types of wastes managed, and how the wastes are managed. These control levels and the Facility's container management procedures are specified in this section.

2.0 CONTAINERS

2.1 Container Level 1 Standards (40 CFR 264.1086(c))

Sydcol will manage the following types of containers in accordance with Container Level 1 standards:

1. Containers with a design capacity greater than 0.1 m^3 (approximately 26 gallons) and less than or equal to 0.46 m^3 (approximately 119 gallons). Such containers may include, but are not limited to, 30-, 55-, and 80-gallon drums. Most drums managed by Sydcol are Level 1 containers.
2. Containers with a design capacity greater than 0.46 m^3 (approximately 119 gallons) that are not "in light material service" (LMS). Containers of this size are considered "bulk containers" by DOT and include, but are not limited to, intermediate bulk containers (tote tanks), tank trucks, railcars, and roll-off boxes. Containers of this size for which a determination regarding LMS status has not been made will be managed in accordance with Container Level 2 standards.

Generators of organic liquid hazardous waste will be required to characterize their waste for high vapor pressure organic compounds and indicate on the waste profile if the wastes subject to 40 CFR 264 Subpart CC standards for containers. In designating containers as being in light liquid service, Sydcol will review the profile for generator determination under 40 CFR 264 Subpart CC as well as generator list of constituents in the hazardous waste for compounds making up 20 percent or more of the waste stream with a high vapor pressure (greater than 0.3 kPa). A list of common organic compounds with a high vapor pressure is provided in Table 1.

In complying with Level 1 container standards, Sydcol will ensure that either Level 1 containers meet applicable DOT hazardous material packaging regulations or are equipped with a cover and closure device that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces (e.g., a lid on a drum, a suitably secured tarp on a roll-off box, or a bulk cargo container equipped with a screwtype cap).

2.2 Container Level 2 Standards (40 CFR 264.1086(d))

Sydcol will manage the following types of containers in accordance with Container Level 2 standards:

1. Containers with a design capacity greater than 0.46 m^3 (approximately 119 gallons) that are in LMS - Containers of this size are called "bulk containers" by USDOT and include, but are not limited to, intermediate bulk containers (tote tanks), tank trucks, railcars, and roll-off boxes.
2. Containers with a design capacity greater than 0.46 m^3 (approximately 119 gallons) for which a determination has not been made regarding their LMS status.

Sydcol will comply with Container Level 2 standards using one of the following control methods specified by 40 CFR 264.1086(d)(1):

Containers subject to Container Level 2 standards at Sydcol will meet applicable USDOT hazardous material packaging regulations, as allowed by 40 CFR 264.1086(d)(1)(i). Alternatively, Sydcol may choose to use a non-DOT specification packaging and perform organic vapor monitoring in accordance with EPA Method 21 referenced in 40 CFR Part 60, Appendix A-7, or use a container that has been demonstrated within the preceding 12 months to be vapor-tight by using EPA Method 27 referenced in 40 CFR Part 60, Appendix A-8.

2.3 Container Level 3 Standards (40 CFR 264.1086(e))

Containers with a design capacity greater than 0.1 m^3 (approximately 26 gallons) used for treatment of hazardous waste by a waste stabilization process are subject to Container Level 3 standards. Sydcol will not be treating hazardous wastes with waste stabilization processes at the Facility, therefore, Container Level 3 standards are not specified in this document.

3.0 CONTAINER MANAGEMENT PROCEDURES

Except for containers that are RCRA-empty (40 CFR 261.7(b)), containers handling hazardous wastes at the Facility will have covers and closure devices installed, secured, and maintained in the closed position. Five specific exceptions to the cover and closure device requirement are allowed by RCRA regulation:

1. A closure device or cover may be opened to add waste or other material to the container. If the container is filled in one continuous operation, the closure devices must be secured in the closed position and the cover reinstalled promptly upon completing the filling operation. If the container is filled in discrete quantities or batches, the closure devices must be promptly secured in the closed position and the covers installed upon either the container being filled to its final fill level or the completion of a batch loading after which no additional material will be added within 15 minutes. The container must similarly be closed if the person performing the loading operation leaves the immediate vicinity of the container or during the shutdown of the process generating the material being added to the container, whichever occurs first.

2. A closure device or cover may be opened to remove waste from the container. If the waste is removed in discrete quantities or batches, the closure devices must be secured in the

closed position and cover installed promptly upon completion of a batch removal after which no additional material will be removed within 15 minutes, or the person performing the unloading leaves the immediate vicinity of the container, whichever comes first.

3. Opening a closure device or cover when access inside a container is needed to perform routine activities other than transfer of waste. Following completion of the activity, the closure device must be promptly secured in the closed position and the cover reinstalled.

4. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to atmosphere during normal operations for the purpose of maintaining the container's internal pressure in accordance with the container's design specifications, such as during loading or diurnal temperature fluctuations (see 264.1086(c)(3)(iv) for details). The device must be designed to operate with no detectable organic emissions when closed.

5. Opening of a safety device to avoid unsafe conditions.

4.0 SCHEDULE FOR INSPECTION AND MONITORING

Containers are inspected upon arrival at the Facility to determine if they meet DOT specifications. In the event that a container does not meet DOT packaging requirements, waste stream data are reviewed to determine if the container is subject to Subpart CC regulations (e.g., the hazardous waste contains over 500 ppm VOC). If subject to Subpart CC, the container is inspected to determine if it meets Subpart CC Level 1 or Level 2 standards, as applicable.

Personnel performing the inspections have theoretical and practical training in the implementation of Subpart CC standards, including inspections, recordkeeping, and repair of containers. Subpart CC training is included in the review of the Clean Air Act in the Introduction to RCRA training session and during the training session on Container Management and Storage. An Inspection/Monitoring Log for containers that are subject to Subpart CC that do not meet DOT packaging requirements is maintained at the Facility. The log includes container volume, waste type, and type of control. The Inspection/Monitoring Log is provided as Appendix A.

Containers that are subject to Subpart CC standards will be inspected and monitored in accordance with the requirements of 40 CFR 264.1088, and the following schedule.

Containers managed under the Container Level 1 standards, or under the Container Level 2 standards meeting applicable DOT packaging requirements - Perform a visual inspection of these hazardous waste containers, including covers and closure devices. 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. Confirm that the applicable control is effective in preventing emissions. Container monitoring is not required for DOT packaging requirements.

An initial visual inspection will be conducted on all containers received at the Facility on or before the date that the container is accepted consistent with Section 5.1 of this Attachment. If a defect is detected, the defect shall be noted in the Container Inspection Log (Appendix A) and Sydcol shall repair the defect in accordance with the requirements of Section 6.0 of this Attachment. A determination of acceptability will be made within 30 days of receipt of waste as described in the Facility's Process Information: Containers document included as Attachment D in Part B of the RCRA hazardous waste facility application.

Annual visual inspections consistent with Section 5.1 of this Attachment will also be performed for containers that remain at the Facility for one year or more. If a defect is detected, the defect shall be noted in the Container Inspection Log (Appendix A) and Sydcol shall repair the defect in accordance with the requirements of Section 6.0 of this Attachment. Containers of hazardous waste subject to land disposal restrictions under 40 CFR 268 may not be stored at the Facility for more than 1 year.

