LANL HSWA #23

Los Alamos
NATIONAL LABORATORY
memorandum
Environmental Restoration Project
EM/ER, M992

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Date: November 27, 1995

SUBJECT: DISTRIBUTION OF ENVIRONMENTAL RESTORATION (ER) STANDARD OPERATING PROCEDURES (SOPs)

Attached are documents for insertion in your **controlled copy** of the ER SOP's manual.

The documents for this distribution are:

a) Table of Contents, Instructions, and a Master Distribution List

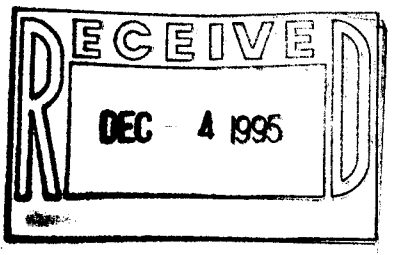
b) LANL-ER-SOP-10.10, R0, Radiation Scoping Survey

Please follow the instructions on the Receipt Acknowledgment form to complete all updates. Sign and **return** the Receipt Acknowledgment form to Yvonne Gibson, MS M707 by December 11, 1995.

If you have any questions on this update please contact Yvonne Gibson, EM/ER Controlled Document Coordinator, at 5-6498. If you are no longer on the distribution of your group has changed names you will also need to contact me with the current information.

JJ/GY:bp

Attachment: a/s



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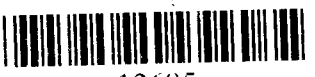
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Los Alamos National Laboratory
Environmental Restoration Project

General Instruction Sheet for Handling Documents from the Controlled Document Custodian

Please perform the following:

1. Return your signed Receipt acknowledgment form by the date indicated on the form.

2. Review the title and table of contents of each procedure in the manual and note if your position title is expressly identified in the procedure. Refer to a current ER Project Organization Chart to identify ER position titles and individuals functioning in the position.

3. Your are responsible for determining and implementing the procedures applicable to your work assignments and being familiar with the requirements as they are stipulated by DOE and EPA.

4. Read the purpose and scope of each appropriate procedure to familiarize yourself with other ER Program policies and to determine if the employees you supervise need to implement them. For SOPs, read and familiarize yourself with the Field Activity Flow Chart (Attachment A), located in LANL-ER-SOP-01.01.

5. Ensure that the personnel you supervise have access to your manual or ensure that they are issued "controlled working copies" of the appropriate procedures.

6. Follow the directions in the administrative procedure LANL-ER-AP-01.4, Distribution of Controlled Documents Prepared for the Environmental Restoration Program, to request "controlled working copies" of procedures for your employees.

7. Follow the guidelines in the administrative procedure LANL-ER-AP-01.5, Revision or Interim Change of Environmental Program Controlled Documents, to initiate interim changes or revisions to procedures.

8. For the Quality Program Plan (QPP), obtain or access the Administrative and Quality Procedures manual which contains instructions that implement many of the QPP requirements. Review the contents of the QAPjP for RCRA Facility Investigations. This document provides the framework and guidance for preparing operable unit (OU) specific project plans.

9. For questions regarding the Mixed Waste Disposal Facility (MWDF) Quality Assurance Plan, contact Doug Pippin at 667-3358.

10. Request unmarked copies of forms by contacting Yvonne Gibson, the Controlled Document Custodian (CDC), at 665-6498.

11. To request unmarked copies of Chain of Custody/Request for Analysis forms located in LANL-ER-SOP-01.4, by contacting CST-9, MS K484, 665-8742.

12. **Please return your manual** to the Controlled Document Custodian, RPF MS M707, if you **leave** or are **no longer** doing work for the program. **Do Not transfer** your controlled manual without first contacting the CDC.

13. Please file all Interim Change Notices at the very front of the procedure.

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-03.4 Rev: 0

OBTAINING ACCESS AGREEMENTS FOR NON-DOE OWNED PROPERTY FOR PURPOSES OF RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATIONS AND REMEDIATION

UNCONTROLLED

	(Print Name)	(Signature)	(Date)
Prepared by	Marja H. Shaner	Marja H Shaner	5/4/93
Quality Review by	Larry Maassen	Larry Maassen	5/5/93
Functional Review by	Ron Conrad	Ron Conrad	5/5/93
PM Approval	Robert W Vocke	Robert W Vocke	5/6/93
QPPL Approval	A. E. Norris	A. E. Norris	May 6, 1993

Effective Date: May 7, 1993

OBTAINING ACCESS AGREEMENTS FOR NON-DOE-OWNED PROPERTY FOR PURPOSES OF RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATIONS AND REMEDIATION

Contents

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OBTAINING ACCESS AGREEMENTS FOR NON-DOE-OWNED PROPERTY FOR PURPOSES OF RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATIONS AND REMEDIATION

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe the process for obtaining a property access agreement between the Department of Energy-Los Alamos Area Office (DOE-LAAO)/Los Alamos National Laboratory (Laboratory) for the University of California and a non-DOE property owner.

