



TH16
ENTERED

*Environmental Protection Division
Water Quality & RCRA (ENV-RCRA)*
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Los Alamos, New Mexico 87545
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Date: March 18, 2008
Refer To: ENV-RCRA-08-057

Mr. John Young
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303



Dear Mr. Young:

SUBJECT: TRANSMITTAL OF WASTE ACCEPTANCE CRITERIA DOCUMENTS

The purpose of this letter is to transmit the Waste Acceptance Criteria (WAC) documents you requested in an email dated 2/13/08. Your request stated you wanted electronic copies of the WACs for the: High Explosives Waste Water Treatment Plant (HEWTF), Radioactive Liquid Waste Treatment Facility (RLWTF), Technical Area 53 Radioactive Liquid Waste Treatment Plant (TA-53 Evaporation Basins), Sanitary Effluent Reclamation Facility (SERF) evaporation basins, and the Sanitary Waste Water System Plant (SWWS).

The WACs enclosed are for the HEWTF, RLWTF, TA-53 Evaporation Basins, and the SWWS. You had also requested the WAC for the SERF. This unit does not have a WAC. It was designed for the receipt of the reject waters generated from the reverse osmosis treatment of the SWWS effluent. This water was to be used as make up water for the cooling towers at the new computing complex. The facility is not operating currently and there is no plan to put it into operation at this time.

Enclosed are hard copies of the documents that you requested. Electronic copies will be sent by email since the overall file with all four documents is so small. If you have any questions please call me at 667-0633.

Sincerely,

Jack Ellvinger
RCRA Team
Water Quality and RCRA Group



Enclosures: a/s

Cc Gene Turner, LASO/EO, w/o enc., A316
Michael B. Mallory, PASOPA, w/o enc., A102
Richard S. Watkins, ADESHQ, w/o enc., K491
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IRM-RMMSO, w/enc., A150

Enclosure 1

TA-16 WASTE ACCEPTANCE CRITERIA

(TA-16-388, TA-16-399, TA-16-260, TA-16-1508)

Revision 1
February 2008

LA-UR-08-1520

1.0 INTRODUCTION

Weapons Engineering Technology Division (WT) treats waste at the following facilities in Technical Area 16 (TA-16):

- the TA-16-388 Flash Pad, which treats Resource Conservation and Recovery Act (RCRA) regulated wet or dry HE, HE-contaminated combustibles, and HE-contaminated non-combustibles;
- the TA-16-399 Burn Tray, which is used to treat RCRA-regulated dry HE;
- the TA-16-260 steam cleaning operation, which treats non-RCRA regulated HE-contaminated materials; and
- the High Explosives Wastewater Treatment Facility (HETWF) located at TA-16-1508, which treats HE-contaminated wastewater.

All waste treated at TA-16 must be accompanied by a Treatment Request Form appropriate to the waste and an active Waste Profile Form (WPF). Improperly characterized waste will be returned to the generator at the generator's expense. The generator must provide charge codes to cover the costs of treating wastes and residue analysis, treatment, and/or disposal.

2.0 ACCEPTABLE WASTES

2.1 RCRA-Regulated Wastes

WT-5 treats RCRA-regulated detonable wastes at the TA-16-388 Flash Pad and TA-16-399 Burn Tray. These wastes must contain explosives that detonate at greater than the speed of sound and carry the Environmental Protection Agency (EPA) Hazardous Waste Number D003 for reactivity. Waste characterization and acceptance is described in the LANL General Part B Renewal Application; this TA-16 Waste Acceptance Criteria (WAC) supplements those requirements. Detonable wastes that can be accepted for treatment at TA-16-388 and/or TA-16-399 are outlined in Table 1. If the waste has an EPA Hazardous Waste Number that is not listed

in Table 1, it cannot be treated at the TA-16 Burn Ground. It is important that all non-HE process waste be segregated from HE wastes to minimize the amount of waste that must be treated. Please refer to Table 2 for restrictions or other considerations for each waste type. Table 3 provides guidance for determining whether scrap metal is detonable.

2.2 Wastewater Treated at the HEWTF

Limits for wastewater treated at HEWTF are based on LANL's National Pollutant Discharge System (NPDES) water quality permit and levels WT-5 has set to be protective of the environment (Table 4). Based on operational data, WT-5 may revise acceptable limits.

The HEWTF consists of granulated activated carbon filters, designed to remove HE and very low levels of solvents, ion exchange units designed to remove perchlorate, and ion exchange units designed to remove barium. The wastewater treated at the HEWTF is generally collected in sumps and transported to the HEWTF by tanker truck. Other containers may be used, with the wastewater being transported either in the original containers or in tanker trucks. The treated wastewater is evaporated within the treatment system or discharged through outfall 05A055.

2.3 Non-Detonable Materials

Materials that have non-detonable quantities of HE may require treatment to meet the DOE Explosives Safety Manual, Section 18.6(s) requirements before release to the public. A WPF must be prepared for each material, identifying whether there are other EPA Hazardous Waste Numbers attached to the waste. If steam cleaning is not an appropriate treatment method under the 49 CFR 268 Land Disposal Restrictions, non-detonable RCRA-regulated waste may require off-site treatment instead of treatment at TA-16 facilities. WT-5 may require scrap metal to be segregated by metal type (e.g., aluminum segregated from carbon steel, etc.) so that it can be treated as "processed scrap metal." Guidance for determining whether scrap metal is detonable is provided in Table 3. Degree of confinement is not discussed but may also be a factor.

3.0 WASTE PROFILE FORM

All waste streams must be profiled using a Waste Profile Form (WPF). The first time a WPF is used, the generator must supply WT-5 with the analytical or acceptable knowledge documentation (AK) used for waste characterization. The WPF form can be obtained at

<http://enterprise.lanl.gov/forms/1346.pdf>. Additional assistance for filling out the form is available from the appropriate WMC; the listing of WMCs by division and/or group is available at: http://int.lanl.gov/environment/waste/lanl_only/wmc_area_support.shtml or by calling the Generator Support Services Team.

The Generator Support Services Team of the Waste & Environmental Services Division, first reviews a WPF then routes it to WT-5 for review and acceptance. WT-5 maintains the right to reject any waste streams that might degrade any treatment facility (e.g., corrosive materials), be harmful to workers conducting treatment (e.g., highly toxic wastes), fall outside our treatment capabilities, or cause unacceptable environmental releases. WT-5 also maintains the right to reject waste streams from a generator if it appears that the generator is not providing accurate characterization. If WT-5 has questions about waste compositions, the generator may be required to perform additional sampling or more detailed AK documentation.

4.0 TREATMENT REQUEST FORMS

The appropriate request form, located in Attachments 1-3, must be submitted for each shipment of waste or wastewater. Each form is specific to the type of treatment and must be accompanied by an approved WPF. Request forms should be utilized as follows:

- Attachment 1 – TA-16 Burn Ground Treatment Request Form
Used to request open burn treatment for RCRA-regulated wastes at the TA-16-388 Flash Pad or the TA-16-399 Burn Tray.
- Attachment 2 – TA-16 HEWTF Treatment Request Form
Used to request treatment of wastewater at the HEWTF.
- Attachment 3 – TA-16-260 Steam Cleaning Request Form
Used to request steam cleaning of non-detonable material at TA-16-260.

5.0 WAC EXCEPTION FORM

WAC Exception forms are required as follows:

- There is no WAC Exception Form for the RCRA-regulated wastes treated at the TA-16 Burn Ground. If the type of waste is not described in Table 1, the waste cannot be treated at the TA-16 Burn Ground until the permit is changed (a lengthy process).
- Some waste streams that do not meet the WAC, may be acceptable for treatment at the HEWTF. If TA-16 rejects a WPF for treatment at the HEWTF, the generator may submit a WAC Exception Form (HEWTF WEF), shown in Attachment 4. WT-5 will review the waste stream, possible generator treatment options, and quantities of waste to determine whether an exception is possible.

Table 1: Detonable HE and HE-Contaminated Waste Treated at the TA-16 Burn Ground

Waste Description	Waste Generating Activity	Basis for Hazardous Waste Designation	Potential EPA ^a Hazardous Waste Numbers	Potential Hazardous Constituents and/or Characteristics in the Waste	Regulatory Limits ^b (milligrams per liter)
HE-Contaminated Water	Laboratory analysis; HE processing; maintenance, Environmental Restoration (ER), decontamination and decommissioning (D&D), research and development (R&D), and drilling activities	Acceptable Knowledge ^e	D003	Reactivity	NA ^d
			D005	Barium	100.0
			D006	Cadmium	1.0
			D007	Chromium	5.0
			D008	Lead	5.0
			D009	Mercury	0.2
			D011	Silver	5.0
			D018	Benzene	0.5
			D022	Chloroform	6.0
			D028	1,2-Dichloroethane	0.5
			D029	1,1-Dichloroethylene	0.7
			D030	2,4-Dinitrotoluene	0.13
			D035	Methyl ethyl ketone	200.0
			D036	Nitrobenzene	2.0
			D038	Pyridine	5.0
			D040	Trichloroethylene	0.5
HE-Contaminated Oil/Solvent Waste	Laboratory analysis; dissolving HE and polymers; HE production; spills; and ER, D&D, and R&D activities	Acceptable Knowledge ^e	D001	Ignitability	NA ^d
			D002	Corrosivity	NA ^d
			D003	Reactivity	NA ^d
			D005	Barium	100.0
			D006	Cadmium	1.0
			D007	Chromium	5.0
			D008	Lead	5.0
			D009	Mercury	0.2
			D011	Silver	5.0
			D018	Benzene	0.5
			D022	Chloroform	6.0
D028	1,2-Dichloroethane	0.5			
D029	1,1-Dichloroethylene	0.7			
	F001	Spent halogenated solvents	NA ^d		
	F002	Spent halogenated solvents	NA ^d		
	F004	Spent nonhalogenated solvents	NA ^d		
	F005	Spent nonhalogenated solvents	NA ^d		

