Part B Permit Renewal and Operations Plan

evoqua WATER TECHNOLOGIES

5375 South Boyle Avenue
Vernon, California 90058

Volume I of II

Part A

Sections 1-11

September 2014

Prepared by

SESPE CONSULTING, INC.

5920 Friars Road
San Diego, CA 92108
Tel: (619) 894-8669
Fax: (805) 667-8104

This page was intentionally left blank.

PART B PERMIT RENEWAL AND OPERATIONS PLAN

Evoqua Water Technologies, LLC
5375 South Boyle Avenue
Vernon, California 90058

EPA Identification Number: CAD097030993

Volume I of II

September 2014

SESPE CONSULTING, INC.
468 Poli Street, Suite 2E • Ventura, CA 93001
Office (805) 275-1515 • Fax (805) 667-8104

This page was intentionally left blank.

SECTION i

Table of Contents

This page was intentionally left blank.

EVOQUA WATER TECHNOLOGIES, LLC
PART B RENEWAL AND OPERATIONS PLAN
TABLE OF CONTENTS

SECTIONS

Section i	Table of Contents	Volume I
Section ii	Introduction	Volume I
Section iii	Part A Permit Application	Volume I
Section 1	Facility Description	Volume I
Section 2	Waste Characterization	Volume I
Section 3	Facility Design	Volume I
Section 4	Waste Management Procedures	Volume I
Section 5	Preparedness and Prevention	Volume I
Section 6	Contingency Plan and Emergency Procedures	Volume I
Section 7	Personnel Training	Volume I
Section 8	Closure and Post Closure Plans	Volume I
Section 9	Permits and Other Federal Laws	Volume I
Section 10	Records and Reports	Volume I
Section 11	Certification and Signatures	Volume I

APPENDICES

Appendix A	Part B Permit Checklist	Volume I
Appendix B	2004 Watermaster Report	Volume I
Appendix C	Hazardous Waste Management Area Descriptions	Volume I
Appendix D	Waste Analysis Plan	Volume I
Appendix E	Hazardous Waste Management Unit Information Sheets	Volume I
Appendix F	Process Equipment Drawings and Diagrams	Volume I
Appendix G	Tank Tables	Volume I
Appendix H	Process Equipment Specifications	Volume II
Appendix I	Structural Calculations	Volume III
Appendix J	Containment Calculations	Volume III
Appendix K	Concrete Sealant Specifications	Volume III
Appendix L	Hazardous Waste Tank Certifications	Volume IV
Appendix M	Safety Data Sheets	Volume IV
Appendix N	Examples of Discharge Analytical Reports	Volume V
Appendix O	Environmental Permits	Volume V
Appendix P	Safety Equipment Specifications	Volume V
Appendix Q	Contingency Plan	Volume V
Appendix R	Facility Operations and Health and Safety Training Plan	Volume V
Appendix S	Closure Plan	Volume V

SECTION 1
Facility Description

Table of Contents

Section **Page**

1.1 FACILITY IDENTIFICATION 1-1
1.1.1 EPA IDENTIFICATION NUMBER 1-1
1.1.2 TREATMENT FACILITY NAME 1-1
1.1.3 FACILITY LOCATION AND TELEPHONE NUMBER 1-1
1.1.4 FACILITY TYPE AND BUSINESS DESCRIPTION 1-1
1.1.5 FACILITY MAILING ADDRESS AND TELEPHONE NUMBER 1-2
1.1.6 FACILITY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE 1-2
1.2 WASTE TREATMENT FACILITY OWNERSHIP 1-2
1.2.1 FACILITY OWNER 1-2
1.2.2 FACILITY OWNER MAILING ADDRESS AND TELEPHONE NUMBER 1-2
1.2.3 PROPERTY OWNER 1-2
1.2.4 PROPERTY OWNER MAILING ADDRESS AND TELEPHONE NUMBER: 1-2
1.3 WASTE TREATMENT FACILITY OPERATOR 1-3
1.3.1 FACILITY OPERATOR 1-3
1.3.2 OPERATOR MAILING ADDRESS AND TELEPHONE NUMBER 1-3
1.4 CONTACT PERSON FAMILIAR WITH FACILITY 1-3
1.5 OPERATION PLAN PREPARATION 1-3
1.5.1 OVERALL RESPONSIBILITY 1-3
1.5.2 ENGINEERING AND TECHNICAL SUPPORT 1-3
1.5.3 LEGAL SUPPORT 1-4
1.6 FACILITY LOCATION AND PHYSICAL ENVIRONMENT 1-4
1.6.1 TOPOGRAPHIC MAPS 1-4
1.6.2 LEGAL DESCRIPTION 1-4
1.6.3 LATITUDE/LONGITUDE AND TOWNSHIP/RANGE LOCATION 1-5
1.6.4 FACILITY BOUNDARIES 1-5
1.6.5 LAND USE AND ZONING 1-5
1.6.6 GENERAL LAND CHARACTERISTICS 1-5
1.6.7 ENVIRONMENTAL AND HUMAN RECEPTORS 1-7
1.7 FACILITY CHARACTERISTICS 1-8
1.7.1 NAMES AND LOCATIONS OF AREAS AND FACILITIES 1-8
1.7.2 INTAKE AND DISCHARGE STRUCTURES 1-8
1.7.3 POWER LINES, PIPELINES, AND EASEMENTS 1-9
1.7.4 SECURITY AND ACCESS CONTROL 1-9
1.7.5 FACILITY TRAFFIC 1-9

Table of Contents (Continued)

TABLES

Table 1-1 Hazardous Waste Management Units 1-11
Table 1-2 Wells Listed in Public Records 1-12

FIGURES

Figure 1-1 Facility Plot Plan 1-13
Figure 1-2 One-Mile Radius Topographic Map 1-15
Figure 1-3 1000-Foot Radius Topographic Map 1-16
Figure 1-4 Parcel Map. 1-17
Figure 1-5 Comprehensive Zoning Map of the City of Vernon 1-18
Figure 1-6 City of Vernon Wind Rose 1-19
Figure 1-7 Facility Photographs 1-20

SECTION 2
Waste Characterization

Table of Contents

Section **Page**

2.1 WASTE IDENTIFICATION 2-1
2.1.1 WASTE CLASSIFICATION 2-2
2.1.2 WASTE ANALYSIS PLAN 2-5
2.1.3 WASTE GENERATION 2-5
2.1.4 TREATMENT PROCESS DESIGN CAPACITY 2-7
2.1.5 HAZARDOUS PROPERTIES OF THE WASTES 2-7
2.2 METHODS TO CHARACTERIZE HAZARDOUS WASTE 2-7
2.2.1 SAMPLING STRATEGY 2-7
2.2.2 SELECTION OF WASTE ANALYSIS PARAMETERS AND LIMITS 2-8
2.3 WASTE SAMPLING METHODOLOGY 2-8
2.3.1 WASTE SAMPLING METHODS 2-8
2.3.2 METHODS OF SAMPLE HANDLING AND CUSTODY 2-8
2.3.3 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM 2-9
2.4 PROVISIONS TO COMPLY WITH LDR REQUIREMENTS 2-9
2.5 IGNITABLE, REACTIVE AND INCOMPATIBLE WASTES 2-10
2.6 WASTE COMPATIBILITY WITH TANKS 2-10
2.7 SPECIAL PROCEDURES FOR SPECIFIC WASTES 2-10

TABLES

Table 2-1 Identification and Classification of Hazardous Wastes Received 2-12
Table 2-2 Pre-Acceptance & Acceptance Phase Comprehensive Waste Analysis Parameters 2-18
Table 2-3 Acceptance Phase Fingerprinting Waste Analysis Parameters 2-19
Table 2-4a Pre-Discharge Phase Los Angeles County Sanitation Districts Permit Discharge Limits 2-20
Table 2-4b Pre-Discharge Phase Centralized Waste Treatment Pre-Treatment Standards for Inorganic [Metal]/Oil Wastes 2-21
Table 2-4c Pre-Discharge Phase Centralized Waste Treatment Pre-Treatment Standards for Organic/Oil Wastes 2-22

SECTION 3
Facility Design

Table of Contents

Section **Page**

3.1 WASTE MANAGEMENT AREAS 3-3
3.1.1 AREA I: WASTE RECEIVING AND SHIPPING 3-3
3.1.2 AREA II: CONTAINERIZED WASTE STORAGE AND MANAGEMENT ... 3-3
3.1.3 AREA III: BULK WASTE PRE-TREATMENT / TREATMENT / POLISHING / STORAGE / TRANSFER 3-4
3.1.4 AREA IV: DISCHARGE 3-7
3.2 CONTAINERIZED WASTE HANDLING 3-7
3.2.1 CONTAINER UNLOADING AND STORAGE 3-7
3.2.2 CONTAINERS USED FOR STORAGE 3-8
3.2.3 STORAGE AREA CONTAINMENT SYSTEMS 3-9
3.2.4 CONTAINMENT SYSTEM FOR IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE 3-12
3.2.5 CONTAINMENT SYSTEM FOR POLYCHLORINATED BIPHENYLS 3-12
3.2.6 CERTIFICATION OF THE CONTAINMENT SYSTEMS 3-12
3.3 WASTES GENERATED ON SITE 3-12
3.3.1 DRUM EMPTYING AND WASHING 3-12
3.3.2 EQUIPMENT CLEANING 3-13
3.3.3 TREATMENT SYSTEM WASTES 3-13
3.3.4 TANK CLEANING WASTES 3-13
3.4 UNIVERSAL WASTE 3-14
3.4.1 BATTERIES 3-14
3.4.2 THERMOSTATS 3-14
3.4.3 LAMPS 3-15
3.4.4 CATHODE RAY TUBE MATERIALS 3-15
3.5 DETAILED DESCRIPTION OF AQUEOUS WASTE TREATMENT EQUIPMENT AND TANKS 3-15
3.5.1 DESIGN STANDARDS AND REFERENCES 3-15
3.5.2 TANK DESCRIPTION 3-16
3.5.3 PROCESS FLOW DESCRIPTION AND DIAGRAMS 3-17
3.5.4 PROCESS CONTROLS 3-17
3.5.5 WASTES IN TREATMENT TANKS 3-18
3.5.6 CONTAINMENT SYSTEM 3-20
3.6 DETAILED INFORMATION ON TREATMENT PROCESSES 3-21
3.6.1 CHEMICAL TREATMENT 3-21
3.6.2 PHYSICAL TREATMENT 3-22
3.6.3 DEMONSTRATION OF EFFECTIVENESS 3-22
3.6.4 TREATMENT SYSTEM CAPACITY 3-22
3.7 IDENTIFICATION OF WASTE HANDLING EQUIPMENT 3-23
3.7.1 EQUIPMENT FOR CONTAINERIZED WASTES 3-23
3.7.2 BULK LIQUID WASTES 3-23
3.7.3 SAFETY FEATURES 3-23
3.8 UNLOADING EQUIPMENT 3-23

Table of Contents (Continued)

Section **Page**

3.9 AIR POLLUTION CONTROLS 3-24
3.9.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS 3-24
3.9.2 AIR EMISSION STANDARDS FOR PROCESS VENTS 3-25
3.9.3 AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS 3-25
3.9.4 AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS 3-29
3.9.5 SCAQMD REGULATIONS 3-33
3.9.6 NSPS FOR TANKS 3-33

TABLES
Table 3-1 Hazardous Waste Management Areas 3-35
Table 3-2 Container Specifications 3-36
Table 3-3 Hazardous Waste Tank Design Standards 3-37
Table 3-4 Facility Safety Features 3-43
Table 3-5 Area III Hazardous Waste Tanks Potentially Containing Liquids with Greater than 500 ppmw Volatile Organic Content 3-45

FIGURES
Figure 3-1 Summary of Hazardous Waste Management Areas 3-46
Figure 3-2 Hazardous Waste Management Sub-areas 3-47
Figure 3-3 Example Container Label 3-48

SECTION 4
Waste Management Procedures

Table of Contents

Section **Page**

4.1 WASTE ACCEPTANCE PROCEDURES 4-1
4.1.1 MANIFEST PROCEDURES 4-1
4.1.2 WASTE ACCEPTANCE PROCEDURES 4-3
4.1.3 SAMPLING AND ANALYSIS PROCEDURES 4-3
4.2 UNLOADING/LOADING AND WASTE TRANSFER PROCEDURES 4-3
4.3 WASTE STORAGE PROCEDURES 4-5
4.4 WASTE TREATMENT PROCEDURES 4-6
4.5 MANAGEMENT OF TREATED WASTEWATER 4-6
4.6 INSPECTION AND MAINTENANCE PROCEDURES 4-7
4.6.1 INSPECTION AND MAINTENANCE RECORDS 4-7
4.6.2 INSPECTION OF CONTAINERS AND CONTAINER STORAGE AREAS 4-7
4.6.3 INSPECTION OF TANKS AND CONTAINMENT AREAS 4-8
4.6.4 INSPECTION OF OPERATING EQUIPMENT 4-8
4.6.5 INSPECTION OF EMERGENCY RESPONSE/SAFETY EQUIPMENT AND SECURITY DEVICES 4-8

TABLES
Table 4-1 Inspection Schedule and Checklist 4-10

SECTION 5
Preparedness and Prevention

Table of Contents

Section		Page
5.1	PROCEDURES TO MINIMIZE EMERGENCY SITUATIONS	5-1
5.2	SECURITY	5-1
5.3	INSPECTION AND MAINTENANCE	5-1
5.4	COMMUNICATION	5-1
5.5	ALARM SYSTEM	5-2
5.6	EMERGENCY EQUIPMENT	5-2
5.7	WATER AND FIRE CONTROL	5-2
5.8	AISLE SPACE REQUIREMENTS	5-2
5.9	ARRANGEMENTS WITH LOCAL AUTHORITIES	5-2
5.10	PREVENTION PROCEDURES, STRUCTURES AND EQUIPMENT	5-3
5.11	EQUIPMENT AND POWER FAILURE	5-3
5.12	PERSONNEL PROTECTION PROCEDURES	5-4
5.13	PROCEDURES TO MINIMIZE RELEASES TO THE ATMOSPHERE	5-4
5.14	PREVENTION OF REACTION OF IGNITABLE, REACTIVE AND INCOMPATIBLE WASTE	5-4

SECTION 6
Contingency Plan and Emergency Procedures

Table of Contents

Section		Page
6.1	PURPOSE AND IMPLEMENTATION OF THE CONTINGENCY PLAN	6-1
6.2	CONTENTS OF THE CONTINGENCY PLAN	6-1
6.3	COPIES OF THE CONTINGENCY PLAN	6-1
6.4	AMENDMENT OF THE CONTINGENCY PLAN	6-1
6.5	EMERGENCY COORDINATOR RESPONSIBILITIES	6-2
6.6	CONTAINER AND TANK SPILLS AND LEAKAGE	6-2
6.7	SAFETY AND EMERGENCY EQUIPMENT	6-2
6.8	WATER SUPPLY AND BACKFLOW PROTECTION	6-2

SECTION 7
Personnel Training

Table of Contents

Section **Page**

7.1 TRAINING PROGRAM 7-1

SECTION 8
Closure and Post-Closure Plans

Table of Contents

Section **Page**

8.1 CLOSURE PLAN 8-1
8.2 PARTIAL CLOSURE 8-1
8.3 CLOSURE COST ESTIMATE 8-1
8.4 POST-CLOSURE PLAN 8-2
8.5 RECORD KEEPING 8-2
8.6 FINANCIAL RESPONSIBILITY 8-2

SECTION 9
Permits and Other Federal Laws

Table of Contents

Section **Page**

9.1 PERMITS 9-1
9.1.1 HAZARDOUS WASTE FACILITY PERMIT 9-1
9.1.2 SANITATION DISTRICTS OF LOS ANGELES COUNTY PERMIT 9-1
9.1.3 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT PERMITS 9-1
9.1.4 CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD 9-1
9.1.5 STATE WATER RESOURCES CONTROL BOARD 9-1
9.1.6 CITY OF VERNON 9-2
9.2 OTHER FEDERAL LAWS 9-2
9.2.1 THE WILD AND SCENIC RIVERS ACT 9-2
9.2.2 THE NATIONAL HISTORIC PRESERVATION ACT 9-2
9.2.3 THE ENDANGERED SPECIES ACT 9-2
9.2.4 THE COASTAL ZONE MANAGEMENT ACT 9-2
9.2.5 THE FISH AND WILDLIFE COORDINATION ACT 9-3

TABLES
Table 9-1 Facility Permits, Licenses and Registrations 9-4

SECTION 10
Records and Reports

Table of Contents

Section **Page**

10.1 DESCRIPTION OF RECORDS AND REPORTS 10-1
10.1.1 OPERATING RECORD 10-1
10.1.2 PERIODIC REPORTS 10-2
10.1.3 INCIDENT REPORTS 10-2
10.1.4 UNMANIFESTED WASTE REPORT 10-2
10.1.5 ANNUAL REPORT 10-3
10.2 PROCEDURAL ASSURANCES 10-3
10.3 ADDITIONAL RECORDS 10-3

SECTION 11
Certification and Signatures

Table of Contents

Section **Page**

11.1 OPERATOR CERTIFICATION 11-1
11.2 SIGNATURES OF OWNER, OPERATOR, AND PROPERTY OWNER..... 11-1

ACRONYMS/ABBREVIATIONS

The following acronyms and abbreviations are used throughout the Part B Permit Renewal and Operations Plan:

AMB	AMB Vernon Industrial Park, LLC
C (waste code)	corrosive
ºC	degrees Celsius
CA (waste code)	California hazardous waste
CalEPA	California Environmental Protection Agency
CCR	California Code of Regulations
CFR	Code of Federal Regulations
COC	chain of custody
COD	chemical oxygen demand
CSA	Container Storage Area
CUP	Conditional Use Permit
CWT	Centralized Waste Treatment
D (dimension)	diameter
DCS	distributed control system
DOT	United States Department of Transportation
DTSC	Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
°F	degrees Fahrenheit
FRP	fiberglass reinforced plastic
gal	gallon
GC/MS	gas chromatography/mass spectrometry
H (dimension)	height
H (waste code)	acutely hazardous
HDPE	high density polyethylene
HOC	halogenated organic compound
HWMA	hazardous waste management area
HWMU	hazardous waste management unit
I (waste code)	ignitable
IX	ion exchange
kPa	kilo Pascal
L (dimension)	length
LACSD	Sanitation Districts of Los Angeles County
LAH	level alarm high
LAHH	level alarm high high
LAHHH	level alarm high high high
LAL	level alarm low
LALL	level alarm low low
LDR	land disposal restriction

ACRONYMS/ABBREVIATIONS (Cont'd)

µg/kg	micrograms per kilogram
µg/l	micrograms per liter
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
mm	millimeter
mm Hg	millimeters of mercury
MOU	Memorandum of Understanding
MSDS	material safety data sheet
NA	not applicable or not available
NAICS	North American Industry Classification
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National fire Protection Association
NOI	Notice of Intent
NSPS	New Source Performance Standards
OSHA	Occupational Health and Safety Act
OVA	organic vapor analyzer
P&ID	piping and instrumentation diagram
PCB	polychlorinated biphenyl
PFD	process flow diagram
POTW	publicly owned treatment works
ppmw	parts per million by weight
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
R (waste code)	reactive
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SIC	Standard Industrial Classification
SMR	Self Monitoring Report
SVOC	semi volatile organic compound
SWMU	solid waste management unit
SWRCB	State Water Resources Control Board

ACRONYMS/ABBREVIATIONS (Cont'd)

T (waste code)	toxic
TBD	to be determined
TCLP	toxicity characteristic leaching procedure
TEFC	totally enclosed fan cooled
TICH	total identifiable chlorinated hydrocarbons
TSDF	treatment, storage, and disposal facility
TTO	total toxic organics
VOC	volatile organic compound
USGS	United States Geological Survey
USEC	US Ecology California, Inc.
W (dimension)	width
WAP	Waste Analysis Plan
WPD	Waste Profile Data
WRS	Waste Receiving and Shipping Station

DEFINITIONS

The following definitions are used throughout the Part B Permit Renewal and Operations Plan:

Acid waste - Any liquid waste that has a pH less than or equal to 7.0, with or without the presence of metal salts or other contaminants, and any waste material compatible with such wastes;

Aqueous waste - Any liquid waste, with or without the presence of metal salts or other contaminants, with a pH between 4.0 and 10.0, and any waste material compatible with such wastes;

Alkaline waste - Any liquid waste, with or without the presence of metal salts or other contaminants, with a pH greater than or equal to 7.0, and any waste material compatible with such wastes;

Chromate compatible waste - Any liquid waste, with or without the presence of metal salts or other contaminants, that contains hexavalent chromium, and any waste material compatible with such wastes;

Cyanide compatible waste - Any liquid waste, with or without the presence of metal salts or other contaminants, that contains cyanide in excess of 10 mg/l and has a pH above 7.0 and any waste material compatible with such wastes;

Inorganic waste - Any liquid waste for which the predominant regulated contaminants are inorganic/metallic salts or are regulated because of their corrosive characteristics or specific waste generation process where such process is related to operational processes involving materials of inorganic origin. The inorganic waste category encompasses all of the waste categories above. Examples of inorganic waste sources include wastes generated from metal finishing, plating, and related processes, maintenance operations, laboratories, manufacturing operations, microelectronics component production, chemical manufacturing and distribution, storm water, fire suppression, spill clean-up, containment, container and equipment wash/rinse, treatment area washes/backwashes and recycled treatment process water requiring additional treatment. The sources of inorganic waste may be commercial, industrial, institutional or governmental in nature or may be internal.

Oily waste – Immiscible oils or oily sludge derived from oils or oily aqueous waste by collection and consolidation, gravity separation, decantation, dissolved or dispersed air or gas flotation, centrifugation and other centrifugal processes, and media or membrane filtration -- all with or with or without the aid of heating and/or chemical emulsion breaking. Examples of oily waste sources include vehicle and equipment maintenance operations, metal working and machining activities, manufacturing processes, power generation facilities, oil exploration, drilling, production, transportation, refining, distribution, recovery and recycling activities, wastewater treatment processes, chemical manufacturing and distribution, spill clean-up, containment, container and equipment wash/rinse and treatment area backwashes. The sources of oily waste may be commercial, industrial, institutional or governmental in nature or may be internal.

DEFINITIONS (Cont'd)

Oily aqueous waste – Any liquid waste with or without the presence of metal salts or other contaminants, containing suspended, emulsified or stratified immiscible oils. Examples of sources of such wastes include maintenance operations, equipment cleaning activities, metal working and manufacturing operations, laboratories, oil exploration, drilling, production, transportation, refining, distribution, recovery and recycling activities, spill clean-up, ground water remediation, containment, container and equipment wash/rinse, treatment area washes/backwashes, and recycled treatment process water requiring additional treatment. The sources of oily aqueous waste may be commercial, industrial, institutional or governmental in nature or may be internal.

Organic waste - Any liquid waste that contains regulated volatile and semi-volatile organic compounds as the sole contaminant or in combination with metal salts or other contaminants, and any waste materials compatible with such wastes. Examples of organic waste sources include landfill leachate, contaminated groundwater, solvent recovery operations, chemical manufacturing and distribution activities, oil exploration, drilling, production, transportation, refining, distribution, recovery and recycling activities, storm water, fire suppression, spill clean-up, containment, container and equipment wash/rinse, treatment area washes/backwashes, and recycled treatment process water requiring additional treatment. The sources of organic waste may be commercial, industrial, institutional or governmental in nature or may be internal.

Pre-Treat or Pre-Treatment – Physical and chemical processes used to pre-treat or condition waste prior to, during or subsequent to consolidation or prior to treatment. Examples of pre-treatment methods used include screening, bag, cartridge and media filtration, decanting, blending, chemical conditioning, odor control, foam control, pH adjustment, oxygen scavenging, oxidation/reduction, adsorption, ion exchange, emulsion breaking, metals dissolution, metals precipitation, coagulation, flocculation, sedimentation, dissolved or dispersed air or gas flotation and centrifugal separation such as by use of centrifuges or hydrocyclones.

Treat or Treatment – Physical and chemical processes used to treat waste. Examples of processes or methods employed during treatment include commingling or blending of wastes, chemical conditioning, foam control, odor control, pH adjustment, neutralization, metals dissolution, metals precipitation, emulsion breaking, oxidation/reduction, adsorption, ion exchange, coagulation, flocculation, decanting, gravity sedimentation, centrifugation, filter pressing, dissolved or dispersed air or gas flotation and membrane separation. Such processes may also include shredding, crushing, stabilization and solidification.

Polishing – Physical or chemical processes used to remove dissolved or suspended contaminants and hazardous characteristics from untreated, pre-treated or treated wastes. Examples of processes or methods used for polishing include blending, pH adjustment, adsorption, ion exchange, bag, cartridge, media and membrane filtration and UV oxidation. Other examples are chemical conditioning, odor control, foam control, oxidation/reduction, aeration, metals precipitation, decanting, coagulation, flocculation, and sedimentation.

This page was intentionally left blank.

SECTION ii

Introduction

INTRODUCTION

This Part B Permit Renewal Application and Operations Plan is for the renewal of the existing Part B permit issued to the Evoqua Water Technologies, LLC (Evoqua) hazardous waste treatment, storage, and disposal facility (TSDF or Facility). The purpose of this renewal application is to obtain renewal of the current permit (expiration October 7, 2006).

This document has been prepared consistent with the Permit Completeness Checklist, revised March 1999 (the "Checklist"). The Checklist is provided as Appendix A. A copy of the Facility's current Part B Permit and a summary of the Part B modifications are provided in Appendix O. The document was originally prepared by Kleinfelder, Inc and submitted in 2006; however, due to the length of the permitting review process, this updated version has been prepared by Sespe Consulting, Inc. (2014).

Section 1 of this document includes the Facility location information, generally required by Sections A and B of the Checklist. Section 2 includes a description of the waste characteristics handled at the Facility, generally required by Section C of the Checklist. Section 3 includes a description of the waste handling and treatment devices generally required by Sections D, M, N, and O of the Checklist. Sections 4 and 5 provide the information required by Section F of the Checklist. Section 6 provides the information required by Section G of the Checklist. Section 7 provides the information required by Section H of the Checklist. Section 8 provides the information required by Section I of the Checklist. Section 9 provides the information required by Section K of the checklist. Section 10 provides supplemental information (record keeping forms). Section 11 provides the Part B certification requested by Section L, as well as the disclosure statement.

To minimize redundancy, tables and/or figures are typically located either in the back of the specific section where they are referenced (numbered with the appropriate section number) or, if they are referenced in more than one section, either in an appendix (identified with the appendix letter) or in another section of the application (identified with that section number).

The key appendices are Appendix A, which contains a copy of the completed Checklist, Appendix C, which contains descriptions of the hazardous waste management areas, Appendix D, which contains the Waste Analysis Plan, Appendix E, which contains the Hazardous Waste Management Unit Information Sheets, Appendix F, which contains the detailed waste management process drawings, Appendix G, which contains the tables with details of the tanks,

Appendix Q, which contains the Contingency Plan, and Appendix S, which contains the Closure Plan. The other Appendices provide supplemental information.

This page was intentionally left blank.

SECTION iii

Part A

This page was intentionally left blank.

evoqua

WATER TECHNOLOGIES

May 27, 2014

By Email and Certified US Post

Mr. Stephen Baxter, P.E.
Permitting Branch
California Environmental Protection Agency
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, CA91311

Re: Name Change
Siemens Water Technologies LLC
5375 South Boyle Avenue, Vernon, California
EPA ID No. CAD097030993; Permit No. 96-SC-TS-06

Dear Mr. Baxter:

This letter is a follow-up to the recent determination by DTSC Senior Staff Counsel Nancy Bothwell, by e-mail of March 11, 2014, that the name change of Siemens Water Technologies LLC (SWT) to Evoqua Water Technologies LLC (EWT) should be processed by DTSC as a Class 1 "informational change" modification to our RCRA permit, referenced above, and is not considered a change in ownership or operational control pursuant to 22 CCR §66,270.40(b).

Consistent with our recent telephone conversation, EWT is hereby providing a revised Part A Hazardous Waste Permit application for this name change, duly signed by an EWT corporate officer and a a representative for the property owner.
As set forth at 22 CCR §66,270.42, EWT will provide notice of this name change to all persons on the facility mailing list maintained by DTSC, and the appropriate governmental units. We have also included a courtesy copy of the Public Notice with this letter for your information.

EWT is in the process of updating its financial assurance mechanism and expects to submit new evidence of financial assurance within 6 months of the date on which the name change occurred.

5375 South Boyle Avenue
Los Angeles, CA 90058 USA

Tel: (323) 277-1500
Fax: (323) 588-0094

www.evoqua.com

Should you require any further information, please feel free to contact me at (323) 277-1518 or via e-mail at ingun.littorin@evoqua.com

Respectfully Submitted

Ingun Littorin
Manager, EH&S

OMB# 2050-0024; Expires 12/31/2014

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**

1. Reason for Submittal MARK ALL BOX(ES) THAT APPLY	**Reason for Submittal:** ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location) ☒ To provide a Subsequent Notification (to update site identification information for this location) ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application ☐ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #_____) ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below) ☐ Site was a TSD facility and/or generator of ≥1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)
2. Site EPA ID Number	**EPA ID Number** C A D 0 9 7 0 3 0 9 9 3
3. Site Name	**Name:** Evoqua Water Technologies LLC
4. Site Location Information	**Street Address:** 5375 South Boyle Avenue **City, Town, or Village:** Vernon **County:** Los Angeles **State:** California **Country:** United States **Zip Code:** 90058
5. Site Land Type	☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other
6. NAICS Code(s) for the Site (at least 5-digit codes)	A. 5 6 2 2 1 1 C. ____ B. ____ D. ____
7. Site Mailing Address	**Street or P.O. Box:** 5375 South Boyle Avenue **City, Town, or Village:** Vernon **State:** California **Country:** United States **Zip Code:** 90058
8. Site Contact Person	**First Name:** Kenneth **MI:** M **Last:** Oldmixon **Title:** General Manager **Street or P.O. Box:** 5375 South Boyle Avenue **City, Town or Village:** Vernon **State:** California **Country:** United States **Zip Code:** 90058 **Email:** kenneth.oldmixon@evoqua.com **Phone:** 323-277-1528 **Ext.:** **Fax:**
9. Legal Owner and Operator of the Site	**A. Name of Site's Legal Owner:** AMB Vernon Industrial Park, LLC **Date Became Owner:** 04/06/2010 **Owner Type:** ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other **Street or P.O. Box:** 17777 Center Court Drive N., Suite 100 **City, Town, or Village:** Cerritos **Phone:** 362-345-9200 **State:** California **Country:** United States **Zip Code:** 90703 **B. Name of Site's Operator:** Evoqua Water Technologies LLC **Date Became Operator:** 01/16/2014 **Operator Type:** ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

EPA ID Number | C | A | D | 0 | 9 | 7 | 0 | 3 | 0 | 9 | 9 | 3 | OMB#: 2050-0024; Expires 12/31/2014

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; Complete all parts 1-10.

Y [✓] N [ ] **1. Generator of Hazardous Waste**
If "Yes", mark only one of the following – a, b, or c.

- [✓] a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- [ ] b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs./mo) of non-acute hazardous waste.
- [ ] c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.

If "Yes" above, indicate other generator activities in 2-4.

Y [ ] N [✓] **2. Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.

Y [✓] N [ ] **3. United States Importer of Hazardous Waste**

Y [ ] N [✓] **4. Mixed Waste (hazardous and radioactive) Generator**

Y [✓] N [ ] **5. Transporter of Hazardous Waste**
If "Yes", mark all that apply.
- [ ] a. Transporter
- [ ] b. Transfer Facility (at your site)

Y [✓] N [ ] **6. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.

Y [✓] N [ ] **7. Recycler of Hazardous Waste**

Y [ ] N [✓] **8. 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

Y [ ] N [✓] **9. Underground Injection Control**

Y [✓] N [ ] **10. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

Y [✓] N [ ] **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.**

- a. Batteries [✓]
- b. Pesticides [ ]
- c. Mercury containing equipment [✓]
- d. Lamps [✓]
- e. Other (specify) CRT's [✓]
- 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; Complete all parts 1-4.

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

❖ You can **ONLY** Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y☐ N☑ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

☐ a. College or University

☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university

☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y☐ N☑ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. 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	D018	D019	D021
D022	D023	D024	D025	D026	D027	D028
D029	D033	D034	D035	D036	D038	D039
D040	D043	F001	F002	F003	F004	F005
F006	F007	F008	F009	F011	F012	F019
F037	F038	F039	K048	K049	K050	K051
K052	K086	P010	P011	P012	P013	P021
P029	P030	P074	SEE CONTINUA	TION SHEET	FOR MORE	CODES

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-Regulated 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.

121	122	123	131	132	133	134
135	141	162	171	172	181	214
221	222	223	241	271	272	281
291	311	331	341	342	343	351
352	411	421	431	461	471	491
512	513	521	541	551	561	581
591	611	612	SEE CONTINUA	TION SHEET	FOR MORE	CODES

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

❖ You can **ONLY** Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y☐ N☑ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

☐ a. College or University

☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university

☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y☐ N☑ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. **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.

CONTINUED	FROM	PAGE 3a				
P098	P099	P104	P106	P121	U002	U008
U032	U044	U051	U052	U080	U112	U122
U123	U134	U135	U144	U145	U146	U151
U154	U159	U161	U162	U204	U209	U210
U220	U226	U227	U228	U239	U359	

B. **Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-Regulated 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.

CONTINUED	FROM	PAGE 3a				
711	721	722	723	791	792	

12. 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 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

AMB Vernon Industrial Park, LLC, is the legal Property Owner and is the Landlord to Evoqua Water Technologies, LLC, who is the Tenant and leases the Premises located at 5375 S. Boyle Avenue, Vernon, CA. Evoqua Water Technologies, LLC, is the Operator of the Hazardous Waste Water Treatment Facility and is responsible for all Regulated Waste Activities covered by Permit CAD097030993 and is responsible for all operations, activities, and regulatory requirements associated with said permitted operations.

14. 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. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
Jack J Masella	Jack J. Masella	5-23-2014
	Director, EH&S and Assistant Secretary	Evoqua Water Technologies LLC
S.E. C	Steven E. Campbell	05/21/2014
	Sr. Vice President	AMB Vernon Industrial Park, LLC

Public Notice for Pending RCRA Class 1 "Basic" Permit Modification
May 27, 2014

EVOQUA WATER TECHNOLOGIES LLC.
EPA ID No. CAD097030993

As of January 16, 2014, the name of the facility was changed from Siemens Water Technologies LLC to Evoqua Water Technologies LLC.

The subject changes include clarification to the facility's existing RCRA Part B permit and Part A Permit Application to reflect a change in the name from Siemens Water Technologies LLC to Evoqua Water Technologies LLC. As Evoqua Water Technologies LLC will continue to lease the facility from the current owner, AMB Vernon Industrial Park, LLC and no change in ownership of the facility site will occur as a result of this change.

No changes are proposed either to the waste codes stored or treated at the facility, the waste treatment processes utilized at the facility, or the quantities of wastes permitted to be treated or stored at the facility as a result of this Class 1 Permit Modification.

If you have any questions regarding this notice of Class 1 Permit Modification of Evoqua Water Technologies LLC, Vernon, CA facility or would like additional information, you may contact either:

Ingun Littorin
Evoqua Water Technologies LLC
5375 S. Boyle Avenue
Los Angeles, CA 90058
(323) 277-1518

or

Mr. Stephen Baxter, P.E.
Southern California Permitting & Corrective Action Branch,
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, CA 91311
(818) 717-6695

EPA ID Number | C | A | D | 0 | 9 | 7 | 0 | 3 | 0 | 9 | 9 | 3 |

OMB#: 2050-0024; Expires 12/31/2014

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact	**First Name:** Kenneth	**MI:** M	**Last Name:** Oldmixon
	Contact Title: General Manager		
	Phone: 323-277-1528	**Ext.:**	**Email:** kenneth.oldmixon@evoqua.com
2. Facility Permit Contact Mailing Address	**Street or P.O. Box:** 5375 South Boyle Avenue		
	City, Town, or Village: Vernon		
	State: California		
	Country: United States of America	**Zip Code:** 90058	
3. Operator Mailing Address and Telephone Number	**Street or P.O. Box:** 5375 South Boyle Avenue		
	City, Town, or Village: Vernon		
	State: California	**Phone:** 323-277-1500	
	Country: United States of America	**Zip Code:** 90058	
4. Facility Existence Date	**Facility Existence Date (mm/dd/yyyy):** 06/18/1942		

5. Other Environmental Permits

A. Facility Type (Enter code)	B. Permit Number	C. Description
E	2 1 4 5 2	LACSD Industrial Wastewater Discharge Permit
E	G 3 0 6 3 1	SCAQMD PTO for Waste Water Treatment System
E	G 3 0 6 2 9	SCAQMD PTO for Activated Carbon Adsorber
E	G 3 0 6 3 0	SCAQMD PTO for Wet Scrubber (HCl or NH3)
E	G 3 0 6 3 3	SCAQMD PTO for Wet Scrubber (NOx)
E	G 3 0 6 3 2	SCAQMD PTO for KMnO4/Zeolite Adsorber
N	4 1 9 I O 2 4 6 9 6	SWRCB General Storm Water Permit
E	N O T A V A I L A B L E	City of Vernon Conditional Use Permit

6. Nature of Business: Evoqua Water Technologies, LLC operates a Treatment and Storage Facility that stores, treats, recycles, and/or transfers hazardous and non hazardous wastes from outside industrial, commercial, institutional, and governmental sources. Evoqua accepts a variety of wastes in the form of liquids, sludges, and solids. The wastes that are accepted for treatment are treated by a series of chemical and/or physical processes to destroy or remove hazardous constituents and properties.