In the event a non-DOT specification packaging container with a design capacity greater than 0.46 m (approximately 119 gallons) is used to store hazardous waste subject to Subpart CC, Sydcol will either perform organic vapor monitoring in accordance with EPA Method 21 as specified by 40 CFR 264.1083(d) and 264.1086(g) upon acceptance or at the time waste is first placed in the container, or use a container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 of 40 CFR Part 60, Appendix A. A copy of EPA Method 21 is provided in Appendix C.

For Level 2 containers not meeting DOT packaging requirements, Sydcol will additionally perform an initial visual inspection at the time the containers are first accepted (i.e., prior to signing the manifest) at the time hazardous waste subject to Subpart CC is added to the container (or for containers generated on-site) and perform an annual visual inspection for containers that remain at the Facility for one year or more.

5.0 PROCEDURES FOR INSPECTION AND MONITORING

5.1 Inspection Procedures

Containers subject to Subpart CC and their covers and closure devices will be inspected as follows:

1. View the entire container, its cover, and closure devices (e.g., bungs, valves, caps, etc.) for evidence of any defect that could result in air pollutant emissions.
2. Defects include, but are not limited to, 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. In addition, visible vapor or liquid leakage may indicate a leak is present.

3. Note any visible evidence of any defect and the inspection date on the Inspection/Monitoring Log, provided in Appendix A.
4. Immediately report such observations to the Facility Manager for repair. Note the dates when repair begins and the date when repair is completed on the Inspection/Monitoring Log.

5.2 Monitoring Procedures

In addition to inspection requirements, Sydcol will monitor the container covers and closure devices of any non-DOT specification packaging with a design capacity greater than 119 gallons used to store hazardous waste subject to Subpart CC with a PID. Sydcol will use a RKI GX 6000 PID instrument (serial number 8Y3020239) with sensor calibration capability in the range of 0-6,000 ppm with a ±0.1 ppm resolution for the range 0-600 ppm and ±1.0 ppm resolution above 600 ppm.

The PID will first be inspected and calibrated the same day as the container monitoring consistent with manufacturer's instructions for instrument calibration. The instrument will be checked during each day of use for calibration drift consistent with instrument operating manual instructions. Sydcol will maintain record of instrument calibration and drift using the log sheet provided in Appendix B.

Following calibration, the background concentration will be determined using the procedures described in EPA Method 21. With the calibrated instrument running, traverse the instrument probe tip around the container cap seal and any other potential leak interfaces as close to the interface as possible. All potential leak interfaces should be monitored by the instrument probe. Monitoring will be conducted as follows:

1. Perform monitoring in accordance with the procedures specified in EPA Method 21 (see Appendix C) and 40 CFR 264.1083(d). Use an instrument that meets applicable EPA Method 21 criteria and calibrate the instrument before each day of use using the calibration gases specified by 40 CFR 264.1083(d)(5).
2. Determine the background level according to the procedures in EPA Method 21.
3. Ensure the container cover and closure devices are secured in the closed position prior to monitoring.
4. Traverse the instrument probe around the potential leak interface as close to the interface as possible, as required by EPA Method 21. Check each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, including but not limited to: the interface of the cover rim and container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

5. Perform monitoring when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container.
6. If the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level is less than 500 ppmv, then the container is considered to have no detectable organic emissions.
7. If the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level is equal to or greater than 500 ppmv, note this condition on the Inspection/Monitoring Log.
8. Immediately report such observations to the Facility Manager for repair. Note the dates when repair begins and the date when repair is completed on the Inspection/Monitoring Log.

6.0 REPAIRS

When a defect is detected by either a visual inspection or by leak detection monitoring, Sydcol will repair the container in the following manner:

1. The first attempt at repairing a container will be no later than 24 hours after the defect is detected.
2. Repair the container as soon as possible, but no later than 5 calendar days after detection of the defect.
3. If repair of the defect cannot be completed within 5 calendar days, then remove the hazardous waste from the container and do not use the container to manage hazardous waste until the defect is repaired. Note details on the Inspection/Monitoring Log.

7.0 RECORDKEEPING

Sydcol will record and maintain information described in this section consistent with 40 CFR 264.1089 recordkeeping criteria. Records will be maintained in the Facility operating record for a minimum of 3 years. As specified by 40 CFR 264.1086(c)(5), for containers with a capacity of approximately 119 gallons or greater that also do not meet applicable DOT packaging requirements, Sydcol will maintain a copy of the procedure used to determine that they are not in LMS when such a determination is performed. Sydcol will manage all such containers under the requirements for containers in LMS rather than performing the determination.

For containers exempted from Subpart CC because they manage only wastes with an average VOC concentration of less than 500 ppmw, or for which VOCs have been destroyed or removed, Sydcol will maintain the following records:

1. For wastes with an average VOC concentration of less than 500 ppmw, information used for each waste determination, including wastestream profile data from the generator, in the facility operating record filed onsite and/or available electronically. If analytical results are used, the date, time, and location of each sample will be recorded.
2. For wastes treated to remove volatile organics, the identification number of the incinerator, boiler, or industrial furnace in which the waste was treated.
3. For wastes that are exempt because they meet applicable organic treatment standards under the land disposal restrictions (LDR) (40 CFR 264.1082(c)(4)), Sydcol already maintains LDR notifications as required by 40 CFR 268.7. These records are not required by Subpart CC, but can be used to document these determinations.

8.0 REPORTING

A written report will be submitted to the ADEQ Hazardous Waste Unit within 15 calendar days of the time Sydcol becomes aware of each occurrence when hazardous waste subject to Subpart CC emission control requirements is placed in a container not in compliance with Subpart CC emission control standards. Each report will include the facility EPA identification number, facility name and address, a description of the noncompliance event and cause, the dates of noncompliance, and the actions taken to correct the noncompliance and prevent recurrence. The report will be signed and dated by an authorized representative of Sydcol.

TABLE 1

COMMON ORGANIC COMPOUNDS WITH VAPOR PRESSURE > 0.3 kPa

Table 1
Common Organic Compounds with Vapor Pressure > 0.3 kPa

Organic Constituent	Vapor Pressure (kPa)
Acetaldehyde	120
Acetic acid	2.1
Acetic acid anhydride	0.68
Acetone	30
Allyl alcohol	2.3
Allyl chloride	40
Aluminum nitrate, 10% solution in water	2.4
Aluminum sulphate, 10% solution in water	2.4
Amyl acetate	0.47
Aniline	0.09
Benzene	14
Bromine	28
Butyl acetate	1.5
Butyl alcohol, 1-butanol	0.93
Butyric acid n	48
Carbon disulphide	48
Carbon tetrachloride	15.3
Chloroform	26
Cyclohexanol	0.9
Cyclohexanone	0.67
Ethyl acetate	14
Ethyl alcohol	12.4

Organic Constituent	Vapor Pressure (kPa)
Ethyl glycol	0.7
Formic acid	5.7
Furfurol, 2-Furaldehyde	0.3
Heptane	6
Hexane	17.6
Isopropyl alcohol (rubbing alcohol)	4.4
Kerosene	0.7
Methyl acetate	28.8
Methyl alcohol, methanol	16.9
Methylene chloride, dichloromethane	58
Nitrobenzene	0.03
Nonane	0.6
Octane	1.9
Pentane	58
Phenol	0.05
Propanol	2.8
Propionic acid	0.47
Styrene	0.85
Tetrachloroethane	0.7
Tetrachloroethylene	2.5
Toluene	3.8
Trichloroethylene	9.2

