

TO VIEW THE MAP AND/OR MAPS WITH THIS DOCUMENT, PLEASE CALL THE HAZARDOUS WASTE BUREAU AT 505-476-6000 TO MAKE AN APPOINTMENT

Table of Contents

Cł	neckli	cklist	
1.	Gei	neral Fa	acility Standards
	1.1	Introc	luction1-1
	1.2	Gener	ral Description1-1
		1.2.1	Facility Name1-2
		1.2.2	Facility Contact1-2
		1.2.3	Facility Mailing Address1-2
		1.2.4	Purpose of Facility
		1.2.5	Facility Location1-3
		1.2.6	Hazardous Waste Generation1-3
		1.2.7	Sanitary Waste Generation1-3
		1.2.8	Nonhazardous Refuse Generation1-3
	1.3	Site E	I-4
	1.4	Locat	ion Information1-5
		1.4.1	Flood Plain Information 1-7
		1.4.2	Fire Control and Emergency Response1-7
	1.5	Traffi	c Patterns 1-7
		1.5.1	Traffic Control
		1.5.2	Onsite Transportation of Wastes1-8
		1.5.3	Routes 1-8
	1.6	Rema	inder of Permit Application1-8

er Newster

Sec.

Part A

2.	<u>Sto</u>	rage, T	reatment, and Disposal Landfill
	2.1	Facili	ty Overview
		2.1.1	Waste Acceptance
		2.1.2	Waste Receiving
		2.1.3	Waste Staging/Storage
		2.1.4	Waste Treatment
		2.1.5	Waste Disposal2-2
	2.2	Conta	iner Storage Areas
		2.2.1	Drum Handling Facility
		2.2.2	Roll-off Storage Area
		2.2.3	Warning Signs2-7
		2.2.4	Proper Waste Storage
		2.2.5	Ignitable/Reactive Wastes2-7
		2.2.6	Precautions to Prevent Reactions
		2.2.7	Inspection Methods2-7
		2.2.8	Types of Containers
		2.2.9	Labels
		2.2.10	Condition of Containers
		2.2.11	Compatibility with the Container
		2.2.12	Compatibility with Other Waste
		2.2.13	Aisle Space2-9
		2.2.14	Record Keeping2-9
	2.3	Storag	e in Tanks2-9
		2.3.1	Containment and Detection of Releases
		2.3.2	Management of Incompatible Wastes

Here

: P -

e de

	2.3.3	Spill and Overfill Prevention	-10
	2.3.4	Feed Mechanism, Pressure Controls, and Temperature Controls	-11
	2.3.5	Management of Ignitable or Reactive Wastes	-11
	2.3.6	Inspections	-12
	2.3.7	Corrosion Protection	-12
	2.3.8	Tank Assessments	-12
	2.3.9	Ancillary Equipment	-12
	2.3.10	Installation and Tightness Testing2-	-12
	2.3.11	Repair and Certification of Tank Systems2-	-13
2.4	Stabili	zation2-	-13
	2.4.1	Containment and Detection of Releases2-	-14
	2.4.2	Management of Incompatible Wastes2-	-15
	2.4.3	Spill and Overfill Prevention2-	-15
	2.4.4	Feed Mechanism, Pressure Controls, and Temperature Controls2-	-15
	2.4.5	Management of Ignitable or Reactive Waste2-	-15
	2.4.6	Inspections2-	-15
	2.4.7	Corrosion Protection	-15
	2.4.8	Tank Assessments	-16
	2.4.9	Ancillary Equipment	-16
	2.4.10	Installation Inspection and Tightness Testing2-	-16
	2.4.11	Repair and Certification of Tank Systems2-	-16
2.5	Landfi	ill	-17
	2.5.1	Design of Landfill	-17
	2.5.2	Construction2-	-23
	2.5.3	Operation2-	-25