7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

B. PROCESS DESIGN CAPACITY – For each code entered in Item 7.A; enter the capacity of the process.

1. **AMOUNT – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.**
2. **UNIT OF MEASURE – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.**

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
	Disposal	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
	Storage	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
	Treatment	
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour
	Treatment (Continued)	**(for T81 – T94)**
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
	Miscellaneous (Subpart X)	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Short Tons Per Day	N
Metric Tons Per Hour	W
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	X
Million BTU Per Hour	X
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
BTU Per Hour	I

7. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	(2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	1	S	0	2	533.788	G	001	
	1	S	0	1	HWMU 1: Primarily Storage 81,770	G	1 Storage Area	
	2	T	0	1	HWMU 2: Primarily Treatment 400	G	1 Treatment Tank	
	3	T	0	1	HWMU 3: Primarily Treatment 9,400	G	2 Treatment Tks	
	4	S	0	1	HWMU 7: Primarily Storage 135,300	G	1 Storage Area	
	5	S	0	1	HWMU 8: Primarily Storage 139,535	G	1 Storage Area	
	6	S	0	1	HWMU 9: Primarily Storage 149,600	G	1 Storage Area	
	7	S	0	1	HWMU 10: Primarily Storage 49,500	G	1 Storage Area	
	8	S	0	1	HWMU 11: Primarily Storage 1,980	G	1 Storage Area	
	9	S	0	1	HWMU 12: Primarily Storage 99,065	G	1 Storage Area	
1	0	S	0	1	HWMU 13: Primarily Storage 34,430	G	1 Storage Area	
1	1	T	0	1	HWMU 14: Primarily Treatment 37,000	G	2 Treatment Tks	
1	2	T	0	1	HWMU 15: Primarily Treatment 6,800	G	2 Treatment Tks	
1	3	T	0	1	HWMU 16:Primarily Treatment 204,100	G	4 Treatment Tks	

Note: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the line sequentially, taking into account any lines that will be used for "other" process (i.e., D99, S99, T04, and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	(2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	2	T	0	4	100.00	U	001	
2	9	X	0	2	HWMU 4: Carbon Vessels 105,300 gph	See Comments	003	
3	0	X	0	2	HWMU 5: Filter Press 12,000 gph	E	001	
3	1	X	0	2	HWMU 6: Carbon Vessels 13,200 gph	See Comments	002	
3	2	X	0	2	HWMU 19: Filter Press 22,200 gph	E	004	
3	3	X	0	2	HWMU 20: Filter Press 22,200 gph	E	002	
3	4	X	0	2	HWMU 31: Carbon Vessels 105,300 gp	See Comments	010	
3	5	X	0	2	HWMU 35: Drum Crushing	See Comments	001	

9. Description of Hazardous Wastes - Enter Information in the Sections on Form Page 5

A. EPA HAZARDOUS WASTE NUMBER – Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. **Enter the first two as described above.**
2. **Enter "000" in the extreme right box of Item 9.D(1).**
3. **Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.**

2. PROCESS DESCRIPTION: If code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. **Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.**
2. **In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.**
3. **Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.**

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

EPA ID No. | C | A | D | 0 | 9 | 7 | 0 | 3 | 0 | 9 | 9 | 3 |

7. Process Codes and Design Capacities (Continued)

Line Number		A. PROCESS CODE (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)		2. Unit of Measure	C. Process Total Number of Units	For Official Use Only
1	4	T	0	1	HWMU 17: Primarily Treatment	204,100	G	4Treatment Tanks	
1	5	T	0	1	HWMU 18: Treatment	71,700	G	11 Treatment Tanks	
1	6	T	0	1	HWMU 21: Treatment	12,100	G	1 Treatment Tank	
1	7	T	0	1	HWMU 22: Treatment	99 - 100	G/Minute	4 Treatment Tanks	
1	8	T	0	1	HWMU 23: Primarily Treatment	136,000	G	8 Treatment Tanks	
1	9	T	0	1	HWMU 24: Primarily Treatment	123,800	G	2 Treatment Tanks	
2	0	T	0	1	HWMU 25: Primarily Treatment	37,000	G	2 Treatment Tanks	
2	1	T	0	1	HWMU 26: Primarily Treatment	30,500	G	1 Treatment Tank	
2	2	T	0	1	HWMU 27: Primarily Treatment	400	G	1 Treatment Tank	
2	3	T	0	1	HWMU 28: Primarily Treatment	37,000	G	2 Treatment Tanks	
2	4	T	0	1	HWMU 29: Treatment	46,600	G	8 Treatment Tanks	
2	5	T	0	1	HWMU 30: Treatment	18,000	G	2 Treatment Tanks	
2	6	S	0	2	HWMU 32: Primarily Storage	39,600	G	2 Storage Tanks	
2	7	S	0	2	HWMU 33: Primarily Storage	37,400	G	2 Storage Tanks	
2	8	S	0	2	HWMU 34: Primarily Storage	68,000	G	5 Storage Tanks	

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
	1	D	0	0	1	25,000	T	S	0	1	S	0	2	T	0	1	T04
	2	D	0	0	2	500,000	T	S	0	1	S	0	2	T	0	1	T04
	3	D	0	0	3	25,000	T	S	0	1	S	0	2	T	0	1	T04
	4	D	0	0	4	5,000	T	S	0	1	S	0	2	T	0	1	T04
	5	D	0	0	5	10,000	T	S	0	1	S	0	2	T	0	1	T04
	6	D	0	0	6	15,000	T	S	0	1	S	0	2	T	0	1	T04
	7	D	0	0	7	25,000	T	S	0	1	S	0	2	T	0	1	T04
	8	D	0	0	8	15,000	T	S	0	1	S	0	2	T	0	1	T04
	9	D	0	0	9	1,000	T	S	0	1	S	0	2	T	0	1	T04
1	0	D	0	1	0	2,000	T	S	0	1	S	0	2	T	0	1	T04
1	1	D	0	1	1	9,000	T	S	0	1	S	0	2	T	0	1	T04
1	2	D	0	1	8	15,000	T	S	0	1	S	0	2	T	0	1	T04
1	3	D	0	1	9	10,000	T	S	0	1	S	0	2	T	0	1	T04
1	4	D	0	2	1	10,000	T	S	0	1	S	0	2	T	0	1	T04
1	5	D	0	2	2	10,000	T	S	0	1	S	0	2	T	0	1	T04
1	6	D	0	2	3	1,000	T	S	0	1	S	0	2	T	0	1	T04
1	7	D	0	2	4	1,000	T	S	0	1	S	0	2	T	0	1	T04
1	8	D	0	2	5	1,000	T	S	0	1	S	0	2	T	0	1	T04
1	9	D	0	2	6	10,000	T	S	0	1	S	0	2	T	0	1	T04
2	0	D	0	2	7	5,000	T	S	0	1	S	0	2	T	0	1	T04
2	1	D	0	2	8	5,000	T	S	0	1	S	0	2	T	0	1	T04
2	2	D	0	2	9	5,000	T	S	0	1	S	0	2	T	0	1	T04
2	3	D	0	3	3	1,000	T	S	0	1	S	0	2	T	0	1	T04
2	4	D	0	3	4	1,000	T	S	0	1	S	0	2	T	0	1	T04
2	5	D	0	3	5	15,000	T	S	0	1	S	0	2	T	0	1	T04
2	6	D	0	3	6	1,000	T	S	0	1	S	0	2	T	0	1	T04
2	7	D	0	3	8	1,000	T	S	0	1	S	0	2	T	0	1	T04
2	8	D	0	3	9	15,000	T	S	0	1	S	0	2	T	0	1	T04
2	9	D	0	4	0	15,000	T	S	0	1	S	0	2	T	0	1	T04
3	0	D	0	4	3	15,000	T	S	0	1	S	0	2	T	0	1	T04
3	1	F	0	0	1	5,000	T	S	0	1	S	0	2	T	0	1	T04
3	2	F	0	0	2	5,000	T	S	0	1	S	0	2	T	0	1	T04
3	3	F	0	0	3	5,000	T	S	0	1	S	0	2	T	0	1	T04
3	4	F	0	0	4	5,000	T	S	0	1	S	0	2	T	0	1	T04
3	5	F	0	0	5	5,000	T	S	0	1	S	0	2	T	0	1	T04
3	6	F	0	0	6	30,000	T	S	0	1	S	0	2	T	0	1	T04

EPA ID Number | C | A | D | 0 | 9 | 7 | 0 | 3 | 0 | 9 | 9 | 3 | OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
3	7	F	0	0	7	25,000	T	S	0	1	S	0	2	T	0	1	T04
3	8	F	0	0	8	25,000	T	S	0	1	S	0	2	T	0	1	T04
3	9	F	0	0	9	5,000	T	S	0	1	S	0	2	T	0	1	T04
4	0	F	0	1	1	2,500	T	S	0	1	S	0	2	T	0	1	T04
4	1	F	0	1	2	5,000	T	S	0	1	S	0	2	T	0	1	T04
4	2	F	0	1	9	9,000	T	S	0	1	S	0	2	T	0	1	T04
4	3	F	0	3	7	1,000	T	S	0	1	S	0	2	T	0	1	T04
4	4	F	0	3	8	1,000	T	S	0	1	S	0	2	T	0	1	T04
4	5	F	0	3	9	20,000	T	S	0	1	S	0	2	T	0	1	T04
4	6	K	0	4	8	1,000	T	S	0	1	S	0	2	T	0	1	T04
4	7	K	0	4	9	1,000	T	S	0	1	S	0	2	T	0	1	T04
4	8	K	0	5	0	1,000	T	S	0	1	S	0	2	T	0	1	T04
4	9	K	0	5	1	1,000	T	S	0	1	S	0	2	T	0	1	T04
5	0	K	0	5	2	1,000	T	S	0	1	S	0	2	T	0	1	T04
5	1	K	0	8	6	500	T	S	0	1	S	0	2	T	0	1	T04
5	2	P	0	1	0	1	T	S	0	1	S	0	2	T	0	1	T04
5	3	P	0	1	1	1	T	S	0	1	S	0	2	T	0	1	T04
5	4	P	0	1	2	1	T	S	0	1	S	0	2	T	0	1	T04
5	5	P	0	1	3	1	T	S	0	1	S	0	2	T	0	1	T04
5	6	P	0	2	1	10	T	S	0	1	S	0	2	T	0	1	T04
5	7	P	0	2	9	100	T	S	0	1	S	0	2	T	0	1	T04
5	8	P	0	3	0	500	T	S	0	1	S	0	2	T	0	1	T04
5	9	P	0	7	4	100	T	S	0	1	S	0	2	T	0	1	T04
6	0	P	0	9	8	500	T	S	0	1	S	0	2	T	0	1	T04
6	1	P	0	9	9	100	T	S	0	1	S	0	2	T	0	1	T04
6	2	P	1	0	4	100	T	S	0	1	S	0	2	T	0	1	T04
6	3	P	1	0	6	500	T	S	0	1	S	0	2	T	0	1	T04
6	4	P	1	2	1	100	T	S	0	1	S	0	2	T	0	1	T04
6	5	U	0	0	2	500	T	S	0	1	S	0	2	T	0	1	T04
6	6	U	0	0	8	50	T	S	0	1	S	0	2	T	0	1	T04
6	7	U	0	3	2	10	T	S	0	1	S	0	2	T	0	1	T04
6	8	U	0	4	4	500	T	S	0	1	S	0	2	T	0	1	T04
6	9	U	0	5	1	50	T	S	0	1	S	0	2	T	0	1	T04
7	0	U	0	5	2	50	T	S	0	1	S	0	2	T	0	1	T04
7	1	U	0	8	0	50	T	S	0	1	S	0	2	T	0	1	T04
7	2	U	1	1	2	500	T	S	0	1	S	0	2	T	0	1	T04

9. Description of Hazardous Wastes (*Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
7	3	U	1	2	2	50	T	S	0	1	S	0	2	T	0	1	T04
7	4	U	1	2	3	500	T	S	0	1	S	0	2	T	0	1	T04
7	5	U	1	3	4	500	T	S	0	1	S	0	2	T	0	1	T04
7	6	U	1	3	5	1	T	S	0	1	S	0	2	T	0	1	T04
7	7	U	1	4	4	1	T	S	0	1	S	0	2	T	0	1	T04
7	8	U	1	4	5	1	T	S	0	1	S	0	2	T	0	1	T04
7	9	U	1	4	6	1	T	S	0	1	S	0	2	T	0	1	T04
8	0	U	1	5	1	1	T	S	0	1	S	0	2	T	0	1	T04
8	1	U	1	5	4	50	T	S	0	1	S	0	2	T	0	1	T04
8	2	U	1	5	9	500	T	S	0	1	S	0	2	T	0	1	T04
8	3	U	1	6	1	50	T	S	0	1	S	0	2	T	0	1	T04
8	4	U	1	6	2	50	T	S	0	1	S	0	2	T	0	1	T04
8	5	U	2	0	4	1	T	S	0	1	S	0	2	T	0	1	T04
8	6	U	2	0	9	50	T	S	0	1	S	0	2	T	0	1	T04
8	7	U	2	1	0	50	T	S	0	1	S	0	2	T	0	1	T04
8	8	U	2	2	0	50	T	S	0	1	S	0	2	T	0	1	T04
8	9	U	2	2	6	500	T	S	0	1	S	0	2	T	0	1	T04
9	0	U	2	2	7	500	T	S	0	1	S	0	2	T	0	1	T04
9	1	U	2	2	8	500	T	S	0	1	S	0	2	T	0	1	T04
9	2	U	2	3	9	500	T	S	0	1	S	0	2	T	0	1	T04
9	3	U	3	5	9	500	T	S	0	1	S	0	2	T	0	1	T04

10. 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.

11. Facility Drawing

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

12. 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).

13. Comments

8. Other Processes
Line Number
29. HWMU 4 are 3 carbon vessels. One with a 2,600 gallon capacity and the other two with 9,200 gallon capacity each. 1,755 gallons per minute in the Part B Operation Plan were converted to 105,300 gallons per hour.
30. HWMU 5 is 1 filter press. 220 gallons per minute in the Part B Operation Plan were converted to 13,200 gallons per hour.
31. HWMU 6 are 2 carbon vessels with 4,200 gallon capacity each. 220 gallons per minute in the Part B Operation Plan were converted to 13,200 gallons per hour.
32. HWMU 19 are 4 filter presses. 370 gallons per minute in the Part B Operation Plan were converted to 22,200 gallons per hour.
33. HWMU 20 are 2 filter presses. 370 gallons per minute in the Part B Operation Plan were converted to 22,200 gallons per hour.
34. HWMU 31 are 10 portable carbon vessels. 1,755 gallons per minute in the Part B Operation Plan were converted to 105,300 gallons per hour.
35. HWMU 35 is a drum crushing unit that crushes drums on an as needed basis.

Please see attached for location of the HWMU's (Item 8), Map (Item 11), Facility Drawing (Item 12), and Photographs (Item 13) of the Facility.

Figure 1

The locations of the waste receiving and shipping areas of Area I are shown below:

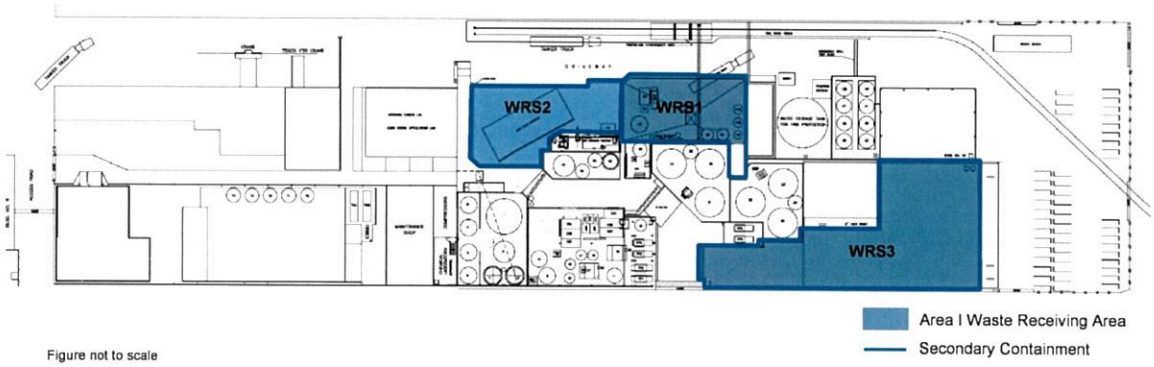


Figure 2

The locations of the container storage areas of Area II are shown in the following figure:

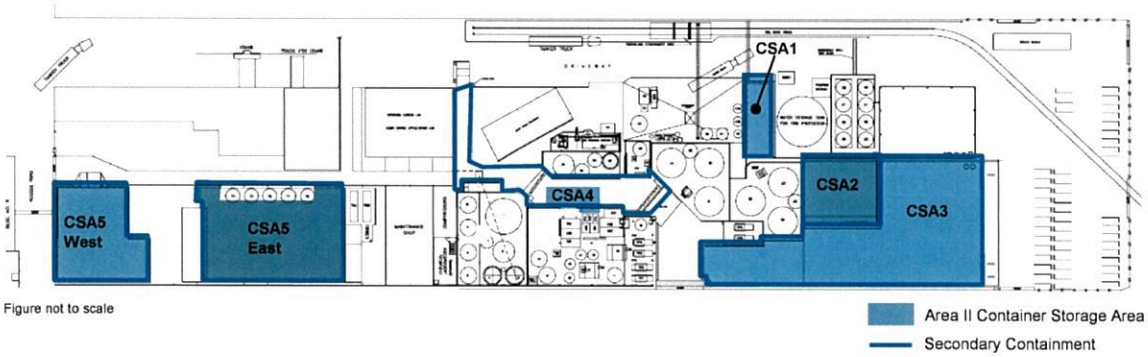


Figure 3

The locations of the Area III-A tanks are shown below:

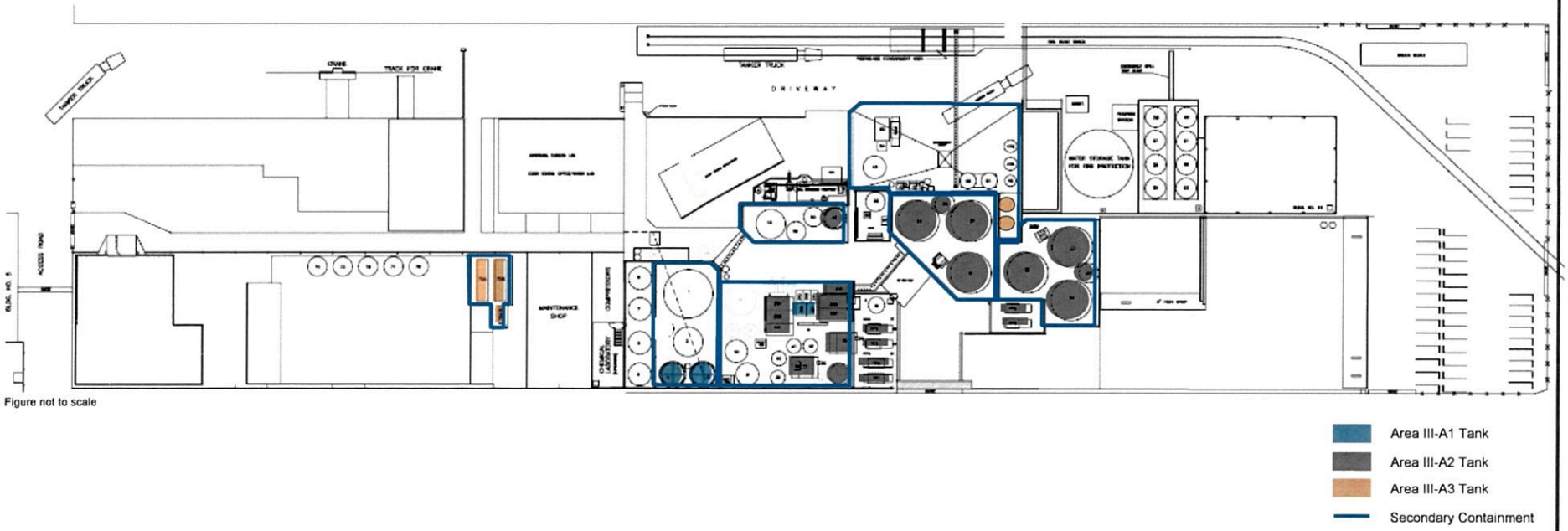


Figure not to scale

Figure 4

The locations of the Area III-B tanks are shown below:

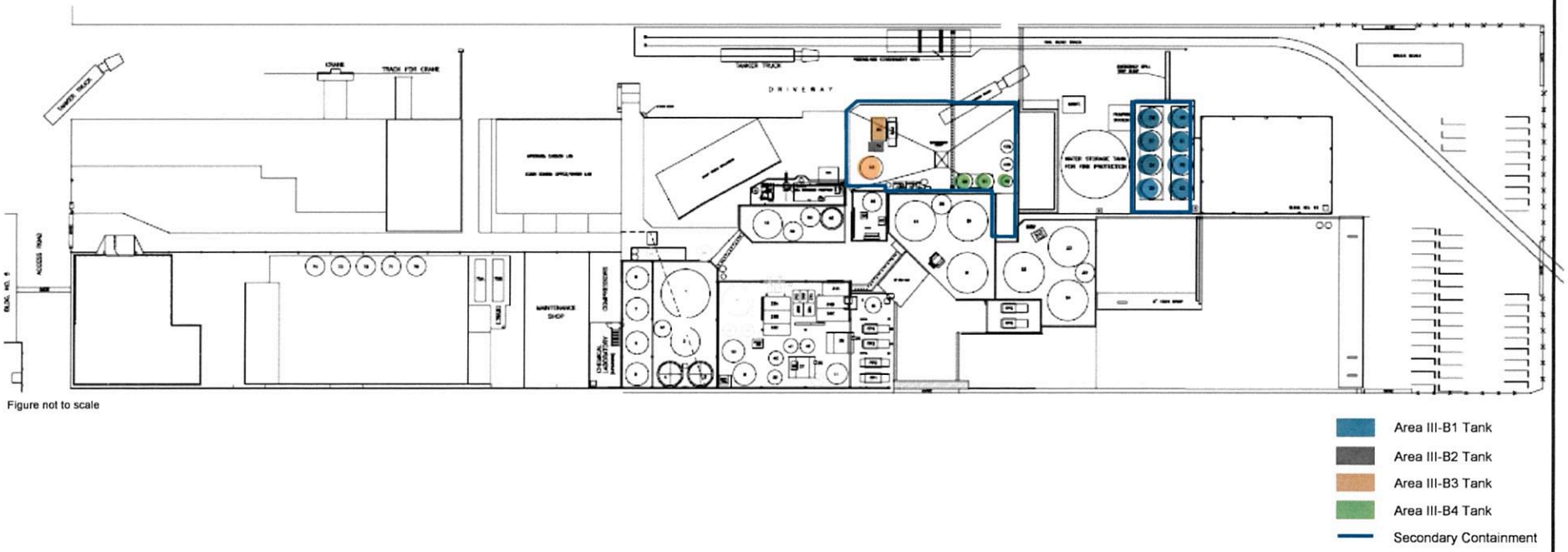


Figure 5

The locations of the Area III-C tanks are shown below:

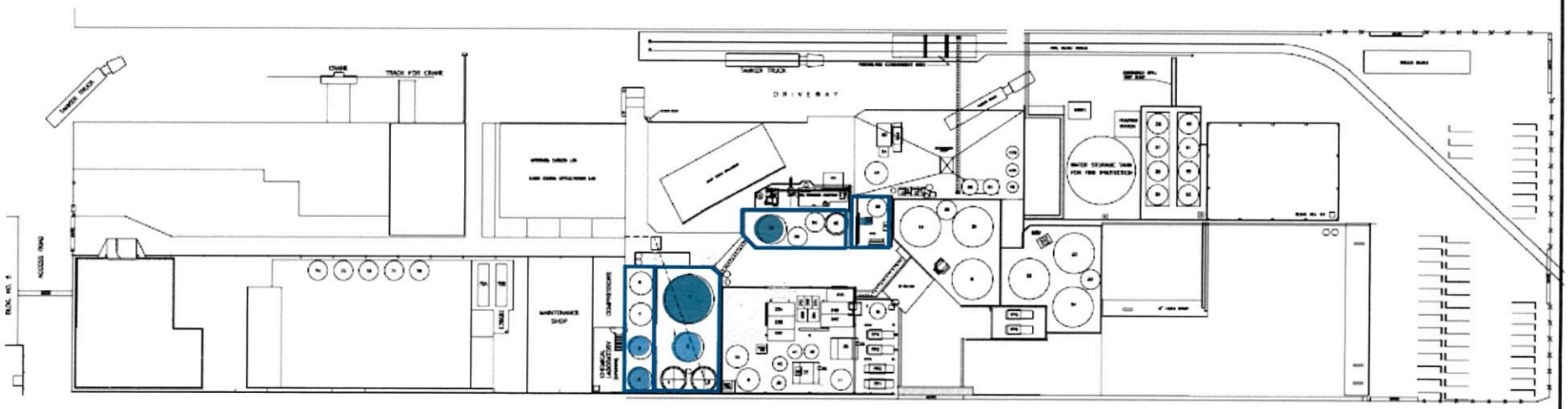


Figure not to scale

Figure 6

The locations of the Area III-D tanks are shown below:

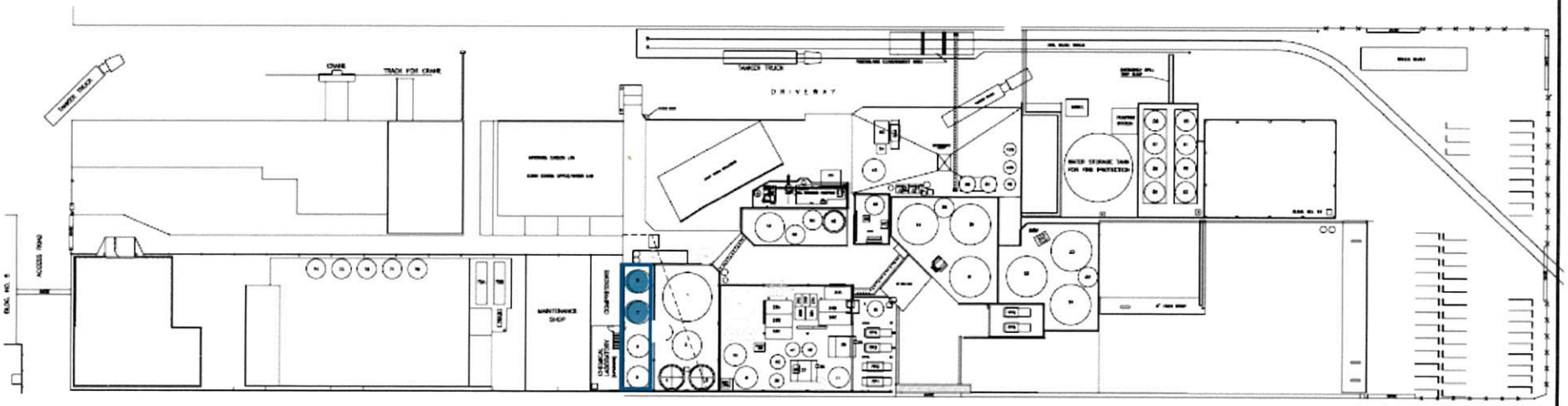


Figure not to scale

Area III-D Tank

Secondary Containment

Figure 7

The locations of the Area III-E tanks are shown below:

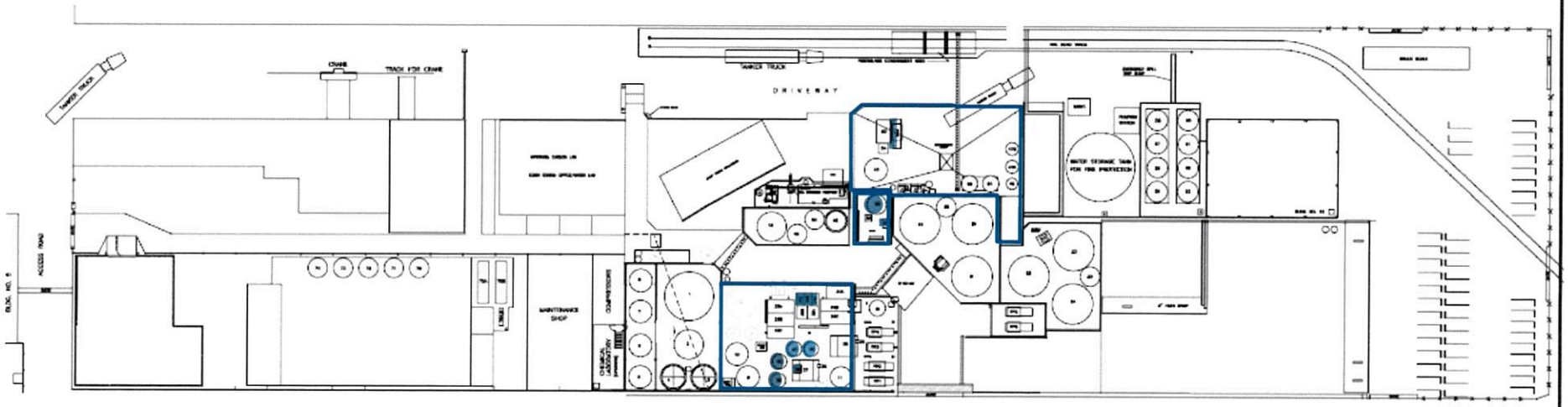


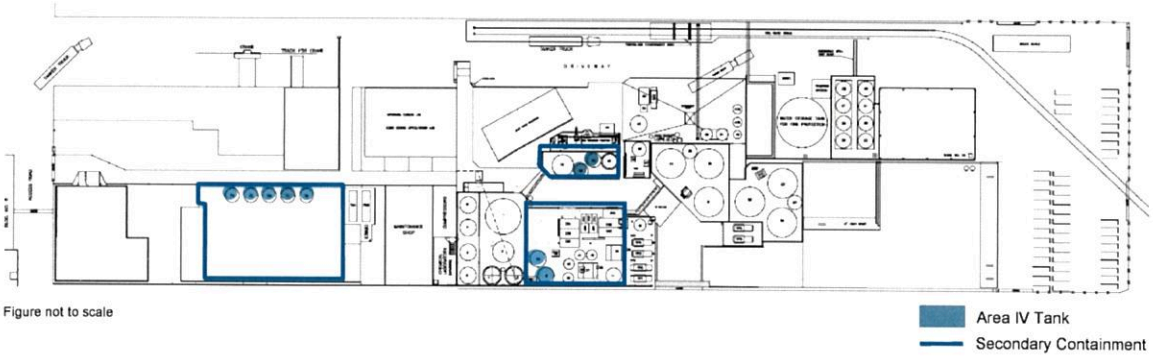
Figure not to scale

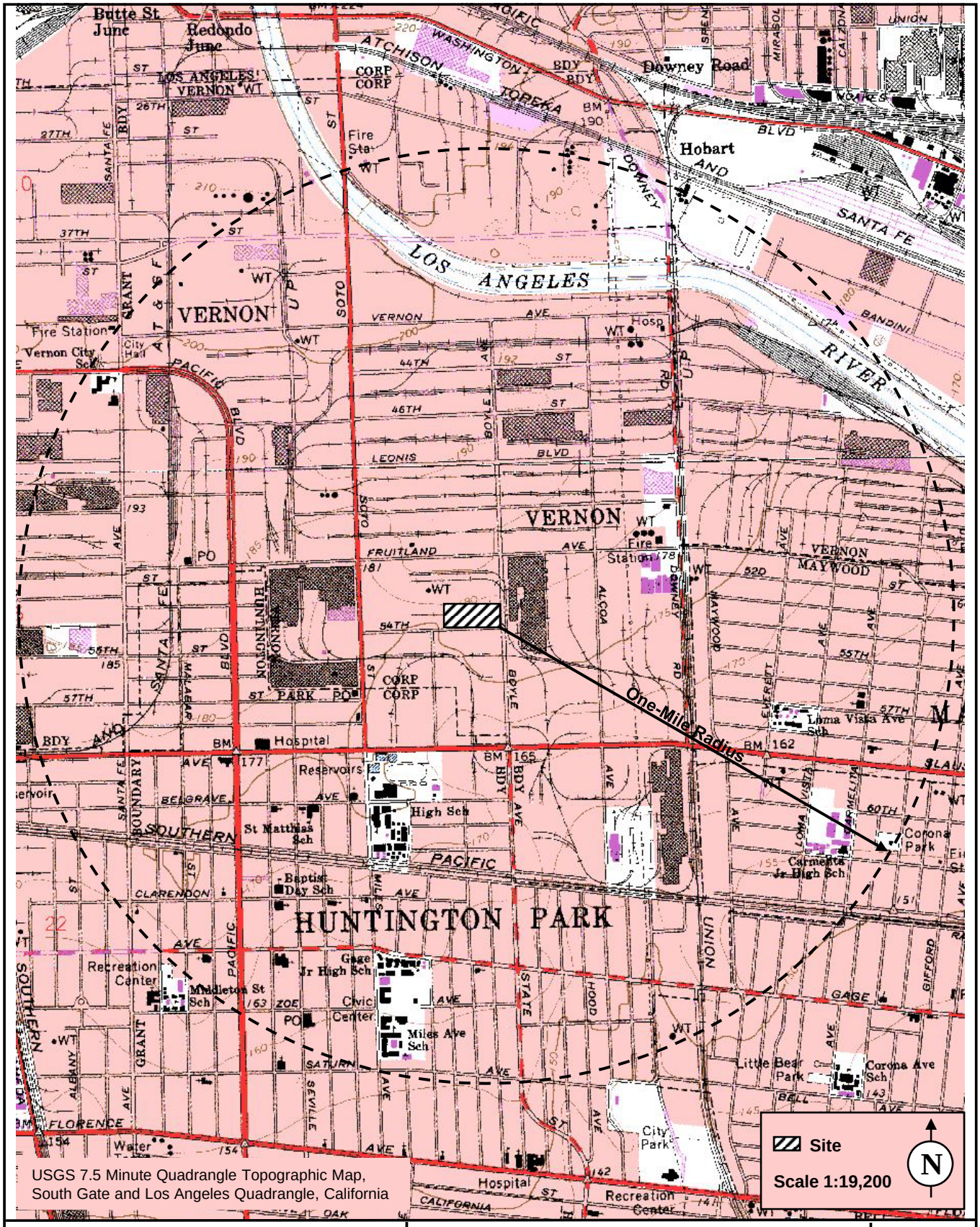
Area III-E Tank

Secondary Containment

Figure 8

The locations of the tanks of Area IV are shown in the following figure:





USGS 7.5 Minute Quadrangle Topographic Map,
South Gate and Los Angeles Quadrangle, California

SESPE CONSULTING, INC.

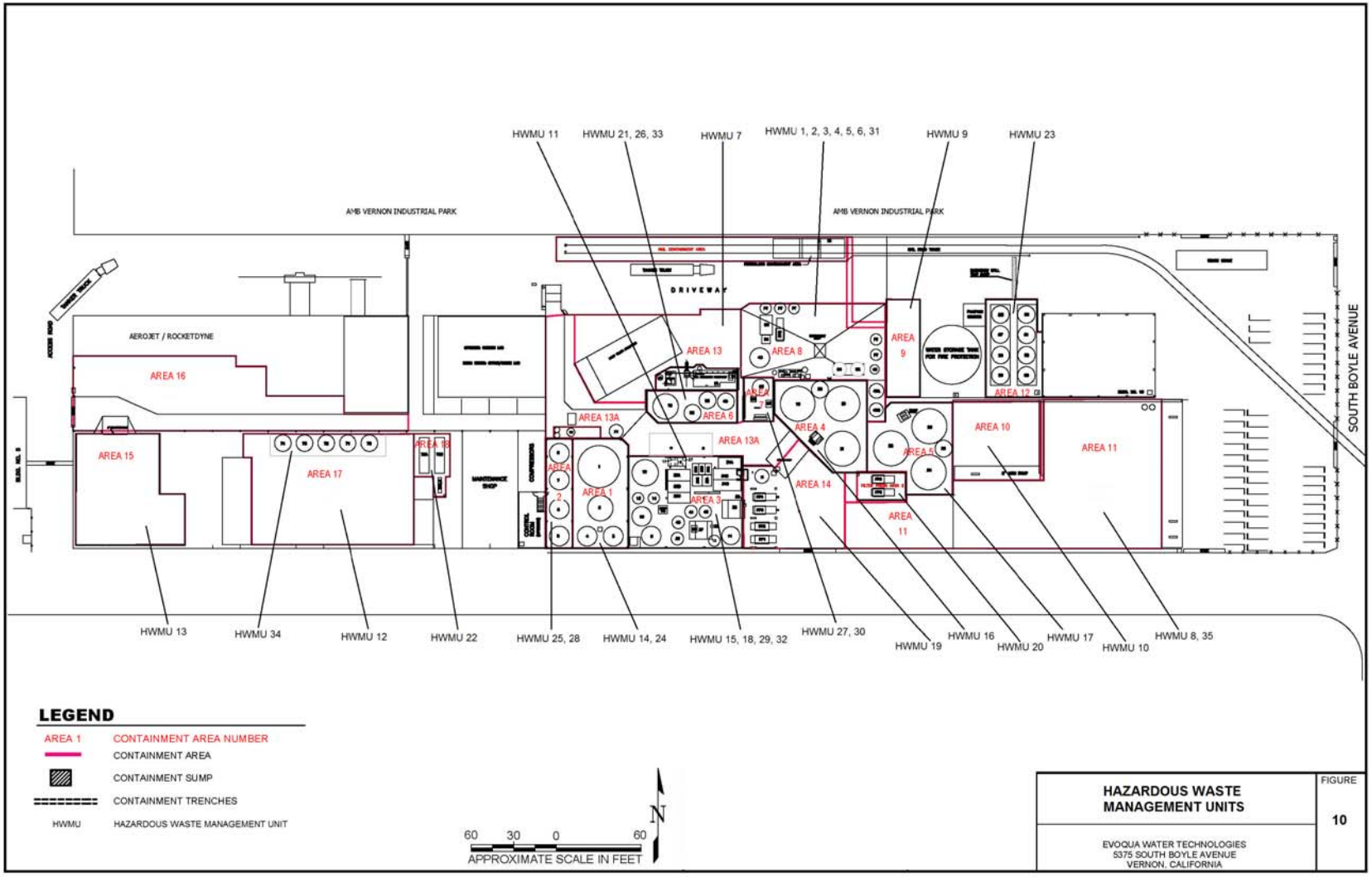
CHECKED BY: MR	FN: Figure 9
PROJECT NO. SI01.12.01	DATE: 7/30/2014

ONE-MILE RADIUS TOPOGRAPHIC MAP

EVOQUA WATER TECHNOLOGIES, LLC
VERNON, CALIFORNIA

FIGURE
9

This page was intentionally left blank.



HAZARDOUS WASTE MANAGEMENT UNITS

EVOQUA WATER TECHNOLOGIES
5375 SOUTH BOYLE AVENUE
VERNON, CALIFORNIA

FIGURE
10

This page was intentionally left blank.

Evoqua Water Technologies Office, looking west from parking lot

Pumping stations of Waste Receiving Station 1 (HWMU 1), looking south toward Tanks 19, 20, and 21

SESPE CONSULTING, INC.		**FACILITY PHOTOGRAPHS** **EVOQUA WATER TECHNOLOGIES, LLC** **VERNON, CALIFORNIA**	FIGURE **11**
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Looking west, toward main treatment plant

Container Storage Area 1, looking south toward Tanks 22, 23, and 24
(HWMU 10)

SESPE CONSULTING, INC.

CHECKED BY: WC	FN: Figures 12-20
PROJECT NO. 55277	DATE: 12/2005

FACILITY PHOTOGRAPHS

EVOQUA WATER TECHNOLOGIES, LLC
VERNON, CALIFORNIA

FIGURE

12

Air Pollution Control System C (Wet Scrubbers), east of truck unloading dock of Waste Receiving Station 2 (HWMU 7), looking south

Truck unloading dock of Waste Receiving Station 2 (HWMU 7), looking southwest toward Analytical Laboratory building

SESPE CONSULTING, INC.		**FACILITY PHOTOGRAPHS** **EVOQUA WATER TECHNOLOGIES, LLC** **VERNON, CALIFORNIA**	FIGURE **13**
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Tanks 19 and 20, looking northwest (HWMU 16)

Filter Presses 1 through 4, Looking west toward Main Treatment Plant (HWMU 15, 18, 19, 29, 32)

SESPE CONSULTING, INC.		**FACILITY PHOTOGRAPHS** **EVOQUA WATER TECHNOLOGIES, LLC** **VERNON, CALIFORNIA**	FIGURE **14**
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Waste Receiving Station 3 and Container Storage Area 3, looking east (HWMU 8)

Container Storage Area 4 (bollards on left), looking south toward Main Treatment Plan (HWMUs 11, 15, 18, 29, 32)

SESPE CONSULTING, INC.		**FACILITY PHOTOGRAPHS** **EVOQUA WATER TECHNOLOGIES, LLC** **VERNON, CALIFORNIA**	FIGURE **15**
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

East side of Container Storage Area 2, looking northwest
(Tanks 23 and 30 on left) (HWMUs 10 and 17)

Container Storage Area 2, looking west toward Tanks 22, 23, 24, and 30 (HWMUs 10 and 17)

SESPE CONSULTING, INC.		**FACILITY PHOTOGRAPHS** **EVOQUA WATER TECHNOLOGIES, LLC** **VERNON, CALIFORNIA**	FIGURE **16**
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Container Storage Area 3 (HWMU 8), looking northwest toward Tanks 56 through 63 (HWMU 23)

Looking west, toward Tank 18 (HWMU 21, 26, 33) and Building 12

SESPE CONSULTING, INC.		**FACILITY PHOTOGRAPHS**	FIGURE
CHECKED BY: WC	FN: Figures 12-20	**EVOQUA WATER TECHNOLOGIES, LLC**	**17**
PROJECT NO. 55277	DATE: 12/2005	**VERNON, CALIFORNIA**	

Looking west toward Waste Receiving Stations 1 and 2 and
Analytical Laboratory (Tanks 56 through 63 on left) (HWMUs 1, 7, and 23)

Waste Receiving Station 2, looking southeast toward Tanks 66, 19, and 20 (HWMUs 1, 7, 19, and 30)

SESPE CONSULTING, INC.

