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Title:	2011 Radioactive Waste Management Basis for UI FOD
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Intended for:	DOE RWMB Waste management Reading Room RCRA

Los Alamos
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Date: October 11, 2011
Refer To: WES-DO-11-17

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2011 Radioactive Waste Management Basis for UI FOD

The Waste Certification Program (WCP) has reviewed the UI FOD Radioactive Waste Management Basis (RWMB) submittal for TA-18, TA36, TA-54 and TA-3. The facility has requested RWMB approval for a two-year timeframe. WCP concurs with the waste generation and operation information provided. Please note that due to a directorate change, the UI-FOD submittal encompasses both IFCS and UI information from previous reporting. Operations planned during the period are routine; however, if non-routine operations are identified during the two-year period, a revision will be submitted. Radioactive waste generating operations for UI-DO is demand based (emergency, on call, etc.) and typically not pre-planned. Therefore, dependent upon the scope of work UI-DO could possibly be required to manage various radioactive nuclides or mixed low-level waste. In accordance with the approved internal process, an update will be provided to WCP for UI-DO radioactive waste generation sites. The referenced reporting is for current operations.

The previous 435.1 extension and problematic issue reporting for the TA-18 facility has been monitored by the WCP. Four Depleted Uranium drums of material are in process of being evaluated by the facility, working with SAFE-4, TA-54 personnel and the Waste Generator Services group for discard and final disposition. WCP will continue to provide Los Alamos Site Office with progress updates.

Sincerely,

Alison M. Dorries
Division Leader
Waste and Environmental Services
AMD:mlc

Enc: Radioactive Waste Management Basis UI-FOD 2011-07, Rev 0
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Form 2107

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Radioactive Waste Management Basis Report Form

UI-FOD 2001-July, Rev. 0

☐ Extension Requested (Detailed letter must be attached.)

Reporting Organization	Report Date	Facility Hazard:			
UI-FOD	7/26/11	☐ High	☐ Moderate	☒ Low	

Purpose

The purpose of this report form is to document the radioactive activities at Technical Area(s) LANL Wide, which are operated by the UI-FOD organization at Los Alamos National Laboratory (LANL or the Laboratory). This Radioactive Waste Management Basis (RWMB) Report Form constitutes compliance with the applicable requirements of Department of Energy (DOE) Order 435.1, *Radioactive Waste Management*, and in DOE Manual 435.1, Chapter IV, *Low-Level Waste Requirements*, and Chapter III, *Transuranic Waste Requirements*. The organization must submit an RWMB Report Form to the Waste and Environmental Services-Waste Generator Services Group (WES-WGS), Waste Certification Program (WCP) by July 30 upon expiration or when a significant waste stream change has occurred. WCP must compile the LANL Organization RWMB Reports and submit this package for DOE reporting before August 30 in order to maintain approval.

Time Requested for RWMB Approval 2 year(s)

Report Authorization

	Name	Signature	Date
Facility Operations Director (FOD)/Division Leader:	Andrew Erickson	for AE	7/27/11
Report Preparer:	Randy Sandoval	Randy Sandoval	7/26/11
Waste Certification Specialist:	~~Michelle Coriz~~ Randy J. Manion	Randy J. Manion	9/29/11

Waste Certification Program (WCP) Annual Review

	Name	Signature	Date
Waste Certification Specialist:	Michele Coriz		

Waste Authorization Basis

List all facility/operations authorization basis documents and include specific facility waste management documents.

☐ Nuclear-Facility ☒ Non-Nuclear Facility ☐ TSDF ☐ Accelerator ☐ An attached list is provided

Safety or Facility Document Name	Document Number	Last Rev. Date	Document Owner
☐ Waste Management Plan			
☐ Facility Waste Certification Plan (FWCP). *Do not complete pg. 3*			
☐ Operation Record			
☐ Documented Safety Analysis (DSA)			
☐ Technical Safety Requirement (TSR)			
☐ Safety Evaluation Report (SER)			
☐ Health & Safety Plan/Job Hazard Analysis			
☐ Site Treatment Plan			
☐ DOE O 435.1 Exemption for Disposal at a Non-DOE Facility			
☒ Closure Plan	TA-18-AB-003, R0		
☐ Monitoring			
☐			
☐			