APPENDICIES

APPENDIX A

CONTAINER INSPECTION/MONITORING LOG

Sydcol Waste Transfer Facility
Hazardous Waste Container Inspection Log

Container ID	HWMU	Inspector Name/ Initials	Inspection Date	Container Type	Volume (gal)	Contents	OVA Reading (ppm)	Defect (Y/N)	Comments

APPENDIX B

INSTRUMENT CALIBRATION LOG

AA Sydcol, LLC
Instrument Calibration Log

Equipment Identification	Equipment Type	Calibration Result - First Point	Calibration Result - Second Point	Notes	Technician Name	Technician Signature

APPENDIX C

METHOD 21 – DETERMINATION OF VOC LEAKS

While we have taken steps to ensure the accuracy of this Internet version of the document, it is not the official version. Please refer to the official version in the FR publication, which appears on the Government Printing Office's eCFR website:
(http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title40/40cfr60_main_02.tpl)

Method 21 - Determination of Volatile Organic Compound Leaks

1.0 Scope and Application

1.1 Analytes.

Analyte	CAS No.
Volatile Organic Compounds (VOC)	No CAS number assigned.

1.2 Scope. This method is applicable for the determination of VOC leaks from process equipment. These sources include, but are not limited to, valves, flanges and other connections, pumps and compressors, pressure relief devices, process drains, open-ended valves, pump and compressor seal system degassing vents, accumulator vessel vents, agitator seals, and access door seals.

1.3 Data Quality Objectives. Adherence to the requirements of this method will enhance the quality of the data obtained from air pollutant sampling methods.

2.0 Summary of Method

2.1 A portable instrument is used to detect VOC leaks from individual sources. The instrument detector type is not specified, but it must meet the specifications and performance criteria contained in Section 6.0. A leak definition concentration based on a reference compound is specified in each applicable regulation. This method is intended to locate and classify leaks only, and is not to be used as a direct measure of mass emission rate from individual sources.

3.0 Definitions

3.1 *Calibration gas* means the VOC compound used to adjust the instrument meter reading to a known value. The calibration gas is usually the reference compound at a known concentration approximately equal to the leak definition concentration.

3.2 *Calibration precision* means the degree of agreement between measurements of the same known value, expressed as the relative percentage of the average difference between the meter readings and the known concentration to the known concentration.

3.3 *Leak definition concentration* means the local VOC concentration at the surface of a leak source that indicates that a VOC emission (leak) is present. The leak definition is an instrument meter reading based on a reference compound.

3.4 *No detectable emission* means a local VOC concentration at the surface of a leak source, adjusted for local VOC ambient concentration, that is less than 2.5 percent of the specified leak definition concentration. that indicates that a VOC emission (leak) is not present.

3.5 *Reference compound* means the VOC species selected as the instrument calibration basis for specification of the leak definition concentration. (For example, if a leak definition concentration is 10,000 ppm as methane, then any source emission that results in a local concentration that yields a meter reading of 10,000 on an instrument meter calibrated with methane would be classified as a leak. In this example, the leak definition concentration is 10,000 ppm and the reference compound is methane.)

3.6 *Response factor* means the ratio of the known concentration of a VOC compound to the observed meter reading when measured using an instrument calibrated with the reference compound specified in the applicable regulation.

3.7 *Response time* means the time interval from a step change in VOC concentration at the input of the sampling system to the time at which 90 percent of the corresponding final value is reached as displayed on the instrument readout meter.

4.0 Interferences[Reserved]

5.0 Safety

5.1 Disclaimer. This method may involve hazardous materials, operations, and equipment. This test method may not address all of the safety problems associated with its use. It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to performing this test method.

5.2 Hazardous Pollutants. Several of the compounds, leaks of which may be determined by this method, may be irritating or corrosive to tissues (*e.g.*, heptane) or may be toxic (*e.g.*, benzene, methyl alcohol). Nearly all are fire hazards. Compounds in emissions should be determined through familiarity with the source. Appropriate precautions can be found in reference documents, such as reference No. 4 in Section 16.0.

6.0 Equipment and Supplies

A VOC monitoring instrument meeting the following specifications is required:

6.1 The VOC instrument detector shall respond to the compounds being processed. Detector types that may meet this requirement include, but are not limited to, catalytic oxidation, flame ionization, infrared absorption, and photoionization.

6.2 The instrument shall be capable of measuring the leak definition concentration specified in the regulation.

6.3 The scale of the instrument meter shall be readable to ±2.5 percent of the specified leak definition concentration.

6.4 The instrument shall be equipped with an electrically driven pump to ensure that a sample is provided to the detector at a constant flow rate. The nominal sample flow rate, as measured at the sample probe tip, shall be 0.10 to 3.0 l/min (0.004 to 0.1 ft^3 /min) when the probe is fitted with a glass wool plug or filter that may be used to prevent plugging of the instrument.

6.5 The instrument shall be equipped with a probe or probe extension or sampling not to exceed 6.4 mm (1/4in) in outside diameter, with a single end opening for admission of sample.

6.6 The instrument shall be intrinsically safe for operation in explosive atmospheres as defined by the National Electrical Code by the National Fire Prevention Association or other applicable regulatory code for operation in any explosive atmospheres that may be encountered in its use. The instrument shall, at a minimum, be intrinsically safe for Class 1, Division 1 conditions, and/or Class 2, Division 1 conditions, as appropriate, as defined by the example code. The instrument shall not be operated with any safety device, such as an exhaust flame arrestor, removed.

7.0 Reagents and Standards

7.1 Two gas mixtures are required for instrument calibration and performance evaluation:

7.1.1 Zero Gas. Air, less than 10 parts per million by volume (ppmv) VOC.

7.1.2 Calibration Gas. For each organic species that is to be measured during individual source surveys, obtain or prepare a known standard in air at a concentration approximately equal to the applicable leak definition specified in the regulation.

7.2 Cylinder Gases. If cylinder calibration gas mixtures are used, they must be analyzed and certified by the manufacturer to be within 2 percent accuracy, and a shelf life must be specified. Cylinder standards must be either reanalyzed or replaced at the end of the specified shelf life.

7.3 Prepared Gases. Calibration gases may be prepared by the user according to any accepted gaseous preparation procedure that will yield a mixture accurate to within 2 percent. Prepared standards must be replaced each day of use unless it is demonstrated that degradation does not occur during storage.

7.4 Mixtures with non-Reference Compound Gases. Calibrations may be performed using a compound other than the reference compound. In this case, a conversion factor must be determined for the alternative compound such that the resulting meter readings during source surveys can be converted to reference compound results.

8.0 Sample Collection, Preservation, Storage, and Transport

8.1 Instrument Performance Evaluation. Assemble and start up the instrument according to the manufacturer's instructions for recommended warm-up period and preliminary adjustments.

8.1.1 Response Factor. A response factor must be determined for each compound that is to be measured, either by testing or from reference sources. The response factor tests are required before placing the analyzer into service, but do not have to be repeated at subsequent intervals.

8.1.1.1 Calibrate the instrument with the reference compound as specified in the applicable regulation. Introduce the calibration gas mixture to the analyzer and record the observed meter reading. Introduce zero gas until a stable reading is obtained. Make a total of three measurements by alternating between the calibration gas and zero gas. Calculate the response factor for each repetition and the average response factor.