CHECKED BY: WC	FN: Figures 12-20
PROJECT NO. 55277	DATE: 12/2005

FACILITY PHOTOGRAPHS

EVOQUA WATER TECHNOLOGIES, LLC
VERNON, CALIFORNIA

FIGURE
18

Tanks 70 through 74 (HWMU 34), looking east inside Building 12

Analytical Laboratory

SESPE CONSULTING, INC.

CHECKED BY: WC	FN: Figures 12-20
PROJECT NO. 55277	DATE: 12/2005

FACILITY PHOTOGRAPHS

EVOQUA WATER TECHNOLOGIES, LLC
VERNON, CALIFORNIA

FIGURE

19

This page was intentionally left blank.

SECTION 1

Facility Description

This page was intentionally left blank.

SECTION 1
Facility Description

Table of Contents

Section **Page**

1.1 FACILITY IDENTIFICATION 1-1
1.1.1 EPA IDENTIFICATION NUMBER 1-1
1.1.2 TREATMENT FACILITY NAME 1-1
1.1.3 FACILITY LOCATION AND TELEPHONE NUMBER 1-1
1.1.4 FACILITY TYPE AND BUSINESS DESCRIPTION 1-1
1.1.5 FACILITY MAILING ADDRESS AND TELEPHONE NUMBER 1-2
1.1.6 FACILITY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE 1-2
1.2 WASTE TREATMENT FACILITY OWNERSHIP 1-2
1.2.1 FACILITY OWNER 1-2
1.2.2 FACILITY OWNER MAILING ADDRESS AND TELEPHONE NUMBER 1-2
1.2.3 PROPERTY OWNER 1-2
1.2.4 PROPERTY OWNER MAILING ADDRESS AND TELEPHONE NUMBER: 1-2
1.3 WASTE TREATMENT FACILITY OPERATOR 1-3
1.3.1 FACILITY OPERATOR 1-3
1.3.2 OPERATOR MAILING ADDRESS AND TELEPHONE NUMBER 1-3
1.4 CONTACT PERSON FAMILIAR WITH FACILITY 1-3
1.5 OPERATION PLAN PREPARATION 1-3
1.5.1 OVERALL RESPONSIBILITY 1-3
1.5.2 ENGINEERING AND TECHNICAL SUPPORT 1-3
1.5.3 LEGAL SUPPORT 1-4
1.6 FACILITY LOCATION AND PHYSICAL ENVIRONMENT 1-4
1.6.1 TOPOGRAPHIC MAPS 1-4
1.6.2 LEGAL DESCRIPTION 1-4
1.6.3 LATITUDE/LONGITUDE AND TOWNSHIP/RANGE LOCATION 1-5
1.6.4 FACILITY BOUNDARIES 1-5
1.6.5 LAND USE AND ZONING 1-5
1.6.6 GENERAL LAND CHARACTERISTICS 1-5
1.6.7 ENVIRONMENTAL AND HUMAN RECEPTORS 1-7
1.7 FACILITY CHARACTERISTICS 1-8
1.7.1 NAMES AND LOCATIONS OF AREAS AND FACILITIES 1-8
1.7.2 INTAKE AND DISCHARGE STRUCTURES 1-8
1.7.3 POWER LINES, PIPELINES, AND EASEMENTS 1-8
1.7.4 SECURITY AND ACCESS CONTROL 1-9
1.7.5 FACILITY TRAFFIC 1-9

Table of Contents (Continued)

TABLES

Table 1-1 Hazardous Waste Management Areas 1-11
Table 1-2 Wells Listed in Public Records 1-12

FIGURES

Figure 1-1 Facility Plot Plan 1-13
Figure 1-2 One-Mile Radius Topographic Map 1-15
Figure 1-3 1000-Foot Radius Topographic Map 1-16
Figure 1-4 Parcel Map. 1-17
Figure 1-5 Comprehensive Zoning Map of the City of Vernon 1-18
Figure 1-6 City of Vernon Wind Rose 1-19
Figure 1-7 Facility Photographs 1-20

1.0 FACILITY DESCRIPTION

1.1 FACILITY IDENTIFICATION

1.1.1 EPA Identification Number

CAD 097030993

1.1.2 Treatment Facility Name

Evoqua Water Technologies, LLC (Evoqua)

1.1.3 Facility Location and Telephone Number

5375 South Boyle Avenue
Los Angeles, California 90058
323-277-1500

1.1.4 Facility Type and Business Description

The Evoqua Facility (Facility) is an existing privately owned hazardous waste storage, treatment, and transfer facility, and is located at 5375 South Boyle Avenue, Los Angeles, California. A facility plot plan is shown in Figure 1-1 (Facility Plot Plan).

The Facility is not on Indian land.

The Facility stores, treats, recycles, and/or transfers hazardous and non-hazardous wastes from outside industrial, commercial, institutional, and governmental sources. The Facility accepts a variety of wastes in the form of liquids, sludges, and solids. The wastes that are accepted for treatment are treated by a series of chemical and/or physical processes to destroy or remove hazardous constituents and properties. The residues from this treatment are discharged to the Sanitation Districts of Los Angeles County (LACSD), recycled on site, or shipped off-site to an appropriate facility.

The Facility currently operates under a Part A and Part B permit issued by the California Department of Toxic Substances Control (DTSC), effective October 7, 1996. The existing permit expired on October 7, 2006, but has continued in force until a new permit is issued by the DTSC, in accordance with the requirements of Section 66270.51 of Title 22 of the California Code of Regulations (22 CCR).

1.1.5 Facility Mailing Address and Telephone Number

Evoqua Water Technologies, LLC
5375 South Boyle Avenue
Los Angeles, California 90058
323-277-1500

1.1.6 Facility Standard Industrial Classification (SIC) Code

The Facility is categorized as SIC code 4953-0100 (Hazardous Waste Collection and Disposal).

The SIC code system was replaced in 1997 by the North American Industry Classification System (NAICS). The Facility is classified as NAICS 562211 (Hazardous Waste Treatment and Disposal).

1.2 WASTE TREATMENT FACILITY OWNERSHIP

1.2.1 Facility Owner

The Facility is owned by Evoqua Water Technologies, LLC. The land on which the Facility is situated is located within the boundaries of property owned by AMB Vernon Industrial Park, LLC. Evoqua leases the land and buildings from AMB.

1.2.2 Facility Owner Mailing Address and Telephone Number

Evoqua Water Technologies, LLC.
5375 South Boyle Avenue
Los Angeles, California 90058
323-277-1500

1.2.3 Property Owner

The Property on which Evoqua Water Technologies, LLC facility is located is owned by AMB Vernon Industrial Park, LLC, LL, a Delaware Corporation.

1.2.4 Property Owner Mailing Address and Telephone Number:

AMB Vernon Industrial Park, LLC
17777 Center Court Drive N., Suite 100
Cerritos, CA 90703
562-345-9200

1.3 WASTE TREATMENT FACILITY OPERATOR

1.3.1 Facility Operator

The Facility is operated by Evoqua Water Technologies, LLC.

1.3.2 Operator Mailing Address and Telephone Number

Evoqua Water Technologies, LLC.
5375 South Boyle Avenue
Los Angeles, California 90058
323-277-1500

1.4 CONTACT PERSON FAMILIAR WITH FACILITY

Kenneth M. Oldmixon
General Manager
Evoqua Water Technologies, LLC.
5375 South Boyle Avenue
Los Angeles, California 90058
323-277-1528

1.5 OPERATION PLAN PREPARATION

1.5.1 Overall Responsibility

Kenneth M. Oldmixon
General Manager
Evoqua Water Technologies, Inc.
5375 South Boyle Avenue
Los Angeles, California 90058
323-277-1528

1.5.2 Engineering and Technical Support

Maya Rohr
Sespe Consulting, Inc.
5920 Friars Road, Suite 103
San Diego, California 92108
619-894-8669

Note: During the preliminary stages of the Part B Application preparation, Maya Rohr was employed by Kleinfelder, Inc. She is still providing the engineering and technical support and updating the application but now through her current employer, Sespe Consulting.

1.5.3 Legal Support

Jon L. Benjamin
Farella, Braun & Martel LLP
Russ Building
235 Montgomery Street
San Francisco, California 94104
415-954-4971

1.6 FACILITY LOCATION AND PHYSICAL ENVIRONMENT

1.6.1 Topographic Maps

A topographic map (USGS 7.5-minute, South Gate and Los Angeles Quadrangle) showing a one-mile radius originating from the Facility boundaries is shown in Figure 1-2 (One-Mile Radius Topographic Map). A topographic map with a 2000-foot radius is shown in Figure 1-3 (1000-Foot Radius Topographic Map).

1.6.2 Legal Description

The Facility is located within the boundaries of the property owned by AMB Vernon Industrial Park, LLC. The legal description of the AMB Vernon Industrial Park, LLC property is provided below.

Beginning at the intersection of the northerly line of east 54th Street (40 feet wide) as described in Parcel 1 of the deed to the City of Vernon, recorded in Book 9934 Page 265 of Official Records, in said Recorder's Office, with the westerly line of Boyle Avenue (80 feet wide) as described in the deed to the County of Los Angeles, in Book 4983 Page 87 of deeds, records of said county; thence northerly along said Boyle Avenue to the southerly line of said lot 41; thence easterly along said southerly line a distance of 15 feet to the easterly line of said lot 41; thence, northerly along said easterly line to the northeast corner of said lot 41 said corner being also a point in the southerly line of Fruitland Avenue (40 feet wide); thence westerly along said Fruitland Avenue to the westerly line of Boyle Avenue (80 feet wide) as described in deed recorded in Book 5000 Page 11 of deeds, records of said county; thence southerly along said last mentioned Boyle Avenue a distance of 383.58 feet to the most southerly corner of the land described in the deed to Aluminum Company of America, recorded in Book 17491 Page 46 of said Official Records; thence along the boundary line of the land described in said last mentioned deed as follows: northwesterly along a curve concave southwesterly having a radius of 328.27 feet an arc distance of 238.11 feet and north 1 degree 28 minutes 30 seconds west 1.50 feet to a point in the southerly line of the land described in the deed to Los Angeles and Salt Lake Railroad Company, recorded in Book 16846 Page 160 of said Official

Records; thence westerly along said last mentioned southerly line to the westerly line of said lot 42; thence southerly along the westerly line of said lot 42 to the northerly line of said lot 44; thence westerly along said last mentioned northerly line a distance of 46.08 feet, more or less, to the northwest corner of the land described in the deed to Norris-Thermador Corporation, recorded December 12,1963, as instrument No. 1028 of said Official Records; thence along the westerly line of the land described in said last mentioned deed, south 1 degree 17 minutes 33 seconds east 337.16 feet to said northerly line of east 54th Street; thence easterly along said east 54th Street to the point of beginning.

The Los Angeles County Assessor Parcel Number for the property owned by AMB Vernon Industrial Park, LLC is 6310-009-019.

1.6.3 Latitude/Longitude and Township/Range Location

The center of the Facility is located at 33º 59' 40" North, 118º 12' 45" West. It is located in Township 2S, Range: 13W, Section: 14, San Bernardino Meridian.

1.6.4 Facility Boundaries

The land occupied by the Facility is located within the legal boundaries of the property owned by AMB Vernon Industrial Park, LLC. The legal property boundaries of AMB Vernon Industrial Park, LLC are located as shown on Figure 1-4 (Parcel Map). The approximate boundaries of the Facility are also shown on Figure 1-4.

1.6.5 Land Use and Zoning

The area surrounding the Facility consists of industrial and commercial properties, similar to other properties in the City of Vernon. The Facility is located in an area zoned “M” for general industrial land use, as shown in Figure 1-5 (Comprehensive Zoning Map of the City of Vernon). The Facility has a Conditional Use Permit (CUP) issued by the City of Vernon.

1.6.6 General Land Characteristics

1.6.6.1 Drainage

The general contours of the area are shown in Figure 1-3. Surface drainage from the Facility is collected by sumps in containment areas. The containment areas are sloped so any runoff is directed toward the sumps. The collected runoff is pumped to a storage container or tank depending on the composition of the runoff.

1.6.6.2 Grading

No significant changes to existing grading are proposed for continued operation of the existing Facility.

1.6.6.3 Location of Surface Waters

The only surface water in the vicinity of the Facility is the Los Angeles River, located approximately one mile north of the Facility. There are no other creeks springs, lakes or rivers within one mile of the Facility (information obtained from USGS topographic maps). Figure 1-2 shows surface water bodies within one mile of the Facility.

1.6.6.4 Wind Speed and Direction

According to data provided by the South Coast Air Quality Management District (SCAQMD), the prevailing winds for the City of Vernon are predominantly from the west. A wind rose for the City of Vernon is shown in Figure 1-6.

1.6.6.5 Depth to Groundwater

According to the October 2004 Watermaster Report presented in Appendix B, the Facility is located within the Central Basin, a large groundwater basin underlying the southeastern part of the Los Angeles Coastal Plain. It is bounded on the north by the hills separating it from the San Gabriel Valley, on the east by Orange County, and on the southwest by the West Coast Basin.

There are no groundwater monitoring wells located at the Facility. However, according to the State Water Resources Control Board GeoTracker database, groundwater measured in monitoring wells located approximately 2000 feet southwest of the Facility is at a depth of approximately 50 to 55 feet below ground surface.

1.6.6.6 Location of Wells, Springs and Water Bodies

1.6.6.6.1 Wells

There are no known injection or withdrawal wells located on site or within the immediate vicinity of the Facility. Wells listed in public records which are within 1/4 mile of the Facility property boundary are tabulated and presented as Table 1-1 (Wells Listed in Public Record).

1.6.6.6.2 Springs

No springs are known to exist within one mile of the Facility.

1.6.6.6.3 Water Bodies

No aqueducts or other water supply systems are known to exist within one mile of the Facility site. The Los Angeles River is approximately one mile north of the site. Water bodies within one mile of the Facility are shown on Figure 1-2.

1.6.6.6.4 Public Water Supply

Potable water is supplied to the Facility by the City of Vernon Water Department.

1.6.6.7 Seismic Hazards

Southern California is a region characterized by numerous active faults and high seismic activity. Based on Hart and Bryant (1997), the site is not located within an Alquist-Priolo Earthquake Fault Zone where special studies addressing the potential for surface fault rupture are required. There are no known faults with Holocene displacement within 200 feet of this site. The closest seismic source is the Puente Hills fault (at a distance of about 1 km, 3000 feet), which is a blind thrust fault.

1.6.6.8 100-Year Flood Plain

According to the City of Vernon, the Los Angeles County Flood Control District, and the Army Corps of Engineers, the Facility is not located in a 100-year flood plain or within a known flood hazard area.

1.6.7 Environmental and Human Receptors

The Facility is located in an industrialized urban area. There are no sensitive environmental receptors within the immediate vicinity of the Facility. The majority of the nearby human receptors are workers in other manufacturing facilities located adjacent to or across the street from the Facility. There are several schools and hospitals located within 1 mile of the Facility.

1.7 FACILITY CHARACTERISTICS

1.7.1 Names and Locations of Areas and Facilities

Existing hazardous waste management areas are described in detail in Section 3 and Appendix C (Hazardous Waste Management Area Descriptions). These include Waste Receiving and Shipping (WRS) areas, Containerized (containers and bulk) Waste Storage and Management (CSA) areas, waste treatment areas, and containment structures, among others. Table 1-1 identifies the hazardous waste management areas within the Facility. Figure 1-1 provides a facility plot plan which shows the location of the hazardous waste management areas. Figures 1-7a through 1-7j provide photographs of the Facility.

Based on the RCRA Facility Assessment (RFA) conducted in March 1997, no soil and/or groundwater contamination was reported to be present at the Facility and no corrective action was required. Therefore, there are no soil waste management units (SWMUs) identified for corrective action and no environmental monitoring stations needed or installed at the Facility, nor any injection and withdrawal wells.

1.7.2 Intake and Discharge Structures

Hazardous waste arrives in bulk and containerized form. Containerized wastes are unloaded in one of three containerized waste receiving and shipping stations in the Waste Receiving and Shipping Area (Area I), as described in Section 3 and Appendix C. Containerized wastes that are accepted by the Facility are transferred to the appropriate containerized waste storage area within the Containerized Waste Storage and Management Area (Area II). Bulk wastes arriving to the Facility are offloaded at one of the on-site bulk waste receiving and shipping stations in Area I, or from an off-site rail loading and unloading facility located adjacent to the Facility as described in Section 3 and Appendix C. Bulk wastes that are accepted by the Facility are transferred into the appropriate tank within the Area III, depending on the constituents in the waste. There are no other intake structures. The only discharge structure is the sewer discharge point near Tanks 9 and 10 of the Discharge Area (Area IV) as shown on Figure 1-1.

1.7.3 Power Lines, Pipelines, and Easements

There is one underground power line. There are four (4) subsurface trenches, of which there are two (2) with piping that are presently active, and two (2) that are inactive. The pipes are contained in cement-lined trenches under roadways with removable covers. Use of these pipelines

may be discontinued in the future. The locations of the underground power line and pipeline trenches are shown in Figure 1-1.

AMB Vernon Industrial Park, LLC has granted the City of Vernon an easement and right of way for aerial and underground electric lines and communication lines. The approximate location of the easement is shown on Figure 1-1.

1.7.4 Security and Access Control

Security fencing is provided by a chain-link fence that is 6 to 8 feet high, with barbed wire along the top. The perimeter fencing is posted with warning signs in English and Spanish indicating that hazardous wastes are present. Gates are locked to prevent unauthorized entry.

All access to the Facility is controlled 24 hours per day, 7 days per week, 365 days per year. Continuous, recorded video surveillance of the access gates on East 54th Street and South Boyle Avenue, as well as gates between AMB Vernon Industrial Park, LLC and the Facility, is provided and monitored by site personnel. The waste vehicle delivery gate on East 54th Street is a 9 ft high lift gate, topped with barbed wire, and may be opened only by electromechanical means to allow vehicle entry. It closes automatically once the approved vehicle has passed through. The personnel entrance gate located on South Boyle Avenue utilizes an equivalent controlled video surveillance and electromechanical gate.

1.7.5 Facility Traffic

1.7.5.1 Volume of Traffic

A study of the traffic pattern due to the transport of wastewater has been performed entitled, "Assessment of Transportation of Wastewaters to Norris Industries, Inc." and was included with the 1996 Part B permit application. The Part B permit issued by the DTSC in 1996 limits daily truck traffic delivering waste to the Facility to no more than 80 trucks per day There has been no material change in daily truck traffic and traffic patterns since the current Part B permit was originally issued.

1.7.5.2 Permanent Access Roads

Permanent access roads to this Facility include East 54th Street and South Boyle Avenue. These are two-way roads with stop signs or traffic signals located at nearby intersections. Access roads are constructed of six-inch thick reinforced concrete and capable of bearing loads in excess of 50 tons.

1.7.5.3 Internal Traffic Lanes

The Facility has specific truck routes for the transportation of waste to the Facility. Trucks arriving at the Facility generally enter at the western-most gate to the Facility on East 54th Street and generally exit on South Boyle Avenue. Trucks may also enter the Facility from two additional gates located on East 54th Street. A one-way traffic flow is generally utilized for waste vehicles and deliveries through the Facility as shown on Figure 1-1.

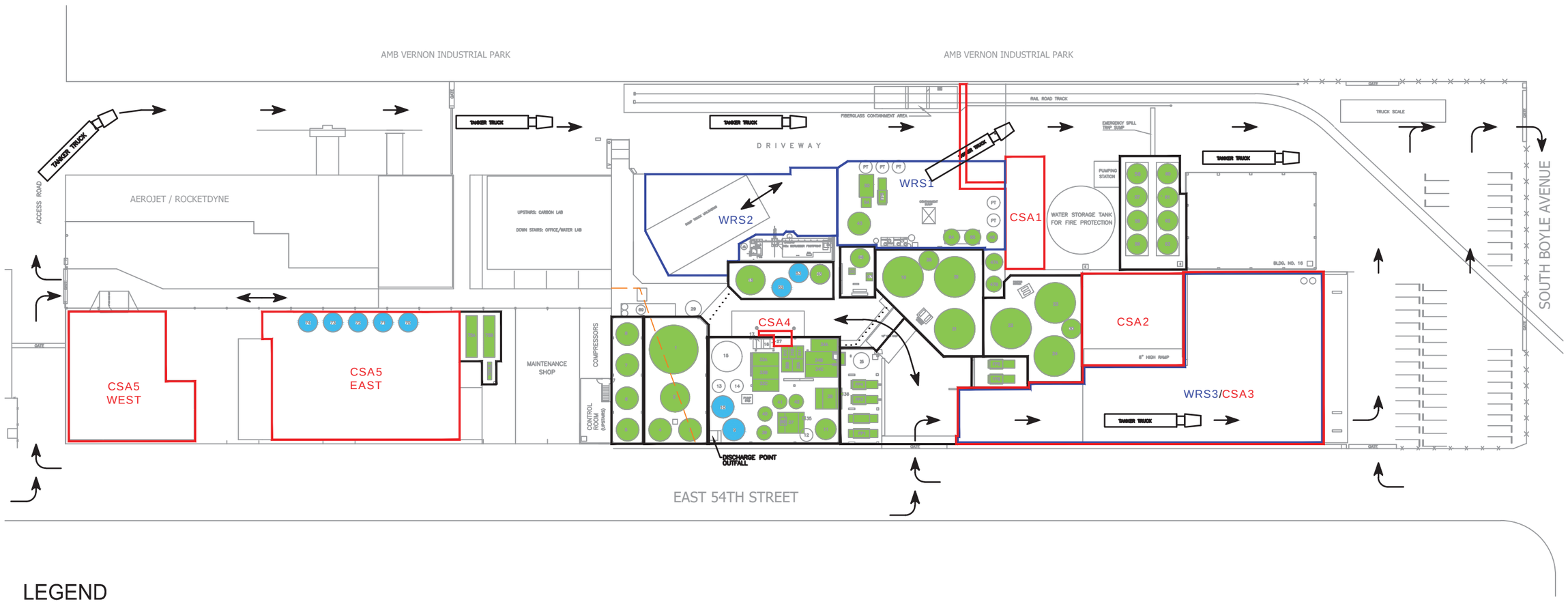
TABLE 1-1
Hazardous Waste Management Areas

Hazardous Waste Management Area	Hazardous Waste Management Sub-Area
Area I: Waste Receiving and Shipping	Waste Receiving Station 1 (WRS1)
Area I: Waste Receiving and Shipping	Waste Receiving Station 2 (WRS2)
Area I: Waste Receiving and Shipping	Waste Receiving Station 3 (WRS3) Container Storage Area (CSA3)
Area II: Containerized Waste Storage and Management	Container Storage Area 1 (CSA1)
Area II: Containerized Waste Storage and Management	Container Storage Area 2 (CSA2)
Area II: Containerized Waste Storage and Management	Container Storage Area 3 (CSA3)
Area II: Containerized Waste Storage and Management	Container Storage Area 4 (CSA4)
Area II: Containerized Waste Storage and Management	Container Storage Area 5 (CSA5 East)
Area II: Containerized Waste Storage and Management	Container Storage Area 5 (CSA5West)
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-A: Inorganics / Oils Treatment / Storage / Transfer
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-B: Organics / Oils Treatment / Storage / Transfer
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-C: Multi-use and Transfer Tanks
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-D: Cyanide Pre-Treatment / Storage / Transfer
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-E: Batch Treatment
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-F: Reserved
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-G: Portable Media Filtration / Absorption
NA	III-H: Reagent Storage (Not Regulated Waste)
Area IV: Discharge	Discharge Tanks 9 and 10
Area IV: Discharge	Discharge Tanks 52 and 53
Area IV: Discharge	Discharge Tanks 70, 71, 72, 73, 74

TABLE 1-2
Wells Listed In Public Records

Well Owner	State Well Number	Owner Designation
Winger	2S/13W-14L01	#1
Norris Thermador Corporation	2S/13W-14L02	B-70A
J. H. Chapman	2S/13W-14D01	#830
City of Vernon	2S/13W-14K1	#8
	2S/13W-14K2	#9
Annette Knitting (A)	2S/13W-15H01	
Pacific Coast (A)	2S/13W-15H02	
Vitrefax City of Vernon, Water Department	2S/13W-15H03	#ll-B-44

Notes:
1. A - Abandoned
2. Information on well locations was obtained from the California Department of Water Resources, Southern District. The State well identification numbers are derived from a system based on the U.S. Public Land Survey. For example, for J.H. Chapman Well #830, the identification number, 2S/13W-14D01, indicates that the well is located in Township 2 South, Range 13 West, Section 14, Tract D, sequence number 01.



LEGEND

- WRS# — AREA I: WASTE RECEIVING AND SHIPPING STATION (WRS)
- CSA# — AREA II: CONTAINER STORAGE / STAGING AREA (CSA)
- AREA III: BULK WASTE PRE-TREATMENT / TREATMENT / POLISHING / STORAGE / TRANSFER
- AREA IV: DISCHARGE
- ELECTRICAL / COMMUNICATION LINE EASEMENT
- SUBSURFACE PIPING
- TRAFFIC FLOW DIRECTION

N

SCALE: 1"=80'

SESPE CONSULTING, INC.
5920 Friars Road, Suite 103, San Diego, CA 92108
(619)894-8669 www.sespeconsulting.com

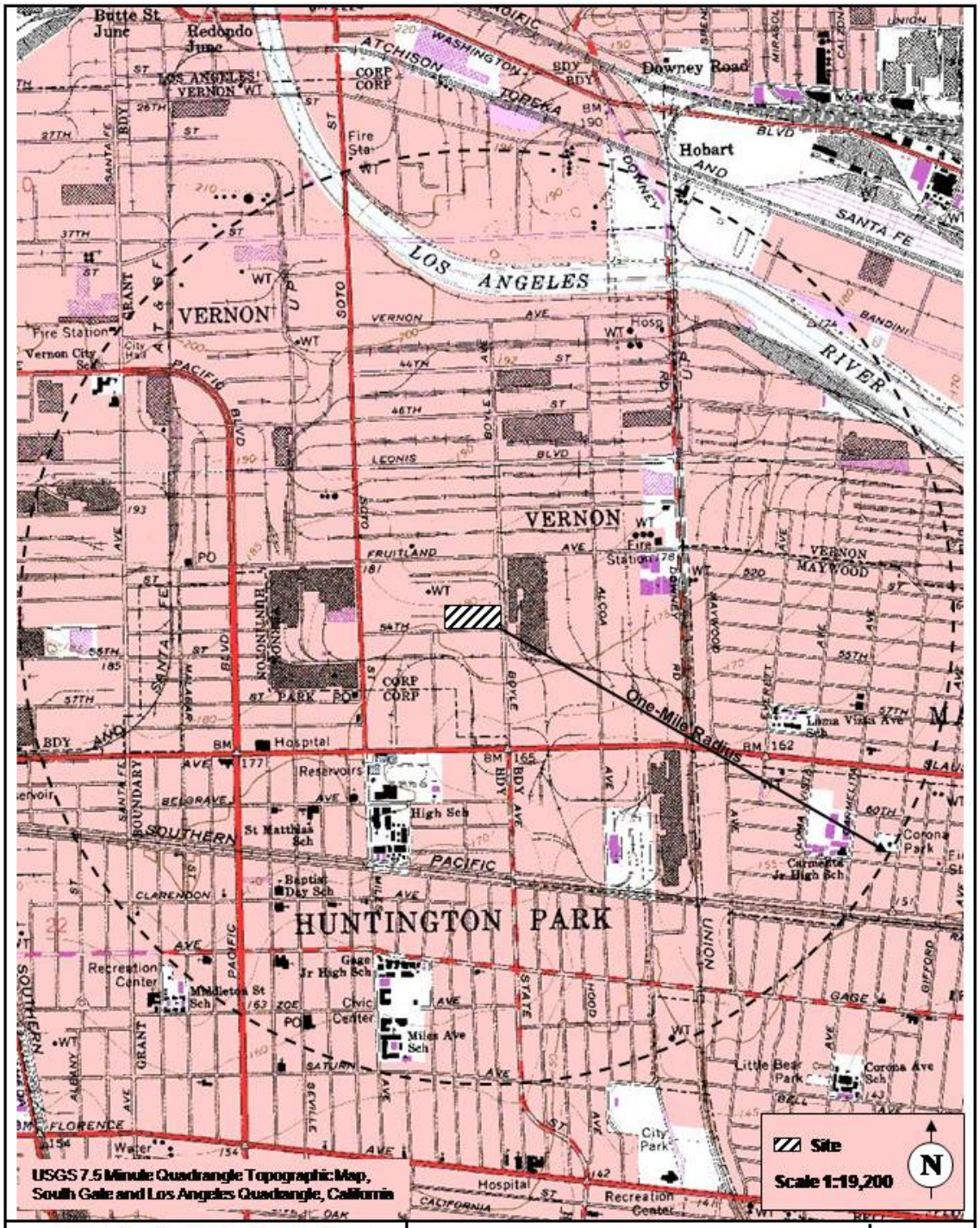
PROJECT NO.	SI01
DRAWN:	07/15/14
DRAWN BY:	GC/PS
CHECKED BY:	MR
FILE NAME:	

FACILITY PLOT PLAN
WITH ADDITIONAL INFORMATION

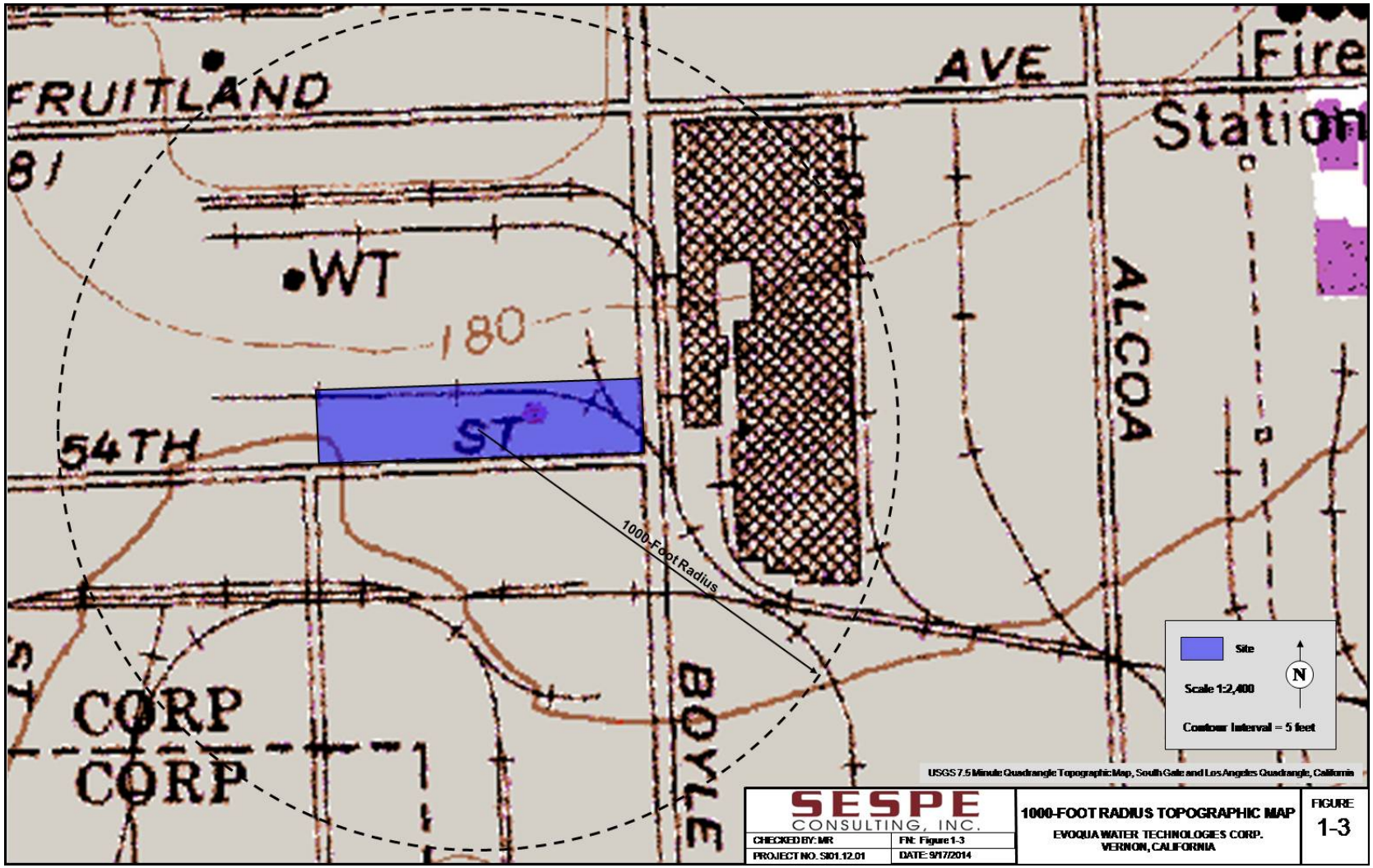
PART B PERMIT RENEWAL
EVOQUA WATER TECHNOLOGIES
5375 SOUTH BOYLE AVENUE
VERNON, CALIFORNIA

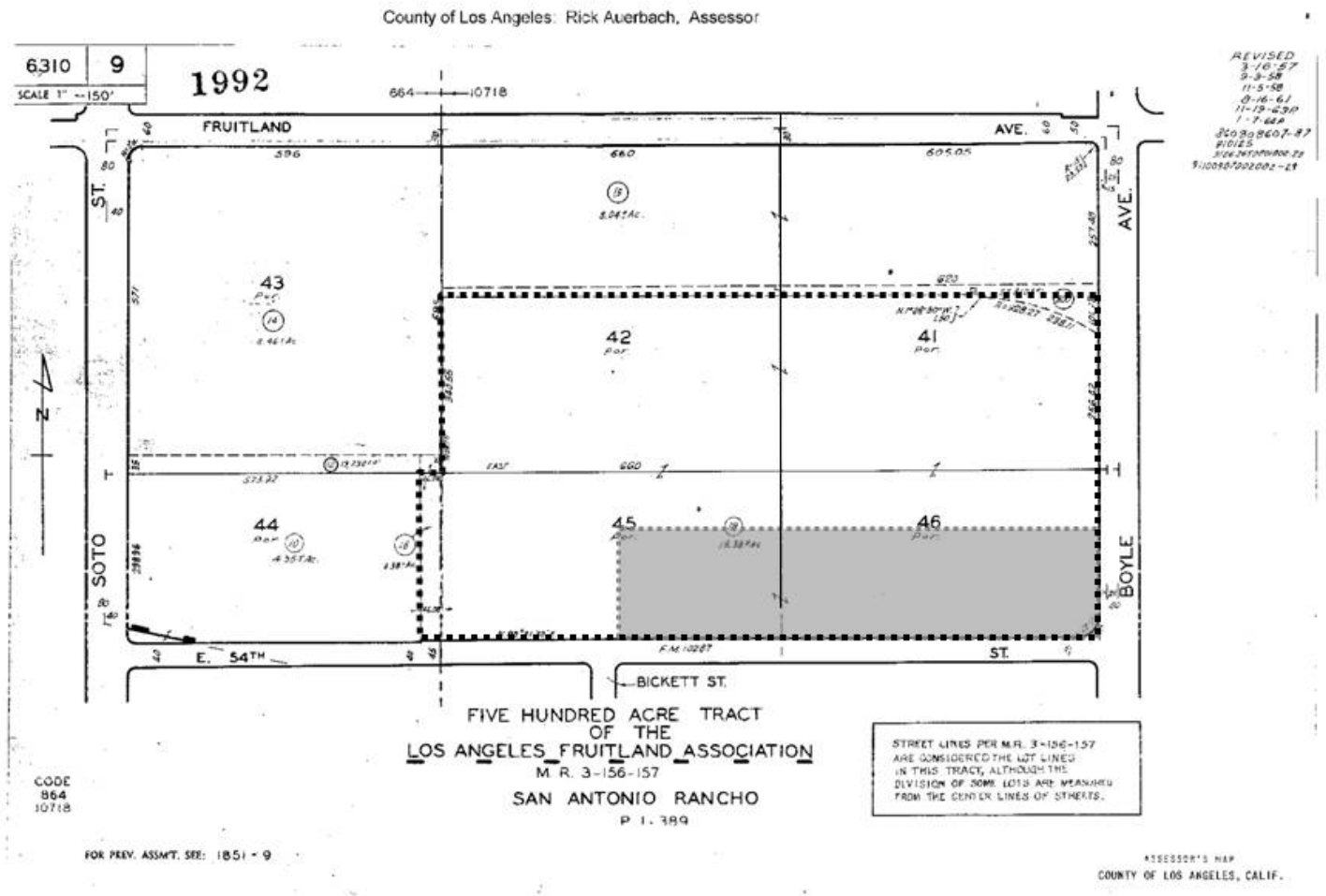
FIGURE
1-1

This page was intentionally left blank.



SESPE CONSULTING, INC.	ONE-MILE RADIUS TOPOGRAPHIC MAP EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-2
CHECKED BY: MR	FN: Figure 1-2	
PROJECT NO. SI01.12.01	DATE: 7/30/2014	


FRUITLAND
AVE
Fire
Station
81
WT
180
54TH
ST
ALCOA
1000-Foot Radius
BOYLE
CORP
CORP
Site
Scale 1:2,400
N
Contour Interval = 5 feet
USGS 7.5 Minute Quadrangle Topographic Map, South Gate and Los Angeles Quadrangle, California
SESPE
CONSULTING, INC.
CHECKED BY: MR
FN: Figure 1-3
PROJECT NO. SI01.12.01
DATE: 9/17/2014
1000-FOOT RADIUS TOPOGRAPHIC MAP
EVOQUA WATER TECHNOLOGIES CORP.
VERNON, CALIFORNIA
FIGURE
1-3



Nl Industries Properly Boundary

Facility Boundary

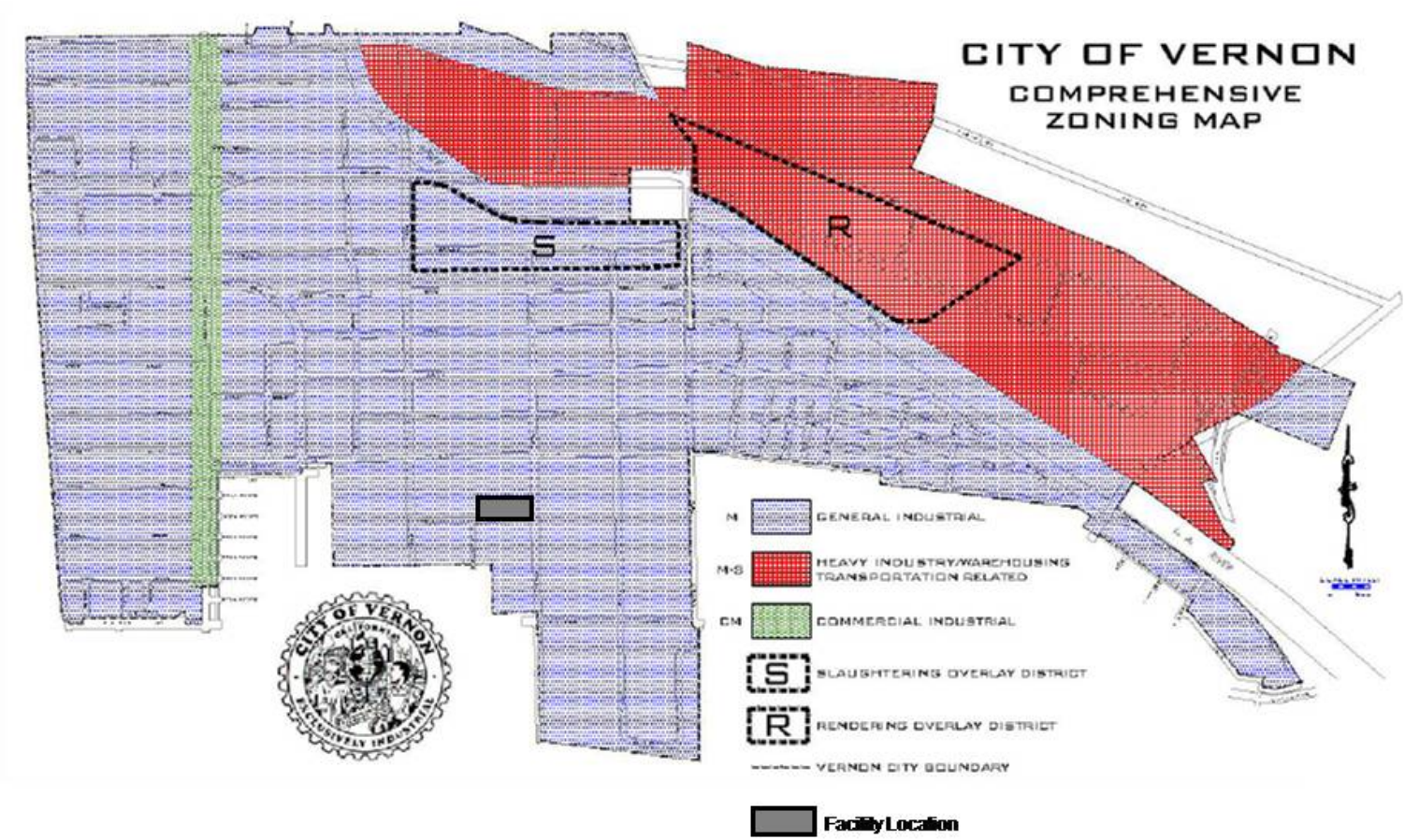
SESPE CONSULTING, INC.