Table 1: Detonable HE and HE-Contaminated Waste Treated at the TA-16 Burn Ground

Waste Description	Waste Generating Activity	Basis for Hazardous Waste Designation	Potential EPA ^a Hazardous Waste Numbers	Potential Hazardous Constituents and/or Characteristics in the Waste	Regulatory Limits ^b (milligrams per liter)
HE-Contaminated Oil/Solvent Waste (continued)			D030	2,4-Dinitrotoluene	0.13
			D035	Methyl ethyl ketone	200.0
			D036	Nitrobenzene	2.0
			D038	Pyridine	5.0
			D040	Trichloroethylene	0.5
			F001	Spent halogenated solvents	NA ^d
			F002	Spent halogenated solvents	NA ^d
			F003	Spent nonhalogenated solvents	NA ^d
			F004	Spent nonhalogenated solvents	NA ^d
			F005	Spent nonhalogenated solvents	NA ^d
Solid and Scrap HE	HE-processing; R&D, ER, and D&D activities; testing operations; disposition of weapons	Acceptable Knowledge ^c	D001	Ignitability	NA ^d
			D003	Reactivity	NA ^d
			D005	Barium	100.0
			D006	Cadmium	1.0
			D007	Chromium	5.0
			D008	Lead	5.0
			D018	Benzene	0.5
			D030	2,4-Dinitrotoluene	0.13
HE-Contaminated Commercial Chemical Products	Spilled commercial chemical products contaminated with HE	Acceptable Knowledge ^c	D001	Ignitability	NA ^d
			D003	Reactivity	NA ^d
			U022	Acetone	NA ^d
			U019	Benzene	NA ^d
			U044	Chloroform	NA ^d
			U112	Ethyl acetate	NA ^d
			U154	Methanol	NA ^d
			U159	Methyl ethyl ketone	NA ^d
			U196	Pyridine	NA ^d
			U169	Nitrobenzene	NA ^d
			U220	Toluene	NA ^d
			U239	Xylene	NA ^d

Table 1: Detonable HE and HE-Contaminated Waste Treated at the TA-16 Burn Ground

Waste Description	Waste Generating Activity	Basis for Hazardous Waste Designation	Potential EPA ^a Hazardous Waste Numbers	Potential Hazardous Constituents and/or Characteristics in the Waste	Regulatory Limits ^b (milligrams per liter)
Wet HE	Filtration of HE wastewater; ER, R&D, and D&D activities; HE processing	Acceptable Knowledge ^c	D001	Ignitability	NA ^d
			D003	Reactivity	NA ^d
			D005	Barium	100.0
			D006	Cadmium	1.0
			D007	Chromium	5.0
			D008	Lead	5.0
			D009	Mercury	0.2
			D011	Silver	5.0
			D018	Benzene	0.5
			D022	Chloroform	6.0
			D028	1,2-Dichloroethane	0.5
			D029	1,1-Dichloroethylene	0.7
			D030	2,4-Dinitrotoluene	0.13
			D035	Methyl ethyl ketone	200.0
			D036	Nitrobenzene	2.0
			D038	Pyridine	5.0
			D040	Trichloroethylene	0.5
			F001	Spent halogenated solvents	NA ^d
			F002	Spent halogenated solvents	NA ^d
			F003	Spent nonhalogenated solvents	NA ^d
F004	Spent nonhalogenated solvents	NA ^d			
F005	Spent nonhalogenated solvents	NA ^d			
K044	Wastewater sludges	NA ^d			
K045	Spent carbon	NA ^d			

Table 1: Detonable HE and HE-Contaminated Waste Treated at the TA-16 Burn Ground

Waste Description	Waste Generating Activity	Basis for Hazardous Waste Designation	Potential EPA ^a Hazardous Waste Numbers	Potential Hazardous Constituents and/or Characteristics in the Waste	Regulatory Limits ^b (milligrams per liter)
HE-Contaminated Solid Waste	HE processing activities; D&D, ER, R&D, and drilling activities; and laboratory use	Acceptable Knowledge ^c	D001	Ignitability	NA ^d
			D002	Corrosivity	NA ^d
			D003	Reactivity	NA ^d
			D005	Barium	100.0
			D006	Cadmium	1.0
			D007	Chromium	5.0
			D008	Lead	5.0
			D009	Mercury	0.2
			D011	Silver	5.0
			D018	Benzene	0.5
			D022	Chloroform	6.0
			D028	1,2-Dichloroethane	0.5
			D029	1,1-Dichloroethylene	0.7
			D030	2,4-Dinitrotoluene	0.13
			D035	Methyl ethyl ketone	200.0
			D036	Nitrobenzene	2.0
			D038	Pyridine	5.0
			D040	Trichloroethylene	0.5
			F001	Spent halogenated solvents	NA ^d
			F002	Spent halogenated solvents	NA ^d
F003	Spent nonhalogenated solvents	NA ^d			
F004	Spent nonhalogenated solvents	NA ^d			
F005	Spent nonhalogenated solvents	NA ^d			
HE-Contaminated Equipment	HE processing; D&D, R&D, and ER activities; and laboratory use	Acceptable Knowledge ^c	D003	Reactivity	NA ^d
			D005	Barium	100.0
			D006	Cadmium	1.0
			D007	Chromium	5.0
			D008	Lead	5.0
			D009	Mercury	0.2
			D011	Silver	5.0
D030	2,4-Dinitrotoluene	0.13			

Table 1: Detonable HE and HE-Contaminated Waste Treated at the TA-16 Burn Ground

Waste Description	Waste Generating Activity	Basis for Hazardous Waste Designation	Potential EPA ^a Hazardous Waste Numbers	Potential Hazardous Constituents and/or Characteristics in the Waste	Regulatory Limits ^b (milligrams per liter)
HE-Contaminated Liquid Acids, Bases, and/or Inorganic Salt Solutions	Materials used as titrants, solvents, and cleaning fluids and/or material from hydrolysis research	Acceptable Knowledge ^c	D002	Corrosivity	NAd
			D003	Reactivity	NAd
			D018	Benzene	0.5
			D022	Chloroform	6.0
			D030	2,4-Dinitrotoluene	0.13
			D035	Methyl ethyl ketone	200.0
			D036	Nitrobenzene	2.0
			D038	Pyridine	5.0
			F001	Spent halogenated solvents	NAd
			F002	Spent halogenated solvents	NAd
			F003	Spent nonhalogenated solvents	NAd
			F004	Spent nonhalogenated solvents	NAd
			F005	Spent nonhalogenated solvents	NAd

^a U.S. Environmental Protection Agency. Note that these constituents will likely be present only in trace amounts.

^b A solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, Test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA, 1986), the extract from a representative sample of the waste contains any of the contaminants listed at a concentration equal to or greater than the respective value given in the New Mexico Administrative Code, Title 20, Chapter 4, Part 1, Subpart II, Part 261, Subpart C [6-14-00]. These constituents are included if they are likely to be present; however, they are not expected to exceed the toxicity characteristic limits on a routine basis.

^c Acceptable knowledge is broadly defined as process knowledge, additional characterization data, and/or facility records of analysis, U.S. Environmental Protection Agency, 1994, "Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Waste, A Guidance Manual," *OSWER 9938.4-03*, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, D.C.

^d Not applicable: refers to the absence of regulatory limits for ignitable, corrosive, reactive wastes, and F-, K-, and U-listed wastes. The amount of F-listed waste is expected to be trace in all waste streams, with the exception of the HE-contaminated spent solvent waste, which is expected to be 30 percent or more (by volume) solvent.

Table 2: Treatment Consideration for RCRA Waste Categories

Waste Type	Treatment Considerations
HE-Contaminated Water	Most HE-contaminated water is treated at the HEWTF rather than burned. However, if there is a high percentage of HE in water, it may be treated at TA-16-388.
HE-Contaminated Oil/Solvent	Most oils and solvents do not have enough HE to be detonable. Non-detonable oils/solvents that have less than 1 percent HE should be sent off-site for incineration.
Solid and Scrap HE	All explosives with a detonation rate greater than the speed of sound are acceptable at the TA-16 Burn Ground.
HE-Contaminated Commercial Chemical Products	If commercial chemical products are spilled and come into contact with HE, they should be evaluated to determine if they are detonable or not. If they are not detonable and there is less than 1 percent HE, they should be treated off-site.
Wet HE	Wet explosives with a detonation rate greater than the speed of sound are acceptable at the TA-16 Burn Ground.
HE-Contaminated Solid Waste	This waste consists mainly of wipes, gloves, glass, and small pieces of metal with enough HE contamination to classify them as detonable. The types of HE must be those that detonate at greater than the speed of sound. Whenever possible, metal should be segregated from other wastes so it can be flashed and recycled. Table 2 provides guidance on determining whether the metal is detonable or not.
HE-Contaminated Equipment	HE-contaminated equipment consists of kettles, machine tools, pipes, etc. that have sufficient HE to classify them as detonable. The types of HE must be those that detonate at greater than the speed of sound. This equipment is recycled as scrap metal. Oil must be drained out of the equipment and all non-metal hoses and other attachments must be removed before being shipped to the TA-16 Burn Ground. Table 2 provides guidance on determining whether the metal is hazardous or not.
HE-Contaminated Acids, Bases, and/or Inorganic Salt Solutions	To protect workers and equipment, the TA-16 Burn Ground does not usually accept acids or bases. The generator may be asked to perform generator treatment (note, generator treatment must be registered with ENV-SWRC) to neutralize the waste.