8.1.1.2 The instrument response factors for each of the individual VOC to be measured shall be less than 10 unless otherwise specified in the applicable regulation. When no instrument is available that meets this specification when calibrated with the reference VOC specified in the applicable regulation, the available instrument may be calibrated with one of the VOC to be measured, or any other VOC, so long as the instrument then has a response factor of less than 10 for each of the individual VOC to be measured.

8.1.1.3 Alternatively, if response factors have been published for the compounds of interest for the instrument or detector type, the response factor determination is not required, and existing results may be referenced. Examples of published response factors for flame ionization and catalytic oxidation detectors are included in References 1–3 of Section 17.0.

8.1.2 Calibration Precision. The calibration precision test must be completed prior to placing the analyzer into service and at subsequent 3-month intervals or at the next use, whichever is later.

8.1.2.1 Make a total of three measurements by alternately using zero gas and the specified calibration gas. Record the meter readings. Calculate the average algebraic difference between the meter readings and the known value. Divide this average difference by the known calibration value and multiply by 100 to express the resulting calibration precision as a percentage.

8.1.2.2 The calibration precision shall be equal to or less than 10 percent of the calibration gas value.

8.1.3 Response Time. The response time test is required before placing the instrument into service. If a modification to the sample pumping system or flow configuration is made that would change the response time, a new test is required before further use.

8.1.3.1 Introduce zero gas into the instrument sample probe. When the meter reading has stabilized, switch quickly to the specified calibration gas. After switching, measure the time required to attain 90 percent of the final stable reading. Perform this test sequence three times and record the results. Calculate the average response time.

8.1.3.2 The instrument response time shall be equal to or less than 30 seconds. The instrument pump, dilution probe (if any), sample probe, and probe filter that will be used during testing shall all be in place during the response time determination.

8.2 Instrument Calibration. Calibrate the VOC monitoring instrument according to Section 10.0.

8.3 Individual Source Surveys.

8.3.1 Type I—Leak Definition Based on Concentration. Place the probe inlet at the surface of the component interface where leakage could occur. Move the probe along the interface periphery while observing the instrument readout. If an increased meter reading is observed, slowly sample the interface where leakage is indicated until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately two times the instrument response time. If the maximum observed meter reading is greater than the leak definition in the applicable regulation, record and report the results as specified in the regulation reporting requirements. Examples of the application of this general technique to specific equipment types are:

8.3.1.1 Valves. The most common source of leaks from valves is the seal between the stem and housing. Place the probe at the interface where the stem exits the packing gland and sample the stem circumference. Also, place the probe at the interface of the packing gland take-up flange seat and sample

the periphery. In addition, survey valve housings of multipart assembly at the surface of all interfaces where a leak could occur.

8.3.1.2 Flanges and Other Connections. For welded flanges, place the probe at the outer edge of the flange-gasket interface and sample the circumference of the flange. Sample other types of nonpermanent joints (such as threaded connections) with a similar traverse.

8.3.1.3 Pumps and Compressors. Conduct a circumferential traverse at the outer surface of the pump or compressor shaft and seal interface. If the source is a rotating shaft, position the probe inlet within 1 cm of the shaft-seal interface for the survey. If the housing configuration prevents a complete traverse of the shaft periphery, sample all accessible portions. Sample all other joints on the pump or compressor housing where leakage could occur.

8.3.1.4 Pressure Relief Devices. The configuration of most pressure relief devices prevents sampling at the sealing seat interface. For those devices equipped with an enclosed extension, or horn, place the probe inlet at approximately the center of the exhaust area to the atmosphere.

8.3.1.5 Process Drains. For open drains, place the probe inlet at approximately the center of the area open to the atmosphere. For covered drains, place the probe at the surface of the cover interface and conduct a peripheral traverse.

8.3.1.6 Open-ended Lines or Valves. Place the probe inlet at approximately the center of the opening to the atmosphere.

8.3.1.7 Seal System Degassing Vents and Accumulator Vents. Place the probe inlet at approximately the center of the opening to the atmosphere.

8.3.1.8 Access door seals. Place the probe inlet at the surface of the door seal interface and conduct a peripheral traverse.

8.3.2 Type II—"No Detectable Emission". Determine the local ambient VOC concentration around the source by moving the probe randomly upwind and downwind at a distance of one to two meters from the source. If an interference exists with this determination due to a nearby emission or leak, the local ambient concentration may be determined at distances closer to the source, but in no case shall the distance be less than 25 centimeters. Then move the probe inlet to the surface of the source and determine the concentration as outlined in Section 8.3.1. The difference between these concentrations determines whether there are no detectable emissions. Record and report the results as specified by the regulation. For those cases where the regulation requires a specific device installation, or that specified vents be ducted or piped to a control device, the existence of these conditions shall be visually confirmed. When the regulation also requires that no detectable emissions exist, visual observations and sampling surveys are required. Examples of this technique are:

8.3.2.1 Pump or Compressor Seals. If applicable, determine the type of shaft seal. Perform a survey of the local area ambient VOC concentration and determine if detectable emissions exist as described in Section 8.3.2.

8.3.2.2 Seal System Degassing Vents, Accumulator Vessel Vents, Pressure Relief Devices. If applicable, observe whether or not the applicable ducting or piping exists. Also, determine if any sources exist in the ducting or piping where emissions could occur upstream of the control device. If the required ducting or piping exists and there are no sources where the emissions could be vented to the atmosphere upstream of

the control device, then it is presumed that no detectable emissions are present. If there are sources in the ducting or piping where emissions could be vented or sources where leaks could occur, the sampling surveys described in Section 8.3.2 shall be used to determine if detectable emissions exist.

8.3.3 Alternative Screening Procedure.

8.3.3.1 A screening procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that do not have continuously moving parts, that do not have surface temperatures greater than the boiling point or less than the freezing point of the soap solution, that do not have open areas to the atmosphere that the soap solution cannot bridge, or that do not exhibit evidence of liquid leakage. Sources that have these conditions present must be surveyed using the instrument technique of Section 8.3.1 or 8.3.2.

8.3.3.2 Spray a soap solution over all potential leak sources. The soap solution may be a commercially available leak detection solution or may be prepared using concentrated detergent and water. A pressure sprayer or squeeze bottle may be used to dispense the solution. Observe the potential leak sites to determine if any bubbles are formed. If no bubbles are observed, the source is presumed to have no detectable emissions or leaks as applicable. If any bubbles are observed, the instrument techniques of Section 8.3.1 or 8.3.2 shall be used to determine if a leak exists, or if the source has detectable emissions, as applicable.

9.0 Quality Control

Section	**Quality control measure**	**Effect**
8.1.2	Instrument calibration precision check	Ensure precision and accuracy, respectively, of instrument response to standard.
10.0	Instrument calibration	

10.0 Calibration and Standardization

10.1 Calibrate the VOC monitoring instrument as follows. After the appropriate warm-up period and zero internal calibration procedure, introduce the calibration gas into the instrument sample probe. Adjust the instrument meter readout to correspond to the calibration gas value.

Note: If the meter readout cannot be adjusted to the proper value, a malfunction of the analyzer is indicated and corrective actions are necessary before use.