CHECKED BY: MR	FN: Figure 1-4
PROJECT NO. SI01.12.01	DATE: 7/30/2014

PARCEL MAP

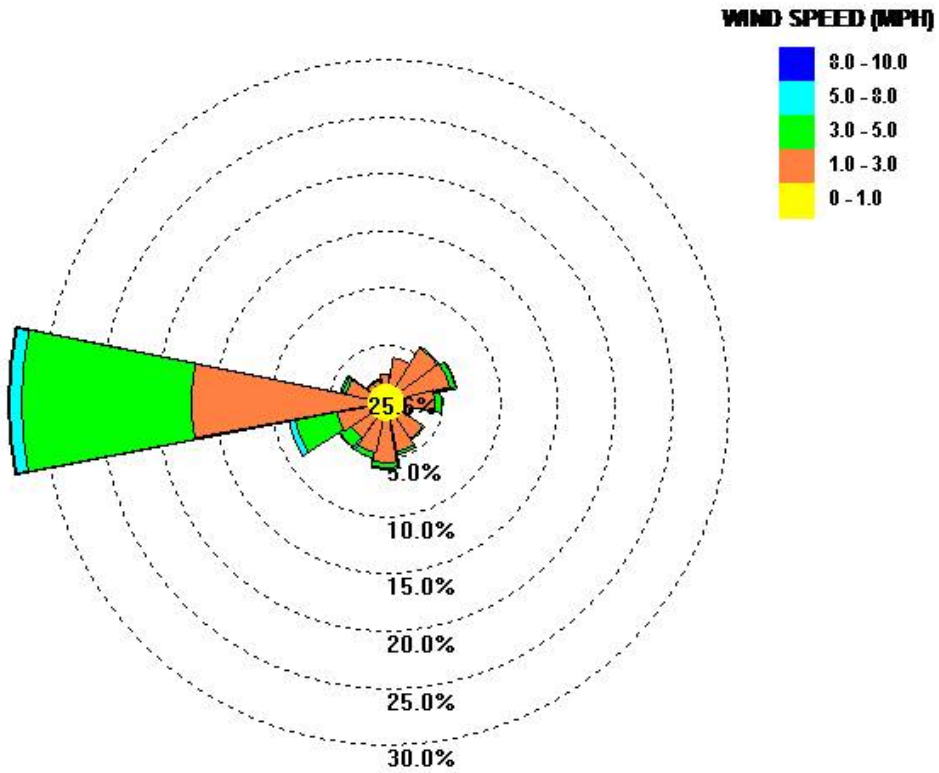
EVOQUA WATER TECHNOLOGIES, LLC
VERNON, CALIFORNIA

FIGURE
1-4



Map adapted from City of Vernon, 1986

SESPE CONSULTING, INC.	COMPREHENSIVE ZONING MAP OF THE CITY OF VERNON	FIGURE 1-5
CHECKED BY: MR / FN: Figure 1-5	EVOQUA WATER TECHNOLOGIES, LLC	
PROJECT NO. SI01.12.01 / DATE: 7/30/2014	VERNON, CALIFORNIA	



Calm Winds (<=1 MPH): 25.56%
Average Wind Speed: 2.1 MPH

Wind speed data between January 1, 1981 to December 31, 1981 for the City of Vernon provided by South Coast Air Quality Management District.

SESPE CONSULTING, INC.		**CITY OF VERNON WIND ROSE** EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-6
CHECKED BY: MR	FN: Figure 1-6		
PROJECT NO. SI01.12.01	DATE: 7/30/2014		

Evoqua Water Technologies Office, looking west from parking lot

Pumping stations of Waste Receiving Station 1 , looking south toward Tanks 19, 20, and 21

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7A
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Looking west, toward main treatment plant

Container Storage Area 1, looking south toward Tanks 22, 23, and 24

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7B
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Air Pollution Control System C (Wet Scrubbers), east of truck unloading dock of Waste Receiving Station 2, looking south

Truck unloading dock of Waste Receiving Station 2, looking southwest toward Analytical Laboratory building

SESPE CONSULTING, INC.	FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7C
CHECKED BY: WC / FN: Figures 12-20		
PROJECT NO. 55277 / DATE: 12/2005		

Tanks 19 and 20, looking northwest

Filter Presses 1 through 4, Looking west toward Main Treatment Plant

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7D
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Waste Receiving Station 3 and Container Storage Area 3, looking east

Container Storage Area 4 (bollards on left), looking south toward Main Treatment Plan

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7E
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

East side of Container Storage Area 2, looking northwest
(Tanks 23 and 30 on left)

Container Storage Area 2, looking west toward Tanks 22, 23, 24, and 30

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7F
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Container Storage Area 3, looking northwest toward Tanks 56 through 63

Looking west, toward Tank 18 and Building 12

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7G
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Looking west toward Waste Receiving Stations 1 and 2 and
Analytical Laboratory (Tanks 56 through 63 on left)

Waste Receiving Station 2, looking southeast toward Tanks 66, 19, and 20

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7H
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

Tanks 70 through 74, looking east inside Building 12

Analytical Laboratory

SESPE CONSULTING, INC.		FACILITY PHOTOGRAPHS EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 1-7I
CHECKED BY: WC	FN: Figures 12-20		
PROJECT NO. 55277	DATE: 12/2005		

SECTION 2

Waste Characterization

This page was intentionally left blank.

SECTION 2
Waste Characterization

Table of Contents

Section **Page**

2.1 WASTE IDENTIFICATION 2-1
2.1.1 WASTE CLASSIFICATION 2-2
2.1.2 WASTE ANALYSIS PLAN 2-5
2.1.3 WASTE GENERATION 2-5
2.1.4 TREATMENT PROCESS DESIGN CAPACITY 2-7
2.1.5 HAZARDOUS PROPERTIES OF THE WASTES 2-7
2.2 METHODS TO CHARACTERIZE HAZARDOUS WASTE 2-7
2.2.1 SAMPLING STRATEGY 2-7
2.2.2 SELECTION OF WASTE ANALYSIS PARAMETERS AND LIMITS 2-8
2.3 WASTE SAMPLING METHODOLOGY 2-8
2.3.1 WASTE SAMPLING METHODS 2-8
2.3.2 METHODS OF SAMPLE HANDLING AND CUSTODY 2-8
2.3.3 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM 2-9
2.4 PROVISIONS TO COMPLY WITH LDR REQUIREMENTS 2-9
2.5 IGNITABLE, REACTIVE AND INCOMPATIBLE WASTES 2-10
2.6 WASTE COMPATIBILITY WITH TANKS 2-10
2.7 SPECIAL PROCEDURES FOR SPECIFIC WASTES 2-10

TABLES

Table 2-1 Identification and Classification of Hazardous Wastes Received 2-12
Table 2-2 Pre-Acceptance & Acceptance Phase Comprehensive Waste Analysis Parameters 2-18
Table 2-3 Acceptance Phase Fingerprinting Waste Analysis Parameters 2-19
Table 2-4a Pre-Discharge Phase Los Angeles County Sanitation Districts Permit Discharge Limits 2-20
Table 2-4b Pre-Discharge Phase Centralized Waste Treatment Pre-Treatment Standards for Inorganic [Metal]/Oil Wastes 2-21
Table 2-4c Pre-Discharge Phase Centralized Waste Treatment Pre-Treatment Standards for Organic/Oil Wastes 2-22

This page was intentionally left blank.

2.0 WASTE CHARACTERIZATION

This section describes how the wastes received are characterized and how the Facility performs the sampling and analysis to properly handle those wastes. It also identifies the wastes that can be received, treated, recycled, and/or stored at the Facility and the wastes that are transported off site for disposal, further treatment, and/or recycling. The Waste Analysis Plan (WAP) contained in Appendix D provides a detailed description of the waste analysis process including the required parameters, procedures, and analytical methods used to identify and confirm the chemical and physical characteristics of a waste.

2.1 WASTE IDENTIFICATION

Wastes from off-site generators are received at the Waste Receiving and Shipping Area (Area I). The Facility receives and accepts or rejects the following types of waste shipments:

- *Bulk wastes* can be delivered by tanker trucks and are received at one of the three bulk waste receiving and shipping areas of Area I. Bulk waste may also be brought in by rail to an off-site loading and unloading area located adjacent to the Facility. If bulk waste is received and accepted, the waste is transferred into an appropriate blending/storage/treatment tank, a railcar located at the adjacent loading and unloading area for off-site transfer, or containerized for interim storage prior to treatment or off-site transfer. If bulk waste is transported to and not accepted by the Facility, the waste does not remain at the Facility, and the transporter is required to remove the waste shipment from the Facility.
- *Containerized wastes* are received at one of the three containerized waste receiving and shipping areas of Area I. Containerized wastes may be received, but not necessarily accepted by the Facility. If a containerized waste is received but not accepted (i.e., the waste is rejected) by the Facility, the waste can be stored temporarily in the Waste Receiving and Shipping Area (Area I), or transferred to and temporarily stored in the appropriate containerized waste storage area of the Containerized Waste Storage and Management Area (Area II) prior to transfer to an appropriate permitted off-site treatment, storage, and disposal facility (TSDF). If a containerized waste is received and accepted, the waste will be placed into Area II to be consolidated for treatment and/or transferred to an appropriate off-site TSDF, transferred directly to the Bulk Waste Pre-Treatment/Treatment/Polishing/ Storage/Transfer Area (Area III) for treatment, or transferred directly to an appropriate off-site TSDF.

2.1.1 Waste Classification

Table 2-1 (Identification and Classification of Hazardous Wastes Received) provides descriptions of wastes that are accepted at the Facility and are categorized by Federal and California (State) waste codes. The following information is provided in Table 2-1:

- Hazardous waste code – the Federal waste code per EPA and the State waste code per the California Environmental Protection Agency (CalEPA) regulations;
- Waste code definition; and
- Rationale for designating the waste as hazardous – hazardous characteristic (acutely hazardous, toxic, corrosive, ignitable, reactive, or California hazardous).

The wastes accepted by the Facility can be separated into the following general categories:

1. RCRA Characteristic Hazardous Waste: Waste that exhibits any of the four characteristics of a hazardous waste: ignitability, corrosivity, reactivity or toxicity (note exceptions identified in Section 2.1.3. 2).
2. Non-RCRA California Hazardous Waste: Waste that is considered hazardous by California criteria but not under RCRA.
3. RCRA Listed Hazardous Waste: Waste that is specifically listed as being hazardous under RCRA in one of the following Title 40 of the Code of Federal Regulations (40 CFR) Section 261 tables: hazardous wastes from nonspecific sources (F-codes), hazardous wastes from specific sources (K-codes), acute hazardous wastes (P-codes), discarded commercial chemical products, off-specification materials or toxic hazardous wastes (U-codes).
4. Universal Waste (accepted for consolidation and transfer to an off-site facility).
5. Non-Regulated waste (accepted for treatment and/or transfer to an appropriate off-site facility).

Acceptability of a hazardous waste for storage, consolidation, treatment, recycling, and/or transfer at the Facility, is determined based on information contained on the Waste Profile Data (WPD) form (described in the WAP in Appendix D), the generator's knowledge of the waste, the rationale for designating the waste as hazardous, and/or the EPA and State codes, if applicable, associated with the waste. Hazardous waste with codes that do not appear in Table 2-1 are not permitted to be accepted for storage, consolidation, treatment, recycling, and/or transfer at the

Facility. The convention used in Table 2-1 is that if the hazardous waste does not have an EPA code, the state code must be used for determining acceptability under the Part B permit.

The amount of any specific waste code accepted in a given year can vary considerably. However, the total amount of waste accepted in any year will not exceed the permitted total quantities of wastes allowed by the Part B permit.

Many of the specific waste types are classified as such in accordance with the "mixture" and "derived from" rules described in 40 CFR 261.3. The wastes received at the Facility are generally not pure forms of the specified waste type, but are, for example, dilute solutions of cleaning (wash) water and the specific waste. This is especially true of liquid wastes that are treated at the Facility. For Facility treatment disposition purposes, liquid wastes can be classified as the following:

- Acid compatible waste - Any liquid waste that has a pH less than or equal to 10.0, with or without the presence of metal salts or other contaminants, and any waste material compatible with such wastes;
- Aqueous compatible waste - Any liquid waste, with or without the presence of metal salts or other contaminants, with a pH between 4.0 and 10.0, and any waste material compatible with such wastes;
- Alkaline compatible waste - Any liquid waste, with or without the presence of metal salts or other contaminants, with a pH greater than or equal to 4.0, and any waste material compatible with such wastes;
- Chromate compatible waste - Any liquid waste, with or without the presence of metal salts or other contaminants, that contains hexavalent chromium, and any waste material compatible with such wastes;
- Cyanide compatible waste - Any liquid waste, with or without the presence of metal salts or other contaminants, that contains cyanide in excess of 10 mg/l and has a pH above 7.0 and any waste material compatible with such wastes;
- Inorganic waste - Any liquid waste for which the predominant regulated contaminants are inorganic/metallic salts or are regulated because of their corrosive characteristics or specific waste generation process where such process is related to operational processes involving materials of inorganic origin. The inorganic waste category encompasses all of the waste categories above. Examples of inorganic waste sources include wastes generated from metal finishing, plating, and related processes, maintenance operations, laboratories, manufacturing operations, microelectronics component production,

chemical manufacturing and distribution, storm water, fire suppression, spill clean-up, containment, container and equipment wash/rinse, treatment area washes/backwashes and recycled treatment process water requiring additional treatment. The sources of inorganic waste may be commercial, industrial, institutional or governmental in nature or may be internal;

- Oily waste – Immiscible oils or oily sludge derived from oils or oily aqueous waste by collection and consolidation, gravity separation, decantation, dissolved or dispersed air or gas flotation, centrifugation and other centrifugal processes, and media or membrane filtration -- all with or with or without the aid of heating and/or chemical emulsion breaking. Examples of oily waste sources include vehicle and equipment maintenance operations, metal working and machining activities, manufacturing processes, power generation facilities, oil exploration, drilling, production, transportation, refining, distribution, recovery and recycling activities, wastewater treatment processes, chemical manufacturing and distribution, spill clean-up, containment, container and equipment wash/rinse and treatment area backwashes. The sources of oily waste may be commercial, industrial, institutional or governmental in nature or may be internal;
- Oily aqueous waste – Any liquid waste with or without the presence of metal salts or other contaminants, containing suspended, emulsified or stratified immiscible oils. Examples of sources of such wastes include maintenance operations, equipment cleaning activities, metal working and manufacturing operations, laboratories, oil exploration, drilling, production, transportation, refining, distribution, recovery and recycling activities, spill clean-up, ground water remediation, containment, container and equipment wash/rinse, treatment area washes/backwashes, and recycled treatment process water requiring additional treatment. The sources of oily aqueous waste may be commercial, industrial, institutional or governmental in nature or may be internal;
- Organic waste - Any liquid waste that contains regulated volatile and semi-volatile organic compounds as the sole contaminant or in combination with metal salts or other contaminants, and any waste materials compatible with such wastes. Examples of organic waste sources include landfill leachate, contaminated groundwater, solvent recovery operations, chemical manufacturing and distribution activities, oil exploration, drilling, production, transportation, refining, distribution, recovery and recycling activities, storm water, fire suppression, spill clean-up, containment, container and equipment wash/rinse, treatment area washes/backwashes, and recycled treatment process water requiring additional treatment. The sources of organic waste may be commercial, industrial, institutional or governmental in nature or may be internal.

These definitions will apply when these types of wastes are discussed in this Part B Permit Renewal and Operations Plan and its associated appendices.

2.1.2 Waste Analysis Plan

Each waste type, whether EPA or California waste, has associated with it a series of chemical and physical tests that may be performed by the Facility to determine the nature of the waste material and the proper treatment processes and safe handling procedures. The WAP (Appendix D) provides a detailed description of the waste analysis process and the appropriate parameters used to confirm the chemical and physical properties of a waste. The Facility owns and operates its own state-certified analytical laboratory located on site to perform waste and wastewater discharge analyses.

2.1.3 Waste Generation

2.1.3.1 On-site Waste Generation

The Facility accepts industrial items for on-site cleaning, such as tanker trucks and equipment. Therefore, the waste is generated on site from an off-site source. The generator-supplied information for the waste type that was managed within the equipment or trucks to be cleaned is considered identical to that of the off-site wastes. The generator must complete and submit a WPD form, provide analytical data if such data exists, and provide the complete hazardous waste documentation, including land disposal restriction (LDR) notification and certification, if necessary, for the waste that is generated on site from the generator's off-site waste source (i.e., waste liquids generated from cleaning of equipment or tanker trucks).

As stated, the Facility receives wastes for storage, consolidation, treatment, recycling and/or transfer. The treatment process results in wastes (e.g., sludges, spent media) that must be characterized and, where appropriate, manifested and transported off site for disposal, treatment, recycling, or regeneration at a permitted off-site TSDF. Additionally, containers of consolidated accepted waste, or accepted waste containers that have only been stored (i.e., no consolidation), or rejected waste containers are also manifested (if they are hazardous) and transported to a permitted off-site TSDF. In this manner, many of the wastes received at the Facility (i.e., Table 2-1) are transported off site with the Facility identified as the "generator" of the waste.

2.1.3.2 Waste Generating Processes for Off-site Wastes Handled at the Facility

Typically, the hazardous and non-hazardous wastes received at the Facility include wastes generated by off-site commercial and manufacturing processes, emergency response cleanups,

municipal waste waters, wastes from other TSDFs, rain and sump waters, wastes from cleanups performed by regulatory agencies (e.g., United States Environmental Protection Agency [EPA] and California Department of Toxic Substance Control [DTSC]), as well as other wastes generated from various industrial activities. The Facility will accept wastes from any off-site generator for treatment, storage consolidation and/or transfer so long as the wastes shipped to the Facility are authorized under the Facility's Part B permit and the generator has an EPA permit number. The Facility will not accept wastes that contain any of the following constituents:

- Explosives (as defined in 49 CFR Section 173.50);
- Ignitables as defined by 49 CFR Sections 173.115, 173.120 and 173.124 (per Permit Modification No.4, dated May 2002 and approved January 28, 2003);
- Compressed gases;
- Polychlorinated biphenyls (PCBs) with concentrations greater than limits per Table III 22CCR 66261.24[a][2][B];
- Biohazards or infectious wastes (per 49 CFR Section 173.134);
- Pesticide concentrations greater than limits per Table III 22 CCR 66261.24[a][2][B];
- Radioactive waste above California Department of Public Health (CDPH) acceptable levels;
- Reactive materials that spontaneously ignite upon exposure with water; and
- Reactive materials that spontaneously ignite upon exposure with air.

Additionally, based on the LACSD wastewater discharge permit requirements for the Facility, wastewaters accepted for treatment at the Facility, as opposed to for storage and subsequent transfer to an appropriate off-site TSDF, must meet the following requirements (as defined by the LACSD industrial wastewater discharge permit):

- Flashpoint must be greater than 140 °F;
- PCBs and other Total Identifiable Chlorinated Hydrocarbons (TICH) of essentially zero concentration;
- Total oil and grease content below LACSD permitted limit, currently 3 percent or less, but subject to change;
- Total toxic organics (TTO) content, as defined in the LACSD permit, currently 1 percent or less, but subject to change; and

- Total cyanide content of 10 milligrams per liter (mg/l) or less, or as approved on a case-by-case basis by the LACSD.

2.1.4 Treatment Process Design Capacity

The permitted maximum quantity of liquid or slurried hazardous waste treated or managed by the Facility is 33,126,000 gallons per month. The estimated maximum quantity of hazardous solid waste treated or managed is 30,000 tons per year.

2.1.5 Hazardous Properties of the Wastes

The hazardous properties of wastes handled and accepted at the Facility are listed in Table 2-1.

2.2 METHODS TO CHARACTERIZE HAZARDOUS WASTE

Methods to characterize waste and determine if the waste can be accepted by the Facility include a sampling strategy, a sampling method, a set of analytical parameters, and finally a set of acceptable analytical results. Each of these elements is discussed in the following subsections.

2.2.1 Sampling Strategy

The Facility implements a waste acceptance strategy that differs for each phase of the waste handling process: pre-acceptance, acceptance, post-acceptance, waste management, waste disposal, and liquid discharge.

- *Pre-acceptance* is the initial phase of all waste management and consists of those activities conducted by the waste generator, waste broker and/or the Facility necessary to make an initial determination of whether or not the waste can be accepted by the Facility. A key component of the pre-acceptance phase is completion of the WPD form by the generator or authorized designee. Further discussion of the WPD process is presented in the WAP (Appendix D).
- *Acceptance* consists of those activities performed by the Facility to confirm that the waste delivered to the Facility is as identified on the accompanying waste shipment documentation and WPD. At the end of the acceptance stage, the hazardous waste manifest for hazardous waste shipments is signed by the Facility and the waste is received and accepted for further handling.
- *Post-acceptance* consists of those activities performed by the Facility to properly manage the hazardous waste within the Facility (e.g., compatibility testing).

- *Waste management* consists of the activities necessary to properly treat and handle the wastes within the Facility.
- *Waste disposal* consists of those activities necessary to consolidate, characterize and prepare hazardous waste for shipment and disposal to an approved permitted third-party off-site hazardous waste disposal facility.
- *Liquid discharge* includes the sampling and assessments that are necessary to demonstrate that the treated water is acceptable for discharge to the LACSD sewer system.

The sampling strategy for each of these steps is discussed in the WAP (Appendix D), and varies depending upon whether the waste or generator of the waste (or party arranging for the treatment, storage and/or transfer of the waste at the Facility) is a new waste/generator, a routine waste/generator, or a frequent repeat waste/generator.

2.2.2 Selection of Waste Analysis Parameters and Limits

Different analytical tests are performed as required to confirm waste types and identify compatibility during waste handling, storage, and treatment activities performed at the Facility. The selection of waste analysis parameters for a specific sample is a function of the type of sample taken and the stage of waste handling. This selection process is described in detail in the WAP (Appendix D). The waste analysis parameters and limits are also shown in Tables 2-2 through 2-4.

2.3 WASTE SAMPLING METHODOLOGY

2.3.1 Waste Sampling Methods

Specific methods for waste sampling must be followed in order for the physical and chemical characteristics of a waste to be identified as representative. The methods and equipment used for waste sampling are dependent upon the form and consistency of the waste materials being sampled. The sampling procedures and strategies are discussed in further detail in the WAP (Appendix D).

2.3.2 Methods of Sample Handling and Custody

The handling and tracking of samples for waste verification is formally documented and controlled, from collection to analysis to final disposition, under the chain-of-custody (COC) protocol. The COC protocol is further discussed in the WAP (Appendix D).

2.3.3 Quality Assurance/Quality Control Program

The goal of a QA/QC program is to be able to make waste analysis decisions based on data of known and defensible quality. A QA/QC program includes the collection of representative samples and the use of logbooks, laboratory blanks, calibration standards, verification standards from the EPA and commercial vendors, matrix spike samples, duplicate samples, and instrument maintenance and calibration. The Facility generally performs representative sampling and analytical methods in accordance with U.S. EPA SW-846, the American Society for Testing Materials (ASTM), and/or the *Standard Methods for Analysis of Water and Wastewater* (current edition) in pursuit of the goal of achieving quality data. The WAP (Appendix D) discusses representative sampling methods.

The quality control information is used for data validation, reduction and reporting of analytical data to confirm and validate the presence and concentration of specific compounds. The laboratory QA/QC procedures including those for inspecting, maintaining and servicing lab equipment, and handling of documentation are discussed in the Laboratory's Environmental Laboratory Operations and Programs Plan (ELOPP).

2.4 PROVISIONS TO COMPLY WITH LDR REQUIREMENTS

It is the responsibility of the generator to determine if the waste that is shipped to the Facility is restricted and requires a Land Disposal Restriction (LDR) Notification and Certification form.

The Facility accumulates restricted wastes in containers in accordance with state and federal regulations until sufficient quantities have been accumulated for efficient processing and/or management. The date that storage commences is defined as the day that the manifest was signed as accepted at the Facility. Each load of wastes accepted by the Facility will be inspected to ensure that all containers are clearly marked to identify its contents and the date each period of accumulation begins, that the labels are legible, that label information and the number of containers match the manifest, and that all containers are in good condition. Any drums that are damaged or leaking will be overpacked by the Facility or the waste will immediately be transferred to tanks or other empty containers appropriately designated for receiving a waste with its specific characteristics.

When restricted wastes are shipped for further treatment, the Facility will provide waste analysis data and notification of the restricted nature of the waste, along with applicable treatment standards, as required by the destination treatment facility and applicable state and federal regulations. The records and data that determine if a waste generated at the Facility is subject to an

LDR are retained for a minimum of three years starting from the date that the waste was sent off site for treatment, storage, or disposal.

2.5 IGNITABLE, REACTIVE AND INCOMPATIBLE WASTES

Ignitable and reactive wastes as defined in Section 2.3.1.2 are not accepted at the Facility. If these types of wastes are received, they will be rejected from the Facility.

A waste received at the Facility is characterized as ignitable, reactive, corrosive or toxic in accordance with 22 CCR, Division 4.5, Chapter 11, Article 3. Procedures for determining compatibility of a waste with a container are described in detail in the WAP (Appendix D) and can also include one or more of the following procedures:

1. If the material is in its original container, then it is assumed that a container of similar material could be used to contain it.

2. If the name of the material is known, then a literature search of chemically compatible materials can be utilized to determine the appropriate container to hold the material.

3. A sample of the material may be taken and checked for corrosivity (pH) to determine an appropriate container.

4. A sample of the material may be obtained and checked for water reactivity.

If containerized ignitable or reactive wastes are received and rejected by the Facility, it will be temporarily stored (up to 90 days) in its as-received container and properly segregated in Area I or Area II until it can be transferred to an appropriate permitted off-site TSDF. If bulk ignitable or reactive wastes arrive at the Facility, they will be rejected and the transporter requested to depart from the Facility.

2.6 WASTE COMPATIBILITY WITH TANKS

The procedures for ensuring waste compatibility with tanks are described in the WAP (Appendix D).

2.7 SPECIAL PROCEDURES FOR SPECIFIC WASTES

At times, the Facility will receive waste materials that display characteristics as to require their direct introduction into the treatment tanks of Area III, or are of such quality they can be utilized in the treatment process as reagent substitutes (e.g., sulfuric acid, sodium hydroxide). The Facility will

place such waste materials in the appropriate storage or staging area of Area II to be treated or used in the treatment process.

TABLE 2-1
Identification and Classification of Hazardous Wastes Received

Hazardous Waste Number	Hazardous Waste Definition	Hazardous Waste Characteristic[1]	Analytical Test Methods (or equivalent/most current EPA approved)
Federal			
D001	Ignitable Waste (Oxidizers only)	I	1010
D002	Corrosive Waste	C	1110, 9040A
D003	Reactive Waste	R	--
D004	Arsenic Bearing	T	6010B, 7060A, 7061A
D005	Barium Bearing Waste	T	6010B, 7080A, 7081
D006	Cadmium Bearing Waste	T	6010B, 7130, 7131
D007	Chromium Bearing Waste	T	6010B
D008	Lead Bearing Waste	T	6010B, 7240, 7421
D009	Mercury Bearing Waste	T	7470A, 7471A
D010	Selenium Bearing Waste	T	6010B
D011	Silver Bearing Waste	T	6010B, 7760A, 7761
D018	Benzene	T	602, 624, 8021B, 8260B
D019	Carbon Tetrachloride	T	601, 624, 8021B, 8260B
D021	Chlorobenzene	T	601, 602, 8021B, 8260B
D022	Chloroform	T	601, 624, 8021B, 8260B
D023	O-Cresol	T	625, 8041, 8270C
D024	M-Cresol	T	625, 8041, 8270C
D025	P-Cresol	T	625, 8041, 8270C
D026	Cresol	T	625, 8041, 8270C
D027	1,4-Dichlorobenzene	T	601, 602, 612, 8021B, 8260B, 8270C
D028	1,2- Dichloroethane	T	601, 624, 8021B, 8260B
D029	Dichloroethylene	T	601, 624, 8021B, 8260B
D033	Hexachlorobutadiene	T	8021B, 8250A
D034	Hexachloroethane	T	612, 625, 8021B, 8270C
D035	Methyl Ethyl Ketone	T	8015B
D036	Nitrobenzene	T	609, 625, 8091, 8270C
D038	Pyridine	T	8270C
D039	Tetrachloroethylene	T	610, 624, 8021B, 8260B, 610, 624, 8021A, 8260B
D040	Trichloroethylene	T	610, 624, 8021B, 8260B
D043	Vinyl Chloride	T	610, 624, 8021A, 8260B
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	T	601, 624, 8021B, 8260B, 8000B

TABLE 2-1 (Continued)
Identification and Classification of Hazardous Wastes Received

Hazardous Waste Number	Hazardous Waste Definition	Hazardous Waste Characteristic[1]	Analytical Test Methods (or equivalent/most current EPA approved)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	T	601, 602, 624, 612, 625, 8021B, 8260B, 8000B, 8270C,
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent mixtures.	I	602, 624, 8000B, 8015B, 8021B, 8260B
F004	The following spent non-halogenated solvents: cresols, cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	T	609, 625, 8141A, 8090, 8270C
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002 or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	I	602, 624, 8000B, 8015B, 8021B, 8260B, 8270C
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling aluminum.	T	6010B, 7195, 7196, 7197, 7198, 7420, 7130, 7131, 7421, 7520, 7521, 7761, 9010B
F007	Spent cyanide plating bath solutions from electroplating operations.	R	9010B, 335.2, 9013
F008	Plating bath residues	R	9010B, 335.2, 9013
F009	Spent stripping and cleaning bath solutions from electroplating operations in which cyanides are used in the process.	R	9010B, 335.2, 9013
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	R	9010B, 335.2, 9013
F012	Quenching wastewater treatment sludges from metal heat treating operations in which cyanides are used in the process.	T	9010B, 335.2, 9013

TABLE 2-1 (Continued)
Identification and Classification of Hazardous Wastes Received

Hazardous Waste Number	Hazardous Waste Definition	Hazardous Waste Characteristic[1]	Analytical Test Methods (or equivalent/most current EPA approved)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	T	6010B
F037	Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and storm water areas receiving dry weather flow. Sludges generated in storm water areas that do not receive dry weather flow, sludges generated in aggressive biological treatment areas as defined in Section 261,31(b)(2) (including sludges generated in one or more additional areas after wastewaters have been treated in aggressive biological treatment areas), and K051 wastes are exempted from this listing.	T	8015B (Luft Method)
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge - Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in induced air flotation (IAF) areas, tank and impoundments, and all sludges generated in DAF areas. Sludges generated in stormwater areas that do not receive dry weather flow, sludges generated in aggressive biological treatment areas as defined in Section 261.32(b)(2) (including sludges generated in one or more additional areas after wastewaters have been treated in aggressive biological treatment areas), and F037, K048, and K051 wastes are exempted from this listing.	T	8015B (Luft Method)
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027 and/or F028.)	T	1311, 1312
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	T	606, 610, 625, 8015B, 8061A, 8260B, 8270C
K049	Slop oil emulsion solids from the petroleum refining industry.	T	604, 625, 8041, 8021B, 8100, 8270C
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	T	610, 625, 8100,8270C, 6010B, 9010B
K051	API separator sludge from the petroleum refining industry.	T	610, 625, 8100, 8270C
K052	Lead	T	7420, 7421
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment use in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	T	6010B, 7190, 7191, 7420, 7421
P010	Arsenic acid H3AsO4	H,T	6010B, 7060A, 7061

TABLE 2-1 (Continued)
Identification and Classification of Hazardous Wastes Received

Hazardous Waste Number	Hazardous Waste Definition	Hazardous Waste Characteristic[1]	Analytical Test Methods (or equivalent/most current EPA approved)
P011	Arsenic pentoxide	H,T	6010B, 7060A, 7061
P012	Arsenic trioxide	H,T	6010B, 7060A, 7061
P013	Barium cyanide	H,T	6010B, 9010B
P021	Calcium cyanide	H,T	9010B
P029	Copper cyanide	H,T	9010B
P030	Cyanides (soluble cyanide salts), not otherwise specified	H,T	9010B
P074	Nickel cyanide	H,T	9010B
P098	Potassium cyanide	H,T	9010B, 6010B
P099	Potassium silver cyanide	H,T	9010B, 6010B
P104	Silver cyanide	H,T	6010B, 9010B
P106	Sodium cyanide	H,T	9010B
P121	Zinc cyanide	H,T	9010B, 6010B
U002	Acetone	I	8260B
U008	Acrylic acid	I	8270C
U032	Calcium chromate	T	6010B
U044	Chloroform	T	601, 624, 8021A, 8260B
U051	Creosote	T	8270C
U052	Cresol (Cresylic acid)	T	8040, 8270C
U080	Methylene chloride	T	601, 624, 8021B, 8260B
U112	Ethyl acetate	I	8000, 8260B
U122	Formaldehyde	T	8015B, 8260B
U123	Formic acid	C,T	8270C
U134	Hydrofluoric acid	C,T	8270C
U135	Hydrogen sulfide H2S	T	376, 9030, SM4500-S2
U144	Lead acetate	T	6010B, 7420, 7421
U145	Lead phosphate	T	6010B, 7420, 7421
U146	Lead subacetate	T	6010B, 7420, 7421
U151	Mercury	T	6010B, 7470A, 7471A
U154	Methanol	I	8021B, 8260B
U159	Methyl ethyl ketone	I,T	8015B, 8260B
U161	Methyl isobutyl ketone	I	8015B, 8260B
U162	Methyl methacrylate	I,T	8260B
U204	Selenious acid	T	6010B, 7740
U209	Ethane, 1,1,2,2-tetrachloro-	T	601, 8021B, 8260B
U210	Tetrachloroethylene	T	601, 624, 8021B, 8260B
U220	Toluene	I	602, 624, 8021B, 8260B
U226	Methyl chloroform	T	8260B
U227	1,1,2-Trichloroethane	T	601, 624, 8021B, 8260B
U228	Trichloroethylene	T	601, 624, 8021B, 8260B
U239	Xylene	I	602, 624, 8021B, 8260B
U359	Ethylene glycol monoethyl ether	T	8015B, 8021B, 8260B
State			
121	Alkaline solution pH greater than 12.5 w/metals (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium and Zinc)	CA	6010B, 7000, 9040A, 8000B
122	Alkaline solution pH greater than 12.5 w/o metals	CA	7000, 9040A, 8000B
123	Unspecified alkaline solution	CA	1110, 9040A

TABLE 2-1 (Continued)
Identification and Classification of Hazardous Wastes Received

Hazardous Waste Number	Hazardous Waste Definition	Hazardous Waste Characteristic[1]	Analytical Test Methods (or equivalent/most current EPA approved)
131	Aqueous solution (2 < pH <12.5) containing reactive anions Iazide, Bromate, Chlorate, Cyanide, Fluoride, Hypochlorite, Nitrite, Perchlorate and Sulfide anions)	CA	7000, 8000B
132	Aqueous solution w/metals (restricted levels, see Code #121)	CA	7000, 8000B
133	Aqueous solution with total organic residues 10 percent or more	CA	7000, 8000B
134	Aqueous solution w/ organic residues less than 10%	CA	7000, 8000B
135	Unspecified aqueous solution	CA	7000, 8000B
141	Off-specification, aged, or surplus inorganics	CA	7000, 8000B
162	Other spent catalyst	CA	7000, 8000B
171	Metal sludge	CA	6010B, 7000, 8000B
172	Metal dust and machining waste	CA	6010B, 7000, 8000B
181	Other inorganic solid waste	CA	6010B, 7000, 8000B
214	Unspecified solvent mixture	CA	7000, 8000, 8260B
221	Waste oil and mixed oil	CA	8000, 8015B, 8270C
222	Oil/water separation sludge	CA	8000, 8015B
223	Unspecified oil-containing waste	CA	8000, 8015B
241	Tank bottom waste	CA	7000, 8000B
271	Organic monomer waste (includes unreacted resins)	CA	8000B
272	Polymeric resin waste	CA	8000B
281	Adhesives	CA	7000, 8000B
291	Latex waste	CA	7000, 8000B
311	Pharmaceutical waste	CA	7000, 8000B
331	Off-specification, aged, or surplus organics	CA	7000, 8000B
341	Organic liquids w/halogens	CA	8000B
342	Organic liquids w/metals	CA	7000, 8000B
343	Unspecified organic liquid mixture	CA	7000, 8000B
351	Organic solids with halogens	CA	8000B
352	Other organic solids	CA	8000B
411	Alum and gypsum sludge	CA	7000, 8000B
421	Lime Sludge	CA	7000, 8000B
431	Phosphate sludge	CA	7000, 8000B
461	Paint sludge	CA	7000, 8260B
471	Paper sludge / pulp	CA	8000B, 8280
491	Unspecified sludge waste	CA	7000, 8000B
512	Other empty containers 30 gal or more	CA	7000, 8000B
513	Empty containers less than 30 gal	CA	visual inspection
521	Drilling mud	CA	7000, 8000B
541	Photochemicals/photoprocessing waste	CA	7000, 8000B
551	Laboratory waste chemicals	CA	7000, 8000B
561	Detergent and soap	CA	7000, 8000B
581	Gas scrubber waste	CA	7000, 8000B
591	Baghouse waste	CA	7000, 8000B
611	Contaminated soil from site clean-up	CA	7000, 8000B
612	Household wastes	CA	7000, 8000B
711	Liquids with cyanides ≥ 1,000 mg/l	CA	6010B, 9010B
721	Liquids with arsenic ≥ 500 mg/l	CA	6010B
722	Liquids with cadmium ≥ 100 mg/l	CA	6010B
723	Liquids with chromium (VI) ≥ 500 mg/l	CA	6010B

TABLE 2-1 (Continued)
Identification and Classification of Hazardous Wastes Received

Hazardous Waste Number	Hazardous Waste Definition	Hazardous Waste Characteristic[1]	Analytical Test Methods (or equivalent/most current EPA approved)
724	Liquids with lead ≥ 500 mg/l	CA	6010B
725	Liquids with mercury ≥ 20 mg/l	CA	7470, 7471
726	Liquids with nickel ≥ 134 mg/l	CA	6010B
727	Liquids with selenium ≥ 100 mg/l	CA	6010B
728	Liquids with thallium ≥ 130 mg/l	CA	6010B
741	Liquids w/ Halogenated organic compounds (HOCs) ≥ 1000mg/l	CA	601, 8021B, 8260B
751	Solids or sludges w/ HOCs ≥ 1000 mg/kg	CA	7000, 8000B
791	Liquids w/ pH2	CA	7000, 9040A, 8000B
792	Liquids w/ pH2 with metals	CA	7000, 9040A, 8000B

Notes:

1 - Hazardous Waste Characteristic: **I** = Ignitable waste, **T** = Toxic waste, **H** = Acute hazardous waste, **R** = Reactive waste, **C** = Corrosive waste, **CA** = California hazardous waste

mg/l = milligrams per liter
mg/kg = milligrams per kilogram

The Federal EPA code is used for classification whenever there is both a Federal and State waste code.