Werro

111

	2.6	Treati	ment in Surface Impoundment
		2.6.1	Design of Surface Impoundment
		2.6.2	Construction
		2.6.3	Nature and Quantity of Waste
		2.6.4	Operation of the Unit
3.	Gro	oundwa	ter Protection
	3.1	Introd	luction
	3.2	Geogr	raphical Setting and Topography
		3.2.1	Physiographic Setting
		3.2.2	Topography
	3.3	Clima	te
		3.3.1	Temperatures
		3.3.2	Precipitation
		3.3.3	Wind
	3.4	Soils a	and Land Use
		3.4.1	Soil Profiles
		3.4.2	Land Ownership and Use
	3.5	Geolo	gy
		3.5.1	Regional Geology
		3.5.2	Site Investigation Activities
		3.5.3	Site Geology
	3.6	Surfac	e Water and Water Balance
		3.6.1	Surface Water
		3.6.2	Water Balance

- MOSANA

 $\mathcal{M}^{(q^{(1)})}:$

. S^{g.}

	3.7	Grou	ndwater
		3.7.1	Regional Aquifers
		3.7.2	Site Groundwater
	3.8	Grou	ndwater Protection Requirements
		3.8.1	General Monitoring Requirements
		3.8.2	Vadose Zone Monitoring Requirements Detection Monitoring Requirements 3-28
		<u>3.8.3</u>	Vadose Zone Monitoring Network
	3.9	Sumn	nary and Conclusions
4.	Jus	tificatio	on for <u>Alternative Design</u> Waiver from Double Liner Requirements
	4.1	Introd	luction
	4.2	Desig	n
		4.2.1	Run-on/Run-off Control System
		4.2.2	Perimeter Berm
		4.2.3	Final Cover
		4.2.4	Leachate Collection and Removal System
		4.2.5	Leak Detection System
		4.2.6	Liner Systems
	4.3	Opera	tion 4-7
	4.4	Locati	ion
		4.4.1	Geographic Location
		4.4.2	Geologic Setting
		4.4.3	Water Balance
		4.4.4	Groundwater
		4.4.5	Contaminant Transport Analysis 4-8
	4.5	Concl	usion

5.	Wa	ste Ana	alysis Plan
	5.1	Introd	luction
		5.1.1	Regulatory Requirements
		5.1.2	Description of Wastes Generated and Received at the Facility
	5.2	Waste	e Acceptance Program
		5.2.1	First-time Waste Acceptance Criteria and Procedures for Offsite-Generated Waste
		5.2.2	Ongoing Waste Acceptance Procedures for Offsite-Generated Waste 5-4
		5.2.3	Waste Acceptance Procedures for Onsite-Generated Waste
	5.3	Waste	e Tracking System
	5.4	Samp	ling Methods
	5.5	Analy	tical Methods
	5.6	Qualit	ty Assurance/Quality Control 5-9
Aŗ	opend	lix 5A I	Example Waste Profile Sheet
6.	Pro	cedures	s to Prevent Hazards
	6.1	Securi	ity Procedures to Prevent Hazards
		6.1.1	Barrier and Means to Control Entrance
		6.1.2	Warning Signs
	6.2	Inspec	ction Requirements
		6.2.1	General Inspection Requirements
		6.2.2	Landfill Inspection Requirements
		6.2.3	Surface Impoundment Inspection Requirements
		6.2.4	Container Storage Area Inspection Requirements
		6.2.5	Tank Inspection Requirements
		6.2.6	Stabilization Unit Inspection Requirements

- P -

14.034

iers Nam

erena a

	6.2.7	Security Equipment Inspection Requirements	6-6
	6.2.8	Safety and Emergency Response Equipment Inspection Requirements.	6-7
	6.2.9	Loading and Unloading Area Inspection Requirements	6-7
6.3	Prepa	redness and Prevention Requirements	6-8
	6.3.1	Internal Communications	6-8
	6.3.2	External Communications	6-8
	6.3.3	Emergency Equipment	6-8
	6.3.4	Water for Fire Control	6-9
	6.3.5	Required Aisle Space	6-9
	6.3.6	Arrangements with Local Authorities	6-9
6.4	Preve	ntive Procedures, Structures, and Equipment	6-9
	6.4.1	Loading, Unloading, and Waste Transfer Operations	6-9
	6.4.2	Run-off and Run-on	6-10
	6.4.3	Wind Dispersal Control System	6-11
	6.4.4	Water Supply Protection	6-11
	6.4.5	Mitigation of Effects of Equipment Failure and Power Outages	
	6.4.6	Prevention of Undue Exposure of Personnel to Hazardous Waste	
	6.4.7	Special Requirements for Bulk and Containerized Liquids Disposed in Landfills	6-13
	6.4.8	Special Requirements to Limit Releases to the Atmosphere	6-13
6.5	Preca Incom	utions to Prevent Ignition or Reaction of Ignitable, Reactive, or npatible Wastes	6-14
	6.5.1	General Requirements	6-14
	6.5.2	Requirements for the Landfill	6-15
	6.5.3	Incompatible Waste Handling	6-15