11.0 Analytical Procedures[Reserved]

12.0 Data Analyses and Calculations[Reserved]

13.0 Method Performance[Reserved]

14.0 Pollution Prevention[Reserved]

15.0 Waste Management[Reserved]

16.0 References

1. Dubose, D.A., and G.E. Harris. Response Factors of VOC Analyzers at a Meter Reading of 10,000 ppmv for Selected Organic Compounds. U.S. Environmental Protection Agency, Research Triangle Park, NC. Publication No. EPA 600/2–81051. September 1981.

2. Brown, G.E., *et al.* Response Factors of VOC Analyzers Calibrated with Methane for Selected Organic Compounds. U.S. Environmental Protection Agency, Research Triangle Park, NC. Publication No. EPA 600/2–81–022. May 1981.

3. DuBose, D.A. *et al.* Response of Portable VOC Analyzers to Chemical Mixtures. U.S. Environmental Protection Agency, Research Triangle Park, NC. Publication No. EPA 600/2–81–110. September 1981.

4. Handbook of Hazardous Materials: Fire, Safety, Health. Alliance of American Insurers. Schaumberg, IL. 1983.

17.0 Tables, Diagrams, Flowcharts, and Validation Data[Reserved]

Character Background Reference Forms

Permit Applicant

Key Employee

- Charles Templer
- Juvi Rumitio
- Dan Drewek
- Alexander Hayden

ADEQ
Arizona Department of Environmental Quality

CHARACTER/BACKGROUND REFERENCE FORM FOR HAZARDOUS WASTE FACILITY PERMIT APPLICATION

FORM FOR PERMIT APPLICANT

BACKGROUND

Pursuant to ARS § 49-922.C. and A.A.C. R18-8-270.J, the Arizona Department of Environmental Quality (ADEQ) requires that permit applicants and other persons associated with a hazardous waste management facility supply character/background information sufficient to demonstrate their reliability, expertise, integrity, and competence to operate a hazardous waste facility. The attached application supplement shall be provided to ADEQ at the time that a hazardous waste permit application to treat, store, or dispose of hazardous waste is submitted. It may also be required in any request to transfer, reissue, or modify a hazardous waste permit.

DEFINITIONS

"Applicant" is defined as the corporation, company, partnership, or other entity seeking a hazardous waste facility permit and identified in the permit application and in this "Applicant" Character/Background Reference Form.

"Key Employee" is defined as any person employed by the Applicant in a supervisory capacity or empowered to make discretionary decisions with respect to the solid waste or hazardous waste operations of the facility. This definition may include positions such as the plant manager, environmental manager, emergency coordinator(s), and training director(s).

INSTRUCTIONS

- This form is to be completed on behalf of the Applicant as part of its application for a hazardous waste permit. It may also be required in any request to transfer, reissue, or modify a hazardous waste permit.
- All questions must be answered completely.
- As indicated on the last page of this form, all statements herein are to be made under oath.
- The person signing this form is certifying that he or she has the authority to provide this information on behalf of the Applicant.
- ADEQ may coordinate with other state, federal, and local agencies to verify the information provided herein, as well as to obtain additional information as needed. The Attorney General's Office may conduct background investigations on any or all of the persons identified in the Applicant's submittals.
- Additional background or reference information may be submitted if you believe that it will help the ADEQ to render a decision on your application. Additional sheets can be attached as necessary.
- Send completed forms to:

Arizona Department of Environmental Quality
Hazardous Waste Permits Unit
1110 W. Washington Street
Phoenix, Arizona 85007

CHARACTER/BACKGROUND REFERENCE FORM

1. General Information

Applicant name (as it will appear on exterior of premises)	**AA Sydcol, LLC**
Name of company (if different)	
State of incorporation	**Arizona**
U.S. corporate headquarters location	**Arizona**
Is the Applicant authorized to do business in Arizona by the Arizona Corporation Commission?	Yes **X** No _____
Is the Applicant in good standing with the Arizona Corporation Commission?	Yes **X** No _____
If "No" please explain:	
If not an Arizona Corporation, is the Applicant licensed to do business in Arizona?	Yes _____ No _____
Location of facility	**2264 E. 13th Street** *(Street)* **Yuma, AZ 85365** *(City)* **Yuma** *(State)* *(Zip)* *(County)*
Mailing address	**2264 E. 13th Street** *(Street)* **Yuma, AZ 85365** *(City)* **Yuma** *(State)* *(Zip)* *(County)*
Business telephone	**(928) 210-7077**

2. Property Ownership

Who owns the land at the business address (include owner's address)?

Syd-Cole Properties, LLC
(Name)
2264 E. 13th Street
(Street)
Yuma, AZ 85365
(City) *(State)* *(Zip)*

Who owns the building/buildings at the business address (include owner's address)?

Syd-Cole Properties, LLC
(Name)
2264 E. 13th Street
(Street)
Yuma, AZ 85365
(City) *(State)* *(Zip)*

If building/buildings are leased, state term (period of time covered) of each lease

_____

Who, in addition to the Applicant, has a substantial interest in (owns more than 10%) of the equipment at this location? (Equipment includes all operating and structural devices, apparatus and materials, all rolling stock, and all monitoring, safety, emergency and security apparatus included in the hazardous waste permits, but does not include office equipment).

_____
(Name)
_____
(Street)
_____
(City) *(State)* *(Zip)*

If the Applicant does not own the equipment, under what terms is the equipment being used? (Check all that apply. If more than one checked, explain.)

Rent_____
Lease_____
Contract to Purchase_____

Other_____
(Explain)_____
_____

List below the investment the Applicant has in each interest listed (or each anticipated investment):

Building &Structures $_____
Equipment $_____
Rolling Stock $_____
Land $_____

CHARACTER/BACKGROUND REFERENCE FORM

3.	List the names and titles of all officers, directors, partners, key employees, or persons or business entities holding 10% or more of the Applicant's equity or debt liability. (Attach a separate sheet if necessary)	Charles Templer, Managing Member Karen Patlett Templer, Member
4.	List the names and titles of the Applicant's key employees. (Attach a separate sheet if necessary)	Charles Templer, Manager Juvi Remitio, Technical Manager Daniel Drewek, Facility Manager Alexander Hayden, Operations Manager
5.	Has the Applicant been convicted of a felony within the last 5 years? Include guilty and nolo contendere (no contest) pleas.	Yes _____ No X
	If "yes", please specify	
	the court(s) in which the conviction(s) was/were entered (state the name and location)	_____
	date of each conviction	_____
	original charge(s)	_____
	offense(s) convicted of	_____
6.	Has the Applicant ever had a permit, interim status, or other approval to operate a facility to transport, generate, treat, store or dispose of hazardous waste denied, revoked or terminated?	Yes _____ No X
	If "yes", please specify:	
	type(s) of permits	_____
	where denied, revoked or terminated (city and state)	_____
	date on which denied, revoked or terminated	_____
	reason(s) for denial, revocation or termination	_____

CHARACTER/BACKGROUND REFERENCE FORM

7. Has the Applicant been disciplined (includes any letter of warning, compliance order, consent agreement, or fine) by any local, state or federal authority (in any state) within the last 5 years?

Yes _____

No X

If "yes", please specify

Name and location of facility _____

Name of regulatory agency involved _____

Date of each disciplinary order _____

Reason(s) for each disciplinary order _____

8. Has the Applicant ever voluntarily surrendered a permit, interim status, or other approval to operate a facility to transport, generate, treat, store or dispose of hazardous waste (in any state) within the last 5 years?