2.0 SCOPE

This procedure applies to Environmental Restoration (ER) Program personnel and subcontractor personnel who conduct Resource Conservation and Recovery Act facility investigation (RFI) activities.

3.0 DEFINITIONS

3.1 Access Agreement

The access agreement is a contract between the DOE, Laboratory (for the University of California), and the owner or trustee of non-DOE-owned property. The access agreement allows the DOE and the Laboratory access to privately owned property for the purposes of conducting an RFI, which may include surveying, excavating, sampling, and possible remediation activities.

3.2 Non-DOE-Owned Property

Non-DOE-owned property is land and buildings (real estate) owned or held in trust by an individual, company, corporation, government agency, Los Alamos County, Indian pueblo, or nonprofit organization.

3.3 Public Participation Data Base

The Public Participation Data Base is maintained by the community relations project leader and consists of the names of individuals outside of the Laboratory who are affected by or are interested in the conduct of ER Program activities. Included are notified property owners, interested members of the public, state and federal agency contacts, and others. Various types of information are linked to the names in the data base.

3.4 Records-Processing Facility

The Records-Processing Facility (RPF) is the facility where all records pertaining to the ER Program are received, processed, and archived.

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4.0 RESPONSIBILITIES

4.1 Community Relations Liaison

The community relations liaison is responsible for

- developing an appropriate access agreement for each non-DOE property owner, using input from DOE-LAAO and the Laboratory's legal offices;
- obtaining approvals from DOE-LAAO and the Laboratory's legal offices if the agreement needs substantive changes;
- serving as a liaison between the Laboratory and DOE-LAAO legal offices and the property owner to answer questions and negotiate any proposed changes to the access agreement;
- working with the Operable Unit Project Leader (OUPL) to prepare a property-specific survey and sampling plan to be attached to the access agreement;
- determining that all affected parties sign the access agreements and distributing the signed access agreements to all signatories, and:
  - DOE/LAAO,
  - the responsible OUPL,
  - the community relations project leader for entry in the Public Participation Data Base,
  - Central Records Management (CRM-4), and
  - the RPF.

The property owner retains one signed original agreement.

4.2 Operable Unit Project Leader

The OUPL is responsible for

- determining that access to a non-DOE property is essential to conducting the RFI and
- working with the community relations liaison to develop a property-specific survey and sampling plan based on information taken from the RFI work plan.

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5.0 PROCEDURE

5.1 Identifying the Need for and Requirements of an Access Agreement

After notifying a non-DOE property owner or homeowner association that the property contains or is located near a potential release site (PRS), it is necessary for the DOE and the Laboratory to enter into an access agreement with the property owner before undertaking characterization and ultimate remediation of the property. An access agreement needs to be signed by the Associate Director of Operations (ADO) at the Laboratory, the area manager of DOE-LAAO, and the property owner. The ADO and the area manager of DOE-LAAO may delegate signature authority for these agreements.

The community relations liaison, in conjunction with the DOE-LAAO and the Laboratory's legal offices, prepares the access agreements.

Two original copies of the access agreement package are delivered to the property owner for signature. When all parties have signed the agreement, one of the original agreements is retained in the RPF, and the other is retained by the property owner. Copies are distributed to

- DOE/LAAO,
- the responsible OUPL,
- the community relations project leader for inclusion in the Public Participation Data Base, and
- Central Records Management (CRM-4).

RFI activities may also involve personnel from DOE-LAAO and regulatory personnel from the Environmental Protection Agency (EPA) and the State of New Mexico who may need access to non-DOE-owned property.

5.2 Preparing the Property-Specific Survey and Sampling Plan

A property-specific survey and sampling plan is developed for each property owner or homeowner association. The community relations liaison obtains survey and sampling information from the appropriate RFI work plan and works with the OUPL to prepare the plan for each property. Attachment A to this AP shows information for a generic survey and sampling plan.

At a minimum, the property-specific survey and sampling plan must include

- OU, technical area, and PRS numbers;
- name and phone number of the OUPL;
- tract number and/or legal description of property and property address;

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- property owner's or homeowner association's name and mailing address;
- expected duration of activities; and
- brief descriptions of RFI activities.