TABLE 2-2
Available Pre-Acceptance & Acceptance Phase Comprehensive Waste Analysis Parameters

Analytical Parameter	Analytical Method/Device* (or equivalent)	Method Detection Limit	Acceptable Limits
Physical Properties			
Flashpoint	EPA Method 1010	-	>140F
Specific gravity	Hydrometer	-	No Limit
pH	EPA Method 150.1	-	No Limit
Metals (Waste and Wastewater)			
Sodium	SM3120B (or equivalent)	0.888 mg/L	No Limit
Potassium		0.133 mg/L	No Limit
Calcium		0.048 mg/L	No Limit
Magnesium		0.014 mg/L	No Limit
Aluminum	SM 3120B, EPA Method 6010B (or equivalent) for Total EPA Method 1311 (or equivalent) for TCLP extraction	0.277 mg/L	No Limit
Antimony		0.006 mg/L	No Limit
Arsenic		0.005 mg/L	No Limit
Barium		0.042 mg/L	No Limit
Beryllium		0.0005 mg/L	No Limit
Cadmium		0.0005 mg/L	No Limit
Cobalt		0.001 mg/L	No Limit
Chromium, Total		0.001 mg/L	No Limit
Copper		0.001 mg/L	No Limit
Iron		0.01 mg/L	No Limit
Lead		0.006 mg/L	No Limit
Mercury (EPA Method 7470)		0.01 µg/L	No Limit
Molybdenum		0.001 mg/L	No Limit
Nickel		0.002 mg/L	No Limit
Selenium		0.007 mg/L	No Limit
Silver		0.003 mg/L	No Limit
Thallium		0.007 mg/L	No Limit
Vanadium		0.0005 mg/L	No Limit
Zinc		0.009 mg/L	No Limit
Other Components			
Cyanide (Total or Amenable)	EPA Method 9014	0.2 mg/L	LACSD Limit***
Ammonium ion	Chemetrics K-1510D or ion-specific probe (or equivalent)	25 mg/L	No limit
Chromium (Hexavalent)*	Spot / Treatability	N/A	No limit
Chelation	Spot / Treatability	N/A	No limit
Solids %	Centrifuge	N/A	No limit
Volatile Organic Compounds (Wastewater Only)			
Benzene	EPA Methods 601/602/624 (or equivalent)	3.2 ug/L	LACSD Limit***
Chlorobenzene		0.96 ug/L	LACSD Limit***
Chloroform		3.28 ug/L	LACSD Limit***
1,2-Dichloroethane		3.62 ug/L	LACSD Limit***
1,1-Dichloroethylene		2.21 ug/L	LACSD Limit***
Tetrachloroethylene		0.68 ug/L	LACSD Limit***
Trichloroethylene		3.18 ug/L	LACSD Limit***
Vinyl chloride		2.99 ug/L	LACSD Limit***
Semivolatile Organic Compounds (Wastewater Only)			
1,4-Dichlorobenzene	EPA Method 625 (or equivalent)	0.45 mg/L	LACSD Limit***
Hexachlorobutadiene		3.43 mg/L	LACSD Limit***
Hexachloroethane		0.45 mg/L	LACSD Limit***

* Listed analytical method/device is preferred method. Most current or alternative method/device may be used in the future.

** Hexavalent chrome is a spot test or a practical test – residual chrome remaining after treat (benchtop) is considered hexavalent – no EPA procedure.

TABLE 2-3
Available Pre-Acceptance & Acceptance Phase
Fingerprinting Waste Analysis Parameters

Analytical Parameter	Analytical Method/Device* (or equivalent)
pH	pH test strip, or equivalent
Specific Gravity	Hydrometer
Solids Content	Centrifuge
Cyanide	Commercially available test kit, SW-846, or equivalent.
Hexavalent Chromium	Diphenyl Carbazide Color Spot Test, or equivalent
Stratification/Physical States	Visual observation
Color	Visual observation
Ammonia	Chemetrics
Chelation	Spot Treatability
Flashpoint (if organics present)	Pensky-Martens closed-cup tester or equivalent.
Compatibility/Reactivity	Samples of waste are added to each other in proportion to their final mixed volumes in storage tank. Upon mixing, the generation of heat, gases, bubbling, spattering, burning, precipitates, increased viscosity, and /or layering is noted. Unacceptable reactions are evaluated after each addition.

* Listed analytical method/device is preferred method. Most current or alternative method/device may be used in the future.

TABLE 2-4a
Pre-Discharge Phase
Los Angeles County Sanitation Districts Permit Discharge Limits

Constituent of Concern	Discharge Limit*	Analytical Method (or equivalent)
Conventional Pollutants		
pH	≥6.0 pH areas	EPA Method 150.1
Dissolved Sulfides	0.1 mg/l	SM 4500S2F
Temperature	<140ºF (60ºC)	
Closed Cup Flashpoint	>140ºF (60ºC)	EPA Method 1010
Chemical Oxygen Demand (COD)**	Not specified	EPA Method 410.4
Suspended Solids**	Not specified	EPA Method 160.2
Heavy Metals and Cyanide		
Arsenic (Total)	3 mg/l	EPA Method 200.7
Cadmium (Total)	0.69 mg/l	EPA Method 200.7
Chromium (Total)	2.77 mg/l	EPA Method 200.7
Copper (Total)	3.38 mg/l	EPA Method 200.7
Lead (Total)	0.69 mg/l	EPA Method 200.7
Mercury (Total)	2 mg/l	EPA Method 7470A
Nickel (Total)	3.98 mg/l	EPA Method 200.7
Silver (Total)	0.43 mg/l	EPA Method 200.7
Zinc (Total)	2.61 mg/l	EPA Method 200.7
Cyanide (Total)	10 mg/l	SM4500-CN C/E/G
Cyanide (Amenable)	0.86 mg/l	SM4500-CN C/E/G
Priority Organics		
Total Oil and Grease**	500 mg/l	EPA Method 1664A
Volatile Total Toxic Organics	1,000 µg/l	EPA Method 601, 602, and/or 624
Semi-volatile Total Toxic Organics	1,000 µg/l	EPA Method 625
Total Identifiable Chlorinated Hydrocarbons	Essentially None	EPA Methods 8081 and 8082

* Discharge limits will be updated in accordance with potential revisions to the Los Angeles County Sanitation Districts permit and updates will be submitted to the DTSC as a Class I modification.

** Performed for quarterly Self Monitoring Report (SMR) only.

mg/l: milligrams per liter
µg/l: micrograms per liter

TABLE 2-4b
Pre-Discharge Phase
Centralized Waste Treatment Pre-Treatment Standards for Inorganic [Metal]/Oil Wastes

Constituent of Concern	Maximum Daily Limit	Maximum Monthly Average	Analytical Method (or equivalent)
Antimony	0.249 mg/l	0.206 mg/l	EPA Method 200.7
Arsenic	0.162 mg/l	0.104 mg/l	EPA Method 200.7
Cadmium	0.474 mg/l	0.0962 mg/l	EPA Method 200.7
Chromium	0.947 mg/l	0.487 mg/l	EPA Method 200.7
Cobalt	0.192 mg/l	0.124 mg/l	EPA Method 200.7
Copper	0.405 mg/l	0.301 mg/l	EPA Method 200.7
Lead	0.222 mg/l	0.172 mg/l	EPA Method 200.7
Mercury	0.00234 mg/l	0.000739 mg/l	EPA Method 7470A
Nickel	3.95 mg/l	1.45 mg/l	EPA Method 200.7
Silver	0.120 mg/l	0.0351 mg/l	EPA Method 200.7
Tin	0.409 mg/l	0.120 mg/l	EPA Method 200.7
Titanium	0.0947 mg/l	0.0618 mg/l	EPA Method 200.7
Vanadium	0.218 mg/l	0.0662 mg/l	EPA Method 200.7
Zinc	2.87 mg/l	0.641 mg/l	EPA Method 200.7
Bis-2-ethylhexyl phthalate	0.267 mg/l	0.158 mg/l	EPA Method 625
Carbazole	0.392 mg/l	0.233 mg/l	EPA Method 625
Fluoranthene	0.787 mg/l	0.393 mg/l	EPA Method 625
n-Decane	5.79 mg/l	3.31 mg/l	EPA Method 625
n-Octadecane	1.22 mg/l	0.925 mg/l	EPA Method 625

mg/l: milligrams per liter

TABLE 2-4c
Pre-Discharge Phase
Centralized Waste Treatment Pre-Treatment Standards for Organic/Oil Wastes

Constituent of Concern	Maximum Daily Limit	Maximum Monthly Average	Analytical Method (or equivalent)
Chromium	0.947 mg/l	0.487 mg/l	EPA Method 200.7
Cobalt	56.4 mg/l	18.8 mg/l	EPA Method 200.7
Copper	0.405 mg/l	0.301 mg/l	EPA Method 200.7
Lead	0.222 mg/l	0.172 mg/l	EPA Method 200.7
Tin	0.249 mg/l	0.146 mg/l	EPA Method 200.7
Zinc	6.95 mg/l	4.46 mg/l	EPA Method 200.7
Bis-2-ethylhexyl phthalate	0.267 mg/l	0.158 mg/l	EPA Method 625
Carbazole	0.392 mg/l	0.233 mg/l	EPA Method 625
o-Cresol	1.92 mg/l	0.561 mg/l	EPA Method 625
p-Cresol	0.698 mg/l	0.205 mg/l	EPA Method 625
Fluoranthene	0.787 mg/l	0.393 mg/l	EPA Method 625
n-Decane	5.79 mg/l	3.31 mg/l	EPA Method 625
n-Octadecane	1.22 mg/l	0.925 mg/l	EPA Method 625
2,4,6-Trichlorophenol	0.155 mg/l	0.106 mg/l	EPA Method 625

mg/l: milligrams per liter

SECTION 3

Facility Design

This page will be intentionally left blank.

SECTION 3
Facility Design

Table of Contents

Section **Page**

3.1 WASTE MANAGEMENT AREAS 3-3
3.1.1 AREA I: WASTE RECEIVING AND SHIPPING 3-3
3.1.2 AREA II: CONTAINERIZED WASTE STORAGE AND MANAGEMENT ... 3-3
3.1.3 AREA III: BULK WASTE PRE-TREATMENT / TREATMENT / POLISHING / STORAGE / TRANSFER 3-4
3.1.4 AREA IV: DISCHARGE 3-7
3.2 CONTAINERIZED WASTE HANDLING 3-7
3.2.1 CONTAINER UNLOADING AND STORAGE 3-7
3.2.2 CONTAINERS USED FOR STORAGE 3-8
3.2.3 STORAGE AREA CONTAINMENT SYSTEMS 3-9
3.2.4 CONTAINMENT SYSTEM FOR IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE 3-11
3.2.5 CONTAINMENT SYSTEM FOR POLYCHLORINATED BIPHENYLS 3-12
3.2.6 CERTIFICATION OF THE CONTAINMENT SYSTEMS 3-12
3.3 WASTES GENERATED ON SITE 3-12
3.3.1 DRUM EMPTYING AND WASHING 3-12
3.3.2 EQUIPMENT CLEANING 3-12
3.3.3 TREATMENT SYSTEM WASTES 3-13
3.3.4 TANK CLEANING WASTES 3-13
3.4 UNIVERSAL WASTE 3-13
3.4.1 BATTERIES 3-14
3.4.2 THERMOSTATS 3-14
3.4.3 LAMPS 3-14
3.4.4 CATHODE RAY TUBE MATERIALS 3-15
3.5 DETAILED DESCRIPTION OF AQUEOUS WASTE TREATMENT EQUIPMENT AND TANKS 3-15
3.5.1 DESIGN STANDARDS AND REFERENCES 3-15
3.5.2 TANK DESCRIPTION 3-15
3.5.3 PROCESS FLOW DESCRIPTION AND DIAGRAMS 3-16
3.5.4 PROCESS CONTROLS 3-17
3.5.5 WASTES IN TREATMENT TANKS 3-17
3.5.6 CONTAINMENT SYSTEM 3-20
3.6 DETAILED INFORMATION ON TREATMENT PROCESSES 3-21
3.6.1 CHEMICAL TREATMENT 3-21
3.6.2 PHYSICAL TREATMENT 3-21
3.6.3 DEMONSTRATION OF EFFECTIVENESS 3-22
3.6.4 TREATMENT SYSTEM CAPACITY 3-22
3.7 IDENTIFICATION OF WASTE HANDLING EQUIPMENT 3-22
3.7.1 EQUIPMENT FOR CONTAINERIZED WASTES 3-22
3.7.2 BULK LIQUID WASTES 3-22
3.7.3 SAFETY FEATURES 3-23
3.8 UNLOADING EQUIPMENT 3-23

Table of Contents (Continued)

Section **Page**

3.9 AIR POLLUTION CONTROLS 3-23
3.9.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS 3-24
3.9.2 AIR EMISSION STANDARDS FOR PROCESS VENTS 3-24
3.9.3 AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS 3-25
3.9.4 AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS 3-29
3.9.5 SCAQMD REGULATIONS 3-33
3.9.6 NSPS FOR TANKS 3-33

TABLES
Table 3-1 Hazardous Waste Management Areas 3-35
Table 3-2 Container Specifications 3-36
Table 3-3 Hazardous Waste Tank Design Standards 3-37
Table 3-4 Facility Safety Features 3-43
Table 3-5 Area III Hazardous Waste Tanks Potentially Containing Liquids with Greater than 500 ppmw Volatile Organic Content 3-45

FIGURES
Figure 3-1 Summary of Hazardous Waste Management Areas 3-46
Figure 3-2 Hazardous Waste Management Sub-areas 3-48
Figure 3-3 Example Container Label 3-50

3.0 FACILITY DESIGN

This section provides a detailed description of the facility design, including the waste handling equipment, security, and safety features to help bring about the safe handling of the waste. The types of wastes handled have been generally grouped into the following general categories:

- Bulk liquid wastes received for storage, treatment, and/or transfer;
- Containerized waste received for storage, consolidation, treatment, and/or transfer;
- Liquid and solid wastes generated on-site;
- Universal waste, including electronic waste; and
- Non-Regulated waste.

The Facility can receive a variety of hazardous waste types for treatment. As described in Section 2, these wastes can be generally categorized as:

1. RCRA Characteristic Hazardous Waste: Waste that exhibits any of the four characteristics of a hazardous waste: ignitability, corrosivity, reactivity or toxicity (note exceptions identified in Section 2.3.1.2).
2. Non-RCRA California Hazardous Waste: Waste that are considered hazardous by California criteria but not under RCRA.
3. RCRA Listed Hazardous Waste: Waste that is specifically listed as being hazardous under RCRA in one of the following 40 CFR 261 tables: hazardous waste from nonspecific sources (F-codes), hazardous waste from specific sources (K-codes), acute hazardous wastes (P-codes), discarded commercial chemical products, off-specification materials or toxic hazardous waste (U-codes).
4. Universal Waste (accepted for consolidation and transfer to an off-site facility).
5. Non-Regulated waste (accepted for treatment and/or transfer to an appropriate off-site facility).

The Facility receives and accepts liquid and solid wastes. Solid wastes that are received and accepted by the Facility are stored, consolidated, recycled on site, and/or transferred off site. Solid wastes received and accepted by the Facility for storage and consolidation generally arrive in containers. Liquid wastes that are received and accepted are stored, consolidated, treated, recycled on site, and/or transferred off site. Liquid wastes received and accepted for treatment

either arrive at the Facility in bulk shipments, or arrive in containers. Bulk and containerized liquid wastes that are acceptable for treatment are placed into the Bulk Waste Pre-Treatment/Treatment/Polishing/Storage/Transfer (Area III) system (described below). The Area III treatment system is designed to remove the components and alter the properties of a waste that cause it to be classified as hazardous. At the same time, suspended solids present in the waste are removed. The chemical constituents and solids removed are then transferred off site for additional treatment, disposal, and/or recycling. The remaining aqueous portion of the waste is treated further, as needed, to meet discharge requirements and ultimately discharged into the sanitary sewerage system (i.e., the Publicly Owned Treatment Works, POTW).

Waste is processed through the Facility in the following four main hazardous waste management areas:

- Area I: Waste Shipping and Receiving
- Area II: Containerized Waste Storage and Management
- Area III: Bulk Waste Pre-Treatment/Treatment/Polishing/Storage/Transfer
- Area IV: Discharge

Figure 3-1 provides a simplified block diagram of the hazardous waste management process at the Facility. Table 3-1 provides a list of the hazardous waste management areas and subareas. Figure 3-2 shows the locations of the hazardous waste management areas. The hazardous waste management areas are summarized below and described in detail in Appendix C. A general description of the containerized waste handling process at the Facility is contained in Sections 3.2 to 3.4. Sections 3.5 to 3.6 provide a detailed description of the tank treatment process. Sections 3.7 and 3.8 discuss waste handling and unloading equipment. Air pollution controls are discussed in Section 3.9, while safety and security measures are described in Sections 3.10 to 3.14.

Descriptions and summaries of the tanks at the Facility are given in Appendix G (Tank Tables). Information about the equipment used in processing and handling wastes at the Facility are contained in Appendix H (Equipment Specifications). The various certifications related to the design are contained in Appendices I through L (Structural Calculations, Containment Calculations, Concrete Sealant Specifications, and Hazardous Waste Tank Certifications). The reagents and other products used in the treatment process are described in Appendix M (Safety Data Sheets [SDS]).

3.1 WASTE MANAGEMENT AREAS

3.1.1 Area I: Waste Receiving and Shipping

The Waste Receiving and Shipping Area (Area I) is used to receive bulk and containerized wastes that are transported to the Facility from off-site generators for storage, consolidation, treatment, recycling, and/or transfer, and to ship bulk and containerized wastes to off-site TSDFs. Area I consists of three separate sub-areas that serve as waste receiving and shipping areas: Waste Receiving and Shipping Station 1 (WRS1), Waste Receiving and Shipping Station 2 (WRS2), and Waste Receiving and Shipping Station 3 (WRS3). At one point in the Part B permitting renewal process a fourth WRS was being considered (WRS4) but it has since been decided not to manage hazardous waste in that area therefore it has been removed from the application.

Bulk wastes arriving at the Facility in tanker trucks are received at one of three waste receiving and shipping stations (WRS1, WRS2, or WRS3). Wastes intended for off-site treatment, recycling, or disposal may also be consolidated and stored in and shipped in tanker trucks from any of the waste receiving and shipping stations (WRS1, WRS2, or WRS3). Bulk waste may also be shipped to the Facility in rail tank cars. A rail spur is located adjacent to the Facility and is used for loading and unloading waste from rail tank cars to the Facility (WRS1).

Containerized wastes arriving at the Facility are received at one of the three waste receiving and shipping stations (WRS1, WRS2, or WRS3). The Facility can receive up to 80 trucks delivering bulk and/or containerized waste per day.

A detailed description of Area I is presented in Appendix C (Hazardous Waste Management Area Descriptions). Procedures for receiving and accepting bulk and containerized waste at Area I are described in Section 2 and Appendix D (WAP).

3.1.2 Area II: Containerized Waste Storage and Management

The Containerized Waste Storage and Management Area (Area II) is used to store and otherwise manage containerized wastes received by the Facility. Containerized wastes that are received and accepted by the Facility are stored in Area II and may be pre-treated and consolidated for transfer to a permitted off-site TSDF, or pre-treated and consolidated or directly transferred to the Bulk Waste Pre-Treatment/Treatment/Polishing/Storage/Transfer Area (Area III) for treatment. Additionally, sludges and solids generated from Area III are stored and consolidated in Area II.

Accepted wastes can be stored in Area II for a period of up to one year; rejected wastes can be stored for up to 90 days.

Area II consists of five separate sub-areas that serve as container storage areas: Container Storage Area 1 (CSA1), Container Storage Area 2 (CSA2), Container Storage Area 3 (CSA3), Container Staging/Storage Area 4 (CSA 4), and Container Storage Area 5 (CSA5). CSA5 consists of two separate areas in Building 12, CSA5-East and CSA5-West. Building 12 also houses the Facility on-site laboratory as well as storage areas for non-hazardous waste and equipment.

Acid compatible wastes may be stored and managed together in one area (CSA1, CSA 2 or CSA 5), alkaline/cyanide compatible wastes may be stored and managed together in a second area (CSA1, CSA2 or CSA 5), and these and other mutually compatible wastes may be stored and managed in another area (CSA3). Acid compatible wastes and alkaline/cyanide compatible wastes or other incompatible wastes will not be stored together in CSA1, CSA2, CSA3, or CSA5 at the same time. CSA4 is used for staging "special" waste materials with characteristics that require their direct introduction into Area III or are of such quality that they can be utilized as reagents in the treatment process of Area III.

A detailed description of Area II is presented in Appendix C. Procedures for containerized waste handling are discussed in Sections 3.2, 3.3, and 3.4 and Appendix C.

3.1.3 Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer

The Bulk Waste Pre-Treatment/Treatment/Polishing/Storage/Transfer Area (Area III) is used to store, pre-treat, treat, and/or polish liquid wastes that are accepted by the Facility. Area III treats two types of wastes: liquid wastes containing predominantly inorganics, metals, corrosives, and/or oils, and liquid wastes containing predominantly organics, immiscible hydrocarbons, and/or oils. The two types of liquid wastes are generally treated separately in one or more sub-areas of Area III. Area III consists of following areas:

- Area III-A: Inorganics (Metals)/Oils Treatment/Storage/Transfer
- Area III-B: Organics/Oils Treatment/Storage/Transfer
- Area III-C: Multi-Use and Transfer Tanks
- Area III-D: Cyanide Pre-Treatment/Oxidation/Reduction/Storage/Transfer
- Area III-E: Batch Treatment
- Area III-F: Reserved

- Area III-G: Separation, Filtration and Polishing
- Area III-H: Reagent Tanks

A detailed description of each sub-area in Area III is presented in Appendix C. The function of each sub-area is summarized below.

3.1.3.1 Area III-A: Inorganics (Metals)/Oils* Treatment/Storage/Transfer

Area-III-A is used to store and treat liquid wastes containing predominantly inorganics, metals, and/or oils as hazardous constituents. Area III-A also treats corrosive (acidic or alkaline) liquid wastes. These wastes may also contain trace toxic organic compounds as a minor constituent. Wastes containing these constituents will be referred to herein as "inorganic liquid wastes." Inorganic liquid wastes can also be consolidated and stored in Area III-A for transfer to a permitted off-site TSDF, or another hazardous waste management area.

3.1.3.2 Area III-B: Organics/Oils* Treatment/Storage/Transfer

Area-III-B is used to store and treat liquid wastes containing predominantly toxic organic compounds, immiscible hydrocarbons, and/or oils as hazardous constituents. These wastes may also contain inorganic compounds as a minor constituent, and may also be acidic or alkaline. Wastes containing these constituents will be referred to herein as "organic liquid wastes." Organic liquid wastes can also be stored in Area III-B for transfer to a permitted off-site TSDF, or another hazardous waste management area.

3.1.3.3 Area III-C: Multi-Use and Transfer Tanks

Area-III-C consists of several tanks that can be used for storage of liquid wastes accepted by the Facility for treatment until transfer to the appropriate sub-area of Area III is possible; storage of liquid wastes that have been treated in another sub-area of Area III that require additional treatment; and/or pre-treatment/treatment of liquid wastes; storage of liquid wastes that have been treated in another sub-area of Area III prior to transfer to Area IV; and/or storage of waste for transfer to a permitted off-site TSDF. Pre-treatment, treatment or polishing include screening, bag, media, and cartridge filtration, consolidation, blending of waste, emulsion breaking, chelation breaking, adsorption, ion exchange, decanting, foam control, odor control,

---

* *As defined by the Centralized Waste Treatment (CWT) regulations.*

oxidation/reduction, pH adjustment, neutralization, metals precipitation, coagulation, flocculation, gravity sedimentation, membrane separation, dewatering, and filter pressing.

3.1.3.4 Area III-D: Cyanide Pre-Treatment/ Storage/Transfer

Area-III-D is used to pre-treat and consolidate inorganic liquid wastes that contain or are compatible with cyanide prior to transfer to a permitted off-site TSDF.

3.1.3.5 Area III-E: Batch Treatment

Area-III-E consists of several tanks used for batch treatment of liquid wastes requiring specialized pre-treatment, segregated treatment, additional treatment, or polishing to meet LACSD/Centralized Waste Treatment (CWT) permit pre-treatment and/or discharge requirements. These tanks may also directly receive wastes requiring specialized treatment. Pre-treatment, treatment, or polishing includes screening, bag, media, and cartridge filtration, consolidation, blending of waste, emulsion breaking, chelation breaking, adsorption, ion exchange, decanting, foam control, odor control, oxidation/reduction, pH adjustment, neutralization, metals precipitation, coagulation, flocculation, gravity sedimentation, membrane separation, filter pressing, aeration and UV oxidation.

3.1.3.6 Area III-F: Reserved

3.1.3.7 Area III-G: Separation Filtration and Polishing

Area-III-G consists of equipment used for pre-treatment, treatment, and/or polishing. Types of equipment include portable media tanks that can contain various filter/adsorption media (e.g., activated carbon, sand, resin, gravel, clay, garnet, graded media, diatomaceous earth), bag and cartridge filters, rotary screens and dewatering bins.

3.1.3.8 Area III-H: Reagent Tanks

Area-III-H consists of tanks that are used to store and distribute reagents that are used in Area III and Area IV to treat liquid wastes. Reagent tanks do not store hazardous wastes. For additional details about the reagent tanks, please refer to Tanks Tables located in Appendix G. The reagents and other products used in the treatment process are described in Appendix M.

3.1.4 Area IV: Discharge

The Discharge Area (Area IV) is used to accumulate treated liquid wastes from Area III and/or special shipments of liquid waste from Area I prior to testing and discharge to the LACSD Publicly-Owned Treatment Works (POTW) sewer system. Area IV consists of nine discharge holding tanks. In the future, additional tanks may be added to Area IV as dictated by changing waste mix and/or operational efficiency considerations in order to meet the LACSD/CWT permit requirements.

A detailed description of Area IV is presented in Appendix C. Procedures for sampling wastewater in Area IV prior to discharge are discussed in Section 2 and Appendix D (WAP).

3.2 CONTAINERIZED WASTE HANDLING

Containerized wastes received by the Facility are normally unloaded into one of three waste receiving and shipping areas (WRS1, WRS2, or WRS3) of Area I. The containerized waste receiving and shipping areas of Area I are described in Appendix C (Hazardous Waste Management Areas Descriptions). Containerized wastes that are received and accepted by the Facility are stored in Area II. Sludges and solids that are generated by Area III are placed into containers and stored in Area II. Containerized waste handling and management is discussed in the following subsections.

3.2.1 Container Unloading and Storage

Unloaded containers are stored in Area I while waste sampling and/or evaluation are completed. While containers are stored in Area I, they are arranged in parallel rows with minimum aisle widths of 2.5 feet to allow for inspection and emergency equipment access and are segregated based on known compatibilities.

Containerized wastes that are received at Area I by the Facility are evaluated for acceptance in accordance with the WAP (Appendix D). Wastes arriving in containers are sampled and/or evaluated to confirm that they are acceptable for storage, consolidation, treatment, recycling, and/or transfer by the Facility. Sampling of containerized wastes is typically performed within 24 hours of receiving the waste. Evaluation of those samples can take 10 days or more to complete. Containerized wastes that are not accepted (i.e., the wastes are rejected) are temporarily stored in Area I and/or II for up to 90 days after received by the Facility until arrangements can be made to transfer the rejected waste to an appropriate permitted off-site TSDF, or returned to the generator, provided the generator is permitted to receive and store such

waste. Containerized wastes that are accepted by the Facility are moved to Area II for storage, consolidation, and other forms of waste management, and can be stored for a period of up to 1 year.

3.2.2 Containers Used for Storage

3.2.2.1 Container Types

Many types of containers are used to store hazardous waste at the Facility. Types of containers that are used to store wastes in CSA1, CSA2, CSA3, CSA4, and CSA5 include small quantity (1 to 5-gallon) containers or lab packs, bins, boxes, bags, drums (30 to 110-gallon), overpacks, and totes (up to 330-gallon). In addition to these types of containers, CSA3 can be used to consolidate and store waste in bulk containers. Bulk containers that are used in CSA3 include box vans, roll-off bins, end dump trailers, vacuum trucks, tanker trucks, intermodal containers, and portable bulk liquid containers (e.g., totes, polypropylene, steel, or fiberglass tanks).

3.2.2.2 Composition and Design Standards

In cases where the Facility acts as the generator, containers will meet the composition, compatibility and design criteria specified in 49 CFR Parts 171, 172, 178, and 179. The Facility will also comply with any additional special container requirements imposed by each off-site TSDF that is designated to receive such waste shipments. Table 3-2 (Container Specifications) lists the capacity, material of construction, type and DOT classification. Containerized waste received from outside generators will be stored in the container received, unless the integrity of the container is questionable. Tanker trucks are used to receive, store, consolidate and ship wastes in WRS1.

3.2.2.3 Types of Wastes Stored

The waste stored in the containers include wastes awaiting acceptance and/or scheduling of transportation to other off-site facilities, consolidated wastes, as well as wastes that are intended to be treated at this Facility. Recovery drums (85-gallon) are used to overpack on-site leaking 55-gallon drums and those drums recovered during off-site emergency response activities.

3.2.2.4 Types of Overpacking Material

Overpacking material is not generally used at the Facility, but lab packs are accepted which may contain diatomaceous earth, vermiculite, or other absorbent materials commonly used for

overpacking. In some cases, absorbent material may be added as necessary to ensure that no drums with free standing liquids are landfilled. All drums are sealed tightly prior to their being transported to an approved landfill or off-site TSDF.

3.2.2.5 Waste Compatibility

Field testing and analyses (as described in Appendix D) are performed on materials to ensure compatibility of the consolidated waste with the storage containers. Wastes are placed in containers based on compatibility and chemical resistance to the waste.

3.2.2.6 Container Labels

Each container is labeled using a bar code system which contains all the standard hazardous waste information required by RCRA, as shown in Figure 3-3. In addition, the containers have labels as required by the DOT to indicate hazard type (e.g., Corrosive, Toxic). Labels are placed on the sides or tops of the drums, to be visible from the aisles. The bar code system is described in the WAP (Appendix D)

3.2.3 Storage Area Containment Systems

3.2.3.1 Basic Design Parameters

Secondary containment areas are provided for storage of containerized wastes as shown in the description of Area II in Appendix C. Dimensions and containment calculations are provided in Appendix J.

3.2.3.2 Container Handling

Container and equipment washing may be conducted in areas of the Facility where pumping stations can be located. These include all Waste Receiving Areas (Secondary Containment Areas 8, 11, and 13), as well as all Container Storage Areas (Secondary Containment Areas 9, 10, 11, 13A, 14, 15, and 17). Container washing is conducted by a continuous washing process. As the container is being washed, the rinsate is pumped out of the container into Area III for consolidation, treatment, recycling, and/or transfer. The rinsate is not drained into the secondary containment trenches or sumps.

To avoid having containers or equipment needing to be managed as hazardous waste, such items are cleaned in accordance with 22 CCR Section 66261.7 so as to meet the regulatory definition of "empty". Per DTSC's "Managing Empty Containers" Fact Sheet, for containers holding hazardous waste that can be readily poured, all waste must be removed such that when the container is held in any orientation there is no longer a continuous stream of waste coming from

the container opening. For containers holding hazardous waste that cannot be readily poured, the container is considered "empty" when no hazardous waste can be feasibly removed using physical methods (e.g., scraping and chipping). "Empty" containers/drums are then stored in trailers, Area I, Area II, and/or in the area adjacent to Building 12 for subsequent disposition, including on-site reuse, subsequent transport of crushed or intact containers to off-site scrap, drum reconditioning and/or recycling facilities, and/or return of the containers to the waste generator. A drum crusher may be used on-site to compact drums for transport, disposal or recycle.

Prior to re-using containers and equipment for different waste types, the containers and equipment are cleaned using the following procedure, as appropriate for the specific container and waste type:

- Remove free liquids by pumping the material to an appropriate container/tank for consolidation, treatment, recycling, and/or transfer.
- Pressure wash and pump all rinse water into Area III for consolidation, treatment, recycling, and/or transfer.
- If necessary, manually wipe or scrape muck or scale out of the container and consolidate all removed deposits for transfer and disposal. If necessary, perform a pressure wash and remove any remaining debris.
- Follow all safety requirements specific to the container/equipment and waste type.

3.2.3.3 Design Promotes Drainage

The segregated storage areas are generally sloped to collect liquids in collector trenches, sumps, or topographically low areas. Containers are typically stored on pallets to prevent contact between drums and standing liquid. If any liquids are present, the source is determined and corrected and the area is washed down. The ponded or accumulated liquids are then removed and properly disposed. As described in the containment calculations provided in Appendix J, the containment areas have sufficient containment capacity to contain potential spills and storm water in those areas.

3.2.3.4 Containment Capacity

The capacities of the Area II container storage areas are determined based on the requirements of 22 CCR Section 66264.175 and provided in Appendix J. The containment capacity is based on the sum of the 24-hour accumulation of rainwater from a 25-year interval storm and 10% of the aggregate volume of the containers in each area. Drum equivalents are defined as the number of 55 gallon increments that could be contained accounting for reduced capacity in the containment area due to the volume occupied by the bottom of the drums and the potential for drums to increase the largest spill (i.e., 10% of total storage in containment area). The net containment

capacity (total containment capacity volume less the largest spill design, displacement and rainfall) is based on drums being stacked two high. Alternatively, where appropriate to enhance stability and to enhance access to and ease of management of stored containerized waste, three level pallet racks can be used.

The maximum container equivalent capacities and secondary containment capacities of Area II are discussed in Appendix C and the secondary containment capacity calculations and engineer's certification for the secondary containment are included in Appendix J.

3.2.3.5 Provisions for Managing Run-on

The container storage areas have elevated entrance ramps and containment walls and are not subject to run-on from rainwater and/or other liquids from other areas of the Facility. The remainder of the Facility is also protected with elevated entrance ramps, berms, and containment walls and is not subject to run-on of storm water. Container Storage Area 5 (CSA5) is located in Building 12, which prevents exposure to precipitation and run-on.

3.2.3.6 Accumulated Liquids

Accumulated liquids in the container storage areas are removed as soon as possible, generally within 24 hours. Liquids collected are pumped into a container and stored in Area II and/or pumped into Area III for storage, consolidation, treatment, recycling, and/or transfer.

3.2.4 Containment System for Ignitable, Reactive, and Incompatible Waste

3.2.4.1 Location of Ignitable and Reactive Waste

Ignitable and reactive wastes as defined in Section 2.1.3.2 are not accepted at the Facility. If these types of wastes are received, they will be rejected from the Facility. If ignitable and reactive wastes as defined in Section 2.1.3.2 are received and rejected by the Facility, they will be temporarily stored and properly segregated in Area I and/or Area II until they can be transferred to an appropriate permitted off-site TSDF.

3.2.4.2 Locations of Incompatible Wastes

Incompatible waste types, including acids and alkalines, and/or oxidizers and organics are segregated from each other and placed in the appropriate containment areas. The containment areas are separated by concrete berms or curbs which vary in height from approximately 6 to 12 inches, and vary in width from approximately 6 to 8 inches.

3.2.5 Containment System for Polychlorinated Biphenyls

No wastes containing federally regulated PCBs are accepted at the facility. If these types of wastes are received, they will be rejected from the Facility. If waste containing federally regulated PCBs are received and rejected by the Facility, it will be temporarily stored and properly segregated in Area I or Area II until it can be transferred to an appropriate permitted off-site TSDF.

3.2.6 Certification of the Containment Systems

A statement certifying that an engineer registered in the State of California has approved the design and construction of the storage areas is provided in Appendix J.

3.3 WASTES GENERATED ON SITE

3.3.1 Drum Emptying and Washing

As discussed in Section 3.2.3.2, empty drums that meet the regulatory definition of "empty" as set forth in 22 CCR Section 66261.7 are stored in trailers, Area I, Area II, and/or in the area adjacent to Building 12 for subsequent disposition, including on-site reuse, subsequent transport of crushed or intact containers to off-site scrap, drum reconditioning and/or recycling facilities, and/or return of the containers to the waste generator. Container and equipment washing may be conducted in areas of the Facility where pumping stations [can be][are??] located. These include all Waste Receiving Areas (Secondary Containment Areas 8, 11, and 13), as well as all Container Storage Areas (Secondary Containment Areas 9, 10, 11, 13A, 14, 15, and 17). A drum crusher located in Secondary Containment Area 11 compacts the drums for transport, disposal or recycle pursuant to 22 CCR Section 66261.7. Devices for cleaning, compacting, etc. may also be utilized in the management of used containers.

3.3.2 Equipment Cleaning

Contaminated equipment from off-site and on-site waste management activities, e.g., containers, trucks, portable pumps and hoses, and emergency response equipment, etc., which requires decontamination can be cleaned by rinsing, pressure washing, or hydroblasting (see Section 3.2.3.2). Liquids collected from such activities are pumped into a container and stored in Area II and/or pumped into Area III for storage, consolidation, treatment, recycling, and/or transfer.

3.3.3 Treatment System Wastes

Solid wastes that are generated by Area III and other on-site processes can include sludges, filter cake from the filter presses, and spent media (e.g., activated carbon, resin, sand, gravel, garnet, clay, diatomaceous earth, impregnated zeolite, impregnated alumina, or other media). Solid wastes that are generated from Area III and other on-site processes are accumulated, consolidated, and stored in Area II. Sludges can be re-processed through Area III for additional separation of liquids from solids.

Liquid wastes that are generated by Area III and other on-site processes, such as rain water, wash waters, laboratory wastes, spent or blow down scrubber solutions, filter press filtrate, filter backwash water, compressor condensate water, cooling tower blow down water, air compressor condensate, separated hydrocarbon emulsions, concentrated wastes separated from treated liquid wastes, and waste or surplus reagents. Area III can be used to receive, store, pre-treat, and treat liquid wastes that are generated from Area III and other on-site processes, or accumulated, consolidated, and stored in Area II.

Wastes generated by the Area III and other on-site processes that cannot be treated on site are transported to an approved permitted off-site TSDF for additional treatment, regeneration, recycling, or disposal.

3.3.4 Tank Cleaning Wastes

Wastes that are generated from cleaning tanks within the facility can include sediment, sludge, scale, etc. Wastes that are generated from tank cleaning are accumulated, consolidated, and stored in Area II. These wastes may be transferred to the filter-presses, bins for solidification or dewatering, and/or into drums or containers. Wastes generated by the tank cleaning that cannot be treated on site are transported to an approved permitted off-site TSDF for additional treatment, regeneration, recycling, or disposal.

3.4 UNIVERSAL WASTE

The Facility currently receives wastes such as batteries, thermostats, lamps, and cathode ray tube materials as hazardous waste if the generator has so classified those items. It is recognized, however, that those items do not necessarily have to be classified as hazardous and some generators may choose to handle those items as “universal waste.” Therefore, the Facility receives items including batteries, thermostats, lamps, and cathode ray tube materials as defined by 22 CCR 66273.1 *et seq*. either as hazardous waste or as universal waste, depending on how

the generator has identified the waste. If the items are categorized as universal waste, the universal wastes will be handled as described in the following paragraphs and in Appendix C.

3.4.1 Batteries

Universal waste batteries are received at one of the three containerized waste receiving and shipping areas (WRS1, WRS2, or WRS3) of Area I, and are stored either in Area I, one of the container storage areas of Area II, or the designated Universal Waste Area of Buildings 12. The batteries are unloaded and may be sorted by battery type and/or consolidated. Leaking batteries are placed in plastic 55-gallon drums and/or lab overpack containers. The Facility does not generally drain electrolyte from batteries. However, if necessary, the electrolyte is manually drained into 55-gallon drums or suitable smaller containers.