Yes _____

No X

If "yes", please specify

Name and location of facility _____

Name of regulatory agency involved _____

Date of each surrender of permit, interim status, or other approval _____

Reason(s) for each surrender of permit, interim status or other approval _____

Type of permit/license/approval affected _____

CHARACTER/BACKGROUND REFERENCE FORM

9. Has the Applicant been convicted of a misdemeanor relating to environmental matters within the last 5 years? Include guilty and nolo contendere (no contest) pleas.

   Yes _____

   No X

   If "yes", please specify:

   The court(s) in which the conviction(s) was/were entered _____

   Date of each conviction _____

   Original charge(s) _____

   Offense(s) convicted of _____

10. Has any governmental or judicial entity provided the Applicant with notice that the Applicant is subject to any restraining order, injunction or similar order related to environmental matters within the last 5 years?

    Yes _____

    No X

    If "yes", please specify:

    Date of each order _____

    The court, agency or other entity issuing the order(s) _____

    Type of action _____

    Is the action still pending?

    Yes _____

    No _____

11. Is the Applicant presently the subject of any investigation or proceeding by the U.S. EPA or government authority in any state regarding environmental matters?

    Yes _____

    No X

    If "yes," indicate the nature of the investigation or proceeding and the name and location of the government authority _____

12. Has the Applicant ever forfeited a bond? Yes _____

No X

If "yes", please specify:

where forfeited _____

when forfeited _____

amount forfeited _____

reason forfeited _____

CHARACTER/BACKGROUND REFERENCE FORM

STATE OF California)

County of San Bernardino

I, Charles M. Templer, Managing Member,
(full name--printed or typed) *(position/title)*

having been duly sworn, depose and say that the foregoing information is in all respect true and correct to the best of my knowledge. I am authorized to provide this information on behalf of BA Sydco LLC. I understand that providing false information is a felony.
(Applicant)

(Signature)

SUBSCRIBED AND SWORN to before me this _____ day of _____, 20_____.

(Notary Public)

My Commission expires:
March 18, 2025

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

MARIAN H. PEREZ
COMM. #2348410
Notary Public - California
SAN BERNARDINO COUNTY
My Comm. Exp. Mar. 18, 2025

State of California
County of San Bernardino
Subscribed and sworn to (or affirmed) before me on
this 15 *day of* November, 20 21,
by Charles M. Templer
proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.
Marian H. Perez
Notary Public

ADEQ
Arizona Department
of Environmental Quality

CHARACTER/BACKGROUND REFERENCE FORM FOR HAZARDOUS WASTE FACILITY PERMIT APPLICATION

FORM FOR KEY EMPLOYEE

BACKGROUND

Pursuant to ARS § 49-922.C. and A.A.C. R18-8-270.J, the Arizona Department of Environmental Quality (ADEQ) requires that permit applicants and other persons associated with a hazardous waste management facility supply character/background information sufficient to demonstrate their reliability, expertise, integrity, and competence to operate a hazardous waste facility. The attached application supplement shall be provided to ADEQ at the time that a hazardous waste permit application to treat, store, or dispose of hazardous waste is submitted and at such times when Key Employees are added or changed.

DEFINITIONS

"Applicant" is defined as the corporation, company, partnership, or other entity seeking a hazardous waste facility permit and identified in the permit application.

"Key Employee" is defined as any person employed by the Applicant in a supervisory capacity or empowered to make discretionary decisions with respect to the solid waste or hazardous waste operations of the facility. This definition may include positions such as the plant manager, environmental manager, emergency coordinator(s), and training director(s).

INSTRUCTIONS

- Each of the applicant's Key Employees must complete a copy of this form as part of the hazardous waste permit application. It may also be required in any request to transfer, reissue, or modify a Hazardous Waste Permit.
- All questions must be answered completely.
- As indicated on the last page of this form, all statements herein are to be made under oath.
- ADEQ may coordinate with other state, federal, and local agencies to verify the information provided herein, as well as to obtain additional information as needed. The Attorney General's Office may conduct background investigations on any or all of the persons identified in the Applicant's submittals.
- Additional background or reference information may be submitted if you believe that it will help the ADEQ to render a decision on your application. Additional sheets can be attached as necessary.
- Send completed forms to:

Arizona Department of Environmental Quality
Hazardous Waste Permits Unit
1110 W. Washington Street
Phoenix, Arizona 85007

CHARACTER/BACKGROUND REFERENCE FORM

1. General Information

Full name: Charles Nathan Temple
(First) (Middle) (Last)

Date of birth*: 02 04 1955
(Month) (Day) (Year)

Place of birth*: Huntington Park CA Los Angeles
(City) (State) (County)

Social Security Number*: 573 04 8400

Current residence*: 3155 Golden Willow Ct.
(Street)
Yorba Linda, CA 92886
(City) (State) (Zip)

Information marked with "*" will be held confidential and will not be made available in a public file.

Are you a U.S. citizen? Yes X No _____

2. Employment History (last 5 years)

Dates From/To and Position	Name and Address of Employer
Dates From/To: 3/81 to present Position: President	Industrial Waste Utilization (Name) 5601 State St. (Street) Montclair CA 91763 (City) (State) (Zip)
Dates From/To: 7/05 to present Position: Managing Member	AA Sydco LLC (Name) 2264 E. 13th Street (Street) Yuma AZ 85365 (City) (State) (Zip)
Dates From/To: _____ Position: _____	_____ (Name) _____ (Street) _____ (City) (State) (Zip)

CHARACTER/BACKGROUND REFERENCE FORM

3. Have you read and do you understand the Arizona hazardous waste laws, rules, and regulations?

   Yes X
   No _____

4. Have you been convicted of a felony within the last five years? Include guilty and nolo contendere (no contest) pleas.

   Yes _____
   No X

   If "yes", please specify

   the court(s) in which the conviction(s) was/were entered (name and location) _____

   date of each conviction _____

   original charge(s) _____

   offense(s) convicted of _____

5. Have you been convicted of a misdemeanor relating to environmental matters within the last 5 years? Include guilty and nolo contendere (no contest) pleas.

   Yes _____
   No X

   If "yes", please specify:

   The court(s) in which the conviction(s) was/were entered _____

   Date of each conviction _____

   Original charge(s) _____

   Offense(s) convicted of _____

6. Has any governmental or judicial entity provided you with notice that you are subject to any restraining order, injunction or similar order related to environmental matters within the last 5 years?

   Yes _____
   No X

   If "yes", please specify:

   Date of each order _____

   The court, agency or other entity which issued order(s) _____

   Type of action _____

   Is the action still pending?

   Yes _____
   No _____

CHARACTER/BACKGROUND REFERENCE FORM

7.	Are you presently the subject of any investigation or proceeding by the U.S. EPA or government authority in any state regarding environmental issues?	Yes ____ No X
	If "yes", indicate the nature of the investigation of the proceeding and the name and location of the government authority	____
8.	Have you ever had a business or professional license revoked or suspended?	Yes ____ No X
	If yes, provide the address of the licensing authority and the date of the action/order.	____
9.	Have you ever been denied a business or professional license?	Yes ____ No X
	If yes, provide the address of the licensing authority and the date of the action/order.	____
10.	Have you voluntarily surrendered a business or professional license in the last 5 years?	Yes ____ No X
	If yes, provide the address of the licensing authority and the date of the action/order.	____

CHARACTER/BACKGROUND REFERENCE FORM

STATE OF California)

County of San Bernardino)

I, Charles M. Templer, having been duly
(full name--printed or typed)

sworn, depose and say that the foregoing information is in all respect true and correct to the best of my knowledge. I understand that providing false information is a felony.