If sampling is planned, the plan must include

- approximate numbers and types of samples (e.g., surface, subsurface, vegetation, or other samples);
- constituents for which analyses must be conducted;
- description of expected site restoration activities; and
- approximate time it will take to make validated sampling results available to the property owner and the public.

The "Sampling Activity Checklist," Attachment B to this AP, may be used as an aid for preparing the property-specific survey and sampling plan. Use of the checklist is optional.

5.3 Presenting the Property Owner with the Access Agreement

When the access agreement and the property-specific survey and sampling plan have been completed, the access agreement is signed by the Laboratory's ADO (or designee) and the DOE-LAAO area manager (or designee). The access agreement then is delivered to the property owner, preferably in person by the QUPL or the community relations liaison, although there may be occasions when it is more appropriate that the agreement be sent by registered mail. The property owner should be contacted by phone before the agreement is mailed.

5.4 Negotiating and Revising the Access Agreement

The community relations liaison works with the property owner to answer questions and negotiate changes to the access agreement with all involved parties. The community relations liaison clears proposed changes with the DOE-LAAO and Laboratory counsel's offices so that the agreement can be finalized as quickly and efficiently as possible. If any substantive revisions need to be made to the access agreement, the modified agreement must again be signed by the Laboratory's ADO (or designee) and the DOE-LAAO area manager (or designee) before being presented to the property owner for signature.

5.5 Disposition of Copies of the Signed Access Agreement

One of the two original copies of the access agreement, signed by the ADO, the DOE-LAAO area manager, and the property owner, is filed at the RPF. The property owner retains his/her own signed original. The community relations liaison distributes photocopies of the signed agreement to the parties specified in Section 4.1 of this procedure.

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6.0 REFERENCES

6.1 Requirements Document

Module VIII of the RCRA permit (effective May 23, 1990) issued to the University of California and DOE-LAAO by the EPA's Region 6 to satisfy the Hazardous and Solid Waste Amendments.

7.0 RECORDS

The following records are completed as a result of this procedure:

- property access agreements, with sampling attachments and
- updated Public Participation Data Base

8.0 ATTACHMENTS

Attachment A Los Alamos National Laboratory Environmental Restoration Program Generic Property-Specific Survey and Sampling Plan

Attachment B Sampling Activity Checklist

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LOS ALAMOS NATIONAL LABORATORY ENVIRONMENTAL RESTORATION PROGRAM
GENERIC PROPERTY-SPECIFIC SURVEY AND SAMPLING PLAN

Operable Unit _____ TA _____ SWMU/AOC (PRS) No(s) _____

OUPL _____ Phone No. _____

Tract _____ Property Address _____

Owner _____ Owner's Address _____

The following field sampling activities are expected to take place at the subject property between approximately_____ and _____. Generally, the field investigation is conducted by some or all of the following field methods: (1) nonintrusive field surveys, (2) surface and/or subsurface sampling, and (3) miscellaneous sampling activities as necessary. Any locations on the property disturbed as a result of sampling activities are restored.

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Field Surveys

Specifically, the following types of nonintrusive field surveys are conducted at the subject property:

- The field sampling team performs a visual site inspection to identify any conditions that would impede using a proposed sampling location and to identify any property-specific considerations.
- Geologists and field sampling team members inspect the property and map geologic/geomorphic features (e.g., rock/soil contacts and horizons, topography, engineered fill).
- Land survey equipment (e.g., distance- and elevation-measuring devices) and personnel enter the site to locate and stake sampling points during sampling activities.
- Members of the field sampling team use various types of equipment to conduct geophysical surveys. These surveys may include the use of ground-penetrating radar, magnetometers, and devices for measuring gravity, magnetic fields, and seismic activity.
- Members of the field sampling team use various field survey instruments to identify any potential contamination and to assess conditions that may affect the health and safety of the public and field personnel.

Surface Sampling

A complete suite of analyses includes an analysis of each of the following constituents:

- gross alpha, beta, or gamma radiation;
- radionuclides;
- total metals;
- explosives;
- semivolatile organics;
- polychlorinated biphenyls; and
- volatile organic analytes.

However, sampling analyses may differ from location to location.

The following methods of surface sampling are conducted on the subject property. For more detailed information on the techniques and procedures to be followed, the reader is referred to the sampling analysis plan in the RFI work plan for OU____.