Institutional Document	Document Number	Institutional Document	Document Number
☒ Waste Management	P409	☒ LANL Waste Acceptance Criteria	P930-1
☒ Radioactive Waste Certification Program	P930-2	☐ Off-Site Shipment of Chemical, Hazardous, or Radioactive Waste	P930-3
☒ NMED LANL Hazardous Waste Facility Permit	NM0890010515-1	☒ LANL Packaging and Transportation Program Procedure	P151-1
☒ Environmental Management System	SD400	☒ National Environmental Policy Act (NEPA)	42 U.S.C. 4321

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UI-FOD 2001-July, Rev. 0

Waste and Activity by Building and Destination

For any building/location managing radiological materials, enter the TA-Bldg No, (e.g., 55-0078 or 55-outside) then click on waste activity and destination box and select the appropriate descriptors for the management activity type (see key below) and waste destination. Identify total organization estimated annual volume above destination box.

TA-Bldg. No.	LLW Activity	Estimated Annual Volume / Destination	Waste Matrix	MLLW Activity	Estimated Annual Volume / Destination	Waste Matrix	TRU Activity	Estimated Annual Volume / Destination	Waste Matrix	Mixed TRU Activity	Estimated Annual Volume / Destination	Waste Matrix
36-1	SS	On-site Disposal	Solid	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment: rags and clean- up stuff (wipes) 2 cubic yards trash contamination with tritium. waste will be dispositioned at TA 54 until such time it is necessary to ship elsewhere												
54-1001	SS	On-site Disposal	Solid	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment: Approximately one cubic yard of waste contaminated with tritium. Waste will be dispositioned at TA 54 until such time it is necessary to ship elsewhere.												
18	SS	On-site Disposal	Solid	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment: Approximately 320 cubic yards of waste contamniated with U235 and beryllium. Waste will be dispositioned at TA 54 until such time it is necessary to ship elsewhere.												
3-1522	Stage	On-site Disposal	Solid	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment: Approximately 3 cubic meters, combination of tritium viles and wipes.												
VARIOUS	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment: Due to emergency, on call operations UI-DO can encounter LLW Sources or MLLW Debris/Materials. Reporting updates to WCP. MLL 9/30/2011												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	SS	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												

Activity: Recyc = Recycling. Stage = Staging. Store = Storage. SS = Stage & Store. Treat = Waste Treatment. SR = Stage & Repack. All = All Activities.

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Radioactive Waste Management Basis Report Form (Page 3)

DOE O/M 435.1 Facility/Organization Specific Summaries	UI-FOD 2011-July, Rev. 0

Facility Scope

Provide a brief description of organization activities and operations including waste generation, management, tracking, reporting, and preliminary disposal characterization.

UI-FOD is involved with the management of approximately 65% of the laboratory footprint. A majority of the footprint includes TA3 area, Pajarito Corridor, and West Mesa Corridor. Waste management activities include office generated waste (light bulbs, aerosols, cleaning chemicals, etc.) UI-FOD also oversees excess facilities (e.g. TA 18) which contains legacy waste such as lead and rad waste. Management of all UI-FOD waste streams is accomplished by WES-WGS deployed services. Waste is disposed of in accordance with the guidance given in the WAC. The various types of waste will go to TA-54 as low-level waste for disposal. Mixed low-level waste goes through TA-54 for disposal at an off site facility.

FOD 8 performs maintenance and emergency repairs to our water, wastewater, gas, electric, steam and roads a& grounds infrastructures, which involves excavation of sites Some of these sites involve PRSs and SWMUs which can generate radioactive as well as mixed waste.

Life-Cycle Waste Management

Describe the waste management process at the organization, security of waste funding, and the cradle to grave management. Specify how applicable procedures address waste management and controls. Utilize Environmental Management System (EMS) support.