Sec. 1

111

Sec.

Appendix 6A Example Inspection Checklists

See. in

Bearing

Wagas

7.	Cor	ntingen	ingency Plan		
	7.1	Purpo	se and Introduction7-1		
	7.2	Gener	ral Responsibilities of the Emergency Coordinator		
	7.3	Circu	mstances Dictating Implementation of the Plan7-2		
	7.4	Imple	mentation Procedures		
		7.4.1	Discovery of Incident and Request for Assistance from Emergency Response Personnel		
		7.4.2	Identification and Characterization of Released or Suspected Released Material		
		7.4.3	Assessment of Hazard7-6		
		7.4.4	Offsite Notification and Evacuation Criteria7-6		
		7.4.5	Response and Control Procedures7-7		
		7.4.6	Measures to Prevent Recurrence or Spread		
		7.4.7	Storage and Treatment of Released Hazardous Waste		
	7.5	Post-I	mplementation Procedures		
		7.5.1	Post-Emergency Equipment Maintenance		
		7.5.2	Required Reports and Notification7-14		
	7.6	Docu	ments to be Maintained Onsite as Part of the Permit		
	7.7	Amer	ndment of Contingency Plan7-16		
Aŗ	opend	lix 7A (Coordinating Agreements 7A-1		
Aŗ	openc	dix 7B List of Emergency Coordinators7B-1			
Aj	openc	lix 7C I	Evacuation Plans7C-1		
Aj	openc	lix 7D]	ix 7D Location, Description, and Capabilities of Emergency Equipment		
8.	Per	sonnel	Training		

	8.1	Introd	uction
	8.2	Job Ti	tles and Duties
		8.2.1	RCRA Training Officer
		8.2.2	Emergency Coordinator
		8.2.3	Waste Handlers
		8.2.4	Site Security Officers
		8.2.5	Laboratory Specialist
		8.2.6	Maintenance Personnel
	8.3	Traini	ng Content and Frequency
		8.3.1	Training Program for Facility Personnel
		8.3.2	Training for Visitors
		8.3.3	Training for Offsite Emergency Response Organizations
	8.4	Recor	d Keeping
		8.4.1	Job Titles, Descriptions, and Duties
		8.4.2	Training Documentation
		8.4.3	Other Documentation
9.	Clo	sure an	d Post-Closure of Permitted Units9-1
	9.1	Introd	uction
	9.2	Closu	re Activities
		9.2.1	Drum Handling Facility
		9.2.2	Evaporation Surface Impoundment
		9.2.3	Liquid Waste Receiving and Storage Facility9-4
		9.2.4	Stabilization Treatment Unit
		9.2.5	Roll-off Storage Area9-6
		9.2.6	Landfill9-6