Table 3: Guidance for Determining Whether HE-Contaminated Scrap Metal is Detonable

Metal Surfaces	HE	Disposition
All Surfaces Visible	HE not visible	<ul style="list-style-type: none"> • Non-RCRA • Place in Ace Metals recycling bins. Do NOT release to KSL salvage.
	HE visible but <critical diameter ^a	<ul style="list-style-type: none"> • Non-RCRA • Steam clean • Place in Ace Metals recycling bins
	HE visible and > critical diameter	<ul style="list-style-type: none"> • RCRA (D003) • Flash under RCRA interim status permit • Place in Ace Metals recycling bins.
Not All Surfaces Visible	Visible surfaces have HE < critical diameter AND Process knowledge supports HE < critical diameter in non-visible spaces	<ul style="list-style-type: none"> • Non-RCRA • Steam clean, if surface and contamination are amenable • Place in Ace Metals recycling bins.
	Visible surfaces have HE < critical diameter AND/OR Process knowledge supports HE > critical diameter in non-visible spaces	<ul style="list-style-type: none"> • RCRA • Flash under RCRA interim status permit • Place in Ace Metals recycling bins.
All types of surfaces	Generator is uncertain whether there is a detonable quantity of HE	<ul style="list-style-type: none"> • Assume the waste is RCRA • Flash under RCRA interim status permit • Place in Ace Metals recycling bins.

^a If the explosive is experimental and the critical diameter is unknown, the generator should assume that any visible explosive is detonable.

Table 4: High Explosives Wastewater Treatment Facility (HEWTF) Waste Acceptance Criteria (WAC)

Parameters	Acceptance Criteria* (as mg/L unless otherwise indicated)
Hydrogen ion concentration (pH)	5-10 pH units
Chemical Oxygen Demand (COD)	833
Oil and grease	10% floating oils, grease or other petroleum products
Total Suspended Solids (TSS)	NA
Radioactive materials (human-made)	0
Acetone	7.0
Aluminum (total)	100
Arsenic (total)	0.04
Barium	24
Boron (total)	5.0
n-butyl alcohol	5.6
Cadmium (total)	0.2
Chloride	case-by-case
Chloroform	0.5
Chromium (total)	5.1
Cobalt (total)	1.0
Copper (total)	1.6
Cyclohexanone	1.0
1,2-dichloroethane	0.5
2,4-dinitrotoluene	1.5
2,6-dinitrotoluene	2.6
Ethyl acetate	1.0
Ethyl ether	1.0
Lead (total)	0.4
Mercury (total)	0.01
Methanol	8.0
Methylene chloride	1.0
Methyl ethyl ketone	1.0
Methyl isobutyl ketone	1.0
Nickel	3.98
Perchlorate	100 parts-per-billion (ppb)
Selenium (total)	0.05
Silver	0.43
Toluene	1.0
Vanadium (total)	0.10
Zinc (total)	95.4
Other constituents	to be determined on a case-by-case basis

mg/L = milligrams per Liter

* A waste exception form may be accepted for higher concentrations of constituents on a case-by-case basis.

ATTACHMENT 1
TA-16 BURN GROUND
TREATMENT REQUEST FORM
FOR RCRA-REGULATED HE AND HE-CONTAMINATED WASTES

**TA-16 BURN GROUND
TREATMENT REQUEST FORM
(FOR RCRA-REGULATED HE AND HE-CONTAMINATED WASTES)**

Requested By:	Group:	Phone:	Date:
Accum. Start Date:	Location of Waste:		
Cost Information/Task Order:			
Classified: yes <input type="checkbox"/> no <input type="checkbox"/> Other Waste Concerns (e.g. carcinogens or other toxic material):			
Is this debris to be treated to the alternative 40 CFR 268.45 Standards? yes <input type="checkbox"/> no <input type="checkbox"/>			
Physical State (check one): solid <input type="checkbox"/> liquid <input type="checkbox"/> sludge <input type="checkbox"/>			
Waste Profile Form Number (<i>a final, approved copy must be attached</i>):			

Shaded areas to be filled by WT-5 only.

HE or HE-Contaminated Waste Description	Quantity/units (see below)*		TA-16 Structure (EPA Treatment Code)	Date Staged	Date Treated
Solvents		388	388 (X01)		
Dry HE	Complete page 2	388 or 399	388 or 399 (X01)		
Wet HE	Complete page 2	388	388 (X01)		
Solvents		388	388 (X01)		
Combustible Solids – estimate pounds of HE by type on page 2		388	388 (X01)		
Non-combustible Solids – estimate pounds of HE by type on page 2		388	388 (X01)		
Other (describe – use page 2)	See page 2	See page 2	Various (X01)		

**Either use pounds (lb) or provide both a volume (liters or gallons) and density.*

Certification by WT-5 or designee that above waste meets the WAC for the appropriate structure	
Name: _____	Date: _____
Special Instruction to Treatment Unit Personnel:	

Additional Waste Information

Fill out for wastes falling under Wet HE or Dry HE on page 1:

Total amount of waste in pounds (including water in wet HE):		
Amount of HE in waste		
Explosive Number	Name	Amount (pounds)
0101	TNT	
6018	COMP-B	
9501	PBX-9501	
9502	PBX-9502	
9404	PBX-9404	
8003	XTX 8003	
8004	XTX 8004	
0534	X534	
Other:		

Fill out for wastes falling into the "Other" category on page 1:

Waste Description	Quantity/units (see below)*	TA-16 Structures (circle one) (EPA Treatment Code)	Date Staged	Date Treated
		388/399 (X01)		
		388/399 (X01)		

*Either use pounds (lbs) or provide both a volume (liters or gallons) and density.

ATTACHMENT 2

**TA-16 HIGH EXPLOSIVES WASTEWATER TREATMENT FACILITY (HEWTF)
TREATMENT REQUEST FORM**

**TA-16 HIGH EXPLOSIVES WASTEWATER TREATMENT FACILITY (HEWTF)
TREATMENT REQUEST FORM**

Requested By:	Group:	Phone:	Date:
Location of Waste:			
Cost Information/Task Order:			

Shaded areas to be filled by WT-5 only

Wastewater Description	Quantity/units (see below)*	WPF Number	TA-16 Structure	Date Treated
			HEWTF	

**For wastewater use volume (gallons or Liters).*

Acceptance by WT-5 or designee

Name: _____ Date: _____

Special Instruction to Treatment Unit Personnel

ATTACHMENT 3
**TA-16-260 STEAM CLEANING
REQUEST FORM**

TA-16-260 STEAM CLEANING REQUEST FORM

Requested By:		
Group:	Phone:	Date:
Location of Waste:		
Cost Information/Task order:		

Shaded areas to be filled by WT-5 only.

Equipment Description	Quantity/units (see below)*	TA-16 Structure	WPF #	Date Staged	Date Treated
		16-260			
		16-260			
		16-260			
		16-260			

**Either use number of pieces of equipment or pounds (lbs).*

Acceptance by WT-5 or designee:	
Name: _____	Date: _____
Special Instruction to Treatment Unit Personnel:	

ATTACHMENT 4

**TA-16 HIGH EXPLOSIVES WASTEWATER TREATMENT FACILITY (HEWTF)
WASTE EXCEPTION FORM**

**TA-16 HIGH EXPLOSIVES WASTEWATER TREATMENT FACILITY (HEWTF)
WASTE EXCEPTION FORM**

Waste Profile Form Number <i>(Please attach WPF to this form):</i>
Describe from which Waste Acceptance Criteria an exception is being requested:
Approximate quantity of waste subject to exception request (gallons/year):

Basis for Exemption:		
Special Instructions to the Generator:		
Signature:	Z Number:	Date:

Enclosure 2

Waste Acceptance Criteria

Chapter 1 – Radioactive Liquid Waste Treatment Facility (RLWTF)

The Waste Acceptance Criteria (WAC) in this Chapter apply only to industrial wastewaters being sent for processing at the Technical Area 50 (TA-50) Radioactive Liquid Waste Treatment Facility (RLWTF). These WAC do not apply to the "Acid" and "Caustic" process wastewaters generated at the Plutonium Complex (TA-55). A separate WAC pertaining to the "Acid" and "Caustic" process wastewaters can be obtained from the TA-55 Plutonium Complex waste management coordinator (WMC).

The RLWTF receives and treats aqueous radioactive wastewater generated at Los Alamos National Laboratory (LANL) to meet the discharge criteria specified in a National Pollutant Discharge Elimination System (NPDES) permit. The majority of this wastewater is received at the RLWTF through a network of buried pipelines, known as the Radioactive Liquid Waste Collection System (RLWCS). Other wastewater is transported to the RLWTF by truck. The WAC outlined in this Chapter are applicable to all radioactive wastewaters that are conveyed to the TA-50 RLWTF by the RLWCS or by truck.

These WAC are based on the following:

- U.S. Department of Energy (DOE) Order 435.1, "Radioactive Waste Management"
- DOE Order 5400.5, "Radiation Protection of the Public and the Environment"
- U.S. Department of Transportation (DOT) regulations, 49 CFR, Parts 106-180
- New Mexico Hazardous Waste Management regulations (20 NMAC 4.1), which implement the Resource Conservation and Recovery Act (RCRA) regulations
- New Mexico Water Quality Control Commission regulations and standards
- LANL's National Pollutant Discharge Elimination System (NPDES) permit, and
- As low as reasonably achievable (ALARA) considerations

NOTE: Upon issuance of new WAC, the generators and WMCs have twenty (20) working days to identify which Waste Profile Forms (WPFs) (see Section 1.2) are not in compliance with the new WAC. An additional forty (40) working days are allotted for the submittal of WAC Exception Forms (see Section 1.3) for the waste streams identified as not in compliance with the new WAC.

1.1 Facility Requirements for Connection to the RLWTF

Buildings connected to the RLWTF by the RLWCS must meet the following criteria:

- The pipelines and associated telemetry must comply with the standards established in the "Pipeline Design Requirements for the LANL Radioactive Liquid Waste Collection System" (EM/RLW-FDR-01) and "Waste Management" (IMP 409), when issued.
- Pipelines within buildings that are part of the RLWCS must be labeled "Radioactive Waste Line." Labels can be obtained from the RLWTF at 667-4301.
- Each sink connected to the RLWCS must be posted with a sign informing the user of the requirements for disposing of waste down the drain. Signs may be obtained from the RLWTF at 667-4301.
- The following drains must be plugged or have administrative controls to minimize the inadvertent introduction of large volumes of volatile organic liquids (e.g. gasoline) into the RLWCS.