(Signature)

SUBSCRIBED AND SWORN to before me this _____ day of _____, 20_____.

(Notary Public)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

My Commission expires:

March 18, 2025

MARIAN H. PEREZ
COMM. #2348410
Notary Public - California
SAN BERNARDINO COUNTY
My Comm. Exp. Mar. 18, 2025

State of California
County of San Bernardino

Subscribed and sworn to (or affirmed) before me on
this 15 ***day of*** November ***,20*** 21 ***,***
Charles M. Templer
proved to me on the basis of satisfactory evidence to be
the person(s) who appeared before me.

Notary Public

CHARACTER/BACKGROUND REFERENCE FORM

1. General Information

Full name: JUVI (First) GATUSLAO (Middle) REMITIO (Last)

Date of birth* May (Month) 23 (Day) 1964 (Year)

Place of birth* Bacolod City (City) Philippines (State) (County)

Social Security Number* 571-87-6437

Current residence* 3655 E. Dublin St. (Street)
Gilbert (City) AZ (State) 85295 (Zip)

Information marked with "*" will be held confidential and will not be made available in a public file.

Are you a U.S. citizen? Yes x No ____

2. Employment History (last 5 years)

Dates From/To and Position	Name and Address of Employer
Dates From/To: December 2005 to Present Position: : Technical Svcs Mgr	AA Sydcol, LLC (Name) 2264 E. 13th St. (Street) Yuma (City) AZ (State) 85365x (Zip)
Dates From/To: ____ Position: : ____	(Name) (Street) (City) (State) (Zip)
Dates From/To: ____ Position: : ____	(Name) (Street) (City) (State) (Zip)

CHARACTER/BACKGROUND REFERENCE FORM

3. Have you read and do you understand the Arizona hazardous waste laws, rules, and regulations?

Yes x

No _____

4. Have you been convicted of a felony within the last five years? Include guilty and nolo contendere (no contest) pleas.

Yes _____

No x

If "yes", please specify

the court(s) in which the conviction(s) was/were entered (name and location) _____

date of each conviction _____

original charge(s) _____

offense(s) convicted of _____

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No x

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Offense(s) convicted of _____

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No x

If "yes", please specify:

Date of each order _____

The court, agency or other entity which issued order(s) _____

Type of action _____

Is the action still pending?

Yes _____

No _____

CHARACTER/BACKGROUND REFERENCE FORM

7. Are you presently the subject of any investigation or proceeding by the U.S. EPA or government authority in any state regarding environmental issues?

Yes _____
No x

If "yes", indicate the nature of the investigation of the proceeding and the name and location of the government authority

_____
_____
_____

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Yes _____
No x

If yes, provide the address of the licensing authority and the date of the action/order.

_____

9. Have you ever been denied a business or professional license?

Yes _____
No x

If yes, provide the address of the licensing authority and the date of the action/order.

_____

10. Have you voluntarily surrendered a business or professional license in the last 5 years?

Yes _____
No x

If yes, provide the address of the licensing authority and the date of the action/order.

_____

CHARACTER/BACKGROUND REFERENCE FORM

STATE OF ARIZONA)

County of MARICOPA)

I. JUVI G. REMITIO, having been duly
(full name--printed or typed)

sworn, depose and say that the foregoing information is in all respect true and correct to the best of my knowledge. I understand that providing false information is a felony.

(Signature)

SUBSCRIBED AND SWORN to before me this 15th day of NOVEMBER, 2021.

(Notary Public)

RANDY EVENSON
Notary Public - Arizona
MARICOPA County
My Commission Expires
October 15, 2024
Commission # 591206

My Commission expires:

10/15/2024

ADEQ
Arizona Department of Environmental Quality

CHARACTER/BACKGROUND REFERENCE FORM FOR HAZARDOUS WASTE FACILITY PERMIT APPLICATION

FORM FOR KEY EMPLOYEE

BACKGROUND

Pursuant to ARS § 49-922.C. and A.A.C. R18-8-270.J, the Arizona Department of Environmental Quality (ADEQ) requires that permit applicants and other persons associated with a hazardous waste management facility supply character/background information sufficient to demonstrate their reliability, expertise, integrity, and competence to operate a hazardous waste facility. The attached application supplement shall be provided to ADEQ at the time that a hazardous waste permit application to treat, store, or dispose of hazardous waste is submitted and at such times when Key Employees are added or changed.

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- All questions must be answered completely.
- As indicated on the last page of this form, all statements herein are to be made under oath.
- ADEQ may coordinate with other state, federal, and local agencies to verify the information provided herein, as well as to obtain additional information as needed. The Attorney General's Office may conduct background investigations on any or all of the persons identified in the Applicant's submittals.
- Additional background or reference information may be submitted if you believe that it will help the ADEQ to render a decision on your application. Additional sheets can be attached as necessary.
- Send completed forms to:

Arizona Department of Environmental Quality
Hazardous Waste Permits Unit
1110 W. Washington Street
Phoenix, Arizona 85007

CHARACTER/BACKGROUND REFERENCE FORM

1. General Information

Full name: Daniel James Drewek
(First) (Middle) (Last)

Date of birth*: 11 23 1963
(Month) (Day) (Year)

Place of birth*: Madison WI Dane
(City) (State) (County)

Social Security Number*: 388 72-3523

Current residence*: 566 S 2nd Ave
(Street)
Yuma AZ 85364
(City) (State) (Zip)

Information marked with "*" will be held confidential and will not be made available in a public file.

Are you a U.S. citizen? Yes ✓ No _____

2. Employment History (last 5 years)

Dates From/To and Position	**Name and Address of Employer**
Dates From/To: Moved -2019 to Current Position: : GM Manager	AA SYDCO1 LLC (Name) 2264 E 13TH (Street) Yuma AZ 85365 (City) (State) (Zip)
Dates From/To: Jan 2010 – Dec 2018 Position: : Owner	Lucky Recycling (Name) 702 Industry Way (Street) El Centro Ca 92243 (City) (State) (Zip)
Dates From/To: _____ Position: : _____	_____ (Name) _____ (Street) _____ (City) (State) (Zip)

CHARACTER/BACKGROUND REFERENCE FORM

3. Have you read and do you understand the Arizona hazardous waste laws, rules, and regulations?

   Yes ✓
   No _____

4. Have you been convicted of a felony within the last five years? Include guilty and nolo contendere (no contest) pleas.

   Yes _____
   No ✓

   If "yes", please specify

   the court(s) in which the conviction(s) was/were entered (name and location) _____

   date of each conviction _____

   original charge(s) _____

   offense(s) convicted of _____

5. Have you been convicted of a misdemeanor relating to environmental matters within the last 5 years? Include guilty and nolo contendere (no contest) pleas.

   Yes _____
   No ✓

   If "yes", please specify:

   The court(s) in which the conviction(s) was/were entered _____

   Date of each conviction _____

   Original charge(s) _____

   Offense(s) convicted of _____

6. Has any governmental or judicial entity provided you with notice that you are subject to any restraining order, injunction or similar order related to environmental matters within the last 5 years?