Response:

Waste funding is coverby the FOD budget. Programmactic wasate issues are covered by the programs. Additional funding streams could occur from the IS funding stream to manage legacy waste issues. All waste is package in accordance with the LANL WAC, P930-1. CWDR's are submitted for the waste being disposted of and reviewed by Generator Services Support. The waste is manifested and Area-G personnel schedule gate times for the waste to come down to TA-54

Characterization

Provide a description of how the organization implements the radioactive waste characterization process at the organization and the document support. Detail the routine method of waste characterization for the organization.

Response:

We do not sample all waste. If waste is inherited by the FOD, we sample. We sample if we do not know the process/operation that generated the waste. Radioactive waste is characterized by gamma spec or non-destrcutive assay, dependent on the isotops. Isotopic characterization is usually determined by programmatic knowledge. MSDS are attached as supporting documentation for the Waste Profile Form (WPF).

Packaging and Transportation

Specify organization-specific procedures for packaging operations and preparations for transportation. Laboratory personnel are required to meet the requirements of P151-1, *LANL Packaging and Transportation Program Procedure*, to ensure compliance with Department of Transportation (DOT) requirements. Identify the controls that will be implemented to prevent contents from being added to waste containers or tampered with while in a registered waste area.

Response:

The following institutional documents are followed for the packaging and pregaration for transportation, P151 Hazardous Material Packaging and transportation P930-1 LANL Waste Acceptance Criteria and P121 Radiation Protection. Waste is segregated according to the analytical results and rad surveys/WPF. A waste disposal request is submitted and a gate time is scheduled by TA-54. The CWDR is reviewed prior to the waste being moved for proper DOT classification. Generator Services Support performs reviews.

Staging/Storage

Describe the accumulation and holding of radioactive waste that is treated, or transported to or from the organization. Describe the organization's generation process and management trail into a registered waste area.

Response:

Rad waste is packaged and stored in a registered staging area until the container is full. Storage areas are in a locked facility or behind locked gates and fences. Once a Rad container is full, it has 90 days to be sent to a storage area or is dispositioned. It is managed, characterized and profiled for disposal at TA-54. Monthly inspections are performed by the WMC at the staging/storage areas and documented. The WMC maintains these records and copies RMDC. RMDC is primary document control for these inspection records

The accumulation of the waste is typically at the point of generation which is normally the excavation site. We do not treat waste. Best Management Practives (BMPs) are implemented at the excavation site to prevent migration of the spoil piles into water courses or uncontaminated areas.

Quality Assurance Program

Describe the organization-specific procedures that ensure the traceability of waste characterization records, container procurement, and the document control process.

Response:

UI-FOD follows LANL QA procedures. All waste profile forms are sent to WES-WA for review and document control and storage of the profile. Waste containers are also procured through TA-54 and documented. WMCs keep copies of AK, profiles, etc. All records are filed with RMDC (records management document control)

Training and Qualification

All waste management personnel (Waste Management Coordinators [WMCs]; Environment, Safety, Health, and Quality [ESH&Q]; Environmental Tech; etc.) are required to maintain qualification standards. Describe how the organization implements any other radioactive waste management specific training required by the organization.

Response:

All waste management personnel are required to maintain their qualifications standards. WMCs have completed all HMPT courses. Waste generators have all completed WGO training. The home organization keep track of their deployed personnel to make sure that training is up to date.

Waste Minimization and Pollution Prevention

Document the implementation of waste minimization and pollution prevention programs for radioactive waste management facilities, operations, and activities. Provide assurance of waste stream evaluation before generation of waste.

Response:

Waste Minimization is incorporated into procedures, activities, and operations that generate radioactive waste. Waste Management Coordinators help generators evaluate waste streams to insure compliance with the EMS program. 'Green is Clean' is incorporated in lab areas within UI-FOD. UI-FOD has designated recycle areas. One P2 examples would be at the TA36-1 instrument repair/calibration facility. The instruments are serviced and the materials are segregated into 'Green is Clean' for reuse and Radioactive waste containers. Another example is the Oil/Water Separator being installed at the Heavy Equipment Yard, which prevents contaminats from vehicle washing from entering the environment.