Building	Room	Description	Control
03-29	Wing 9	Drain closest to rollup door	Plug the drain
03-66	B100N	Two floor drains	Administrative control*
03-102	119	Drain closest to rollup door	Administrative control*
03-1264	---	Only floor drain	Administrative control*
35-213	B-29	Three floor drains	Plug the drain closest to the rollup door
48-01	244	Two floor drains	Administrative control*
48-01	322	Only floor drain	Plug the drain
50-01	34B	Only floor drain	Administrative control*
50-01	Outside	Drain at the caustic unload station	Jersey barrier to preclude vehicle entry into bermed area
50-37	116	Drain closest to rollup door	Administrative control*

Administrative Control*

- Gasoline vehicles not permitted entry
- Gasoline vehicles braked and chocked outside before rollup door is opened
- Sign posted

NOTE: The RLWCS begins at the first connection point of the collection system with the facility piping that is outside the facility.

1.2 Waste Profile Form

All waste streams must be profiled using a Waste Profile Form (WPF). Instructions for completing the WPF are in ISD XXX.X, when issued. The form can be obtained on the LANL web at LANL Online Forms, [Form 1346](#). Assistance in completing the WPF can be obtained by calling the Waste Acceptance Group.

In addition to the normal waste streams, a WPF must be prepared for janitorial and decontamination activities which produce liquid waste coming to the RLWTF. A WPF must also be prepared for liquid wastes from mechanical equipment in radiologically controlled areas.

NOTE: Only liquid waste having an approved WPF may be discharged to the RLWTF.

Upon completion, the WPF is to be sent to Waste Acceptance Group. A copy of the WPF will be sent to the generator's WMC upon acceptance or rejection of the waste at the RLWTF. Contact your WMC for specific information related to the status of a WPF.

1.3 WAC Exception Form

Some waste streams that do not meet the WAC may be acceptable for treatment at the RLWTF. Various types of generator treatment and/or discharge flow restrictions may be required by the RLWTF. Also, a temporary change in the waste stream may require that the RLWTF be notified. The documentation for handling both of these situations is a WAC Exception Form (WEF). The RLWTF will work with the generator to fill out a WEF. The WEF will need to be approved by the RLWTF before the new waste stream or the modified waste stream can be sent to the RLWTF. The WEF may be obtained by going to the Environmental and Waste Management Facilities Operations/RLW (E&WMFO/RLW) group home page and searching for form WM-F054. A WEF may also be obtained by contacting the WMC at the RLWTF by calling 667-4301.

Certain wastes, given in Table 1.0, are unacceptable for treatment at the RLWTF. Wastes generally must not have concentrations of radioactive or non-radioactive contaminants in excess of amounts given in Tables 1.1 and 1.2. If a waste stream exceeds the amounts in Table 1.1, an environmental ALARA assessment will be performed in accordance with DOE O 5400.5, Chapter II, 2.a. and attached to the WEF. Liquid discharges to the RLWTF must be in accord with volume parameters given in Table 1.4. If a waste stream includes any of the material listed in Table 1.0 or exceeds concentration or flow guidelines, the generator may complete a WEF and submit the WEF along with the WPF. The RLWTF will determine if the waste stream can be accepted for treatment. When the characteristics of a waste stream change (for example, changes in chemical, physical, or radionuclide composition or waste volume), the waste generator will:

- Cease discharging
- Verify WPF parameters
- Re-characterize the waste stream (if necessary)
- Complete and submit a new WPF
- Obtain an approved WPF prior to discharge

TABLE 1.0. Unacceptable Wastes

Radionuclides	<ul style="list-style-type: none"> • Accelerator-produced tritium
Chemical Wastes	<ul style="list-style-type: none"> • RCRA-regulated characteristic waste (D001, D003) (40 CFR §§261.21, 23) • RCRA-regulated characteristic waste (D002) (40 CFR §§261.21, 23) in discharges greater than 50 gal./discharge • RCRA-regulated toxic metal waste (D004 – D011) (40 CFR §261.24) • RCRA-regulated toxic organic waste (D012 – D043) (40 CFR §261.24) • RCRA-regulated listed waste (F-, K-, P-, U-listed) (40 CFR §§261.31, 32, 33) • DDT, dioxins, or pesticides at any detectable concentration via an approved EPA method • Biological or microorganism waste • Samples and wastes from analytical operations with no associated WPF (analytical operations are not exempt from the WPF process) • Polychlorinated biphenyls (PCBs) at any detectable concentration via an approved EPA method or suspected concentration
Other (See Sections 1.4.2 – 1.4.3 for exceptions)	<ul style="list-style-type: none"> • Non-radioactive waste • Electroplating operations waste • Sanitary waste (except for rad decon showers and sinks) • Detergents and surfactants • Boiler or chiller waters containing rust, scale, or other inhibitors • Sludges or solids • Cooling tower blowdown • Dyes and scintillation cocktails

1.4 Radioactive Liquid Waste Acceptance Criteria

To be acceptable for treatment at the RLWTF, waste streams must meet the criteria outlined in Sections 1.4.1 through 1.4.4 of this Chapter.

Only radioactive, or potentially radioactive, wastewater should be discharged to the RLWTF.

1.4.1 Radionuclide Content

The total radionuclide concentration [defined as the sum of gross alpha, gross beta (not including tritium), and gross gamma or the sum of individual alpha, beta, and gamma emitting nuclides known to be in the waste of a waste stream sent to the RLWTF may not exceed the values listed in Table 1.1. Limits on individual radionuclides are listed in Table 1.1.

The activity of the four predominant (not including tritium) radionuclides must be listed on the WPF. Radionuclides (in any concentration) that are known to be in the waste stream must also be listed on the WPF.

1.4.2 Chemical Waste

Inorganic acids and bases with a pH between 2 and 12.5 are acceptable for discharge. Inorganic wastes with a pH from 0 to 2 and 12.5 to 14 are also permitted for discharge to the RLWTF (RCRA Code D002) in the volume range of 0 to 50 gal./discharge with an approved WPF, and using adequate flush water to minimize corrosion in the RLWCS. Liquid waste streams that contain non-radioactive constituents below the concentration limits in Table 1.2 are acceptable for discharge to the RLWTF. A listing of the Total Toxic Organics (TTO) is shown in Table 1.3.

1.4.3 Industrial Soaps and Cleaners

Janitorial wastewaters, such as mop water, are acceptable in the volume range of 0 to 25 gal./discharge. Wastewater from lab glassware, laundry, and respirator washing machines is acceptable in discharges of less than 100 gal./discharge. The concentration of industrial cleaner must be less than 0.2 percent by weight. Wastewater with soaps or cleaners from machinery and/or equipment cleaning operations is acceptable in discharges of less than 100 gal./discharge and containing industrial cleaners in concentrations less than 0.2 percent by weight. Such waste streams may not have any detectable sheen or emulsions from oil, grease, rust inhibitor, or other petrochemicals.

1.4.4 Physical Characteristics

Wastewater temperature must be less than or equal to 60°C (140°F). Temperatures above 60°C (140°F) will cause expansion and damage to the RLWCS. Volume requirements are listed in Table 1.4. The generator must provide waste stream flow-rate data on the WPF. Volume increases beyond the limits specified by the generator on the WPF are not allowed.

TABLE 1.1. Limits on Radionuclides Acceptable for Discharge to the RLWTF

	Concentration (Ci/l)
Total Radionuclide Concentration (sum of gross alpha, beta, gamma or the sum of nuclides known to be in the waste)	5.0E-07
Alpha Emitters	
Am-241 Pu-240 Pu-238 U-234 Pu-239	1.0E-07
U-235 U-238 Np-237	1.0E-08
Th-232	1.0E-10
Beta Emitters	
As-74 Rb-83 Be-7 Sc-46 Ce-141 Sc-48 Co-57 Se-75 Co-58 Sn-113 Eu-152 Sr-85 Mn-52 Sr-89 Mn-54 V-48 Y-88	1.0E-07
I-133 Na-22 Rb-84	5.0E-08
Zn-65	4.0E-08
Co-60	2.0E-08
Cs-134 Cs-137 Co-56	1.0E-08
Sr-90	5.0E-09
H-3 (accelerator-produced)	0 (none allowed)
H-3 (reactor-produced)	2.0E-08
Ra-226 + Ra-228	5.0E-10
Other Radionuclides	1.0E-08

TABLE 1.2. Limits on Non-Radioactive Constituents Acceptable for Discharge to the RLWTF

Constituent	Maximum Allowable Concentration (mg// – except where noted)
Aluminum	50
Ammonia-Nitrogen	5
Arsenic	< 5
Barium	<100
Beryllium	1
Boron	50
Cadmium	<1
Chromium	<5
Chlorine (Free)	1
Cobalt	5
Copper	2
Cyanide	5
Fluoride	1
Lead	<5
Mercury	<0.2
Nitrate-Nitrogen	9.4 gm/day
Perchlorate	1
Selenium	<1
Silver	<5
Vanadium	1.0
Zinc	50
Chemical Oxygen Demand (COD)	250
Total Suspended Solids (TSS)	10,000
Total Toxic Organics (TTO) ¹	25