Children company systems

" NEWP

Welgor

9.3 Post-Closure Activities
9.4 Closure Performance Standard
9.5 Closure Schedule
9.6 Certification of Closure
9.7 Modifications to the Plan
9.8 Closure Cost Estimates
9.8.1 Closure Costs
9.8.2 Post-Closure Costs
9.9 Financial Assurance
10. Waste Minimization 10-1
10.1 Introduction 10-1
10.2 Establishing a Waste Minimization Program10-1
10.3 Establishing a Written Policy 10-2
10.4 Developing a Waste Minimization Program Plan 10-2
11. Corrective Action
12. 40 CFR 264 Subpart AA and BB Regulations12-1
12. 40 CFR 264 Subpart AA and BB Regulations
12. 40 CFR 264 Subpart AA and BB Regulations 12-1 12.1 40 CFR 264 Subpart AA 12-1 12.2 40 CFR Subpart BB 12-1
12. 40 CFR 264 Subpart AA and BB Regulations 12-1 12.1 40 CFR 264 Subpart AA 12-1 12.2 40 CFR Subpart BB 12-1 12.2.1 Equipment List 12-1
12. 40 CFR 264 Subpart AA and BB Regulations 12-1 12.1 40 CFR 264 Subpart AA 12-1 12.2 40 CFR Subpart BB 12-1 12.2.1 Equipment List 12-1 12.2.2 Equipment Controls 12-1
12. 40 CFR 264 Subpart AA and BB Regulations 12-1 12.1 40 CFR 264 Subpart AA 12-1 12.2 40 CFR Subpart BB 12-1 12.2.1 Equipment List 12-1 12.2.2 Equipment Controls 12-1 12.2.3 Equipment Marking 12-2
12. 40 CFR 264 Subpart AA and BB Regulations 12-1 12.1 40 CFR 264 Subpart AA 12-1 12.2 40 CFR Subpart BB 12-1 12.2.1 Equipment List 12-1 12.2.2 Equipment Controls 12-1 12.2.3 Equipment Marking 12-2 12.2.4 Leak Detection and Repair 12-2
12. 40 CFR 264 Subpart AA and BB Regulations 12-1 12.1 40 CFR 264 Subpart AA 12-1 12.2 40 CFR Subpart BB 12-1 12.2.1 Equipment List 12-1 12.2.2 Equipment Controls 12-1 12.2.3 Equipment Marking 12-2 12.2.4 Leak Detection and Repair 12-2 12.2.5 Record Keeping and Reporting 12-3

111

Steres

19^{00 to}r

. '₩65≻...>'

List of Tables

Table 3-1	Temperatures at Roswell, 1977 to 1978
Table 3-2	Monthly and Annual Precipitation Summary for Roswell 1977 through 1982 3-34
Table 4-1	HELP Analysis Results
Table 5-1	Parameters Required on Generator Waste Profile
Table 5-2	Analytical Methods for Fingerprint Samples 5-10
Table 5-3	Sampling Methods
Table 5-4	Some Parameters and Methods for Full Characterization
Table 6-1	Gandy Marley, Inc. Facility Inspection Schedule
Table 9-1	Closure Cost Estimates and Closure-Generated Waste Volumes
Table 9-2	Post-Closure Cost Estimates

List of Figures

Figure 1-1	Index Map - Proposed Site	1-8
Figure 1-2	Topographic Map	1-8
Figure 2-1	Conceptual Site Master Plan	2-34
Figure 2-2	Conceptual Drum Handling Facility	2-34
Figure 2-3	Conceptual Roll-off Storage Area	2-34
Figure 2-4	Conceptual Liquid Waste Receiving and Storage Facility Layout	2-34
Figure 2-5	Conceptual Stabilization Facility	2-34
Figure 2-6	Existing Topography	2-34
Figure 2-7	Conceptual Landfill Subgrade Plan	2-34
Figure 2-8	Conceptual Landfill Fill Plan Cross-sections	2-34
Figure 2-9	Conceptual Landfill Liner Details	2-34
Figure 2-10	Conceptual Landfill LCRS Details	2-34
Figure 2-11	Conceptual Evaporation Pond	2-34
Figure 2-12	Conceptual Evaporation Pond Liner Details	. 2-34

i H L

antes Naciona

Same

Figure 3-1	Index Map - Proposed Site
Figure 3-2	Topography
Figure 3-3	Wind Rose
Figure 3-4	Stratigraphic Column
Figure 3-5	Triassic Basin - Paleomap
Figure 3-6	Triassic Basin - Subsurface
Figure 3-7	Seismic Activity
Figure 3-8	Air Photo
Figure 3-9	Project Area
Figure 3-10	Surface Geology - Project Area
Figure 3-11	Close-Spaced Drilling Pattern
Figure 3-12	Gandy Marley Project
Figure 3-13	Upper Dockum Groundwater
Figure 5-1	Pre-Acceptance Procedure for First Time Waste
Figure 5-2	Incoming Waste Shipment Procedures 5-13
Figure 5-3	Sequence of Procedures Sets for Determining Reactivity Group 5-14
Figure 5-4	Reactivity Group Designation and Waste Compatibility Matrix
Figure 8-1	Gandy Marley Facility RCRA Training Program
Figure 9-1	Closure Schedule (Days)