   Yes _____
   No ✓

   If "yes", please specify:

   Date of each order _____

   The court, agency or other entity which issued order(s) _____

   Type of action _____

   Is the action still pending?

   Yes _____
   No _____

CHARACTER/BACKGROUND REFERENCE FORM

7.	Are you presently the subject of any investigation or proceeding by the U.S. EPA or government authority in any state regarding environmental issues?	Yes _____ No ✓
	If "yes", indicate the nature of the investigation of the proceeding and the name and location of the government authority	_____ _____ _____
8.	Have you ever had a business or professional license revoked or suspended?	Yes _____ No ✓
	If yes, provide the address of the licensing authority and the date of the action/order.	_____
9.	Have you ever been denied a business or professional license?	Yes _____ No ✓
	If yes, provide the address of the licensing authority and the date of the action/order.	_____
10.	Have you voluntarily surrendered a business or professional license in the last 5 years?	Yes _____ No ✓
	If yes, provide the address of the licensing authority and the date of the action/order.	_____

CHARACTER/BACKGROUND REFERENCE FORM

STATE OF Arizona)

County of Yuma)

I, Daniel James Drewek, having been duly
(full name--printed or typed)

sworn, depose and say that the foregoing information is in all respect true and correct to the best of my knowledge. I understand that providing false information is a felony.

(Signature)

SUBSCRIBED AND SWORN to before me this 17th day of Nov., 20 21.

Debra Gonzales
(Notary Public)

My Commission expires:

9-23-2024

DEBRA GONZALES
Notary Public - State of Arizona
YUMA COUNTY
Commission #588691
Expires September 23, 2024

ADEQ
Arizona Department of Environmental Quality

CHARACTER/BACKGROUND REFERENCE FORM FOR HAZARDOUS WASTE FACILITY PERMIT APPLICATION

FORM FOR KEY EMPLOYEE

BACKGROUND

Pursuant to ARS § 49-922.C. and A.A.C. R18-8-270.J, the Arizona Department of Environmental Quality (ADEQ) requires that permit applicants and other persons associated with a hazardous waste management facility supply character/background information sufficient to demonstrate their reliability, expertise, integrity, and competence to operate a hazardous waste facility. The attached application supplement shall be provided to ADEQ at the time that a hazardous waste permit application to treat, store, or dispose of hazardous waste is submitted and at such times when Key Employees are added or changed.

DEFINITIONS

"Applicant" is defined as the corporation, company, partnership, or other entity seeking a hazardous waste facility permit and identified in the permit application.

"Key Employee" is defined as any person employed by the Applicant in a supervisory capacity or empowered to make discretionary decisions with respect to the solid waste or hazardous waste operations of the facility. This definition may include positions such as the plant manager, environmental manager, emergency coordinator(s), and training director(s).

INSTRUCTIONS

- Each of the applicant's Key Employees must complete a copy of this form as part of the hazardous waste permit application. It may also be required in any request to transfer, reissue, or modify a Hazardous Waste Permit.
- All questions must be answered completely.
- As indicated on the last page of this form, all statements herein are to be made under oath.
- ADEQ may coordinate with other state, federal, and local agencies to verify the information provided herein, as well as to obtain additional information as needed. The Attorney General's Office may conduct background investigations on any or all of the persons identified in the Applicant's submittals.
- Additional background or reference information may be submitted if you believe that it will help the ADEQ to render a decision on your application. Additional sheets can be attached as necessary.
- Send completed forms to:

Arizona Department of Environmental Quality
Hazardous Waste Permits Unit
1110 W. Washington Street
Phoenix, Arizona 85007

CHARACTER/BACKGROUND REFERENCE FORM

1. General Information

Full name: ALEXANDER JAMES HAYDEN
(First) (Middle) (Last)

Date of birth*: 08 · 11 · 1983
(Month) (Day) (Year)

Place of birth*: LEADVILLE, CO CLARK
(City) (State) (County)

Social Security Number*: 614 · 14 · 1124

Current residence*: 3532 W 13TH PL
(Street)
YUMA, AZ 85364
(City) (State) (Zip)

Information marked with "*" will be held confidential and will not be made available in a public file.

Are you a U.S. citizen? Yes X No _____

2. Employment History (last 5 years)

Dates From/To and Position	Name and Address of Employer
Dates From/To: 9/2011 - CURRENT Position: : OPERATIONS	AA SYDCOL LLC (Name) 2264 E 13TH ST. (Street) YUMA, AZ 85365 (City) (State) (Zip)
Dates From/To: _____ Position: : _____	(Name) (Street) (City) (State) (Zip)
Dates From/To: _____ Position: : _____	(Name) (Street) (City) (State) (Zip)

CHARACTER/BACKGROUND REFERENCE FORM

3.	Have you read and do you understand the Arizona hazardous waste laws, rules, and regulations?	Yes X No _____
4.	Have you been convicted of a felony within the last five years? Include guilty and nolo contendere (no contest) pleas.	Yes _____ No X
	If "yes", please specify	
	the court(s) in which the conviction(s) was/were entered (name and location)	_____
	date of each conviction	_____
	original charge(s)	_____
	offense(s) convicted of	_____
5.	Have you been convicted of a misdemeanor relating to environmental matters within the last 5 years? Include guilty and nolo contendere (no contest) pleas.	Yes _____ No X
	If "yes", please specify:	
	The court(s) in which the conviction(s) was/were entered	_____
	Date of each conviction	_____
	Original charge(s)	_____
	Offense(s) convicted of	_____
6.	Has any governmental or judicial entity provided you with notice that you are subject to any restraining order, injunction or similar order related to environmental matters within the last 5 years?	Yes _____ No X
	If "yes", please specify:	
	Date of each order	_____
	The court, agency or other entity which issued order(s)	_____
	Type of action	_____
	Is the action still pending?	Yes _____ No _____

CHARACTER/BACKGROUND REFERENCE FORM

7.	Are you presently the subject of any investigation or proceeding by the U.S. EPA or government authority in any state regarding environmental issues?	Yes _____ No ___X___
	If "yes", indicate the nature of the investigation of the proceeding and the name and location of the government authority	_____ _____ _____
8.	Have you ever had a business or professional license revoked or suspended?	Yes _____ No ___X___
	If yes, provide the address of the licensing authority and the date of the action/order.	_____
9.	Have you ever been denied a business or professional license?	Yes _____ No ___X___
	If yes, provide the address of the licensing authority and the date of the action/order.	_____
10.	Have you voluntarily surrendered a business or professional license in the last 5 years?	Yes _____ No ___X___
	If yes, provide the address of the licensing authority and the date of the action/order.	_____

CHARACTER/BACKGROUND REFERENCE FORM

STATE OF Arizona)

County of Yuma)

I, ALEXANDER JAMES HAYDEN, having been duly
(full name--printed or typed)

sworn, depose and say that the foregoing information is in all respect true and correct to the best of my knowledge. I understand that providing false information is a felony.

(Signature)

SUBSCRIBED AND SWORN to before me this 17th day of Nov., 20 21.

Debra Gonzales
(Notary Public)

DEBRA GONZALES
Notary Public - State of Arizona
YUMA COUNTY
Commission #588691
Expires September 23, 2024

My Commission expires:

9-23-2024