¹ See Table 1.3 containing TTO List

TABLE 1.3. Total Toxic Organics (TTO) List

Semivolatiles (Method 625A)	Semivolatiles (Method 625B)	Volatile Organics (Method 624)
Parachlorometa cresol	Acenaphthene	Acrolein
2-Chlorophenol	Acenaphthylene	Acrylonitrile
2,4-Dichlorophenol	Anthracene	Benzene
2,4-Dimethylphenol	Benzidine	Dichlorobromomethane
2,4-Dinitrophenol	Benzo (a) anthracene	Bromoform
2-Methyl-4,6-dinitrophenol	Benzo (b) fluoranthene	Bromomethane
2-Nitrophenol	Benzo (k) fluoranthene	Carbon tetrachloride
4-Nitrophenol	Benzo (a) pyrene	Chlorobenzene
Pentachlorophenol	Benzo (g,h,i) Perylene	Chloroethane
Phenol	Benzyl butyl phthalate	2-Chloroethyl vinyl ether
2,4,6-Trichlorophenol	Bis (2-Chloroethyl) ether	Chloroform
	Bis (2-Chloroethoxy) Methane	Chloromethane
	Bis (2-Ethylhexyl) phthalate	Chlorodibromomethane
	Bis (2-Chloroisopropyl) ether	1,2-Dichlorobenzene
	4-Bromophenyl phenyl ether	1,3-Dichlorobenzene
	2-Chloronaphthalene	1,4-Dichlorobenzene
	4-Chlorophenyl phenyl ether	1,1-Dichloroethane
	Chrysene	1,2-Dichloroethane
	Dibenzo (a,h) Anthracene	1,1-Dichloroethylene
	Di-N-Butylphthalate	1,2-Trans-chloroethylene
	3,3'-Dichlorobenzidine	1,2-Dichloropropane
	Diethyl phthalate	1,3-Dichloropropane
	Dimethyl phthalate	Ethyl benzene
	2,4-Dinitrotoluene	Methylene chloride
	2,6-Dinitrotoluene	1,1,2,2-Tetrachloroethane
	Di-n-octyl phthalate	Tetrachloroethylene
	1,2-Diphenylhydrazine	1,1,1-Trichloroethane
	Fluoranthene	Trichloroethylene
	Fluorene	1,1,2-Trichloroethane
	Hexachlorobenzene	Toluene
	Hexachlorobutadiene	Vinyl chloride
	Hexachlorocyclopentadiene	
	Hexachloroethane	
	Indeno (1,2,3-cd) pyrene	
	Isophorone	
	Napthalene	
	Nitrobenzene	
	N-Nitrosodimethylamine	
	N-Nitrosodi-n-propylamine	
	N-Nitrosodiphenylamine	
	Phenanthrene	
	Pyrene	
	1,2,4-Trichlorobenzene	

TABLE 1.4

Volume Criteria ¹	
0 – 100 gal./discharge ²	Acceptable ³
100 – 500 gal./discharge ²	The generator must provide a discharge schedule on the WPF for approval by the applicable RLWTF. Upon approval, the generator may only discharge their waste in accordance with the approved schedule. ³
> 500 gal./discharge ²	Generator must provide 24 hours' notice to the RLWTF of the planned discharge (667-4301), and must obtain approval for the discharge from the RLWTF. ³
Continuous flow ⁴	Generator must clearly state on the WPF that the process is continuous flow. Via the waste profile review process, the RLWTF must determine if the waste is acceptable. ³

¹See Section 1.3 for exceptions.

²Discharge is defined as the controlled release of a finite volume of liquid waste into the RLWCS.

³The RLWTF facilities have the right to limit discharge or refuse treatment of any waste.

⁴Continuous flow is defined as the release of liquid waste into the RLWCS for which the release is prolonged over a period of time or for which spontaneous release is not controlled by the generator.

1.5 Documentation Requirements

Generators are responsible for ensuring the following documentation exists for each waste stream discharged to the RLWTF:

- A current, approved WPF
NOTE: If a waste stream changes such that the waste stream no longer falls within the limits specified on the WPF, the generator must submit a new WPF (see Section 1.3) for RLWTF acceptance.
- Compliance with Radioactive Waste Certification Programs
- A Chemical Waste Disposal Request (CWDR); needed only when transporting liquid waste to the RLWTF via a vehicle

1.6 Transported Waste Requirements

As discussed in Section 1.5, a CWDR is needed when transporting liquid waste to the RLWTF via a vehicle. The CWDR form can be found by searching for (CWDR FMU64-F286), on the LANL web or by contacting the WMC at the RLWTF at 667-4301. Waste generator organizations are responsible for their waste containers. After waste is disposed of at the RLWTF, RLWTF personnel triple-rinse the containers and survey them for surface contamination. The generator is responsible for retrieval or disposal of the empty containers. The RLWTF does not treat solid waste or sludge. Any solid particles in excess of the value listed in Table 1.2 that have settled to the bottom of the liquid waste container will not be accepted for treatment at the RLWTF. The generator is responsible for the solid particles left over in the liquid waste container.

1.6.1 Tanker Truck Operations

Waste transported in the RLWTF tanker truck must:

- Be non-RCRA-regulated (non-hazardous)
- Qualify as a DOT Exempt Classification or as a limited quantity per DOT definition
- Be located in an area accessible by a tanker truck.
- Make arrangements to retrieve or dispose of containers after emptied.

For waste transported in the RLWTF tanker truck, the generating group must:

- Coordinate the date, time, and location with the RLWTF WMC (667-4301)
- Ensure that either the waste generator or the waste generator's WMC is present at the time and place of pickup
- Provide any equipment required for safely transferring the waste (for example, forklifts)
- Incur the cost of transportation

1.6.2 Flatbed Truck Operations

Waste transported to the RLWTF in containers via flatbed truck must be non-RCRA-regulated (except for D002 wastes less than 50 gal.) and transported in the following containers:

- Tuff Tanks or other DOT-approved portable containers. Tuff Tanks are not to be filled above the maximum fill line. If there is no maximum fill line, they must be filled to at least 60 percent and no more than 90 percent of capacity.
- DOT-approved, 55-gal. or 35-gal. metal, closed-head drums. Drums are to be filled to at least 60 percent and no more than 90 percent of capacity.
- Glass bottles or plastic carboys (not to exceed 5-gal. capacity) with fitted, screw-type caps.

Glass bottles or plastic carboys must not have any bottom outlets and must be overpacked in accordance with the appropriate DOT packaging authorization and packing group. If a liquid waste is not regulated by DOT, liquid waste transported in these containers must still be overpacked in a metal or plastic drum. The overpack must contain enough absorbent to absorb all of the liquid waste.

For waste transported to the RLWTF via flatbed truck, the generating group must:

- Coordinate a date and time with the RLWTF WMC (667-4301).
- Ensure compliance with applicable packaging and transportation criteria.
- Ensure each container has a completed "Health Physics Radioactive Materials Survey Tag."
- Incur the cost of RLWTF waste handling operations.

1.7 Nonconformances

The RLWTF will issue a Nonconformance Report to any generating group that discharges or transports a waste stream to the RLWTF that does not meet the criteria outlined in this Chapter and for which a WAC exception was not approved by the RLWTF. ENV-RCRA will also be notified of the nonconformance and a copy of the report will be sent to these organizations.

Repeated nonconformance by generators with the requirements of this WAC may result in termination of RLWTF privileges. In such cases, it is the generator's responsibility to find alternate means of disposal that comply with all local, state, and federal environmental regulations. RLWTF personnel will periodically audit generator documentation, such as WPFs and WAC Exception Forms, against actual discharges to the RLWCS. RLWTF personnel will also annually inspect generator facilities for compliance with Section 1.1, "Facility Requirements for Connection to the RLWTF" including inspection of drains identified as having the possibility for inadvertent introduction of large volumes of volatile organic liquids (e.g. gasoline) into the RLWCS. In addition, RLWTF personnel reserve the right to perform scheduled or non-scheduled monitoring of discharges from radioactive wastewater-generating facilities.

Enclosure 3

Chapter 18 – TA-53 Radioactive Liquid Waste Treatment Plant

The Technical Area (TA)-53 Radioactive Liquid Waste Treatment Plant (TA-53 RLWTP) collects and treats aqueous low-level waste (LLW). The TA-53 RLWTP is owned by the Los Alamos Neutron Science Center (LANSCE) Division and is operated by (Environmental and Waste Management Operations/ RLW (EWMO/RLW). The TA-53 RLWTP consists of three 30,000-gal. storage tanks, two evaporation basins, and the associated transfer pumps, piping, and instrumentation. Discharges from drains in TA-53, Building 3, and the Lujan Center/WNR Facility are transferred to the TA-53 RLWTP through a network of buried pipelines. These pipelines are connected to the TA-53 RLWTP via two lift stations: Lift Station No. 943 located near the WNR/Lujan Center and Lift Station No. 944 located near Area A. In addition to the collection system, waste may also be transported to the TA-53 RLWTP by tanker truck or container from other Laboratory facilities.

Laboratory Implementation Requirement (LIR) 404-00-05, "Managing Radioactive Waste" and Chapter 26 of this document, "Radioactive Waste Certification Program," provide institutional requirements for the management of radioactive waste. General requirements that apply to all waste types are contained in LIR 404-00-02, "General Waste Management Requirements."

Liquid waste meeting the requirements of this Chapter may be discharged into drains connected to the lift stations and the TA-53 RLWTP or transported directly to the TA-53 RLWTP.

18.1 Documentation Requirements

The generator is responsible for providing a Waste Profile Form (WPF) for each waste stream discharged or transported to the TA-53 RLWTP. The WPF must include information with sufficient accuracy regarding the waste's physical, chemical, and radiological characteristics to evaluate compliance with the TA-53 RLWTP WAC. Radioisotopes that comprise greater than 1% of the total activity in the waste stream and have half-lives greater than 30 days must be reported on the WPF. The total activity of the waste stream must also be reported. The concentration of chemical constituents and radionuclides for each waste stream may be determined by direct measurement or by indirect methods, such as the use of scaling factors, material accountability, or properly documented acceptable knowledge (AK, see Section 25.1.3).

18.1.1 Responsibilities

Waste generators must

- Comply with "Radioactive Waste Certification Program."
- Characterize the waste stream using sampling and analytical data and/or AK.
- Complete a WPF for each waste stream.
- Sign the Waste Generator Certification Statement on the WPF affirming the accuracy of the information.
- Give the WPF to their waste management coordinator (WMC) for review and signature.
- Retain a copy of the WPF for at least three years after the waste stream is no longer generated.

WMCs must:

- Assist generators in completing WPFs.
- Review WPFs for completeness.
- Sign completed WPFs.
- Submit WPFs to Waste Services – Waste Acceptance for approval.

EWMO/RLW personnel must:

- Review WPFs for compliance with the TA-53 RLWTP WAC.
- Deny or approve WPFs.
- Notify the generator of WPF status.