- _____ surface soil samples, which may include soil from under existing grass, will be collected from the subject property at the proposed locations indicated on the site plan (attached) at depths of 6 to 12 inches. The samples will be gathered on a predetermined grid pattern or on a judgmental basis using a stainless steel or Teflon scoop. Surface samples will be collected from various media such as surficial soil, channel sediment, and stream banks.

- _____ rock surface samples will be collected from the subject property at proposed locations as depicted on the site plan (attached), either on a predetermined grid pattern or on a judgmental basis. Rock surface samples are defined as samples recovered from rock formations with the use of a rock hammer. Rock surface samples will be collected from various locations such as cliff faces and rock outcrops.

SUBSURFACE SAMPLING

The following methods of subsurface sampling will be conducted at the subject property. For more detailed information on the techniques and procedures to be followed, the reader is referred to the sampling analysis plan in the RFI work plan for OU____.

- _____ near-surface soil samples will be collected from the subject property at the proposed locations depicted on the site plan (attached). The spade-and-scoop method will be used to obtain near-surface soil samples from depths up to 30 inches. Sample collection from depths greater than 30 inches will be accomplished with a hand auger, spades, shovels, and/or scoops. Shovels and the hand auger are used to remove surficial material to the required depth. A stainless steel or Teflon scoop or the hand auger is then used to collect the sample. The samples will either be collected on a predetermined grid pattern or on a judgmental basis.

- _____ shallow core samples will be collected manually from the subject property at proposed locations as depicted on the site plan (attached). Small-volume soil samples will be recovered from depths approaching 10 feet with a hand auger or with a thin-wall tube sampler. The samples will either be collected on a predetermined grid pattern or on a judgmental basis.

- _____ drill rig samples will be collected from _____ borings to _____ depth at the subject property at the proposed locations depicted on the site plan (attached). Split-barrel core sampling will be accomplished in soil or rock using a hollow-stem auger drill rig. The samples will either be collected on a predetermined grid pattern or on a judgmental basis.

- _____ backhoe test pits and trenches will be excavated to _____ feet in depth at the subject property by the field sampling team at the proposed locations depicted on the site plan (attached). The excavation of test pits and trenches will be performed by a backhoe or track-hoe capable of excavating to a depth of 15 feet. The width and type of bucket will be determined by the ability of the equipment to function in varying soil conditions. If the excavation is at a depth of 4 feet or greater, Occupational Safety and Health Act standards for shoring and sloping will be followed.

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RESTORATION OF SITES DISTURBED BY SAMPLING

The following methods will be used to restore areas disturbed by sampling activities, as appropriate.

- Backfilling excavations and surface grading: Any excavations created during sampling will be backfilled with clean soil and compacted to restore the site to its original grade. The ground surface will be graded smooth to match pre-existing grades and will be repaved, if appropriate. This activity may require heavy equipment such as backhoes and compaction equipment.
- Repair and/or replacement of fences: Any damage to fences during sampling will be repaired to match the presampling condition of the fence.
- Landscaping—reseeding lawns or replacing vegetation: Any lawn areas or vegetation damaged by sampling activities will be replaced or reseeded with similar plants.

Other methods will be used as necessary to restore disturbed areas.

The following notes are express provisions of the property-specific survey and sampling plan and access agreement:

(1) MINOR MODIFICATIONS: Sampling quantities, depths, and activity durations are approximate only and are subject to modification in the field as necessary to achieve sampling goals.

(2) MAJOR MODIFICATIONS: Changes in sampling strategy, such as using surface instead of subsurface sampling or excavations, are possible during the field sampling program. In the event that a major modification is required, the Laboratory and DOE will obtain the property owner's oral agreement and will follow up with written documentation of the changes within 10 workdays. The Laboratory, DOE, and the property owner will sign the written documentation to formalize the modification to the agreement.

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Los Alamos National Laboratory Environmental Restoration
SAMPLE ACTIVITY CHECKLIST

Page ___ of ___

Date:_____ Operable Unit:_____ TA:_____

Signature:_____ OUPL:_____

SWMU No(s):_____

Ownership: ☐ Private ☐ Pueblo ☐ County ☐ National Forest Service ☐ GSA ☐ Other: _____

Tract:_____ Property Address:_____ Owner's Name:_____

Owner's Address:_____

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FIELD SURVEYS (Non-intrusive)

Expected duration of work		Expected duration of work	
_____	Land Survey	_____	Geophysical
_____	Visual site inspection	_____	Radiological
_____	Geomorphic maping		