After consolidation, the universal waste batteries are transported to a universal waste destination facility.

3.4.2 Thermostats

Universal waste thermostats are received at one of the three containerized waste receiving and shipping areas (WRS1, WRS2, or WRS3) of Area I, and are stored in either Area I, one of the container storage areas of Area II, or the designated Universal Waste Area of Building 12. The thermostats are unloaded and may be sorted by type and/or consolidated into other containers. The containers are either 55-gallon drums or roll-off bins. The Facility does not remove mercury from the thermostats. If a leaking thermostat is found, it is immediately placed into a secure container and the spilled mercury, if any, immediately cleaned up.

After consolidation, the universal waste thermostats are transported to a universal waste destination facility.

3.4.3 Lamps

Universal waste lamps are received at one of the three containerized waste receiving and shipping areas WRS1, WRS2, or WRS3 of Area I, and are stored in either Area I, one of the container storage areas of Area II, or the designated Universal Waste Area of Building 12. The lamps are unloaded and may be sorted by type and/or consolidated into other containers. The containers are either 55-gallon drums or roll-off bins. Broken lamps are immediately cleaned up and placed into secure containers.

After consolidation, the universal waste lamps are transported to a universal waste destination facility.

3.4.4 Cathode Ray Tube Materials

Universal waste cathode ray tube (CRT) materials are received at one of the three containerized waste receiving and shipping areas (WRS1, WRS2, or WRS3) of Area I, and are stored in either Area I, one of the container storage areas of Area II, or the designated Universal Waste Area of Building 12. The CRT materials are unloaded and may be sorted by type and/or consolidated into other containers. The containers are either 55-gallon drums or roll-off bins. Broken CRTs are immediately cleaned up and placed into secure containers.

After consolidation, the universal CRT materials are transported to a universal waste destination facility. The Facility does not remove the CRTs from the CRT devices nor does the Facility treat or recycle CRTs.

3.5 DETAILED DESCRIPTION OF AQUEOUS WASTE TREATMENT EQUIPMENT AND TANKS

3.5.1 Design Standards and References

The design parameters and capacities for the tanks involved in the treatment process and storage of bulk liquids are shown in Table 3-3 (Hazardous Waste Tank Design Standards). Pumps and valves associated with tanks are designed to essentially the same standard as the tank the equipment serves and are provided with the same secondary containment.

3.5.2 Tank Description

3.5.2.1 Design Specification

Dimensions for the hazardous waste tanks are provided in Table 3-3. Tank locations are indicated on Figure 1-1 and in Appendix C. Tanks are described in detail in the Tank Tables provided in Appendix G.

3.5.2.2 Corrosion/Erosion Resistance

Construction and lining materials, listed in Table 3-3, for all tanks have been selected because of their compatibilities with the waste handled and with external environmental factors. Nominal wall thickness for each tank is listed in Table 3-3.

3.5.2.3 Lining Materials

The lining material used, if any, for each hazardous waste tank is shown in Table 3-3.

3.5.2.4 Foundation Specifications

Foundation details and foundation design data for all hazardous waste tanks are provided in Appendix I (Structural Calculations).

3.5.2.5 Expected Life

The approximate in-service dates of the hazardous waste tanks and additional expected life are listed in Table 3-3. Tank inspection and certification is performed on approximately 5-year intervals. Tanks are re-inspected and certified after major repairs prior to being placed back in service.

3.5.2.6 Tank Orientation

Tank dimensions are shown in Table 3-3. Tanks with "D" (diameter) and "H" (height) dimensions indicate a vertical cylindrical tank. Tanks with a "W" (width), "L" (length), and "H" (height) dimensions indicate a rectangular tank. The tank layout is also shown on Figure 1-1 in Section 1.

3.5.2.7 Freeboard

Freeboard for each tank is shown in Table 3-3.

3.5.2.8 Tank and Process Vessel Operating Temperatures

Most of the tanks and process vessels operate at ambient temperature.

3.5.2.9 Tank Integrity Reports

Tank integrity reports and certifications are included in Appendix L.

3.5.3 Process Flow Description and Diagrams

Liquid waste is processed by chemical and physical treatment to remove inorganic and/or organic contaminants, suspended solids and sludge, producing wastewater that meet the standards specified by the LACSD for discharge to the POTW sewer system. Appendix F contains the P&IDs and Process Flow diagrams.

3.5.3.1 Valves and Piping

All installed fixed process piping at the Facility is Schedule 80 PVC or carbon steel. All process valves are PVC or forged steel. The piping and valve system is installed and operated consistent with 22 CCR, Division 4.5, Chapter 14, Articles 28 and 28.5.

The main pipe routing to each tank is shown in the P&IDs in Appendix F (Process Equipment Drawings and Diagrams).

3.5.3.2 Process Flow

The general process flow for wastes through the Facility and the treatment system are described in Appendix C (Hazardous Waste Management Area Descriptions) and shown on the PFDs and P&IDs in Appendix F (Process Equipment Drawings and Diagrams). Influent and effluent flow descriptions for each tank are provided in Appendix G (Tank Tables).

3.5.4 Process Controls

Control parameters for each tank are described in Appendix G. The description includes the feed cutoff systems, alarm levels, tank mixing configurations, and emission controls for each tank.

3.5.5 Wastes in Treatment Tanks

3.5.5.1 Type of Wastes in Treatment Tanks

The type of waste material contained in each tank used for storage and/or treatment is provided in Table 3-C and further described in Appendices C and G.

3.5.5.2 Specific Gravity

The specific gravity of the wastes or material contained in each tank used for storage and/or treatment is provided in Table 3-3.

3.5.5.3 Waste Compatibility

Prior to mixing wastes, field tests are conducted in accordance with Section 2 and the WAP (Appendix D) to ensure compatibility of wastes with the tank or vessel and its contents.

3.5.5.4 Tank Identification

The National Fire Protection Association (NFPA) has developed a system, known as the 704M System, which is presented in their "Fire Protection Guide on Hazardous Materials". This system identifies hazardous material by a color-coded numeric system showing on a diamond-shaped diagram with four sections denoting the degree of hazard with respect to health, flammability, and chemical reactivity. Degree of hazard is represented by numbers, which range from 0 (no hazard) to 4 (maximum hazard). The colors red, blue and yellow are used for fire hazard rating, health hazard rating, and chemical reactivity hazard rating, respectively. Displayed on the front of the tanks are the appropriate NFPA storage tank decals indicating the degree of hazard which the characteristics or priorities of the contents may cause to fire fighters in the event of a fire in the area.

Each tank also has a sign, placard, and/or markings indicating the tank number. To facilitate waste management procedures, the following color coding has been developed to identify waste types managed in primary waste receiving and storage tanks:

- Blue: Waste Acids;
- Orange: Waste Bases;
- Purple: Waste Cyanides;
- Yellow: Waste Chromics;
- Green: Potable or Industrial Water; and
- White: Waste Neutrals (generally pH 4-10).

3.5.5.5 Waste Layers

Generally layering is not expected in tanks which hold treated wastewater (Tanks 9, 10, 52, 53, and 70 through 74). Nor is layering expected in the carbon absorbers (Tanks 46, 47A/B, 64, and 65) or media filtration/membrane filtration/UV tanks (Tanks 48A/B, 49A/B, 75A/B, 76A/B, and PMT-1 through PMT-6).

Tanks 5, 6, 18, 22, 23, 24, 28, 43, 50, 54, and 56 through 63 may contain immiscible layers of oils and hydrocarbons, which have different specific gravities than water.

The contents of the Lamella Gravity Settlers (Tanks 37 and 38) will separate into liquid and sludge. Sludge from the Lamella Gravity Settlers are transferred to the Sludge Thickening Tanks (Tanks 11 and 45), where additional liquid and sludge separation will occur. Additionally, the batch treatment tanks, Tanks 39 through 42 and 66 may be used as settling vessels in a manner analogous to that for Tank 37 and 38.

Although the storage and treatment tanks are not generally designed to cause layering, there can be a separation of suspended solids from the liquid if the waste liquid remains in a tank for an extended period of time. This results in sludge at the tank bottom. Tank bottoms are removed when a tank is removed from service for internal maintenance or when tank service is changed. The sludge is transferred to the filter presses, re-circulated through the treatment system, or transferred to containers for consolidation and/or solidification.

3.5.5.6 Ignitable and Reactive Wastes in Tanks

Ignitable and reactive wastes as defined in Section 2.1.3.2 are not accepted at the Facility. If these types of bulk wastes are received, they will be rejected from the Facility.

3.5.5.7 Vapor Control System

Potential vapors from wastes in treatment and storage tanks are directed through vapor control systems prior to discharge into the atmosphere.

Tanks 56 through 63 (Organic Waste Blending/Storage/Treatment/Transfer Tanks,) are vented to Air Pollution Control System A, which consists of two vapor-phase granular activated carbon vessels operating in series.

Tanks 7 and 8 (Cyanide Compatible Waste Pre-Treatment/Storage/Transfer Tanks) are vented to Air Pollution Control System B, which consists of two vessels, operating in series, which contain 35 cubic feet of potassium permanganate impregnated zeolite.

Tanks 3 and 4 (Chromate Compatible Waste Blending/Storage/Treatment/Transfer Tanks), 19 through 21 (Aqueous or Acid Waste Blending/Storage/Treatment/Transfer Tanks), and 32A/B (Chromate Treatment Tanks) are vented to Air Pollution Control System C, which consists of two wet sodium hydroxide scrubbers. The first scrubber is operated continuously and is used to collect acidic vapors. The second stage is operated intermittently, as needed, to control nitrogen oxides (NOx) escaping the tanks or the first scrubber. At a future date, Tanks 33A/B/C and 34A/B/C (Main System Treatment Tanks) will be replaced, in accordance with Permit

Modification No. 5 dated August 14, 2003 and approved October 20, 2003, and will also be vented to Air Emissions Control System C.

Descriptions of the equipment used for the vapor control systems are provided in Appendix H.

3.5.6 Containment System

3.5.6.1 Design Parameters

All tanks in the treatment system are sited on reinforced concrete foundations, a minimum of 6 inches thick. The floor of the containment areas and the containment walls are also constructed of reinforced concrete. Design calculations for foundations, slabs and containment walls can be found in Appendix I.

The surfaces of the concrete for the tank secondary containment areas are sealed with a chemically resistant fiberglass coating. The surface coating also extends up onto the inside containment walls at least as high as the required secondary containment height. The coating is inspected daily and repaired as necessary. The sealant specifications are provided in Appendix K.

3.5.6.2 Site Drainage

The base of the tank area is graded to drain spilled or leaked liquids away from the tanks to facilitate its collection and removal. The containment areas are checked daily for evidence of liquid accumulation.

3.5.6.3 Capacity

The secondary containment capacity calculations and engineer's certification for the secondary containments are included in Appendix J.

3.5.6.4 Run-on Management

Run-on to the treatment and storage tank containment areas is prevented by the containment walls surrounding each of the containment area.

3.5.6.5 Run-off Management

The operating areas of the Facility are bermed such that the precipitation from a 25-year, 24-hour design storm can be contained and storm water run-off is prevented.

3.5.6.6 Removal of Accumulated Liquids

A daily inspection is made of all tank containment structures and construction materials. Liquids which accumulate in the treatment and storage tank containment area are removed by manually operated pumps or vacuum trucks and placed into containers or tanks for storage, consolidation, treatment, recycling, and/or transfer.

3.6 DETAILED INFORMATION ON TREATMENT PROCESSES

3.6.1 Chemical Treatment

Chemical processes used to pre-treat, treat, or polish wastes at the Facility include:

- Foam Control;
- Emulsion Breaking;
- Chelation Breaking;
- Acid and Alkali Neutralization, or pH Adjustment;
- Oxidation/Reduction;
- Precipitation/Coagulation/Flocculation; and/or
- Stabilization/Solidification.

3.6.2 Physical Treatment

Physical processes used to pre-treat, treat, or polish wastes at the Facility include:

- Waste Screening;
- Bagging, Cartridge, Sock and Media Filtration;
- Gravity Phase Separation/Clarification/Decantation;
- Mechanically-aided Phase Separation (filter pressing);
- Blending;
- Odor Control;
- Adsorption;
- Ion Exchange;
- Stabilization/Solidification;

- Sedimentation;
- Oil Water Separation;
- Phase Separation; and/or
- Dewatering.

3.6.3 Demonstration of Effectiveness

The effectiveness of the treatment system is evaluated and verified through the monitoring of the discharge water quality in comparison with the water discharge limits established by the Facility Industrial Wastewater Discharge Permit. Examples of discharge monitoring results are shown in Appendix N (Examples of Discharge Analytical Reports).

3.6.4 Treatment System Capacity

The estimated maximum quantity of liquid or slurried hazardous waste treated or managed is 33,126,000 gallons per month. The estimated maximum quantity of hazardous solid waste treated or managed is 30,000 tons per year.

3.7 IDENTIFICATION OF WASTE HANDLING EQUIPMENT

3.7.1 Equipment for Containerized Wastes

Containerized waste is typically transported to the Facility in a variety of DOT-approved or exempt containers, though the Facility is not responsible for the type of containers in which wastes are received. The most common types of such containers are the DOT 1A1 and DOT 1A2 55-gallon drums. Containerized wastes that are not consolidated are shipped off site by the Facility in their as-received original container, unless the container integrity is questionable. Wastes, consolidated or unconsolidated, that are placed in new containers will be shipped off site in DOT-approved containers.

3.7.2 Bulk Liquid Wastes

Tanker trucks (vacuum and atmospheric) bring bulk liquid waste to the Facility. These trucks are generally equipped to transfer liquids using their own pumps, hoses, and fittings. All vehicles are required to meet U.S. DOT requirements. Normally, vacuum tanker trucks transport bulk liquids to and from the Facility. However, in some instances, atmospheric tanker trucks may be employed to transport liquids. Bulk liquid wastes can also be transferred by railcars from an off-site loading and unloading area to the Facility.

3.7.3 Safety Features

Table 3-4 (Facility Safety Features) lists the safety features for a variety of facility equipment.

3.8 UNLOADING EQUIPMENT

In most cases, palletized drums are unloaded and moved within the Facility by standard forklift trucks with sufficient weight ratings to move full pallets of full drums. Grappling attachments are available for handling individual containers and/or containers not on pallets. Drum dollies are used to relocate individual drums within the Facility and container storage areas. Other examples of unloading equipment used at the Facility are given in Section 4.2**.**

Forklift standard safety features include rollover protection, fire extinguishers, and backup alarms among other features.

Safety features found on vacuum trucks include standard DOT requirements, including spark arresters, safety windshields, fire extinguisher, and roll-over protection devices among other features.

3.9 AIR POLLUTION CONTROLS

The Facility is potentially subject to nine sets of air pollution control regulations:

- 40 CFR 61 Subpart FF – National Emissions Standards (NESHAP) for Benzene Waste Operations
- 40 CFR 63 Subpart DD – National Emission Standards for Hazardous Air Pollutants (NESHAP) from Off-Site Waste and Recovery Operations
- 22 CCR 66264.1030 – Air Emission Standards for Process Vents (40 CFR 264 Subpart AA)
- 22 CCR 66264.1050 – Air Emission Standards for Equipment Leaks (40 CFR 264 Subpart BB)
- 22 CCR 66264.1080 – Air Emission Standards for Tanks, Surface Impoundments, and Containers (40 CFR 264 Subpart CC)
- South Coast Air Quality Management District (SCAQMD) Rules and Regulations

- 40 CFR 60 Subpart K Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and prior to May 19, 1978 (NSPS for Older Tanks)
- 40 CFR 60 Subpart Ka Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and prior to July 23, 1984 (NSPS for Old Tanks)
- 40 CFR 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (NSPS for New Tanks)

Each of these regulatory requirements is discussed in the following subsections.

3.9.1 National Emission Standards for Hazardous Air Pollutants

40 CFR 63 Subpart DD applies to a "major source" of hazardous air pollutants that receives or treats hazardous waste. A major source of hazardous air pollutants includes one that emits more than 10 tons per year (tpy) of a single hazardous air pollutant (as defined by the Federal Clean Air Act (42 USC 7412(b)(1) as amended by 40 CFR 63 Subpart C) or 25 tpy aggregate hazardous air pollutants. The only potential hazardous air pollutants that could be emitted from the Facility are volatile organic compounds (VOCs). The total VOC emissions from the Facility are well below the 10/25 tpy threshold (as reviewed by and permitted by the SCAQMD). Therefore, the Facility is not a major source of hazardous air pollutants and 40 CFR 63 Subpart DD does not apply.

3.9.2 Air Emission Standards for Process Vents

The air emission standards for process vents (22 CCR Division 4.5, Chapter 14, Article 27) apply only to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage RCRA hazardous wastes with organic concentrations of at least 10 ppmw (22 CCR 66264.1030(b)). The Facility does not conduct any of these operations. Therefore, those standards do not apply to the Facility.

At some time in the future, the Facility may use air or gas flotation to increase the efficiency and/or improve the oil/water separation processing; however, air flotation is not an air stripping operation as defined in 22 CCR 66260.10. In the future, the Facility may design, permit and construct a distillation and/or fractionation system. If this occurs, the requirements of 22 CCR Division 4.5, Chapter 14, Article 27 would apply and will be met.

3.9.3 Air Emission Standards for Equipment Leaks

The air emission standards for equipment leaks (22 CCR Division 4.5, Chapter 14, Article 28) apply to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight (100,000 ppmw) except equipment that is in vacuum service and/or contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight for less than 300 hours per year. There are different standards for (a) pumps in light liquid service; (b) compressors; (c) pressure relief devices in gas/vapor service; (d) sampling connecting systems; (e) open-ended valves or lines; (f) valves in gas/vapor service or in light liquid service; and (f) pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors.

The hazardous waste management areas that could handle wastes with some organic content are: Area III-A, Area III-B, Area III-C, Area III-E, and Area III-G. Area III-D is the Cyanide Pre-Treatment/Storage/Transfer Area and does not typically handle liquids with organic content.

22 CCR 66264.1063(d) specifies how the organic concentration is to be determined for the wastes contained in or makes contact with tanks and associated equipment. The regulation requires that the determination to be made from either knowledge of the waste and/or analytical results obtained in accordance with the Waste Analysis Plan and one or more of the specified analytical techniques. One of the specified techniques is EPA Method 8260 from SW-846. EPA method 8260 determines VOC concentrations by gas chromatography and mass spectrometry (GC/MS). The Facility uses EPA Methods 601/602, which analyzes for halogenated and aromatic VOCs by GC, and EPA Method 624, which analyzes for VOC concentrations by GC/MS. Therefore, for purposes of determining the applicability of 22 CCR Division 4.5, Chapter 14, Article 28, the organic concentration determined by either EPA Methods 601/602 or EPA Method 624 will be used.

Of all the tanks in the various Areas that could handle liquids with some organic content, only some of the tanks in Area III-B (Organics/Oils Treatment/Storage/Transfer Area) handle wastes that could contain liquids with greater than 10 percent by weight organic concentrations as measured by EPA Methods 601/602. These tanks in Area III-B are described in Appendix C (Hazardous Waste Management Areas Descriptions), and include Tanks 43, 50, 54, and 56 through 63. The remaining Area III-B tanks (i.e., the activated carbon filtration tanks 46, 64, and 65) will not contain liquids with organic concentration greater than 10%.

3.9.3.1 Pumps in Light Liquid Service

"In light liquid service" is defined (22 CCR 66260.10) as equipment that contacts a liquid waste stream where the vapor pressure of one or more components is greater than 0.3 kilopascals (kPa-equivalent to about 2.3 mm Hg) at 20 ºC *and* the total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 ºC is greater than 20 percent by weight (200,000 ppmw).

Although some of the tanks in Area III-B that treat oily water could contain liquids with a total organic content of greater than 100,000 ppmw, the organic content of the liquid wastes treated at the Facility is mostly oil and grease. The oil and grease can contain trace amounts of volatile compounds, such as benzene, xylene, and similar compounds associated with gasoline for example, and the vapor pressures of benzene, xylene and similar gasoline-related compounds are greater than 0.3 kPa. However, the total concentrations of these components are much less than 200,000 ppmw. For example, gasoline typically contains 2 percent by weight benzene (20,000 ppmw), less than one-tenth the threshold for "light liquid service." Oily water may contain highly diluted gasoline, which would further dilute the concentration of those components having a vapor pressure greater than 0.3 kPa at 20 ºC. Therefore, the Facility does not have any pumps in light liquid service and that portion of the emission standards for equipment leaks (22 CCR 66264.1052) does not apply to any of the tanks at the Facility.

3.9.3.2 Compressors

The Facility utilizes compressors at the Facility for utility pressurized air. However, the compressors do not come in contact with hazardous wastes with organic concentrations of at least 10 percent by weight (100,000 ppmw). Therefore this portion of the regulation (22 CCR 66264.1053) does not apply to the Facility.

3.9.3.3 Pressure Relief Devices in Gas/Vapor Service

The term "in gas/vapor service" is defined as equipment that contacts a hazardous waste stream that is gaseous at the operating temperatures. The Facility does not treat any gaseous hazardous wastes and this portion of the regulation (22 CCR 66264.1054) does not apply.

3.9.3.4 Sampling Connecting Systems

Sampling connecting systems are devices for extracting continuous samples of the treated fluid. The Facility uses grab sampling for process control, and grab sampling is explicitly not included in

the definition of "sampling connecting systems" in 22 CCR 66260.10. Therefore, there are no sampling connecting systems associated with the tanks in Area III-B that may contain liquids with greater than 10 percent organic content, and this portion of the regulations (22 CCR 66264.1055) does not apply.

3.9.3.5 Open-Ended Valves or Lines

All open-ended valves or lines associated with Tanks 43, 50, 54, and 56 through 63 are equipped with a cap, blind flange, plug or second valve; and the open end shall be sealed at all times except when hazardous waste flow through is required. If an open-ended valve or line is equipped with a second valve, the valves will be operated such that the valve on the hazardous waste stream side is closed before the second valve is closed in accordance with 22 CCR 66264.1056.

3.9.3.6 Valves in Gas/Vapor Service or in Light Liquid Service

As stated above, none of the equipment is in light liquid service or in gas/vapor service. Therefore, this portion of the regulations (22 CCR 66264.1057) does not apply.

3.9.3.7 Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors

"In heavy liquid service" is defined as equipment that is not in light liquid service. Therefore, the pumps, valves, pressure relief devices, flanges and other connections associated with Tanks 43, 50, 54, and 56 through 63 are considered to be in heavy liquid service. Therefore, this portion of the regulations (22 CCR 66264.1058) does apply to portions of the Facility as follows:

a. The pumps, valves, pressure relief devices, flanges and other connectors associated with Tanks 43, 50, 54, and 56 through 63 are labeled as required by 22 CCR 66264.1050 and 66264.1058 "heavy liquid service". The Facility maintains a list of such equipment. Inaccessible connectors and ceramic or ceramic lined connectors that are exempt from the monitoring requirement are also noted. For purposes of complying with this requirement, the first flange, valve, pump, from each of the tanks plus those flanges, valves, and pumps associated with the tank that are likely to receive wastes with greater than 10 percent organic content are labeled and recorded.

b. If evidence of a potential leak at one of the labeled pumps, valves, flanges, pressure relief devices, or other connectors is found by visual, audible, olfactory, or any other detection method, the device will be monitored within five calendar days with an organic vapor

analyzer (OVA) consistent with 40 CFR 60 Method 21 (unless the device is an inaccessible connector).

c. If an OVA reading of 10,000 ppmv or greater is measured, a leak is detected. If a leak is detected, a weatherproof and readily visible identification marker will be placed on the leaking device with the equipment identification number, the date of evidence of the leak was observed (i.e., the visual or other methods), and the date the leak was detected (i.e., OVA reading of greater than 10,000 ppmv). In addition, the proper entries into the facility inspection log as required by 22 CCR 66264.1064(d) will be made.

d. If there is a release from a pressure relief device, the device shall be monitored consistent with Method 21 as soon as practicable after the release, but not later than 24 hours to confirm that there are no detectable emissions (i.e., less than 500 ppmv above background levels). If such is not the case, the device will be considered leaking and repaired as noted below.

e. When a leak is detected, it will be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided below (22 CCR 66264.1059):

   1) If repair of the leaking device is technically infeasible until the next hazardous waste management area shutdown, repair will be delayed until such shutdown; or

   2) The leaking device will be isolated such that it is no longer in contact with liquids that contain greater than 100,000-ppmw total organic content.

f. The first attempt at repair will be made no later than 24 hours after a leak is detected unless the repair is exempted as described above. The first attempt at repair will include at least one or more of the following: tightening bonnet bolts; replacement of bonnet bolts; tightening of packing gland nuts; and injection of lubricant into lubricated packing.

g. After the leak is repaired, the sign indicating the leak will be removed and proper entries made in the facility inspection log as required by 22 CCR 66264.1064(d) will be made.

3.9.3.8 Recordkeeping and Reporting Requirements

Since some of the equipment at the Facility is subject to 22 CCR Division 4.5, Chapter 14, Article 28, there are some recordkeeping and reporting requirements associated with this set of regulations. One recordkeeping requirement is a list of affected equipment and associated information per 22 CCR 66264.1064(b) and (g). This information is recorded at the facility. Another recordkeeping requirement is related to detection and repair of leaks as required by 22 CCR 66264.1064(c). This information is recorded as part of the overall facility records. The third

requirement is submittal of a semiannual report as detailed in 22 CCR 66264.1065. However, 22 CCR 66264.1065(b) exempts a facility from the semiannual reporting requirement as long as the requirements of 22 CCR 66264.1057(d), 1052(c), 1052(d)(6), and 1053(g) are met. Since the devices at the Facility are not subject to those provisions, those provisions are met at all times. Therefore, a semiannual report is not required and will not be submitted.

3.9.4 Air Emission Standards for Tanks, Surface Impoundments, and Containers

The regulations codified at 22 CCR Division 4.5, Chapter 14, Article 28.5 apply to all tanks for which wastes entering the tank have an average volatile organic concentration at the point of waste origin of at least 500 ppmw volatile organic content. Some of the tanks in Area III-B could contain such wastes. Area III-A and Area III-C do not treat these types of wastes, and such wastes would not be routed to Area III-E. Area III-D handles only cyanide/cyanide-compatible wastes, and Area III-G consists of six portable tanks containing filtration media. Area III-G handles wastes that require only minimal treatment and/or to polish waste streams prior to discharge to the sewer. Therefore, the liquids in Area III-G would not have greater than 500 ppmw volatile organic content. (For reference, the discharge limit for volatile organic content is 1 ppmw). The tanks that could contain liquids subject to 22 CCR Division 4.5, Chapter 14, Article 28.5 for each sub-area of Area III are listed in Table 3-5 (Area III Hazardous Waste Tanks Potentially Containing Liquids with Greater than 500 ppmw Volatile Organic Content).

3.9.4.1 Emission Standards for Tanks

The tanks at the Facility that could be regulated under 22 CCR Division 4.5, Chapter 14, Article 28.5 are subject to Level 1 controls as defined by 22 CCR 66264.1084(c).

None of the tanks subject to 22 CCR Division 4.5, Chapter 14, Article 28.5 at the Facility have volumes greater than 75 m^3 or about 20,000 gallons. For tanks with volumes less than 75 m^3 (about 20,000 gallons), Level 1 controls are allowed as long as the organic vapor pressure of the waste in the tanks is less than 76.6 kPa (about 550 mm Hg). Typical organic components of the waste handled in these tanks at the Facility include benzene and xylene. These compounds have vapor pressures on the order of 40 mm Hg (toluene at 31.8 ºC) to 100 mm Hg (benzene at 26.1 ºC). Water has a vapor pressure at 20 C of 17.5 mm Hg. Since the liquid treated in the large tanks is mostly water (which has a vapor pressure much less than 550 mm Hg) and since the individual components even as pure compounds have vapor pressures considerably less than 550 mm Hg, the tanks at the Facility qualify for Level 1 controls. [22 CCR 66264.1084(b)(1)(A)2.].

There are two additional conditions for a tank to qualify for Level 1 controls. One is that if heat is added, the vapor pressures at the heated temperature remain below the threshold levels (i.e., 76.6 kPa for tanks with volumes less than 75 m^3). [22 CCR 66264.1084(b)(1)(B)]. No heat is currently added to any tanks at the Facility. If heat is added, the vapor pressures at the heated temperature will remain below threshold levels. The other condition is that the tank not be used for treatment by waste stabilization [22 CCR 66264.1084(b)(1)(C)] as defined by 22 CCR 66260.10. The Facility does not conduct waste stabilization in tanks, so this condition is met as well.

In summary, only Level 1 emission controls on the tanks noted above is required. Level 1 controls are detailed in 22 CCR 66264.10.

3.9.4.2 Level 1 Emission Controls for Tanks

The following Level 1 controls are instituted for those tanks noted above that have the potential for containing liquids with volatile organic content greater than 500 ppmw.

Each tank is installed with a fixed roof. The fixed roof is free from all cracks, holes, gaps or other open spaces between the roof section joints or between the interface of the roof edge and the tank wall, and closed at all times except for routine inspection, maintenance, or other activities needed for normal operations (22 CCR 66264.1084(c)(2)(B), (C), and (3)(A)).

- The pressure relief valves are spring-loaded in the closed position as long as the internal pressure is within the design limits of the tank.
- All potential openings in the tanks, including inspection hatches, sampling ports, and pressure relief devices are annually inspected for integrity.
- If a leak is detected, a first effort at repair is made within 5 calendar days and the repair completed within 45 calendar days unless the only way to repair the leak is to take the tank out of service and no backup capacity exists. If the tank must be taken out of service and no backup capacity exits, the leak is repaired when the tank is next taken out of service for any reason.

In addition to the above, although not required by Level 1 controls, Tanks 56 through 63 are vented to an air pollution control system consisting of two carbon adsorption vessels in series.

3.9.4.3 Emission Standards for Surface Impoundments

The Facility does not contain surface impoundments, so this portion of the regulation does not apply.

3.9.4.4 Emission Standards for Containers

Wastes are stored at the Facility in various types of containers, such as 50 to 85 gallon drums, 200 to 1,000 gallon bulk containers (e.g., totes, poly tanks), and 20 to 30 cubic yard hoppers, roll-off bins and dumps. If these containers contain wastes with greater than 500 ppmw volatile organic content, then emission controls may be required.

Per 22 CCR 66264.1086(b)(1)(A), containers from 0.1 m^3 to 0.46 m^3 (26.4 gallons to 121.5 gallons) are subject to Level 1 emission controls, regardless of contents. Larger containers are subject to Level 1 controls as long as the containers are not in light material service. "In light material service" is defined (22 CCR 66260.10) as containers that are used to manage hazardous waste where the vapor pressure of one or more of the organic constituents is greater than 0.3 kilopascals (kPa – equivalent to about 2.3 mm Hg) at 20 ºC *and* the total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 ºC in the waste is greater than 20 percent by weight (200,000 ppmw). The roll-off boxes, hoppers and end dumps do not contain materials with a volatile organic content greater than 20 percent by weight liquids and are not in light material service. Therefore, Level 1 controls apply to those containers. Likewise the polyethylene, steel, or fiberglass tanks do not contain liquids that have volatile organic content greater than 200,000 ppmw. Therefore, these containers are not in light material service and Level 1 controls apply to them as well.

3.9.4.5 Level 1 Emission Controls for Containers

The following Level 1 controls are instituted <u>only</u> for those containers that contain greater than 500 ppmw volatile organic content and are 0.1 m^3 (26.4 gallons or greater in volume).

- The 5 to 85 gallon containers will meet DOT regulations for packaging hazardous materials for transportation (22 CCR 66264.1086(c)(1)(A)).
- Except when filling a container, all containers are closed with a cover that forms a continuous barrier over the waste so that there are no visible gaps into the container. The covers may include screw top caps, lids, tarps on roll-off boxes, or other suitable covers. (22 CCR 66264.1086(c)(1)(B)).
- When a container must be opened in order to place waste into the container or remove waste from the container, the opening is closed upon conclusion of a filling or emptying operation for a container filled or emptied in one operation, or within 15 minutes of placing or emptying a batch of waste into a container that requires multiple filling or emptying operations. (22 CCR 66264.1086(c)(3)(A)).

- Empty containers may be open or closed, depending upon operational necessity. (22 CCR 66264.1086(c)(3)(A)).
- When a container is received, unless it is emptied within 24 hours of receipt (as noted on the manifest), the container is inspected to check that all covers are tight and no visible gaps exist. Level 1 emission controls require that containers be inspected at least annually. Standard practice at the Facility is to inspect the containers daily/weekly as described in Section 4 of this document.
- Other containers that contain hazardous waste are inspected after initial placement of the waste in the container and as described in Section 4 of this document thereafter.
- If a container is found to have a defect, a first effort at repair is made within 24 hours and repair completed within 5 calendar days. If the container cannot be repaired within 5 calendar days, it is emptied and no longer used for managing hazardous waste until repaired.

3.9.4.6 Recordkeeping and Reporting Requirements

Since some of the equipment at the Facility is subject to 22 CCR Division 4.5, chapter 14, Article 28.5, there are some recordkeeping and reporting requirements associated with this set of regulations. One recordkeeping requirement is a record of the tank inspections and repairs, as applicable. This information is recorded as part of the overall facility records and is described in Section 4 of this document. A second requirement is a record of determination of the organic vapor pressure of the hazardous materials in the tanks. This determination is made pursuant to 22 CCR 66264.1083(c), which references 22 CCR 66265.1084(c). This regulation allows the Facility to determine the organic vapor pressure through knowledge of the waste. For example, if the waste is known to contain 2 percent benzene and 98 percent water, the organic vapor pressure can be determined through simple physical principles and tables of vapor pressure for benzene. The Facility intends to use the "knowledge of waste" method to determine the organic vapor pressure. The waste analysis records will include the date and time samples are collected, analysis method used, and analysis results as discussed in Appendix D.

There is one reporting requirement associated with this set of regulations. If waste is managed in a tank that does not meet the Level 1 controls, the Facility will submit a written report within 15 calendar days of becoming aware of that occurrence. The report will contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent

recurrence of the noncompliance. The report will be signed by an authorized representative of the Facility (22 CCR 66264.1090(b)).

3.9.5 SCAQMD Regulations

The air emission sources at the Facility are permitted by the SCAQMD and copies of the permits are contained in Appendix O (Other Environmental Permits).

3.9.6 NSPS for Tanks

There are three sets of NSPS for tanks: Subpart K, Ka, and Kb. Subpart K applies to tanks constructed between June 11, 1973 and prior to May 19, 1978. All of the tanks at the Facility were constructed after May 19, 1978 so Subpart K does not apply. Subpart Ka applies to tanks that store *petroleum liquids* constructed between May 18, 1978 and July 23, 1984 with volumes greater than 151 m^3 (40,000 gallons). The Facility does not store petroleum liquids as defined by Subpart Ka, so Subpart Ka does not apply. Subpart Kb applies to tanks that store volatile organic liquids as defined by Subpart Kb and are constructed after July 23, 1984 with volumes over 75 m^3 (19,800 gallons). None of the tanks at the Facility with volumes greater than 75 m^3 built after July 23, 1984 contain volatile organic liquids. Therefore, Subpart Kb does not apply to any of the tanks at the Facility.

TABLE 3-1
Hazardous Waste Management Areas

Hazardous Waste Management Area	Hazardous Waste Management Sub-Area
Area I: Waste Receiving and Shipping	Waste Receiving Station 1 (WRS1)
Area I: Waste Receiving and Shipping	Waste Receiving Station 2 (WRS2)
Area I: Waste Receiving and Shipping	Waste Receiving Station 3 (WRS3) Container Storage Area (CSA3)
Area II: Containerized Waste Storage and Management	Container Storage Area 1 (CSA1)
Area II: Containerized Waste Storage and Management	Container Storage Area 2 (CSA2)
Area II: Containerized Waste Storage and Management	Container Storage Area 3 (CSA3)
Area II: Containerized Waste Storage and Management	Container Storage Area 4 (CSA4)
Area II: Containerized Waste Storage and Management	Container Storage Area 5 (CSA5 East)
Area II: Containerized Waste Storage and Management	Container Storage Area 5 (CSA5West)
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-A: Inorganics / Oils Treatment / Storage / Transfer
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-B: Organics / Oils Treatment / Storage / Transfer
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-C: Multi-use and Transfer Tanks
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-D: Cyanide Pre-Treatment / Storage / Transfer
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-E: Batch Treatment
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-F: Reserved
Area III: Bulk Waste Pre-Treatment / Treatment / Polishing / Storage / Transfer	III-G: Portable Media Filtration / Absorption
NA	III-H: Reagent Storage (Not Regulated Waste)
Area IV: Discharge	Discharge Tanks 9 and 10
Area IV: Discharge	Discharge Tanks 52 and 53
Area IV: Discharge	Discharge Tanks 70, 71, 72, 73, 74

TABLE 3-2
Container Specifications

CAPACITY	MATERIAL OF CONSTRUCTION	TYPE	DOT CLASSIFICATION
30 CU. YARD	STEEL	END DUMP	EXEMPT
30 CU. YARD	STEEL	ROLL-OFF BOX	EXEMPT
20 CU. YARD	STEEL	END DUMP	EXEMPT
20 CU. YARD	STEEL	ROLL-OFF BOX	EXEMPT
15 CU. YARD	STEEL	ROLL-OFF BOX	EXEMPT
10 CU. YARD	STEEL	ROLL-OFF BOX	EXEMPT
5 CU. YARD	STEEL	ROLL-OFF BOX	EXEMPT
2 CU. YARD	STEEL	COVERED HOPPERS	NONE
1 CU. YARD	CARDBOARD	BOX	4M2
85 GALLON	STEEL	OPEN TOP	1A2
85 GALLON	POLYETHYLENE	OPEN TOP	1H2
55 GALLON	STEEL	OPEN TOP	1A2
55 GALLON	STEEL	CLOSED	1A1
55 GALLON	POLYETHYLENE	OPEN TOP	1H2
30 GALLON	STEEL	OPEN TOP	1A2
30 GALLON	POLYETHYLENE	OPEN TOP	1H2
15 GALLON	STEEL	OPEN TOP	1A2
15 GALLON	POLYETHYLENE	OPEN TOP	1H2
8 GALLON	STEEL	OPEN TOP	1A2
5 GALLON	STEEL	OPEN TOP	1A2
5 GALLON	POLYETHYLENE	OPEN TOP	1H2
275GALLON	POLYETHYLENE		IBC Tote
300 GALLON	POLYETHYLENE		IBC Tote
330GALLON	POLYETHYLENE		IBC Tote

TABLE 3-3
Hazardous Waste Tank Design Standards

Tank Number	Tank Name/Function	Containment Area	Hazardous Waste Management Area	Hazardous Waste Management Sub-Area	External Dimensions	Construction Material	Capacity (gallons)	Freeboard (inches)	Nominal Thickness (inches)	Roof	Interior Lining or Coating	Date of Service	Additional Expected Life (years)	Pressure	Type of Liquid Waste materials Handled	Specific Gravity of Waste
1	Multi-use Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 1	Area III	Area III-C	31' D 17'6" H	Fiberglass reinforced plastic	87,600	24	1/2	Tank is open	None	1982	>5	Open to atmosphere	Inorganic or organic	1.0-1.2
2	Multi-use Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 1	Area III	Area III-C	18' D 21' H	Fiberglass reinforced plastic	36,200	24	5/16	Tank is open	None	1982	>5	Open to atmosphere	Inorganic or organic	1.0-1.2
3	Chromate Compatible Waste Blending/Storage/Treatment/Transfer Tank	Area 1	Area III	Area III-A1	14' D 18' H	Carbon steel	18,500	24	3/16	Fiberglass reinforced plastic roof	Fiberglass reinforced plastic	1982	>5	Vented to wet scrubber	Chromate compatible inorganic	1.0-1.8
4	Chromate Compatible Waste Blending/Storage/Treatment/Transfer Tank	Area 1	Area III	Area III-A1	14' D 18' H	Carbon steel	18,500	24	3/16	Fiberglass reinforced plastic roof	Fiberglass reinforced plastic	1982	>5	Vented to wet scrubber	Chromate compatible inorganic	1.0-1.8
5	Multi-use Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 2	Area III	Area III-C	14' D 18' H	Carbon steel	18,500	24	3/16	Fiberglass reinforced plastic roof	Fiberglass reinforced plastic	1982	>5	Vented to atmosphere	Alkaline compatible inorganic	0.98-1.2
6	Multi-use Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 2	Area III	Area III-C	14' D 18' H	Carbon steel	18,500	24	3/16	Fiberglass reinforced plastic roof	Fiberglass reinforced plastic	1982	>5	Vented to atmosphere	Alkaline compatible inorganic	0.98-1.2
7	Cyanide Compatible Waste Blending/Storage/Treatment/Transfer Tank	Area 2	Area III	Area III-D	14' D 18' H	Carbon steel	18,500	24	1/4	Fiberglass reinforced plastic roof	None	1982	>5	Vented to potassium permanganate / zeolite oxidation / adsorption vessels	Cyanide compatible	1.0-1.6
8	Cyanide Compatible Waste Blending/Storage/Treatment/Transfer Tank	Area 2	Area III	Area III-D	14' D 18' H	Carbon steel	18,500	24	1/4	Fiberglass reinforced plastic roof	None	1982	>5	Vented to potassium permanganate / zeolite oxidation / adsorption vessels	Cyanide compatible	1.0-1.6
9	Discharge Tank	Area 3	Area IV	-	14' D 18' H	Carbon steel	19,800	10	3/16	Tank is open	Vinyl ester fiberglass resin	1982	>5	Open to atmosphere	Treated inorganic or organic	1.0-1.1
10	Discharge Tank	Area 3	Area IV	-	14' D 18' H	Carbon steel	19,800	10	3/16	Tank is open	Vinyl ester fiberglass resin	1982	>5	Open to atmosphere	Treated inorganic or organic	1.0-1.1
11	Sludge Thickener Tank	Area 3	Area III	Area III-A2	12'18" D 17'2" H (Cone Bottom)	Carbon steel	9,600	14	1/4	Tank is open	Vinyl ester fiberglass resin	1982	>5	Open to atmosphere	Sludge from Lamella Gravity Settler	1.0-1.8
12	Ferric Chloride Reagent Storage Tank	Area 3	N/A - Reagent which does not contain hazardous waste.													
13	Sodium Bisulfite Reagent Storage Tank	Area 3	N/A - Reagent which does not contain hazardous waste.													
14	Sodium Hydroxide Reagent Storage Tank	Area 3	N/A - Reagent which does not contain hazardous waste.													
15	Lime Slurry Reagent Storage Tank	Area 3	N/A - Reagent which does not contain hazardous waste.													
16	Sodium Bisulfite Reagent Storage Tank	Area 3	N/A - Reagent which does not contain hazardous waste.													
17	Sulfuric Acid Reagent Storage Tank	Area 3	N/A - Reagent which does not contain hazardous waste.													