List of Appendices

- Appendix A Construction Quality Assurance Plan
- Appendix B Oil Well Log
- Appendix C Lithology Logs
- Appendix D Geophysical Logs
- Appendix E Geotechnical Results
- Appendix F Grain Size Analysis
- Appendix G Plates
- Appendix H Alternative Liner System Analysis

lan note: Fl, E, E, Frinct in adalin this revision; of Nov. 72 Approduce L. D., G., H removed Stor this revision & placed in New. 92 " Appandice."

List of Acronyms

ALR	action leakage rate			
ANOVA	analysis of variance			
ASTM	American Society for Testing and Materials			
AUY	animal unit year-long			
BLM	Bureau of Land Management			
CQA	Construction Quality Assurance			
DOT	U.S. Department of Transportation			
EC	emergency coordinator			
EPA	U.S. Environmental Protection Agency			
HAS	health and safety			
HDPE	high-density polyethylene			
HELP	Hydrological Evaluation of Landfill Performance			
HSWA	Hazardous and Solid Waste Amendments			
LCRS	leachate collection and removal system			
LDR	Land Disposal Restrictions			
LDS	leak detection system			
MSDS	Material Safety Data Sheet			
MTR	Minimum Technology Requirements			
NFPA	National Fire Protection Association			
NMED	New Mexico Environment Department			
NOAA	National Oceanic and Atmospheric Administration			
OCD	Oil Conservation Division			
OJT	on-the-job training			
ONA	Outstanding Natural Area			
OSHA	Occupational Safety and Health Administration			
PA	public address			
РМО	preventive maintenance order			
PPE	personal protective equipment			
PQL	practical quantitation limit			

Same

Sugar

quality assurance/quality control QA/QC RCRA Resource Conservation and Recovery Act SCBA self-contained breathing apparatus **SWMU** Solid Waste Management Unit trichloroethylene TCE TCLP Toxicity Characteristic Leaching Procedure total dissolved solid TDS TOC total organic carbon U.S. Geological Survey USGS

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

1 Hi

For EPA Regional Use Only		Hereiter in the second s		Electric Contractions and Contraction Contractions and Co			
	www.upited	States Environmental Pro	tection Agency				
	Hazaro	IOUS Was	ie Permit.				
		Applicati	on				
Date Received Month Day Year	É.	Read the Instructions before	starting)				
1.1D Number(s)							
A EPA ID Number 2		B. Secondary ID N	umber (If applicable)				
A. Street	Nor of the Control of	AN PARTITULE TUILE					
USHWY	3 8 0						
Street (continued)							
3 6 M I L	ES W	O F T A T	U M Code				
			N M 8 8 2 6	7 -			
County/Code County Nat							
С Н А	V E S						
BelandTyper C.C.O.	and cleve lion		Service Constant	ty Existence Date			
(entercode) (2000)=				Day 28 Server s			
P 3 3							
IV. Facility Mailing Add	ess						
	A J I D		State Zik Code				
TATUM			N M 8 8 2 6	7 -			
V Facility Contact Por	sole (e ² 002-outle CO70	garding waste activitie	aktellis) y				
Name (last)	Contras a processiones	(first)					
G A N D Y			RRY				
Job Title		Phone	Number (area code and numb				
V I C E P	R E S I D	E N T 5 0	5 - 3 9 8 - 4	9 6 0			
VI: Facility Contact Address (See Instructions)							
Location Mailing	D Z Surger of P(U; BO)						
			State 7/D Code				