18.1.2 Volume

The generator must specify on the WPF the average and maximum daily and annual projected volume of liquid that will be discharged to a drain connected to the TA-53 RLWTP.

Generators anticipating volume changes outside the parameters specified in the WPF must complete a new WPF before discharging the waste.

18.1.3 Acceptable Knowledge

AK includes process knowledge, supplemental waste analysis data, and facility records or analysis as applied to waste characterization. AK may be used to characterize waste streams instead of sampling and analysis; however, the generator must be able to provide AK documentation or attach AK documentation to submitted WPFs. For additional information on AK, see LIG 404-00-02, "Acceptable Knowledge Documentation."

18.1.4 Process Waste Streams

A waste stream that remains essentially constant in physical, chemical, and radiological composition will be accurately described by a single WPF, while less predictable processes (processes in which the operating parameters vary significantly over time or processes performed only briefly—for example, short-term experiments) may require multiple WPFs.

Initially, all waste streams must be thoroughly characterized through a campaign of sampling and analysis or adequate acceptable knowledge.

At a minimum, each waste stream must be reviewed annually by the generator to confirm that it remains within its WPF parameters and characterization data.

18.1.5 New/Modified Waste Streams

Operations that create a new waste stream requiring discharge to the TA-53 RLWTP, even if the waste stream will be generated only once, must be characterized on a WPF before any discharge occurs.

When the characteristics of a waste stream change (for example, changes in chemical, physical, or radionuclide composition or waste volume), the waste generator must

- Cease discharging.
- Verify WPF parameters.
- Re-characterize the waste stream (if necessary).
- Complete and submit a new WPF (if necessary).
- Obtain an approved WPF prior to discharge (if necessary).

18.2 Waste Composition

For acceptance at the TA-53 RLWTP, liquid waste must meet the criteria outlined in Sections 25.2 through 25.5 of this chapter. WPFs for each waste stream must document compliance with the criteria listed below.

18.2.1 Radionuclides

The activity limits for radionuclides acceptable for discharge to the TA-53 RLWTP are listed in Table 25-1.

The maximum allowable radioactivity concentration for waste discharged to the TA-53 RLWTP is $3.2E-02$ Ci/l.

Waste-generators must apply for a variance for discharge of liquid waste having an activity greater than $3.2E-02$ Ci/l.

18.2.2 Chemical Waste

Discharges must have a pH between 6.1 and 9.0 in order to be released to the TA-53 RLWTP.

Liquid waste streams that contain metals below the concentration limits in Table 25-2 are acceptable for discharge to the TA-53 RLWTP.

18.2.3 Temperature

The maximum allowable temperature of liquid waste discharged to the TA-53 RLWTP is 60°C (140°F). Temperatures above 60°C (140°F) will cause expansion and damage to the collection system.

18.2.4 Total Suspended Solids (TSS)

Waste streams containing solids may cause problems with in-line blockage and will ultimately settle out within the evaporation basins. The maximum allowable TSS level is 100 mg/l.

18.2.5 Restrictions

Waste streams that exceed the "By Discharge Location" or "By Radionuclide" totals listed below are unacceptable for discharge or transport to the TA-53 RLWTP.

TABLE 18-1

Limits on Radionuclides Acceptable for Discharge to the TA-53 RLWTP	
	Maximum Allowable Activity (Ci/l) ^a
By Discharge Location:	
TA-53 RLWTP Collection System	3.2 x 10 ⁻² total
TA-53 RLWTP Tanker Truck	Non-Radioactive Material or "limited quantity" ^b
Other Container (Tuff Tank, 55-Gal. Drum)	3.2 x 10 ⁻² total ^c
By Total TRU:	1.0 x 10 ⁻⁸ total
By Radionuclide:	
Be-7	9.0E-04
Co-56	8.8E-06
Co-57	2.0E-05
Co-58	3.5E-05
Co-60	5.7E-06
Gd-148	3.9E-07
H-3	3.5E-03
Hf-172	9.1E-05
Hf-173	3.30E-04
Hf-175	4.1E-04
I-125	5.7E-07
I-126	1.1E-07
Lu-170	2.6E-04
Lu-171	3.0E-04
Lu-172	1.2E-04
Mn-54	4.2E-05
Na-22	1.2E-05
Rb-83	1.3E-06

TABLE 18-1 (Continued)

Limits on Radionuclides Acceptable for Discharge to the TA-53 RLWTP	
RADIONUCLIDE	Maximum Allowable Activity (Ci/l) ^a
Rb-84	1.0E-06
Sc-46	6.0E-06
Se-75	3.4E-07
Sr-85	6.0E-08
Ta-173	2.7E-04
Ta-174	3.1E-04
Ta-175	3.6E-04
Ta-176	4.5E-04
Ta-177	4.7E-04
Ta-179	2.8E-04
Ta-182	1.5E-04
Tm-166	2.0E-04
W-176	2.9E-04
W-177	3.3E-04
W-178	5.6E-04
W-181	1.6E-03
W-185	4.4E-03
W-187	9.0E-03
Y-88	2.4E-07
Yb-166	1.9E-04
Yb-169	2.7E-04
Zn-65	1.5E-06

^a Derived from 1) air emission calculations based on the maximum annual design basis flow rate (280,000 gallons) and historical sampling data for the Area A and WNR tanks and 2) radionuclides which constitute greater than one percent of the total activity and greater than one percent of the Category 3 threshold limit of the cooling water system for the 1L tungsten target located at the Lujan Center (assuming a maximum annual discharge of 3,000 gallons). The activity and radionuclide inventory in the RLW from the 1L tungsten target cooling water system is calculated based on the predicted activity of radionuclides within the target system after one year of beam operation, an assumed conservative corrosion rate (23-mils per year), and an assumed removal efficiency (90 percent) associated with the ion exchange columns within the cooling water system.

^b The definition of a radioactive material as defined by 49 CFR § 173.403, Activity limits for "limited quantities" of radioactive materials are defined in 49 CFR § 173.425.

^c Containers and package limits must comply with DOT requirements defined in 49 CFR § 173.

TABLE 18-2

Limits on Metals Acceptable for Discharge to the TA-53 RLWTP	
Metal	Allowable Concentration (mg/l)
Arsenic	<5.0
Barium	<100
Cadmium	<1.0
Chromium	<5.0
Lead	<5.0
Mercury	<0.2
Silver	<5.0
Selenium	<1.0

18.2.5.1 Non-aqueous Wastes

Waste streams with a water content of less than 90 percent are not acceptable for discharge to the TA-53 RLWTP.

18.2.5.2 Transuranic Radionuclides

Waste streams that contain transuranic radionuclides (atomic numbers larger than 92) are not acceptable for discharge to the TA-53 RLWTP if their total activity represents greater than one percent of the total activity of the waste stream or is greater than 1.0E-08 Ci/l.

18.2.5.3 Toxic Substance Control Act (TSCA) Waste

Waste streams that contain constituents defined in 40 CFR Parts 761, 762, 763, and 766, including, but not limited to waste containing polychlorinated biphenyl's (PCBs), are not acceptable for discharge to the TA-53 RLWTP.

18.2.5.4 RCRA Metals

Waste streams that contain metals greater than or equal to the concentration limits in Table 25-2 are not acceptable for discharge to the TA-53 RLWTP.

18.2.5.5 RCRA-regulated Wastes

Waste streams that contain RCRA-regulated wastes listed in Table 25-3 may not be discharged to the TA-53 RLWTP.

TABLE 18-3

RCRA-Regulated Wastes Unacceptable at the TA-53 RLWTP
Waste exhibiting the characteristic of ignitability as defined in 40 CFR § 261.21
Waste exhibiting the characteristic of reactivity as defined in 40 CFR § 261.23
Waste exhibiting the characteristic of toxicity as defined in 40 CFR § 261.24
F-listed waste as defined in 40 CFR § 261.31
K-listed waste as defined in 40 CFR § 261.32
P-listed waste as defined in 40 CFR § 261.33
U-listed waste as defined in 40 CFR § 261.33

18.2.5.6 Sanitary Waste

With the exception of specific showers used for radioactive decontamination and sinks located in areas where radioactivity may be present, sanitary waste may not be discharged to the TA-53 RLWTP.

18.2.5.7 Microorganisms

Waste streams that contain infectious microorganisms or microorganisms capable of generating hydrogen sulfide are not acceptable for discharge to the TA-53 RLWTP.

18.2.5.8 Oils/Grease/Detergents/Surfactants

Wastes that may inhibit evaporation or develop films in the evaporation basins may not be discharged to the TA-53 RLWTP if their concentration is greater than 100 mg/l. These wastes include, but are not limited to, oils, grease, detergents, and surfactants.

18.3 Waste Transported by Container or Truck

18.3.1 Transportation Requirements

In addition to the requirements herein, for specific packaging, labeling, and shipping documentation requirements, see LIR 404-00-02, "General Waste Management Requirements;" LIR 405-10-01, "Packaging and Transportation;" and Hazard Control Plan (HCP) LANSCE-FM-98-01, "Packaging and Transportation of Hazardous Materials, HCP for LANSCE Division."

Liquid waste may be transported to the TA-53 RLWTP in containers, such as Tuff Tanks™, 55-gal. drums, or tanker trucks. Unless arrangements are made with EWMO/RLW personnel, generating groups are responsible for transporting liquid waste to the TA-53 RLWTP in full compliance with applicable DOT regulations. EWMO/RLW personnel may be available to assist generating groups in transporting liquid waste.

NOTE: Generating groups may incur the cost of transporting liquid waste transported by EWMFO/RLW personnel.

The waste generator is responsible for ensuring that an approved WPF and a Chemical Waste Disposal Request (CWDR) are completed prior to transport. If the waste is transported by EWMO/RLW personnel, the WMC or generator will coordinate the time and place of the pickup with EWMO/RLW personnel. The exact location must be specified for the pickup. Either the waste generator or the WMC must be present at the time and place of pickup to ensure that the correct items are transported. Failure to have a waste generator or WMC at the designated site and time may result in a delay of the waste pickup. In addition, if EWMO/RLW personnel assist in transporting waste, the generating organization must provide the necessary equipment, such as forklifts, required for safely transferring the waste.