TABLE 3-3 (Cont'd)
Hazardous Waste Tank Design Standards

Tank Number	Tank Name/Function	Containment Area	Hazardous Waste Management Area	Hazardous Waste Management Sub-Area	External Dimensions	Construction Material	Capacity (gallons)	Freeboard (inches)	Nominal Thickness (inches)	Roof	Interior Lining or Coating	Date of Service	Additional Expected Life (years)	Pressure	Type of Liquid Waste materials Handled	Specific Gravity of Waste
18	Multi-use Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 6	Area III	Area III-C	18' D 18' H	Fiberglass reinforced plastic	30,500	24	1/2	Fiberglass reinforced plastic roof	None	1982	>5	Vented to atmosphere	Aqueous or alkaline compatible	0.98-1.2
19	Aqueous or Acid Waste Blending/Storage/Treatment/Transfer Tank	Area 4	Area III	Area III-A2	25' D 20' H	Fiberglass reinforced plastic	66,100	24	Bottom: 7/12 Top: 3/8	Fiberglass reinforced plastic roof	Chemical resistant resin	1987	>5	Vented to wet scrubber	Aqueous or acid compatible	1.0-1.6
20	Aqueous or Acid Waste Blending/Storage/Treatment/Transfer Tank	Area 4	Area III	Area III-A2	25' D 20' H	Fiberglass reinforced plastic	66,100	24	Bottom: 7/12 Top: 3/8	Fiberglass reinforced plastic roof	Chemical resistant resin	1987	>5	Vented to wet scrubber	Aqueous or acid compatible	1.0-1.6
21	Aqueous or Acid Waste Blending/Storage/Treatment/Transfer Tank	Area 4	Area III	Area III-A2	25' D 20' H	Fiberglass reinforced plastic	66,100	24	Bottom: 7/12 Top: 3/8	Fiberglass reinforced plastic roof	Chemical resistant resin	1987	>5	Vented to wet scrubber	Aqueous or acid compatible	1.0-1.6
22	Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 5	Area III	Area III-A2	25' D 20' H	Carbon steel	66,100	24	3/8	Tank is open	None	1987	>5	Open to atmosphere	Aqueous or alkaline compatible	0.99-1.4
23	Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 5	Area III	Area III-A2	25' D 20' H	Carbon steel	66,100	24	3/8	Tank is open	None	1987	>5	Open to atmosphere	Aqueous or alkaline compatible	0.99-1.4
24	Aqueous or Alkaline Waste Blending/Storage/Treatment/Transfer Tank	Area 5	Area III	Area III-A2	25' D 20' H	Carbon steel	66,100	24	3/8	Tank is open	None	1987	>5	Open to atmosphere	Aqueous or alkaline compatible	0.99-1.4
25	Sodium Hydroxide Reagent Storage Tank	Area 14	N/A - Reagent which does not contain hazardous waste.													
27	Sodium Hydroxide Reagent Storage Tank	Area 3	N/A - Reagent which does not contain hazardous waste.													
28	Aqueous or Acid Waste Overfill Tank	Area 4	Area III	Area III-A2	10' D 11'10" H	Polyethylene	5,800	24	3/8	Polyethylene roof	None	1989	>5	Vented to atmosphere	Aqueous or acid compatible	1.0-1.6
29	Sulfuric Acid Reagent Storage Tank	Area 13A (Self Contained)	N/A - Reagent which does not contain hazardous waste.													
30	Aqueous or Alkaline Waste Overfill Tank	Area 5	Area III	Area III-A2	10' D 11'10" H	Polyethylene	5,800	4	3/8	Polyethylene roof	None	1989	>5	Vented to atmosphere	Aqueous or alkaline compatible	1.0-1.4
31A	Oxidation/Reduction Tank	Area 3	Area III	Area III-E	4'7" L 8'2" W 8'6" H	Carbon steel	2,300	4	Side: 3/8 Bottom: 3/8	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Inorganic	1.0-1.4
31B	Oxidation/Reduction Tank	Area 3	Area III	Area III-E	4'7" L 8'2" W 8'6" H	Carbon steel	2,300	4	Side: 3/8 Bottom: 3/8	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Inorganic	1.0-1.4
31C	Oxidation/Reduction Tank	Area 3	Area III	Area III-E	4'7" L 8'2" W 8'6" H	Carbon steel	2,300	4	Side: 3/8 Bottom: 3/8	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Inorganic	1.0-1.4
32A	Chromate Treatment Tank	Area 3	Area III	Area III-A1	6'11" L 8' W 8'6" H	Carbon steel	3,400	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Fiberglass reinforced plastic roof	Fiberglass reinforced plastic	1983	>5	Vented to wet scrubber	Chromate compatible	1.0-1.8
32B	Chromate Treatment Tank	Area 3	Area III	Area III-A1	6'11" L 8' W 8'6" H	Carbon steel	3,400	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Fiberglass reinforced plastic roof	Fiberglass reinforced plastic	1983	>5	Vented to wet scrubber	Chromate compatible	1.0-1.8
33A	Main Treatment Tank 2nd Pass	Area 3	Area III	Area III-A2	8'" L 16' W 8' H	Carbon steel	7,400	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Acid and alkaline inorganic	1.0-1.8
33B	Main Treatment Tank 2nd Pass	Area 3	Area III	Area III-A2	8'" L 16' W 8' H	Carbon steel	7,400	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Acid and alkaline inorganic	1.0-1.8

TABLE 3-3 (Cont'd)
Hazardous Waste Tank Design Standards

Tank Number	Tank Name/Function	Containment Area	Hazardous Waste Management Area	Hazardous Waste Management Sub-Area	External Dimensions	Construction Material	Capacity (gallons)	Freeboard (inches)	Nominal Thickness (inches)	Roof	Interior Lining or Coating	Date of Service	Additional Expected Life (years)	Pressure	Type of Liquid Waste materials Handled	Specific Gravity of Waste
33C	Main Treatment Tank 2nd Pass	Area 3	Area III	Area III-A2	8'" L 16' W 8' H	Carbon steel	7,400	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Acid and alkaline inorganic	1.0-1.8
34A	Main Treatment Tank 1st Pass	Area 3	Area III	Area III-A2	7'6" L 16' W 8' H	Carbon steel	6,900	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Acid and alkaline inorganic	1.0-1.8
34B	Main Treatment Tank 1st Pass	Area 3	Area III	Area III-A2	6' L 20' W 8' H	Carbon steel	6,900	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Acid and alkaline inorganic	1.0-1.8
34C	Main Treatment Tank 1st Pass	Area 3	Area III	Area III-A2	6' L 20' W 8' H	Carbon steel	6,900	4	Side: 3/8 Bottom: 3/8 Top: 1/4	Tank is open	Fiberglass reinforced plastic	1983	>5	Open to atmosphere	Acid and alkaline inorganic	1.0-1.8
35	Flash Mix and Flocculation Tank	Area 3	Area III	Area III-A2	4' W 4'L 4'H	Carbon steel	300	24	5/16	Tank is open	None	1982	>5	Open to atmosphere	Treated waste from Main Treatment Tanks	1.0-1.6
36	Flash Mix and Flocculation Tank	Area 3	Area III	Area III-A2	4' W 4'L 4'H	Carbon steel	300	24	5/16	Tank is open	None	1982	>5	Open to atmosphere	Treated waste from Main Treatment Tanks	1.0-1.6
37	Lamella Gravity Settler	Area 3	Area III	Area III-A2	10'8" W 10'8" L 19'1" H (pyramid bottom)	Carbon steel	9,300	24	1/4	Tank is open	None	1982	>5	Open to atmosphere	Liquid and sludge from Flash Mix Tanks	1.0-1.8
38	Lamella Gravity Settler	Area 3	Area III	Area III-A2	10'8" W 10'8" L 19'1" H (pyramid bottom)	Carbon steel	9,300	24	1/4	Tank is open	None	1982	>5	Open to atmosphere	Liquid and sludge from Flash Mix Tanks	1.0-1.8
39	Batch Treatment Tank	Area 3	Area III	Area III-E	9' D 22'6" H (Cone Bottom)	Carbon steel	9,800	24	1/4	Tank is open	None	1982	>5	Open to atmosphere	Inorganic or organic	1.0-1.6
40	Batch Treatment Tank	Area 3	Area III	Area III-E	9'D 22'6" H (Cone Bottom)	Carbon steel	9,800	24	1/4	Tank is open	None	1982	>5	Open to atmosphere	Inorganic or organic	1.0-1.6
41	Batch Treatment Tank	Area 3	Area III	Area III-E	9 'D 22'6" H (Skirted Cone Bottom)	Carbon steel	9,800	24	1/4	Tank is open	None	1982	>5	Open to atmosphere	Inorganic or organic	1.0-1.6
42	Batch Treatment Tank	Area 3	Area III	Area III-E	9' D 22'6" H (Skirted Cone Bottom)	Carbon steel	9,800	24	1/4	Tank is open	None	1982	>5	Open to atmosphere	Inorganic or organic	1.0-1.6
43	Oily Waste Storage Tank	Area 8	Area III	Area III-B3	12' D 8' H	Stainless steel	5,100	24	10 gauge	Fiberglass reinforced plastic roof	None	1989	>5	Vented to atmosphere	Organic with immiscible liquids	0.8-1.4
45	Sludge Thickener Tank	Area 6	Area III	Area III-A2	12' D 21' 10" H (Skirted Cone Bottom)	Fiberglass	12,100	29	5/16	Fiberglass roof	Vinyl ester fiberglass resin	1988	>5	Vented to atmosphere	Sludge from Lamella Gravity Settler	1.0-1.8

TABLE 3-3 (Cont'd)
Hazardous Waste Tank Design Standards

Tank Number	Tank Name/Function	Containment Area	Hazardous Waste Management Area	Hazardous Waste Management Sub-Area	External Dimensions	Construction Material	Capacity (gallons)	Freeboard (inches)	Nominal Thickness (inches)	Roof	Interior Lining or Coating	Date of Service	Additional Expected Life (years)	Pressure	Type of Liquid Waste materials Handled	Specific Gravity of Waste
46	Activated Carbon Vessel	Area 8	Area III	Area III-B4	7' D 9' H	Carbon steel	2,600	NA	1/4	Carbon steel roof	None	1992	>5	Burst disk	Liquid with trace organics, metals, and particulates	1.0-1.2
47A	Activated Carbon Vessel	Area 8	Area III	Area III-A3	8' D 11' H	Carbon steel	4,200	NA	1/4	Carbon steel roof	None	1992	>5	Burst disk	Liquid with trace organics, metals, and particulates	1.0-1.2
47B	Activated Carbon Vessel	Area 8	Area III	Area III-A3	8' D 11' H	Carbon steel	4,200	NA	1/4	Carbon steel roof		1992	>5	Burst disk	Liquid with trace organics, metals, and particulates	1.0-1.2
48A	Portable Media Adsorption/ Filtration Tank	Area 8	Area III	Area III-G	3'6" D 5' H	Carbon steel	400	NA	1/4	Carbon steel roof	Epoxy	1992	>5	80 psi	Liquid with trace organics, and/or particulates	1.0-1.2
48B	Portable Media Adsorption/ Filtration Tank	Area 8	Area III	Area III-G	3'6" D 5' H	Carbon steel	400	NA	1/4	Carbon steel roof	Epoxy	1992	>5	80 psi	Liquid with trace organics, and/or particulates	1.0-1.2
49A	Portable Media Adsorption/ Filtration Tank	Area 8	Area III	Area III-G	3'6" D 5' H	Carbon steel	400	NA	1/4	Carbon steel roof	Epoxy	1992	>5	80 psi	Liquid with trace organics, and/or particulates	1.0-1.2
49B	Portable Media Adsorption/ Filtration Tank	Area 8	Area III	Area III-G	3'6" D 5' H	Carbon steel	400	NA	1/4	Carbon steel roof	Epoxy	1992	>5	80 psi	Liquid with trace organics, and/or particulates	1.0-1.2
50	Oil/Water Separator	Area 8	Area III	Area III-B3	5'8" W 14' L 13' H	Carbon steel	4,300	8	1/4	Carbon steel roof	Tar epoxy	1992	>5	Vented to atmosphere	Organic with immiscible liquids	0.8-1.4
52	Discharge Tank	Area 6	Area IV	-	12' D 24' H	Fiberglass reinforced plastic	18,700	24	0.52	Tank is open	None	1988	>5	Open to atmosphere	Treated inorganic or organic	1.0-1.1
53	Discharge Tank	Area 6	Area IV	-	12' D 24' H	Fiberglass reinforced plastic	18,700	24	0.52	Tank is open	None	1988	>5	Open to atmosphere	Treated inorganic or organic	1.0-1.1
54	Organic Waste Storage/ Transfer Tank	Area 8	Area III	Area III-B2	4' W 4'L 4'H	Carbon steel	400	8	1/4	Tank is open (Current) Carbon steel roof (Future)	Fiberglass reinforced plastic	1993	>5	Vented to atmosphere	Organic	0.98-1.4
55	Waste Storage/ Transfer Tank	Area 7	Area III	Area III-C	4' W 4'L 4'H	Carbon steel	400	8	1/4	Tank is open	Fiberglass reinforced plastic	1993	>5	Open to atmosphere	Inorganic or organic	0.99-1.1
56	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2
57	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2
58	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2

TABLE 3-3 (Cont'd)
Hazardous Waste Tank Design Standards

Tank Number	Tank Name/Function	Containment Area	Hazardous Waste Management Area	Hazardous Waste Management Sub-Area	External Dimensions	Construction Material	Capacity (gallons)	Freeboard (inches)	Nominal Thickness (inches)	Roof	Interior Lining or Coating	Date of Service	Additional Expected Life (years)	Pressure	Type of Liquid Waste materials Handled	Specific Gravity of Waste
59	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2
60	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2
61	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2
62	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2
63	Organic Waste Blending/ Storage/ Treatment/ Transfer Tank	Area 12	Area III	Area III-B1	12' D 22' H	Fiberglass reinforced plastic	17,000	24	0.52	Fiberglass reinforced plastic roof	None	1988	>5	Vented to carbon adsorption vessels	Organic	0.98-1.2
64	Activated Carbon Vessel	Area 8	Area III	Area III-B4	10' D 8' H (Hemispherical Top)	Stainless steel	9,200	NA	0.52	Carbon steel roof	Epoxy	1994	>5	80 psi	Trace organic	0.98-1.2
65	Activated Carbon Vessel	Area 8	Area III	Area III-B4	10' D 8' H (Hemispherical Top)	Stainless steel	9,200	NA	0.52	Carbon steel roof	Epoxy	1994	>5	80 psi	Trace organic	0.98-1.2
66	Batch Treatment Tank	Area 7	Area III	Area III-E	12' D 22'7" H (Cone Bottom)	Mild steel	17,500	24	3/16	Tank is open	Fiberglass reinforced plastic	2003	>5	Open to atmosphere	Inorganic or organic	1.0-1.6
67	Waste Storage/ Transfer Tank	Area 7	Area III	Area III-E	4' W 5' L 4'H	Mild steel	500	8	1/4	Tank is open	None	2003	>5	Open to atmosphere	Inorganic or organic	1.0-1.6
68	Waste Storage/ Transfer Tank	Area 3	Area III	Area III-E	4' W 5' L	Mild steel	500	8	1/4	Tank is open	None	Future	>5	Open to atmosphere	Inorganic or organic	1.0-1.6
69	Activated Carbon Make-down Tank	N/A - Reagent which does not contain hazardous waste.														
70	Discharge Tank	Area 17	Area IV	-	12' D 18' H	Polyethylene	13,600	24	1/4	Polyethylene roof	None	1998	>5	Vented to atmosphere	Treated inorganic or organic	1.0-1.1
71	Discharge Tank	Area 17	Area IV	-	12' D 18' H	Polyethylene	13,600	24	0.45	Polyethylene roof	None	1998	>5	Vented to atmosphere	Treated inorganic or organic	1.0-1.1
72	Discharge Tank	Area 17	Area IV	-	12' D 18' H	Polyethylene	13,600	24	0.45	Polyethylene roof	None	1998	>5	Vented to atmosphere	Treated inorganic or organic	1.0-1.1
73	Discharge Tank	Area 17	Area IV	-	12' D 18' H	Polyethylene	13,600	24	0.45	Polyethylene roof	None	1998	>5	Vented to atmosphere	Treated inorganic or organic	1.0-1.1
74	Discharge Tank	Area 17	Area IV	-	12' D 18' H	Polyethylene	13,600	24	0.45	Polyethylene roof	None	1998	>5	Vented to atmosphere	Treated inorganic or organic	1.0-1.1
75A	Membrane Filtration Area	Area 18	Area III	Area III-A3	7'1" W 25'5" L 10' H	NA	96 GPM	NA	NA	NA	None	Future	>5	NA	Trace metals and inorganics	1.0-1.1
75B	Membrane Filtration Area	Area 18	Area III	Area III-A3	7'1" W 25'5" L 10' H	NA	96 GPM	NA	NA	NA	None	Future	>5	NA	Trace metals and inorganics	1.0-1.1

TABLE 3-3 (Cont'd)
Hazardous Waste Tank Design Standards

Tank Number	Tank Name/Function	Containment Area	Hazardous Waste Management Area	Hazardous Waste Management Sub-Area	External Dimensions	Construction Material	Capacity (gallons)	Freeboard (inches)	Nominal Thickness (inches)	Roof	Interior Lining or Coating	Date of Service	Additional Expected Life (years)	Pressure	Type of Liquid Waste materials Handled	Specific Gravity of Waste
76A	UV Water Treatment Area	Area 18	Area III	Area III-A3	1'3" W 11' L 1' 10" H	Stainless steel	100 GPM	NA	NA	NA	None	Future	>5	NA	Treated inorganic or organic	1.0-1.1
76B	UV Water Treatment Area	Area 18	Area III	Area III-A3	1'3" W 11' L 1' 10" H	Stainless steel	100 GPM	NA	NA	NA	None	Future	>5	NA	Treated inorganic or organic	1.0-1.1
PMT-1	Portable Media Adsorption/ Filtration Tank	N/A - Portable	Area III	Area III-G	NA	Carbon steel	Up to 2,000 lbs of media	NA	NA	Carbon steel roof	None	NA	NA	50 psi or greater	Liquids with trace organics, metals, and/or particulates	1.0-1.2
PMT-2	Portable Media Adsorption/ Filtration Tank	N/A - Portable	Area III	Area III-G	NA	Carbon steel	Up to 2,000 lbs of media	NA	NA	Carbon steel roof	None	NA	NA	50 psi or greater	Liquids with trace organics, metals, and/or particulates	1.0-1.2
PMT-3	Portable Media Adsorption/ Filtration Tank	N/A - Portable	Area III	Area III-G	NA	Carbon steel	Up to 2,000 lbs of media	NA	NA	Carbon steel roof	None	NA	NA	50 psi or greater	Liquids with trace organics, metals, and/or particulates	1.0-1.2
PMT-4	Portable Media Adsorption/ Filtration Tank	N/A - Portable	Area III	Area III-G	NA	Carbon steel	Up to 2,000 lbs of media	NA	NA	Carbon steel roof	None	NA	NA	50 psi or greater	Liquids with trace organics, metals, and/or particulates	1.0-1.2
PMT-5	Portable Media Adsorption/ Filtration Tank	N/A - Portable	Area III	Area III-G	NA	Carbon steel	Up to 2,000 lbs of media	NA	NA	Carbon steel roof	None	NA	NA	50 psi or greater	Liquids with trace organics, metals, and/or particulates	1.0-1.2
PMT-6	Portable Media Adsorption/ Filtration Tank	N/A - Portable	Area III	Area III-G	NA	Carbon steel	Up to 2,000 lbs of media	NA	NA	Carbon steel roof	None	NA	NA	50 psi or greater	Liquids with trace organics, metals, and/or particulates	1.0-1.2

TABLE 3-4
Facility Safety Features

ACTIVITY AREA	EQUIPMENT	SAFETY FEATURES
1. Off-loading	1. Flexible off-loading hoses	A. O-ring coupling seals (tanker off-loading) hoses
		B. Acid/alkaline resistant, pressure resistant hoses with dry disconnect
		C. Lockable camlock couplings
	2. Drummed liquid transfer pumps	A. Self priming to reduce operator exposure to hazardous materials
		B. Discharge hoses end couplings - all are unique and non-inter changeable to prevent inadvertent use on incompatible wastes
	3. Off-loading transfer pumps	A. Totally enclosed (tanker off-loading) fan cooled motors to reduce chances of electrical shorting on contact with liquids
		B. All moving parts fitted with a guard (e.g., couplings)
		C. Dry sumps located in pump areas to collect any seal/packing leakage
	4. Receiving tanks	A. Railing where necessary around tanks to prevent operators from falling
		B. Secondary containment (pit is vaulted) equipped with sump and transfer pump - to protect against subterranean waste migration in event of primary vessel rupture – also provides inspection of primary vessel from all sides
2. Treatment areas	1. Piping (all wastes)	A. All piping rated for at least 125% nominal operating pressure all transferred throughput process using permanent piping
		B. All piping to be compatible with waste which it is to service
		C. All piping runs, whenever possible, to be along walls, containment sill, etc. To minimize trip hazards
		D. All piping to be labeled with service and flow
	2. Pumps (except for gravity)	A. All pumps to be constructed of materials compatible with wastes pumped to each process which they will be used
		B. Pumps to be located within containment areas to prevent leakage or migration
		C. Pump motors to be TEFC to minimize chances of electrical shorting in contacting liquids
		D. All rotating parts of pumps fitted with guards
	3. Tanks	A. All tanks are constructed of materials compatible with wastes they contain
		B. All tanks to reside within spill containment areas sized to accommodate 10% of all the total tank capacities in such areas or 100% of the volume of the single largest tank, whichever is greater.
		C. All tanks to be labeled with tank designation numbers, and with the case of reagent tanks, with the reagent name, concentration, and warning/handling information

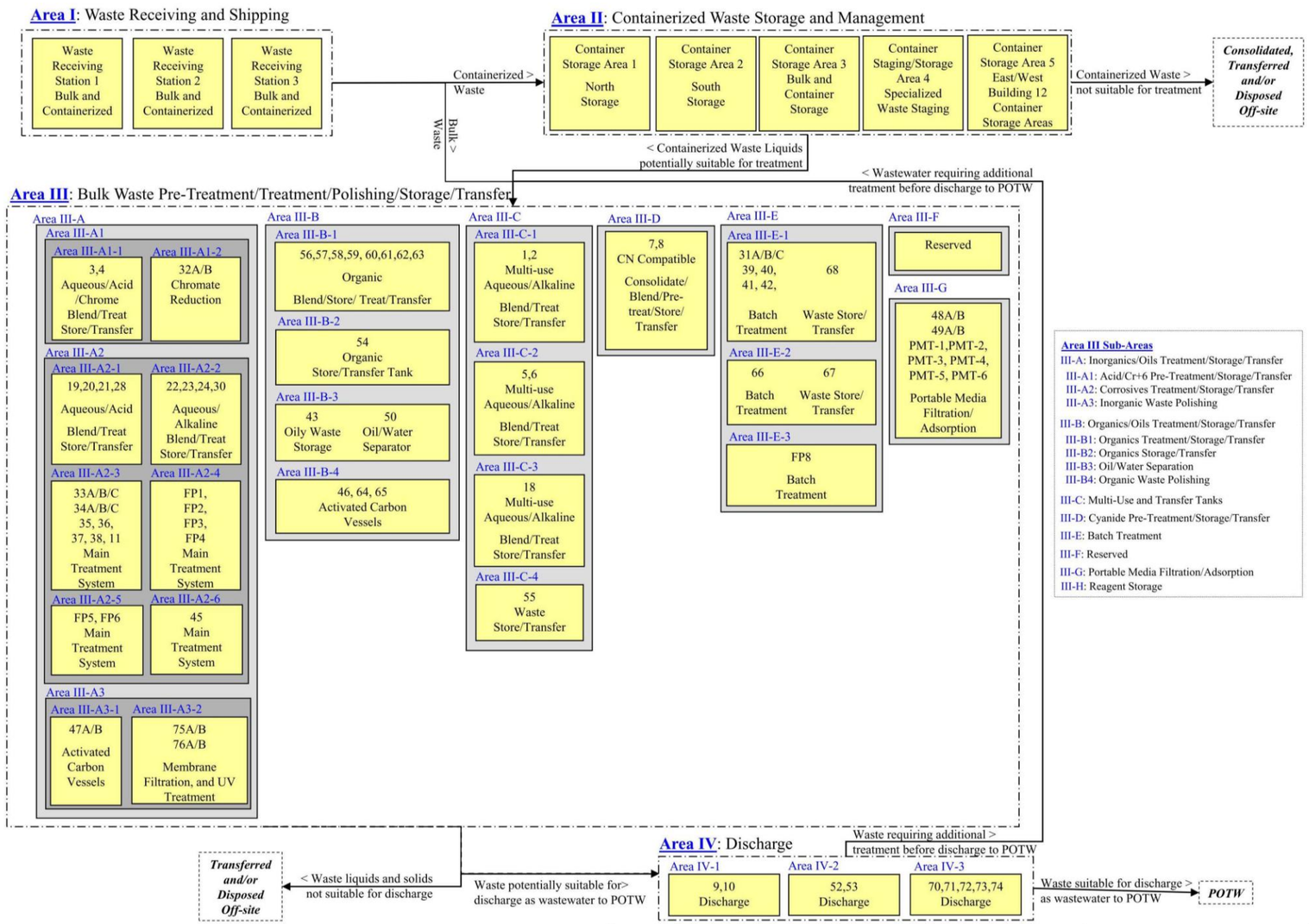
TABLE 3-4 (Cont'd)
Facility Safety Features

ACTIVITY AREA	EQUIPMENT	SAFETY FEATURES
	4. Lighting	A. Sufficient overhead artificial lighting will be provided outdoors during all hours of operation to fulfill the requirements of California code of regulations title 8, chapter 4, subchapter 7, group 2, article 7, section 3317. At a minimum, floor level lighting will be maintained at 5.0 foot-candles.
		B. Where necessary, additional lighting will be provided to illuminate shadowed or high hazard areas
	5. Receiving tanks	A. Railing where necessary around tanks to prevent operators from falling
		B. Secondary containment (pit is vaulted) equipped with sump and transfer pump to protect against subterranean waste migration in event of primary vessel rupture also provides inspection of primary vessel from all sides
	6. Piping (all wastes)	A. All piping rated for at least 125% nominal operating pressure all transferred throughput process using permanent piping
		B. All piping to be compatible with waste which it is to service
		C. All piping runs, whenever possible, to be along walls, containment sill, etc. To minimize trip hazards
		D. All piping to be labeled with service and flow
	7. Pumps (except for gravity)	A. All pumps to be constructed of materials compatible with wastes pumped to each process which they will be used
		B. Pumps to be located within containment areas to prevent leakage or migration
		C. Pump motors to be TEFC to minimize chances of electrical shorting in contacting liquids

TABLE 3-5
Area III Hazardous Waste Tanks
Potentially Containing Liquids with Greater than 500 ppmw
Volatile Organic Content

Area	Area Name	Tanks
III-A	Inorganics [Metals]/Oils Treatment/Storage/Transfer	None
III-B	Organics/Oils Treatment/Storage/Transfer	43, 50, 54, 56, 57, 58, 59, 60, 61, 62, and 63
III-C	Multi-Use and Transfer Tanks	None
III-D	Cyanide Pre-Treatment/Storage/Transfer	None
III-E	Batch Treatment	None
III-F	Reserved	None
III-G	Separation, Filtration and Polishing	None
III-H	Reagent Tanks	Not Applicable

Summary of Facility Hazardous Waste Management Areas



SESPE CONSULTING, INC.
5920 Friars Road, Suite 103, San Diego, CA 92108
(619)894-8669 www.sespeconsulting.com

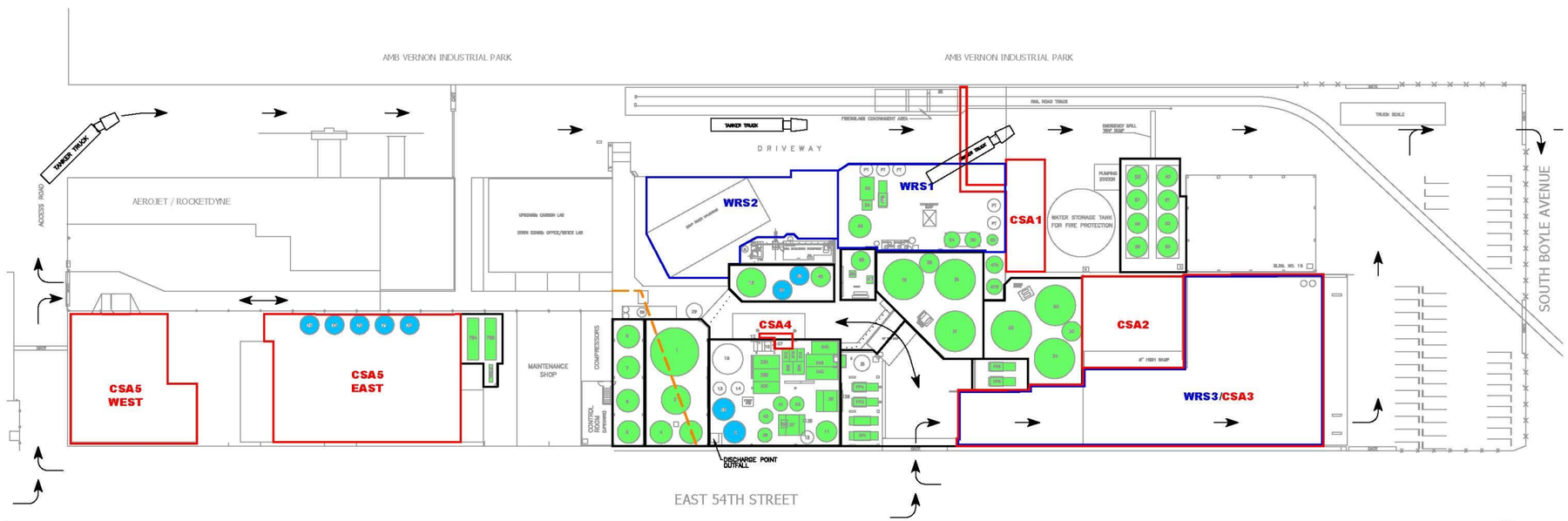
PROJECT NO.	SI01
DRAWN:	07/12/16
DRAWN BY:	GC/PS/GS
CHECKED BY:	MR
FILE NAME:	

SUMMARY OF HAZARDOUS WASTE MANAGEMENT UNITS

PART B PERMIT RENEWAL
EVOQUA WATER TECHNOLOGIES
5375 SOUTH BOYLE AVENUE
VERNON, CALIFORNIA

FIGURE **3-1**

This page was intentionally left blank.



LEGEND

- WRS# — AREA I: WASTE RECEIVING AND SHIPPING STATION (WRS)
- CSA# — AREA II: CONTAINER STORAGE / STAGING AREA (CSA)
- AREA III: BULK WASTE PRE-TREATMENT / TREATMENT / POLISHING / STORAGE / TRANSFER
- AREA IV: DISCHARGE
- ELECTRICAL / COMMUNICATION LINE EASEMENT
- SUBSURFACE PIPING
- TRAFFIC FLOW DIRECTION

N

SCALE: 1"=80'

SESPE CONSULTING, INC.
5920 Friars Road, Suite 103, San Diego, CA 92108
(619)894-8669 www.sespeconsulting.com

PROJECT NO.	SI01
DRAWN:	07/15/14
DRAWN BY:	GC/PS
CHECKED BY:	MR
FILE NAME:	

FACILITY PLOT PLAN WITH ADDITIONAL INFORMATION

PART B PERMIT RENEWAL
EVOQUA WATER TECHNOLOGIES
5375 SOUTH BOYLE AVENUE
VERNON, CALIFORNIA

FIGURE **3-2**

S:\SI01 - Siemens Industry, Inc\CAD\ACAD-SI01_FigureC1-aps.dwg, 9/24/2014 9:42:48 AM, DWG To PDF.pc3

This page was intentionally left blank.

WAP APPENDIX D

SESPE CONSULTING, INC.	EXAMPLE CONTAINER LABEL EVOQUA WATER TECHNOLOGIES, LLC VERNON, CALIFORNIA	FIGURE 3-3
CHECKED BY: MR	FN: Figure 3-3	
PROJECT NO. SI01.12.01	DATE: 7/30/2014	

This page was intentionally left blank.

SECTION 4

Waste Management Procedures

This page was intentionally left blank.

SECTION 4
Waste Management Procedures

Table of Contents

Section **Page**

4.1 WASTE ACCEPTANCE PROCEDURES 4-1
4.1.1 MANIFEST PROCEDURES 4-1
4.1.2 WASTE ACCEPTANCE PROCEDURES 4-3
4.1.3 SAMPLING AND ANALYSIS PROCEDURES 4-3
4.2 UNLOADING/LOADING AND WASTE TRANSFER PROCEDURES 4-3
4.3 WASTE STORAGE PROCEDURES 4-5
4.4 WASTE TREATMENT PROCEDURES 4-6
4.5 MANAGEMENT OF TREATED WASTEWATER 4-6
4.6 INSPECTION AND MAINTENANCE PROCEDURES 4-7
4.6.1 INSPECTION AND MAINTENANCE RECORDS 4-7
4.6.2 INSPECTION OF CONTAINERS AND CONTAINER STORAGE AREAS 4-7
4.6.3 INSPECTION OF TANKS AND CONTAINMENT AREAS 4-7
4.6.4 INSPECTION OF OPERATING EQUIPMENT 4-8
4.6.5 INSPECTION OF EMERGENCY RESPONSE/SAFETY EQUIPMENT AND SECURITY DEVICES 4-8

TABLES
Table 4-1 Inspection Schedule and Checklist 4-9

This page was intentionally left blank.

4.0 WASTE MANAGEMENT PROCEDURES

4.1 WASTE ACCEPTANCE PROCEDURES

4.1.1 Manifest Procedures

All hazardous waste that is accepted into the Facility must be accompanied by properly completed hazardous waste manifests. The waste acceptance procedures are described in Section 2 and the WAP (Appendix D).

When a shipment of hazardous waste arrives at the Facility, a manifest is obtained from the transporter. The manifest is inspected for the following information:

- Generator name and mailing address;
- Generator EPA identification number;
- Transporter name and identification number;
- TSDF information;
- Waste Codes;
- U.S. DOT shipping information;
- LDR notification, if appropriate;
- Special handling instructions; and
- Generator and transporter signatures.

If bulk or containerized waste shipments are considered acceptable, the manifests are signed and dated by Facility personnel and the transporter copy returned to the transporter. Containerized waste shipments are not accepted by the Facility until appropriate analysis is completed.

For hazardous waste shipments in general, any significant discrepancies found in comparing the manifest with the waste actually shipped are noted in the “Discrepancies” space on the manifest. Significant discrepancies include:

- Incomplete or improper manifest information and/or shipping documentation;
- For bulk waste loads, a deviation in the weight or volume by more than 10 percent from that indicated on the manifest that cannot be explained by the generator;

- For containerized waste loads, any variation in the number and/or type of containers that cannot be explained by the generator;
- The waste does not match the physical description on the manifest when inspected; and
- Results of analysis do not match the information provided on the WPD and/or manifest forms.

Any manifest discrepancies are conveyed to the generator (or their agent) as soon as possible after arrival of the waste. If possible, an attempt is made to correct the discrepancies (e.g., a letter of correction from the generator). In the event the generator fails to correct the discrepancies, the Facility will notify the DTSC within 15 days by attaching a brief description of the discrepancies to the DTSC manifest copy.

For waste shipments classified as "hazardous wastes of concern" per 22 CCR 66261.111, if the generator is unable to reconcile any noted discrepancies, the Facility must verbally notify the DTSC within 24-hours of the noted discrepancy and provide details of the discrepancy in writing within 5 days. Significant discrepancies for "hazardous wastes of concern" include:

- Incomplete or improper manifest information and/or shipping documentation;
- For bulk waste loads, a deviation in the weight or volume by more than 3 percent from that indicated on the manifest that cannot be explained by the generator;
- For containerized waste loads, any variation in the number and/or type of containers that can not be explained by the generator;
- The waste does not match the physical description on the manifest when inspected; and
- Results of analysis do not match the information provided on the WPD and/or manifest forms.

Should the load be rejected, the discrepancies and reason for rejection are noted in the manifest, the manifest is signed, copied and returned to the transporter.

If the waste is accepted, within 30 days of manifest receipt, a copy of each manifest is sent to the DTSC and a second copy is sent to the generator. The manifests will be kept on site for a period of not less than three calendar years.

The Facility waste management procedures do not allow for the acceptance of unmanifested hazardous waste. If, however, the Facility were to receive unmanifested waste, where due to safety reasons the load could not be sent out on the road again, an unmanifested waste report

would be submitted to DTSC within 15 days. The report would contain the following information, if available:

- EPA identification number, name and address of the Facility;
- Date the Facility received the waste;
- EPA identification number, name and address of the generator;
- EPA identification number, name and address of transporter;
- Description and quantity of each unmanifested hazardous waste received;
- Method of treatment, storage, or disposal for each hazardous waste;
- Certification signed by owner, operator, or representative; and
- Brief explanation of why waste was not manifested, if known.