18.3.2 Container Requirements

All containers used to transport waste to the TA-53 RLWTP must be certified by DOT for transportation of the given waste type and be made of a material that will not react with the transported liquid waste. Each waste generator organization is ultimately responsible for its waste containers. After waste is disposed of at the treatment plant, containers provided by the waste-generating group should be triple rinsed by TA-53 RLWTP personnel, scanned for surface contamination, and picked up by the generator for reuse or disposal.

18.3.3 Radionuclide Content

DOT package limitations for radionuclides specified in 40 CFR Part 173 must not be exceeded. If EWMO/RLW personnel transport waste in a EWMO/RLW tanker truck, the waste must not meet the definition of a radioactive material as defined by 49 CFR § 173.403. If the waste meets the definition of radioactive material in 49 CFR § 173.403 and qualifies as a "limited quantity" of radioactive materials as defined by 49 CFR § 173.425 then EWMO/RLW personnel can transport.

18.3.4 Package Weight

Package weight must not exceed the rated capacity of the container based on DOT-specified package certification tests for the contained material.

18.3.5 External Package Contamination and Dose Rate

Prior to transport, qualified personnel, such as Health Physics Operations radiation control technicians (RCTs) must survey containerized waste for surface contamination and dose rates. Removable surface contamination may not exceed DOT regulations or the Laboratory limits established in LIR 402-700-01, "Occupational Radiation Protection Requirements." Containers must also have a completed *Health Physics Radioactive Materials Survey Tag*.

18.3.6 Package Marking and Labeling

Labels and markings required by DOT for the waste must be on the containers prior to transport.

18.4 Additional Requirements and Restrictions

18.4.1 Posting of Sinks and Drains Connected to the TA-53 RLWTP

Each sink and drain connected to the TA-53 RLWTP must be posted with an approved TA-53 RLWTP sign (See Appendix E). The generating group is responsible for ensuring all sinks are posted and the most current sign is posted. Signs may be requested from EWMO/RLW personnel at 667-4301.

18.4.2 Labeling of Radioactive Waste Lines

Pipelines within buildings that are connected to the TA-53 RLWTP should be labeled "Radioactive Waste Line." Contact the EWMO/RLW personnel at 667-4301 for labels.

18.5 WAC NONCOMPLIANCE AND MONITORING

Repeated noncompliance by generators with the requirements of this WAC may result in termination of TA-53 RLWTP discharge privileges. In such cases, it is the generator's responsibility to find alternate means of disposal that comply with all local, state, and federal environmental regulations. EWMO/RLW personnel reserve the right to perform scheduled or nonscheduled monitoring of discharge sources at Laboratory radioactive wastewater-generating facilities.

Enclosure 4

Chapter 16 – Sanitary Liquid Waste

16.1 Facility Requirements

The purpose of the Waste Acceptance Criteria (WAC) for the TA-46 Sanitary Wastewater System (SWWS) Plant is to assure compliance with the Laboratory's NPDES Outfall Permit and the SWWS Plant's Groundwater Discharge Permit, and to assure against operational upsets of the physical and biological processes of the plant due to incompatible waste streams.

Sanitary wastewater including bathroom waste, kitchen waste, janitorial waste from non-rad areas, and de minimus quantities of cooling and boiler blowdown from equipment rooms and from other sources is acceptable for discharge into the SWWS Plant. Industrial wastewater including radioactive waste, chemical waste, high explosives waste, and other industrial waste is not acceptable for discharge into the SWWS Plant.

The SWWS WAC Committee is responsible for the review of proposals to discharge new waste streams into the SWWS Plant. The Committee includes four members: the SWWS Plant Superintendent; the SSS Environmental Group Lead; the SWWS Plant Lead for the Laboratory's Utilities and Infrastructure Group; and, the NPDES Outfall Permit Lead for the Laboratory's Water Quality and RCRA Group.

Sanitary wastewater acceptable for treatment at the SWWS Plant is usually discharged into drains or sinks. Before discharging treated effluent to the environment, the SWWS Plant treats the wastewater to meet the effluent limits specified in the Laboratory's National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355. Most sanitary wastewater is discharged directly into the SWWS Plant through the sanitary collection system. A smaller volume is transported to the SWWS Plant from sanitary holding tanks, septic tanks, wastewater containers, and portable toilets. SWWS Plant personnel periodically pump these sources and truck the waste to SWWS Plant.

SWWS Plant Waste Acceptance Criteria are based on the following requirements:

- As-Low-As-Reasonably-Achievable (ALARA) Laboratory policy
- Clean Water Act (The Federal Water Pollution Control Act)
- Department of Transportation (DOT) Regulations
- DOE Order 5400.5 "Radiation Protection of the Public and the Environment"
- New Mexico Solid Waste Regulations (disposal of sludge, grit, and screenings)
- New Mexico Water Quality Act
- New Mexico Water Quality Control Commission (WQCC) Regulations
- NPDES Outfall Permit No. NM0028355
- Resource Conservation and Recovery Act (RCRA)
- Toxic Substances Control Act (TSCA)
- Water Quality Standards for Interstate and Intrastate Streams in New Mexico
- Groundwater Discharge Permit for the SWWS Plant, DP-857
- New Mexico Liquid Waste Disposal Regulations

16.2 Transportation Requirements

Typically, sanitary wastewater is transferred to the SWWS Plant through the sanitary collection system; however, SWWS Plant personnel transport some sanitary wastewater to the SWWS Plant from waste generation points where the sanitary collection system is unavailable. SWWS Plant personnel have been instructed not to transport wastewater to the SWWS Plant until the Waste Profile Form (WPF) has been completed and approved.

Waste generators must notify SWWS Plant personnel at least 48 hours prior to pickup and transport of wastewater to the SWWS Plant. Before pickup, SWWS Plant personnel will contact the waste generator to coordinate the time and location of the pickup. The waste generator or the Waste Management Coordinator (WMC) must be present at the time and location of pickup to ensure the correct tanks are pumped. Failure to have a waste generator or WMC at the designated site and time may result in the delay of wastewater pickup.

All sanitary wastewater will be hauled by the SWWS vacuum truck to the SWWS, no exceptions.

16.3 Waste Profile Form

All new waste streams to be discharged or transported to the SWWS Plant must be evaluated by the SWWS WAC Committee using a Waste Profile Form (WPF). The waste generator is responsible for completing a waste profile form for a new waste stream. Instructions for completing the WPF are included in the ISD "Waste Profile Form Guidance", when issued. The WPF can be obtained from LANL On-Line Forms ([Form 1346](#)).

"Acceptable Knowledge" criteria may be used to complete the WPF in lieu of analytical data for new waste streams originating from new buildings and facilities (with prior approval from the SWWS WAC Committee). All waste streams originating from existing holding tanks, septic tanks, and containers must have an approved WPF on file with the Waste Services Coordinator prior to transport of wastewater to the SWWS Plant. WPFs for wastewater from holding tanks, septic tanks, and other sources are valid for one year and may be extended by the waste generator annually if the waste stream has not changed.

If a change is planned to a waste stream discharged into the collection system or transported to the SWWS Plant, the waste generator must notify the Water Quality and RCRA Group and complete a new WPF prior to discharge or transport. Examples of changes include both changes in contaminant loading and volume of wastewater.

All sampling of waste streams at LANL must be sampled by an approved independent and experienced entity, per the SWWS Committee requirements.

16.4 Waste Acceptance Criteria

All wastewater discharged or transported to the SWWS Plant must meet the Waste Acceptance Criteria described below. If a waste generator is planning a new waste stream or believes that a planned change is likely to exceed the limits set forth in Tables 16-1, 16-2, or 16-3 below, the waste generator must complete a WPF and obtain approval from the SWWS WAC Committee prior to discharge or transport.

Radionuclides. Wastewater exceeding the drinking water limits for radioactivity shown below in Table 16-1 cannot be discharged into the SWWS Plant. A radioactive source facility may not discharge a radioactive waste stream into the sanitary collection system for treatment at the SWWS Plant.

TABLE 16-1. Limits for Radioactivity (Drinking Water Limits)

Parameter	Limit (pCi)
Gross Alpha	15
Gross Beta	50
Tritium	20,000

pH. Sanitary wastewater with a pH less than 5.5 or greater than 11.0 standard units is not acceptable for treatment at the SWWS Plant.

Chemical Waste. The SWWS Plant is regulated under NPDES Outfall Permit No. NM0028355 and under Groundwater Discharge Permit No. DP-857. The SWWS Plant is not a permitted facility under the Laboratory's RCRA Permit. Wastes regulated under RCRA (such as acetone, methyl-ethyl-ketone [MEK], 1,1,1-trichloroethane [TCA], and electroplating wastes) are not accepted for treatment at the SWWS Plant. For additional information concerning the disposal of RCRA waste, contact the Laboratory's Water Quality and RCRA (ENV-RCRA) Group. Wastewater not regulated by RCRA may be accepted for treatment at the SWWS Plant on a case-by-case basis depending on the chemical constituents, concentrations, and volumes generated. All wastewater must meet the SWWS Plant Waste Acceptance Criteria listed in Table 16-2, unless a WAC Exception Form (WEF) is completed by the waste generator and approved by the SWWS WAC Committee.

Nitrogen. Total nitrogen concentrations in wastewater must not exceed 100 mg/l for flow rates less than or equal to 100 gallons per day and must not exceed 50 mg/l for flow rates greater than 100 gallons per day. Waste streams containing nitrogen in excess of the SWWS Plant WAC will be evaluated on a case-by-case basis.

Metals. Wastewater containing metals at levels regulated by RCRA (See Chapter 1, Table 1-2) are not accepted for treatment at the SWWS; therefore, the metal concentrations shall not exceed the limits shown in Table 1-2 **A WAC Exception Form must be completed by the waste generator and approved by the SWWS WAC Committee for any exceptions.**

Temperature. The temperature of wastewater discharged into the sanitary collection system shall not exceed 60°C (140°F) unless the flow rate of the waste is less than 100 gallons per day, in which case the temperature shall not exceed 82.2° C (180°F).

Toxicity. All wastes must meet the "Microtox" requirements for toxicity prior to discharge to the SWWS Plant at a dilution representing the actual dilution of the liquid waste discharged into the sanitary collection system.

(Microtox measures the toxicity of aqueous solutions. The light output of the Microtox reagent, a suspension of luminescent bacteria, is measured before and after the reagent is exposed to the sample being tested. When toxic materials inhibit bacterial metabolism, light output drops in proportion to the toxicity. The method has been included in the 19th Edition of *Standard Methods for the Analysis of Water and Wastewater*.)

TABLE 16-2. Waste Acceptance Criteria for Discharges to the SWWS Plant
(All metal concentrations are for the total metal concentrations present in the sample.)

Contaminant	Limits at a Flow Rate of 100 gal./day or less	Limits at a Flow Rate greater than 100 gal./day
pH	5–11 SU	5.5–11 SU
Chemical Oxygen Demand (COD)	≤750 mg/l	≤500 mg/l
Microtox results	<55% screen	<50% screen
	>20% EC50	>25% EC50
Temperature	≤180°F	≤140°F
Total Suspended Solids (TSS)	≤330 mg/l	≤330 mg/l
Total Dissolved Solids (TDS)	≤1000 mg/l	≤1000 mg/l
Oil & Grease	<100.0 mg/l	<50.0 mg/l
Aluminum	<5.0 mg/l	<5.0 mg/l
Arsenic	<0.2 mg/l	<0.1 mg/l
Barium	<40.0 mg/l	<20.0 mg/l
Beryllium	<0.01 mg/l	<0.01 mg/l
Boron	<2.0 mg/l	<1.0 mg/l
Cadmium	<0.1 mg/l	<0.05 mg/l

Contaminant	Limits at a Flow Rate of 100 gal./day or less	Limits at a Flow Rate greater than 100 gal./day
Chromium	<9.26 mg/l	<4.63 mg/l
Cobalt	<2.2 mg/l	<1.1 mg/l
Copper	<1.0 mg/l	<0.5 mg/l
Cyanide (total)	<5.0 mg/l	<0.34 mg/l
Fluoride	<180.0 mg/l	<80.0 mg/l
Iron	<100.0 mg/l	<35.0 mg/l
Lead	<0.4 mg/l	<0.2 mg/l
Magnesium	<100.0 mg/l	<50.0 mg/l
Manganese	≤10.0 mg/l	<7.5 mg/l
Mercury (total)	<1.5 µg/l	<0.77 µg/l
Molybdenum	<4.0 mg/l	<2.0 mg/l
Nickel	<0.5 mg/l	≤0.25 mg/l
Nitrogen (total)	≤100 mg/l	≤50 mg/l
Phosphorus (total)	<80.0 mg/l	<40.0 mg/l
Polychlorinated biphenyls (PCBs)	None Detect	None Detect
Selenium	<5.0 µg/l	<5.0 µg/l
Silver	<5.0 mg/l	<1.0 mg/l
Vanadium	<0.2 mg/l	<0.1 mg/l
Zinc	<10.0 mg/l	<0.5 mg/l

Chlorine from Disinfection of Water Supply Facilities. Wastewater volumes of less than 20 gal. may be discharged directly to the SWWS Plant without regard to chlorine concentration. Volumes greater than 20 gal. but less than 1000 gal. must be de-chlorinated to less than 3 ppm before discharge to the SWWS Plant. Volumes greater than 1000 gal. must be reviewed and approved by the SWWS WAC Committee on a case-by-case basis prior to discharge.

Sample Location. Samples for evaluation of contaminants must be taken as close to the point of discharge into the sanitary wastewater collection system as possible. When sampling cannot be completed at the point of discharge, samples should be taken at the first available manhole or sampling port downstream of the point of discharge.

Prohibited Waste. Table 16-3 lists the categories of waste which are not acceptable for discharge or transport to the SWWS Plant.

TABLE 16-3. Prohibited Waste

<p>RCRA Regulated Waste:</p> <ul style="list-style-type: none"> • Waste exhibiting the characteristic of ignitability as defined in 40 CFR §261.21 • Waste exhibiting the characteristic of reactivity as defined in 40 CFR §261.23 • Waste exhibiting the characteristic of toxicity as defined in 40 CFR §261.24 • F-listed waste as defined in 40 CFR §261.31 • K-listed waste as defined in 40 CFR §261.32 • P-listed waste as defined in 40 CFR §261.33 • U-listed waste as defined in 40 CFR §261.33
<p>Other Prohibited Waste :</p> <ul style="list-style-type: none"> • Cooling tower blowdown in excess of 500 gallons per day • PCBs • Wastewater at temperatures >140°F for flows > 100 gpd • Wastewater at temperatures >180°F • Non-aqueous waste • Medical waste • Radioactive waste • Toxic waste (as defined by Microtox methodology) • Non-characterized holding tank or septic tank waste • Surface drainage • Roof drainage • Surface-active agents, excessive detergents, or other substances which may cause excessive foaming in the SWWS Plant. • Dilution water added to achieve compliance with any of requirements of the SWWS/WAC.

16.5 Sanitary Holding Tanks and Septic Tanks

Sanitary holding tanks and septic tanks must have approved WPFs on file with the Waste Services Coordinator prior to transport of wastewater to the SWWS Plant. Wastewater from septic tanks and holding tanks are subject to the WAC requirements listed in Table 16.4. Wastewater from septic tanks, as needed, will receive additional pre-treatment and low-flow discharge into the SWWS Plant at the discretion of the SWWS Plant Supervisor to assure that the wastewater does not cause plant upsets or non-compliances.

Table 16.4. Waste Acceptance Criteria for Sanitary Holding Tanks and Septic Tanks

	Holding Tanks	Septic Tanks
COD	1500 mg/l	8000 mg/l
TSS	5000 mg/l	15,000 mg/l
TDS	10,000 mg/l	N/A
Total N	300 mg/l	500 mg/l
Total P	200 mg/l	N/A
Oil and Grease	200 mg/l	350 mg/l
Microtox	<55% (screen) and >20% (EC50)	N/A
RDX	0.0 mg/l	0.2 mg/l

A sign designating the holding tank or septic tank number must be provided at the tank location. Waste generators must provide for roadways to on-site holding tanks and septic tanks which are adequate for pump truck use with no restrictions to access. Tanks must have adequate capacity to contain the sanitary flow from connected buildings. The building manager must ensure that new or upgraded installations must be equipped with high-level alarms for holding tanks. The alarm light must be visible to building residents. All holding tanks and septic tanks without an approved WPF must be characterized prior to any pumping activities. It is the waste generator's responsibility that all WAC requirements for holding tanks and septic tanks are met prior to pumping and transport of wastewater to the SWWS Plant. Waste generators must provide at least a 48 hours notice to SWWS Plant personnel before wastewater transported.

To ensure the integrity of the SWWS Plant and to maintain compliance with the Laboratory's NPDES permit, additional sampling (including, but not limited to SWWS WAC parameters, RCRA parameters, and various metals) may be required for septic tanks that have not been pumped within the past 3 years.

The building manager is required to have annual inspections conducted to document the facility conditions in accordance with the NMED Liquid Waste Disposal and Treatment Regulations. These inspections will cover the service lines, tanks, access road, alarms, and effluent disposal system (if present). Inspections must be performed by a level II wastewater operator certified by NMED or a person meeting the certification regulations when promulgated by the Department.

The SWWS plant personnel can perform these inspections, document the conditions, and conduct preventative maintenance of these tank facilities, contact SWWS plant personnel to schedule. Owners who do not have preventative maintenance performed or inspections conducted may be in violation of these State regulations. Failure to comply with these regulations could cause facilities to not be pumped by the SWWS vacuum truck.

16.6 Portable Toilets

Sanitary wastewater from portable toilets used at construction sites or for other activities at the Laboratory may be transported to the SWWS Plant for treatment and disposal. Please contact the SWWS Plant personnel in order to make arrangements for this service. The [Sanitary Portable Toilet Request Form](#) must be completed in advance by the requester and faxed to SWWS Plant at 667-7746.

16.7 Additional Requirements

16.7.1 Posting of Sinks & Drains Connected to the SWWS Plant

Each sink or drain connected to the SWWS Plant collection system or to a sanitary holding tank or septic tank must be posted with a sign informing the user of the requirements for disposing of liquid waste down the sink or drain. The approved sign may be obtained from the Water Quality and Hydrology Group (ENV-RCRA). The waste generator is responsible for ensuring all sinks are posted with the most current sign.

16.7.2 Labeling of Sanitary Wastewater Lines

Sanitary wastewater lines that are visible inside buildings are the responsibility of the building manager and must be labeled "Sanitary Wastewater."

16.7.3 WAC Non-Compliance and Monitoring

Non-compliance with SWWS Plant WAC requirements may result in termination of SWWS Plant treatment and disposal services upon recommendation of the SWWS WAC Committee and approval by the Utilities and Infrastructure Manager or Designee. It is the waste generator's responsibility to find alternative means and methods of disposal that comply with federal and state environmental regulations. Waste stream monitoring shall be conducted by Laboratory and SSS environmental personnel as required to assure compliance with the SWWS WAC.

16.8 WAC Exception Form

Some waste streams that do not meet all of the requirements of the SWWS Plant WAC may be acceptable for treatment at the SWWS Plant. An exception from a WAC requirement may be requested by a waste generator by completing the WAC Exception Form (WEF) and submitting it to the Waste Services Coordinator and SWWS WAC Committee. The Committee will evaluate the WEF and approve or disapprove the proposed exception. Conditions of approval may include pre-treatment and/or low-flow discharge into the SWWS Plant. Decisions of the Committee may be appealed to the Utilities and Infrastructure Manager or Designee. The decision of the Utilities and Infrastructure Manager or Designee is final.