4.1.2 Waste Acceptance Procedures

Waste acceptance procedures are discussed in Section 2 and Appendix D.

4.1.3 Sampling and Analysis Procedures

Sampling and analysis procedures are discussed in Section 2 and Appendix D.

4.2 UNLOADING/LOADING AND WASTE TRANSFER PROCEDURES

The various methods used for safely unloading, loading, and moving hazardous waste around the Facility include the following:

- Front loaders, backhoes, dozers, augers, conveyors, and/or scrapers may be used to safely transfer bulk solids between various types of containers (e.g., roll-off bin, end-dump truck, etc.);
- Trucks, forklifts, and other vehicles are available for transporting items such as containers, roll-off bins, and emergency response equipment throughout the Facility.
- Vacuum or atmospheric tanker trucks may be used for transfers and consolidations of waste shipments.
- Forklifts are available to handle and transport palletized and non-palletized containers. The forklifts are equipped with container handling devices such as container/drum moving mechanisms to facilitate the safe movement of the container/drum. Pallets are

also used to aid in the safe movement and storage of containers. Forklifts with drum-tilt, box-tilt and other attachments for dumping are also used to ensure the safe transfer of hazardous waste.

- Power lifts, pallet jacks, and cables/chains may be used in the event it is necessary to safely unload, load, and/or handle hazardous waste containers.
- Pumps are used to safely transfer pumpable hazardous waste. Various types of pumps (e.g., air or electric powered portable and fixed pumps) are used depending upon the characteristics and volumes of the hazardous waste. Container residues may be rendered pumpable by the addition of compatible substances such as water, solutions or other liquids followed by use of portable mixers. Small containers may be emptied into larger containers by pouring instead of using a pump. A funnel may be used to ensure the liquid is poured safely. Vacuum or atmospheric tanker trucks may be used to load or unload bulk hazardous waste. Tankers may use on-board pumps to transfer liquids.
- Pipes are used to transfer hazardous waste. Pipelines are provided with, or located within, secondary containment.
- Ramps are located in various areas throughout the Facility (e.g., in the loading and unloading areas, container storage areas) to facilitate the safe handling of hazardous waste.
- Hoses fabricated from impervious materials may be used for the transfer of hazardous waste for short distances or non-routine transfers.
- Dewatering bins, filters, strainers, stationary or rotary screens, sumps and equivalent devices may be used for liquid-solids management and separation and control/collection during transfer processes.
- “Quills and Stingers” may be used to access liquid residues in tanks and containers.
- Solid waste may be bagged, boxed, or drummed using manual tools and/or mechanical equipment.
- Temporary portable/transportable tanks with, or within, secondary containment may be used to ensure the safe handling and transport of hazardous waste in an emergency or during special maintenance situations.
- Certified overhead and jib-type cranes may be utilized with various standard attachments for the loading, unloading and transport of hazardous waste.

- Devices for cleaning, crushing, compacting, etc. may be utilized for the management of used containers, debris, or other bulky waste.

4.3 WASTE STORAGE PROCEDURES

- Hazardous waste is stored in various types of containers, roll-off bins, end-dump trailers, tanker trucks, and bulk containers (e.g., totes, and polypropylene, fiberglass, steel tanks or intermodal containers). The following procedures aid in the safe storage of hazardous waste: Based on the results of the waste acceptance and sampling and analysis procedures, the hazardous waste will be transferred from one of the receiving areas of Area I to one of the storage areas of Area II, or one of the storage tanks of Area III where it will be held for storage, consolidation, treatment and/or transfer to another facility.
- All designated waste storage and treatment areas are provided with secondary containment.
- During transfer activities, containers of waste can be temporarily stored in trucks, vans, or other appropriately contained areas of the Facility.
- Containers of incompatible wastes will be stored in segregated areas.
- All containers are inspected for damage or leakage. If a damaged or leaking container is identified, it will be placed either in a suitable overpack container, placed on an adequately sized containment pallet, or transferred to a suitable container or tank.
- Containers are inspected for condition and adequacy upon arrival at the Facility. Containers found to be in poor condition are overpacked or emptied and the contents transferred into a suitable container or tank.
- Containers are kept closed except when operations require otherwise.
- Waste storage areas, containers, tanks and equipment are routinely inspected. Appropriate maintenance and/or spill management activities will be conducted based on the results of the inspections.
- Reactive and ignitable wastes as defined in Section 2.1.3.2 are not accepted at the Facility. However, if these types of wastes are received, they will be temporarily stored in segregated areas of Area I and/or Area II greater than 50 feet in all directions from the Facility property boundaries until they can be transferred to an appropriate off-site TSDF.
- Hazardous wastes are not stored in unwashed containers which previously held incompatible waste.

- All containers which previously held hazardous waste and do not meet the regulatory definition of "empty" are stored and handled as hazardous waste. Empty hazardous waste containers which meet the regulatory definition of empty (22 CCR 66261.7) are either reused on site, sent off site for reconditioning or recycling, returned to the generator, or crushed or otherwise managed for recycling and/or disposition with compatible solid waste.
- "No Smoking" signs will be conspicuously placed if there is a hazard from ignitable waste; however, the Facility does not accept waste with a flashpoint below 140 ºF.

4.4 WASTE TREATMENT PROCEDURES

The following procedures aid in the safe treatment of hazardous waste:

- Treatment tanks have secondary containment.
- At no time is the treatment of hazardous waste allowed if tank failure may result.
- Waste analysis is conducted as described in the WAP (Appendix D) to test for compatibility of waste accepted for treatment at the Facility.
- Tanks are routinely inspected and maintained. Daily inspections include discharge and overfilling control equipment, monitoring equipment, waste levels in tanks, tank exterior, construction materials and containment areas/systems.
- Liquid levels in the tanks are monitored by level gauging systems. In addition, tanks are equipped with high level alarms.
- Incompatible wastes are not stored in the same tank. However, certain types of incompatible wastes (e.g. acids and bases) may be combined during their treatment.

4.5 MANAGEMENT OF TREATED WASTEWATER

If treated wastewater meets the discharge limits identified in the Industrial Waste Water Discharge Permit, it will be discharged to the POTW sanitary sewer system. If the wastewater is not suitable for discharge to the POTW sanitary sewer system, it will be reused, re-circulated through the treatment system (Area III) for further treatment, or transferred to an appropriate off-site TSDF. Waste generated by other activities such as maintenance or spill management will be either treated on site or sent to an appropriate off-site TSDF or recycling facility.

4.6 INSPECTION AND MAINTENANCE PROCEDURES

All areas and equipment associated with the management of hazardous waste are inspected and maintained on a regular basis and in accordance with RCRA hazardous waste and air emission standards (Section 3.9). The inspection schedule is provided in Table 4-1 (Inspection Schedule and Checklist). Inspections and maintenance activities are also conducted of the equipment used to load and unload waste to or from rail cars located in the off-site loading and unloading area.

4.6.1 Inspection and Maintenance Records

During the course of an inspection should any device, structure, etc. be found defective and in need of repair, the nature of the anomaly is recorded on the inspection log, corrective actions are taken, and repairs are made. Inspection and maintenance logs are kept and reports are maintained at the Facility for at least three calendar years from the date of inspection. The following information is documented in the inspection records, as appropriate:

- Summary of maintenance performed;
- Reference to the inspection report which identified the need for maintenance;
- Additional comments about the maintenance; and
- Name of the maintenance personnel responsible, and the time and date for completion of maintenance.

4.6.2 Inspection of Containers and Container Storage Areas

Containers are inspected during unloading at the Facility, transfer and storage within the Facility, and loading for transportation to off-site facilities. A daily inspection is conducted of the container storage area to ascertain any container deterioration, confirm container labeling, verify aisle spacing, and check for liquid accumulation.

4.6.3 Inspection of Tanks and Containment Areas

All storage and treatment tanks are inspected externally on a daily basis. A daily inspection is made of all tank containment structures and construction materials. The following procedures are used for tank inspections:

- Visually inspect tank walls and pad for wetness, cracks, holes, etc. (daily);
- Check for leaks around valve area, couplings, and threaded nipples, as applicable (daily);

- Check tank markings for weathering and proper identification of tank contents (daily);
- Check external tank walls for signs of corrosion and pitting (daily).

4.6.4 Inspection of Operating Equipment

The existing Facility uses a combination of automatic and batch-feed process and handling techniques. Manual equipment is subject to operator scrutiny at each use. Problems which cannot be solved immediately by the operator are reported to the Operations Manager. Repairs, if necessary, or other corrective action, are undertaken expeditiously. The nature of the problem and the solution (repair) will be documented.

Air pollution control systems are inspected daily in order to determine if maintenance is necessary. In addition, inspection and maintenance activities are conducted in accordance with the air emission standards discussed in Section 3.9.

The frequency of inspection for each operating system, area, and equipment item is presented in Table 4-1**,** the Inspection Schedule and Checklist.

4.6.5 Inspection of Emergency Response/Safety Equipment and Security Devices

Emergency response equipment, personal protection equipment and security devices are inspected on a regular basis as shown in Table 4-1. Fire extinguisher tank pressure is checked and extinguishers are recharged or replaced as required. Absorbents and sand bags located on site are inspected for deterioration and inventory control. The perimeter security walls are inspected and repairs made as needed. Bulbs in security lights are replaced as necessary. Personal safety equipment is inspected prior to use and routinely for normal wear and tear. This includes checking tank pressure and condition of all hoses and regulators on the Self-Contained Breathing Apparatus (SCBA) equipment, and checking the proper operation of the eyewashes and showers. Respirators are maintained according to manufacturer's recommendations. Safety equipment specifications are presented in Appendix P (Safety Equipment Specifications) as examples of the types of safety equipment that are supplied and used on a regular basis at the Facility.

TABLE 4-1
Inspection Schedule and Checklist

ITEM	ITEMS TO BE INSPECTED	INSPECTION
Operating Equipment		
Bulk Containers/Tanker Trucks/Rail Cars (off-site)	Hoses Valves Tank leaks Pump leaks	At each use
Valves and Piping	Leaks Seals	Weekly
Discharge Point	Standpipe Seal	Weekly
Structural Equipment		
Drums/Containers	Leaks Corrosion	Daily
Container Storage Areas Secondary Containment Coating	Condition of Synthetic Coating	Weekly, overall condition Annually
All Storage/Treatment Tanks	Valves, Leaks, Tank Exterior/Cracks/ Construction Materials, Piping, Level Control System, Tank Level, Monitoring Equipment, Containment Area, Loading & Unloading Area	Daily
	Steel Tanks, Corrosion (internal) & Certification	As needed
	Steel Tanks, Corrosion (ultrasound)	As needed
	Tank Openings	Annually
	Poly Tanks, Flaws, Cracks	Annually
Containment Walls and Slabs	Cracks, liquid accumulations	Daily
	Condition of Coating	Overall condition Annually
Protective Clothing		
	Availability, Integrity of Caps/hood, Visor/goggles, Boots, Gloves, Jackets, Pants, Overalls	Prior to each use or Monthly

TABLE 4-1 (Continued)
Inspection Schedule and Checklist

ITEM	ITEMS TO BE INSPECTED	INSPECTION
Safety Equipment		
Eye Wash/Shower	Pressure check Sanitation	Weekly
Respirators/SCBA	Face Piece Valve Seat and Hoses Cartridges Refill Tanks	Monthly
Fire Extinguishers	Pressure gauge	Monthly
	Recharge required	Annually
Absorbents/Sand Bags	Inventory and condition	Monthly
Spill Kits	Inventory and condition	Weekly
Fire Hydrant	Flow Test	Annually (by AMB Vernon Industrial Park, LLC)
Air Horns	Operability	Weekly
Evacuation Alarms	Operability	Weekly
Monitoring Equipment		
Level Indicators	Lamp Test Level Monitoring Gauge	Daily
	Hi-Level Audible Alarm/Warning Light	Monthly
Sampling Equipment	Inventory and Condition	Daily
Security Equipment		
Security Fence	Barbed Wire Fence Integrity	Daily
Lighting	Proper operation	Daily
Air Pollution Control Systems	Operating Parameters General Condition Media Break-Through	Daily

SECTION 5

Preparedness and Prevention

This page was intentionally left blank.

SECTION 5
Preparedness and Prevention

Table of Contents

Section		Page
5.1	PROCEDURES TO MINIMIZE EMERGENCY SITUATIONS	5-1
5.2	SECURITY	5-1
5.3	INSPECTION AND MAINTENANCE	5-1
5.4	COMMUNICATION	5-1
5.5	ALARM SYSTEM	5-2
5.6	EMERGENCY EQUIPMENT	5-2
5.7	WATER AND FIRE CONTROL	5-2
5.8	AISLE SPACE REQUIREMENTS	5-2
5.9	ARRANGEMENTS WITH LOCAL AUTHORITIES	5-2
5.10	PREVENTION PROCEDURES, STRUCTURES AND EQUIPMENT	5-3
5.11	EQUIPMENT AND POWER FAILURE	5-3
5.12	PERSONNEL PROTECTION PROCEDURES	5-4
5.13	PROCEDURES TO MINIMIZE RELEASES TO THE ATMOSPHERE	5-4
5.14	PREVENTION OF REACTION OF IGNITABLE, REACTIVE AND INCOMPATIBLE WASTE	5-4

This page was intentionally left blank.

5.0 PREPAREDNESS AND PREVENTION

5.1 PROCEDURES TO MINIMIZE EMERGENCY SITUATIONS

The Facility and its operating procedures have been designed and/or implemented to promote safe operations and minimize emergency situations. Specific discussions as to how preparedness and prevention is achieved are provided throughout this application. The following sections reference where additional information can be obtained regarding specific preparedness and prevention activities.

5.2 SECURITY

The Facility is secured to prevent unauthorized persons from entering the Facility. Security fencing is provided around the entire Facility by a six to eight foot chain-link fence topped with multiple strands of barbed wire. The only access to the Facility is through continuously locked gates. The main vehicle entrance gate is nine feet high, topped with barbed wire, controlled by electromechanical means, and continuously monitored during normal business hours. Activities are recorded by video surveillance 24-hours per day. The personnel entrance gate is also monitored by video surveillance, and controlled by electromechanical means.

All visitors to the Facility must sign in and are accompanied by trained personnel when in the operational areas. Properly trained contractors do not require a Facility escort.

Signs are posted at all entrances and around the perimeter of the Facility. The signs are in English and Spanish and indicate that hazardous waste is stored and treated within the Facility. The signs are sized to be readable from at least 25 feet away.

5.3 INSPECTION AND MAINTENANCE

Section 4.6, Inspection and Maintenance Procedures, provides a description of the inspection and maintenance procedures at the Facility.

5.4 COMMUNICATION

Telephones are located throughout the Facility. In addition, key personnel are equipped with mobile phones and/or radios. The Facility is equipped with a public address system which is adequate to be heard in all areas of the Facility and an air horn alarm system which is activated for evacuation. Telephones are the primary means of external communication to contact fire, police or paramedics, if required.

5.5 ALARM SYSTEM

The Facility is equipped with an air horn alarm system which will be sounded in the event of an evacuation. A long blast indicates that the Facility must be evacuated and a short blast indicates that it is safe to return. In addition, the other means of communication discussed in Section 5.4 can be used to assist with instructions during emergency situations. The Contingency Plan (Appendix Q) provides a detailed description of emergency evacuation procedures.

5.6 EMERGENCY EQUIPMENT

The Contingency Plan (Appendix Q) provides a list of the emergency equipment located at the Facility. The emergency equipment is tested and maintained on a regular basis as described in Section 4.6. All safety and emergency equipment is evaluated and/or tested in accordance with the schedule provided by the manufacturer. Records are maintained either with the equipment, in the work area or in the inspection logs.

5.7 WATER AND FIRE CONTROL

An adequate supply of water is available for emergency situations. Both potable and non-potable water are supplied to the Facility via two-inch diameter pipeline from the City. There is a fire hydrant located in the street outside of the Facility. A 300,000-gallon water storage tank is located east of Waste Receiving and Shipping Station 1 (WRS1) of Area I. This tank is connected to a fire pump that is capable of delivering 1,600 gpm of water for fire-fighting.

Pipes containing potable and non-potable water are appropriately labeled as to their contents. All water supplies to the Facility are protected by backflow prevention devices.

5.8 AISLE SPACE REQUIREMENTS

The aisle spaces in the treatment and storage areas are maintained to allow the unobstructed movement of personnel, fire protection equipment, spill containment equipment and decontamination equipment to any of the Facility operations in an emergency.

5.9 ARRANGEMENTS WITH LOCAL AUTHORITIES

A copy of the Contingency Plan has been submitted to the following agencies:

- City of Vernon Police Department;
- City of Vernon Fire Department;

- City of Vernon Public Works Department;
- City of Vernon Environmental Health Department;
- State Regional Water Quality Control Board;
- Department of Toxic Substances Control;
- State Office of Emergency Services; and
- White Memorial Hospital, the Hospital most likely to provide medical care.

None of the authorities who were contacted refused to accept a copy of the Contingency Plan or enter into an agreement with the Facility.

The City of Vernon Fire Department has a Haz-Mat Unit with members trained in the emergency response of facilities containing hazardous substances. The Vernon Fire Department/Haz-Mat Unit has been provided with a copy of the Contingency Plan and is familiar with the hazardous waste operations at the Facility.

The Contingency Plan provides contact information for the local and State emergency response authorities.

5.10 PREVENTION PROCEDURES, STRUCTURES AND EQUIPMENT

The Facility personnel are trained to safely perform their job responsibilities. Section 7.0, Personnel Training, describes the manner in which the Training Program is conducted. Section 3.0, Facility Design, provides detailed design information of the containment areas for the loading and unloading operations, storage areas and treatment areas. Section 4.0, Waste Management Procedures describes how hazardous waste is safely managed at the Facility. As a result of the Facility design and personnel training, procedures and structures are in place to prevent runoff from hazardous waste handling areas.

5.11 EQUIPMENT AND POWER FAILURE

If a power failure occurs, operations will be stopped. Hand held and permanently mounted emergency light sources are available to facilitate the shut down. A portable generator is also available from an off-site supplier, if needed.

5.12 PERSONNEL PROTECTION PROCEDURES

The Facility provides specific personal protective equipment (PPE) in accordance with the hazards associated with specific operations. Personnel are trained in the use of PPE and the equipment is inspected and maintained on a regular basis. A list of the PPE maintained at the Facility is provided in the Appendix Q (Contingency Plan).

5.13 PROCEDURES TO MINIMIZE RELEASES TO THE ATMOSPHERE

During normal operations, no harmful hazardous waste vapors or dust are generated. The Facility is operated in accordance with the SCAQMD Permits to Operate and RCRA (Section 3.9) and SCAQMD air quality regulations. Emissions from the treatment equipment are controlled by air pollution control equipment, such as carbon filters and scrubbers, as required by the SCAQMD permits. Monitoring equipment such as combustible gas detector/oxygen meter and Drager gas detection tubes are available during emergency situations. Hydrogen sulfide, sulfur dioxide, and hydrogen cyanide monitors are hardwire-installed with audible alarms for continuous monitoring.

5.14 PREVENTION OF REACTION OF IGNITABLE, REACTIVE AND INCOMPATIBLE WASTE

The following are some of the procedures that prevent ignition of ignitable or reactive hazardous waste:

- The Facility does not accept ignitable or reactive wastes as defined in Section 2.1.3.2.
- Smoking is prohibited wherever there is a hazard from ignitable or reactive waste.
- Hot Work permits are required for any activity that may produce heat, sparks or flames outside designated Hot Work areas.

The following are some of the procedures that prevent accidental mixing of incompatible hazardous waste:

- Incompatible wastes are stored in segregated areas.
- Waste will not be placed in a container or tank that holds incompatible waste unless the container or tank has first been adequately cleaned or when the incompatible wastes act as reagents in the treatment process.

SECTION 6

Contingency Plan and Emergency Procedures

This page was intentionally left blank.

SECTION 6
Contingency Plan and Emergency Procedures

Table of Contents

Section		Page
6.1	PURPOSE AND IMPLEMENTATION OF THE CONTINGENCY PLAN	6-1
6.2	CONTENTS OF THE CONTINGENCY PLAN	6-1
6.3	COPIES OF THE CONTINGENCY PLAN	6-1
6.4	AMENDMENT OF THE CONTINGENCY PLAN	6-1
6.5	EMERGENCY COORDINATOR RESPONSIBILITIES	6-2
6.6	CONTAINER AND TANK SPILLS AND LEAKAGE	6-2
6.7	SAFETY AND EMERGENCY EQUIPMENT	6-2
6.8	WATER SUPPLY AND BACKFLOW PROTECTION	6-2

This page was intentionally left blank.

6.0 CONTINGENCY PLAN AND EMERGENCY PROCEDURES

6.1 PURPOSE AND IMPLEMENTATION OF THE CONTINGENCY PLAN

The Contingency Plan provided in Appendix Q is designed to minimize hazards to human health and the environment from fires, explosions, or unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the Facility. This Plan is implemented whenever there is a fire, explosion, or known or suspected release of hazardous waste or hazardous waste constituents, which could potentially threaten human health or the environment.

6.2 CONTENTS OF THE CONTINGENCY PLAN

The Contingency Plan provides a comprehensive approach to responding to emergency situations. It addresses events such as fires, explosions, injuries, sudden or non-sudden releases, local and state emergency contacts, emergency equipment, evacuation routes and emergency coordinator responsibilities.

6.3 COPIES OF THE CONTINGENCY PLAN

A copy of the Contingency Plan will be maintained in the offices of the Primary Emergency Coordinator and Alternates of the Facility. Copies of the Contingency Plan, and all revisions, will be submitted to the following Public Safety Agencies:

- City of Vernon Police Department;
- City of Vernon Fire Department;
- City of Vernon Public Works Department;
- City of Vernon Environmental Health Department;
- State Regional Water Quality Control Board;
- Department of Toxic Substances Control;
- State Office of Emergency Services; and
- White Memorial Hospital, the Hospital most likely to provide medical care.

6.4 AMENDMENT OF THE CONTINGENCY PLAN

The Plan must be reviewed annually and revised if needed for the reasons noted below:

- Applicable regulations are revised;
- The Plan fails in an emergency;
- The Facility is modified in its design, construction, operation, maintenance, or other circumstances in a way that materially increase the potential for fires, explosions, or releases of hazardous wastes or hazardous wastes constituents, or changes the response necessary in an emergency;
- The lists of emergency, safety, technical personnel changes;
- The lists of emergency equipment changes;
- Emergency Coordinator telephone number changes.

6.5 EMERGENCY COORDINATOR RESPONSIBILITIES

The Contingency Plan identifies the Emergency Coordinator, provides contact information and specifies what his/her responsibilities are.

6.6 CONTAINER AND TANK SPILLS AND LEAKAGE

The Contingency Plan identifies the procedures for responding to potential container or tank spills and leakage.

6.7 SAFETY AND EMERGENCY EQUIPMENT

A list of the emergency equipment and its location at the Facility is provided in the Contingency Plan.

6.8 WATER SUPPLY AND BACKFLOW PROTECTION

An adequate supply of water is available for emergency situations. Both potable and non-potable water are supplied to the Facility via two-inch diameter pipeline from the City. There is a fire hydrant located in the street outside of the Facility. A 300,000-gallon water storage tank is located east of Waste Receiving and Shipping Station 1 (WRS1) of Area I. This tank is connected to a fire pump that is capable of delivering 1,600 gpm of water for fire-fighting.

Pipes containing potable and non-potable water are appropriately labeled as to their contents. All water supplies to the facility are protected by backflow prevention devices.

SECTION 7

Personnel Training

This page was intentionally left blank.

SECTION 7
Personnel Training

Table of Contents

Section **Page**

7.1 TRAINING PROGRAM 7-1

This page was intentionally left blank.

7.0 PERSONNEL TRAINING

7.1 TRAINING PROGRAM

The Facility has a comprehensive Training Program that addresses both facility operations and health and safety issues. The primary objective of the Training Program is to promote the safe operation of the Facility and proper protection of the public safety and environment. A detailed description of the personnel training requirements is provided in Appendix R (Facility Operations and Health and Safety Training Plan). The following other documents also support the Training Program:

- Waste Analysis Plan (Appendix D);
- Process Equipment Specifications and Operations/Maintenance Manuals;
- Inspections and Maintenance Procedures (Section 4);
- Contingency Plan (Appendix Q);
- Safety Data Sheets (Appendix M); and
- Environmental Permits (Appendix O).

This page was intentionally left blank.

SECTION 8

Closure and Post-Closure Plans

This page was intentionally left blank.

SECTION 8
Closure and Post-Closure Plans

Table of Contents

Section **Page**

8.1 CLOSURE PLAN 8-1
8.2 PARTIAL CLOSURE 8-1
8.3 CLOSURE COST ESTIMATE 8-2
8.4 POST-CLOSURE PLAN 8-2
8.5 RECORD KEEPING 8-2
8.6 FINANCIAL RESPONSIBILITY 8-2

This page was intentionally left blank.

8.0 CLOSURE AND POST-CLOSURE PLANS

8.1 CLOSURE PLAN

The Facility stores, treats, recycles, and/or transfers hazardous and non-hazardous wastes from outside industrial, commercial, institutional, and governmental sources. The Facility accepts a variety of wastes in the form of liquids, sludges, and solids. The wastes that are accepted for treatment are treated by a series of chemical and/or physical processes to destroy or remove hazardous constituents and properties. The residues from this treatment are discharged to the LACSD sewer system, recycled on-site, or shipped off-site to an appropriate facility. The Facility is currently permitted under state and federal regulations as a TSDF.

After receiving the final volume of hazardous waste, the Facility will treat, remove from the hazardous waste management areas, and dispose all hazardous wastes at an off-site location in accordance with the Closure Plan in Appendix S. The Closure Plan (Appendix S) was prepared pursuant to 40 CFR 264 Subpart G and 22 CCR Chapter 14, Article 7.

At the time of closure, the Facility proposes to "clean close". Activities associated with closure of the hazardous waste management areas will include removal and/or decontamination of hazardous waste residues and contaminated containment system components, equipment, structures and soils; treatment process and storage equipment and tanks; and paved surfaces. Equipment, structures, and tanks will be disposed of in an appropriate manner at an off-site location. For a detailed description of proposed closure activities, refer to Appendix S.

8.2 PARTIAL CLOSURE

In the event that one or more components of the hazardous waste management areas (including individual tanks, container storage areas, or waste receiving and shipping areas) is no longer needed, the component or components may be closed. If one or more hazardous waste management area components are closed, the performance standards and closure procedures for partial closures, as outlined in the Closure Plan (Appendix S), would be implemented for the subject component or components. The DTSC will be notified before the partial closure of the hazardous waste management area component or components begins, and the Closure Plan will be appropriately updated and revised.

8.3 CLOSURE COST ESTIMATE

A cost estimate for the closure of the Facility is presented in Appendix S. The Closure Plan and cost estimate will be amended if requested by DTSC and required by applicable regulations.

8.4 POST-CLOSURE PLAN

The Facility plans for clean closure. Therefore, no Post-closure Plan will be required.

8.5 RECORD KEEPING

The Facility will maintain a copy of the Closure Plan and cost estimate prepared for this permit renewal as approved by DTSC. When the Closure Plan and closure cost estimate is updated or amended as required by DTSC and applicable regulations, the updated estimate will also be maintained. These records are kept in the offices located at the Facility.

8.6 FINANCIAL RESPONSIBILITY

The Facility meets the financial responsibility requirements of 22 CCR 66264.143 for closure. In order to provide assurance of financial responsibility, the Facility has provided a Financial Guarantee Bond. A copy of the Financial Guarantee Bond and other relevant documentation of financial responsibility are included in Appendix S. The Facility may choose to change the financial responsibility assurance mechanism during the term of the permit to any one or combination of mechanisms allowed by 22 CCR 66264.143.

SECTION 9

Permits and Other Federal Laws

This page was intentionally left blank.

SECTION 9
Permits and Other Federal Laws

Table of Contents

Section **Page**

9.1 PERMITS 9-1
9.1.1 HAZARDOUS WASTE FACILITY PERMIT 9-1
9.1.2 SANITATION DISTRICTS OF LOS ANGELES COUNTY PERMIT 9-1
9.1.3 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT PERMITS 9-1
9.1.4 CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD 9-1
9.1.5 STATE WATER RESOURCES CONTROL BOARD 9-1
9.1.6 CITY OF VERNON 9-2
9.2 OTHER FEDERAL LAWS 9-2
9.2.1 THE WILD AND SCENIC RIVERS ACT 9-2
9.2.2 THE NATIONAL HISTORIC PRESERVATION ACT 9-2
9.2.3 THE ENDANGERED SPECIES ACT 9-2
9.2.4 THE COASTAL ZONE MANAGEMENT ACT 9-2
9.2.5 THE FISH AND WILDLIFE COORDINATION ACT 9-3

TABLES
Table 9-1 Facility Permits, Licenses and Registrations 9-4

This page was intentionally left blank.

9.0 PERMITS AND OTHER FEDERAL LAWS

9.1 PERMITS

A list of permits, licenses, and registrations held by the Facility is presented in Table 9-1. Relevant environmental permits are discussed in the following subsections.

9.1.1 Hazardous Waste Facility Permit

In accordance with 22 CCR Chapter 20, the Facility operates under an existing Part A and Part B Hazardous Waste Facility Permit (Regional Permit Number 96-SC-TS-06) issued by the DTSC and EPA, effective October 7, 1996. The existing permit expires on October 7, 2006. The Hazardous Waste Facility Permit has had twenty-two Class 1*/1/2 modifications since the permit was issued. A copy of the permit and permit modifications are included in Appendix O.

The Facility is a registered generator of hazardous waste, EPA ID No. CAD097030993.

9.1.2 Sanitation Districts of Los Angeles County Permit

Discharge of treated wastewater to the POTW sanitary sewer system is permitted under Temporary Industrial Wastewater Discharge Permit No. 21452, issued to the Facility by the LACSD. A copy of the permit, most recently re-issued on February 27, 2014 is included in Appendix O.

9.1.3 South Coast Air Quality Management District Permits

Operation of the Facility treatment system (Area III) and air pollution control systems are permitted under five SCAQMD Permits to Operate (PTOs). These permits are renewed annually in May of each year. Copies of the existing PTOs are included in Appendix O.

9.1.4 California Regional Water Quality Control Board

The Regional Water Quality Control Board (RWQCB) does not regulate the Facility. The RWQCB does not issue waste discharge permits for the sanitary sewerage system. These permits are supplied by the local sanitation district.

9.1.5 State Water Resources Control Board

The Facility is designed such that storm water in the operating areas of the Facility is collected, appropriately treated and discharged to the POTW in accordance with the Facility Industrial

Wastewater Discharge Permit issued by the LACSD. Therefore, the Facility does not discharge to the surface waters of the United States and is not required to obtain a Stormwater Discharge Permit. However, the Facility has filed a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB), prepared a Stormwater Pollution Prevention Plan (SWPPP) and submits annual reports to the SWRCB. A copy of the NOI is included in Appendix O. A revised General Industrial Stormwater Permit was adopted on April 1, 2014 and became effective on July 1, 2015. The Facility updated the NOI and SWPPP to be in compliance with the new General Industrial Stormwater Permit requirements.

9.1.6 City of Vernon

The Facility operates in the City of Vernon under a CUP issued by the City of Vernon, and a Waste Processing Facility Health Permit and a Hazardous Materials Class C Health Permit issued by the City of Vernon Environmental Health Department. Copies of these permits are included in Appendix O.

9.2 OTHER FEDERAL LAWS

9.2.1 The Wild and Scenic Rivers Act

There are no national wild and scenic rivers located in the vicinity of the Facility; therefore, the Facility is not subject to this act.

9.2.2 The National Historic Preservation Act

There are no properties listed or eligible to be listed in the National Register of Historic Places located in the vicinity of the Facility; therefore, the Facility is not subject to this act.

9.2.3 The Endangered Species Act

There are no endangered or threatened species or critical habitats located in the vicinity of the Facility; therefore, the Facility is not subject to this act.

9.2.4 The Coastal Zone Management Act

The Facility is not located near the coast or the coastal zone; therefore, the Facility is not subject to this act.

9.2.5 The Fish and Wildlife Coordination Act

The operations of the Facility do not directly affect fish and wildlife resources because it is located in an urban area; therefore, the Facility is not subject to this act.

TABLE 9-1
Facility Permits, Licenses and Registrations

Permit/License/Registration Agency	Permit/License/Registration Name	Permit/License/Registration Number	Date Issued	Expiration Date
Federal/State				
California Department of Toxic Substance Control	Hazardous Waste Facility Permit	96-SC-TS-06	8/30/1996	10/7/2006
California Department of Health Services	Environmental Laboratory Accreditation Program	2313	9/10/14	7/31/16
Department of Food and Agriculture	Weighmaster License	014141	4/29/16	5/1/17
California State Water Resources Control Board	General Stormwater Permit	WDID 4 19I024696	2/18/14	7/1/17
United States Environmental Protection Agency	Annual Toxic Release Inventory	90058SFLTR5375S	1998	7/1/16
Regional/County				
Sanitation Districts of Los Angeles County	Industrial Wastewater Discharge Permit	21452	2/26/14	2/25/19
South Coast Air Quality Management District	Air Emissions Permit to Operate	G30629	4/19/16	5/16/17
	Air Emissions Permit to Operate	G30630	4/19/16	5/16/17
	Air Emissions Permit to Construct/Operate	G30631	4/19/16	5/16/17
	Air Emissions Permit to Construct/Operate	G30632	4/19/16	5/16/17
	Air Emissions Permit to Construct/Operate	G30633	4/19/16	5/16/17
Local/City				
City of Vernon Environmental Health Department	Health Permit (Waste Processing Facility)	PT0000119	2/2/16	12-31-16
	Health Permit (Hazardous Materials – Class C)	PT0000535	7/1/15	6/30/16
City of Vernon	Conditional Use Permit	NA	1990	N/A
	Business License	HBL-009951	1/1/16	12/31/16
	Certificate of Occupancy	COO-003-685	9/10/14	N/A

SECTION 10

Records and Reports

This page was intentionally left blank.

SECTION 10
Records and Reports

Table of Contents

Section **Page**

10.1 DESCRIPTION OF RECORDS AND REPORTS 10-1
10.1.1 OPERATING RECORD 10-1
10.1.2 PERIODIC REPORTS 10-2
10.1.3 INCIDENT REPORTS 10-2
10.1.4 UNMANIFESTED WASTE REPORT 10-2
10.1.5 ANNUAL REPORT 10-3
10.2 PROCEDURAL ASSURANCES 10-3
10.3 ADDITIONAL RECORDS 10-3

This page was intentionally left blank.

10.0 RECORDS AND REPORTS

10.1 DESCRIPTION OF RECORDS AND REPORTS

Facility personnel maintain detailed and accurate records and reports of the operating, training, accident and/or emergency response activities, as well as those mandated by regulatory requirements. The following sections provide a brief description of these records and reports.

10.1.1 Operating Record

The Facility maintains a written operating record containing the information required by 22CCR 66264.73. Except as noted below, these operating records will be maintained until closure of the Facility and are available for inspection by authorized personnel at all times during normal operating hours.

The operating record consists of files, record sheets, logs and reports in hard copy and/or electronic form. The following operating information is recorded and maintained in the operating record:

- A description of the hazardous waste received, including its common name and the waste category number as listed on the Uniform Hazardous Waste Manifest.
- Names, addresses, and telephone numbers of the waste producer, hauler, treatment processor, and disposal site operator for each load of hazardous waste received at the Facility. This information is included on the Uniform Hazardous Waste Manifest or is entered as the load is received for processing.
- The source, quantity, composition, volume, physical state (e.g., liquid, sludge, or solid), type of container, and hazardous properties of each load of hazardous waste received.
- The treatment method used for each load of hazardous waste received.
- Records and results of waste analyses conducted in accordance with the WAP.
- Location within the Facility of storage for each waste shipment received, as described in the WAP.
- Summary reports of incidents involving Contingency Plan implementation.
- Inspection reports and logs, including findings. (These records will be maintained at the Facility for a minimum of three calendar years as required by DTSC.)
- Notices to waste producers informing them that the Facility can accept their wastes.

- Closure cost estimates and adjustments.
- LDR notifications.

10.1.2 Periodic Reports

The following reports are submitted to DTSC:

- Legible copies of manifests of hazardous wastes received;
- Incident Reports, if necessary;
- Unmanifested waste report, if necessary; and
- Annual Report.

10.1.3 Incident Reports

Accidents which could create a hazard to public health and safety or to the environment, or which could result in off-site discharge of hazardous waste will be reported to the DTSC within 24 hours. A written report of an accident or incident, which resulted in the implementation of the Contingency Plan, will also be made to the DTSC within 15 days after the incident.

10.1.4 Unmanifested Waste Report

The Facility operating procedures do not allow for the acceptance of unmanifested hazardous waste. If, however, the Facility were to receive unmanifested waste, where due to safety reasons the load could not be sent out on the road again, an unmanifested waste report will be submitted to DTSC within 15 days. The report will contain the following information, if available:

- EPA identification number, name and address of Facility.
- Date Facility received the waste.
- EPA identification number, name, and address of producer.
- EPA identification number, name, and address of hauler.
- Description and quantity of each unmanifested hazardous waste received.
- Method of treatment, storage, or disposal for each hazardous waste.
- Certification signed by owner, operator, or representative.
- Brief explanation of why waste was not manifested, if known.

10.1.5 Annual Report

An annual report is submitted to the DTSC by March 1st of each year. This report is also the EPA Biennial Report that is submitted to the Regional Administrator by March 1 of each even numbered year. The annual report covers the previous calendar year and includes:

- The EPA identification number, name, and address of the facility.
- Calendar year covered by report.
- The EPA identification number or name and address (if a number has not been issued) of each waste producer from which waste was received.
- Descriptions and quantity of each waste received during the previous year (arranged by EPA identification number of producer).
- Method of treatment of each waste.
- Most recent closure and post-closure cost estimates.
- Certification signed by owner, operator or representative.

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

10.2 PROCEDURAL ASSURANCES

Required records are available for inspection at the Facility by both the EPA and California DTSC. Records are retained for periods as noted earlier in this section. Information required in this section will be submitted to the California DTSC upon facility closure.

10.3 ADDITIONAL RECORDS

- Occupational Health and Safety Act (OSHA) Form 300. The required facility log of reportable accidents/injuries.
- Physical examination reports for employees handling hazardous waste.

- Training records for employees.
- Safety Data Sheets, as available, for hazardous materials handled or used at the Facility.
- Tank inspection records including ultrasonic test results for steel tanks.
- Inspection reports of leaks and repairs for equipment in heavy liquid service, as described in Section 3.9, as applicable.
- Records and reports under 40 CFR 264 Subparts AA, BB, CC Air Emission Standards as described in Section 3.9, as applicable.

SECTION 11

Certification and Signatures

This page was intentionally left blank.

SECTION 11
Certification and Signatures

Table of Contents

Section **Page**

11.1 OPERATOR CERTIFICATION 11-1
11.2 SIGNATURES OF OWNER, OPERATOR, AND PROPERTY OWNER..... 11-1

This page was intentionally left blank.

11.0 CERTIFICATION AND SIGNATURES

11.1 OPERATOR 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 be 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.

Jack J Masella — 12/2/2014

Jack J. Masella
Assistant Secretary, EHS
Evoqua Water Technologies LLC

Date

11.2 SIGNATURES OF OWNER, OPERATOR, AND PROPERTY OWNER

Jack J Masella — 12/2/2014

Facility Operator
Jack J. Masella
Assistant Secretary, EHS
Evoqua Water Technologies LLC

Date

Jack J Masella — 12/2/2014

Facility Owner
Jack J. Masella
Assistant Secretary, EHS
Evoqua Water Technologies LLC

Date

12/18/2014

Facility Property Owner
Scott Irwin
Vice President
AMB Vernon Industrial Park, LLC

Date

This page was intentionally left blank.