SURFACE SAMPLING	Expected Duration of Work	Number of Samples/ Holes/Trenches	Diameter of Samples/ Holes/Trenches	Depth of Samples/ Holes/Trenches
Surface soil sample Grid Samples Selective samples Channel sediment Stream bank Cliff face				

SUBSURFACE SAMPLING	Expected Duration of work	Number of Samples/ Holes/Trenches	Diameter of Samples/ Holes/Trenches	Depth of Samples/ Holes/Trenches
Near surface soil samples: Grid samples Selective samples Manual shallow core samples: Grid samples Selective samples Drill Rig: Boreholes Rock coring Backhoe: Trenching				

OTHER ACTIVITIES

Expected duration of work	Sampling activity	Number and dimensions of samples

ANTICIPATED RESTORATION OF SITE

Expected duration of work

_____	Backfill/Grade	_____	Reseed lawn	_____	Other (specify)
_____	Repair/replace fence	_____	Other landscape		

Attach separate sheet for additional entries; include all pertinent information.

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-04.1	Rev: 1

Identification, Documentation, and Reporting of Newly Discovered Potential Release Sites for the Environmental Restoration Program

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	(Print Name)	(Signature)	(Date)
Prepared by	Karen L Foster	Karen L Foster	2/12/92
Quality Review	Larry Maassen	Larry Maassen	27 Feb 92
Quality Review by	DAVID J. McINROY		2/18/92
Functional Review by	Robert L. Gonzales		2/25/92
PM Approval	Robert W Vocke	Robert W Vocke	2/27/92
QPPL Approval	K. L. Warthen	K. L. Warthen	2/27/92

Effective Date: 3-4-92

Identification, Documentation, and Reporting of Newly Discovered Potential Release Sites for the Environmental Restoration Program

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IDENTIFICATION, DOCUMENTATION, AND REPORTING OF NEWLY DISCOVERED POTENTIAL RELEASE SITES FOR THE ENVIRONMENTAL RESTORATION PROGRAM

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe the process whereby new solid waste management units (SWMUs) are identified, verified, reported, and initially documented. This procedure also states the process for identifying and documenting new areas of concern [hereafter, SWMU and areas of concern are also referred to as potential release sites (PRSs)] and describes the procedure for mapping PRSs.

2.0 SCOPE

This procedure applies to newly identified PRSs that are managed by the Environmental Restoration (ER) Program. This procedure is applicable to ER personnel who are assigned related responsibilities.

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3.0 DEFINITIONS

3.1 Area of Concern

An area of concern is a potential release site that does not meet the definition of a SWMU (e.g., one-time spills).

3.2 Facility for Information, Management, Analysis, and Display (FIMAD)

The FIMAD is the electronic data management facility for the ER Program.

3.3 FIMAD Graphic Information Systems (GIS)

The FIMAD GIS is the electronic data management system that provides geographic information including, but not limited to, buildings, roads, utilities, and PRSs.

3.4 Operable Unit (OU)

An operable unit is a aggregation of PRSs.

3.5 PRS

A PRS is an area that may contain hazardous substances with the innate possibility of migrating and can be classified as either a SWMU or area of concern.

3.6 PRS Data Base

The PRS data base is an electronic copy of the SWMU and area of concern information.

3.7 Solid Waste

As defined in the Resource Conservation and Recovery Act (RCRA), solid waste is any discarded material, either abandoned or recycled, including solids, liquids, semisolids, and contained gases (Attachment A).

NOTE: A solid waste can be, but not limited to, hazardous or mixed waste; however, source, by-product, and special nuclear material in solid wastes as defined in the Atomic Energy Act are not regulated by RCRA.

3.8 SWMU

A SWMU is any discernible unit at which solid wastes have been placed at any time, regardless of whether the unit was intended for the management of solid or hazardous waste. Such units include any area where solid wastes have been routinely and systematically released.

3.9 SWMU Report (1990)

The 1990 SWMU Report is a hard copy compilation of information including, but not limited to, locations of PRSs and their possible contaminants.

4.0 RESPONSIBILITIES

4.1 FIMAD Project Leader

The FIMAD Project Leader (PL) is responsible for providing base maps to OUPLs, providing assistance in electronic data entry and data access, and ensuring the maintenance of the PRS data base.

4.2 Operable Unit Project Leaders (OUPLs)

OUPLs are responsible for working with the compliance regulator and SWMU interim action review coordinator to verify new PRSs in technical areas under their direction and ensuring entry of new validated data into the PRS data base.

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4.3 Program Manager (PM)

The PM is responsible for ensuring that PRSs are identified and verified, and that new SWMUs are reported to the administrative authority.

4.4 Regulatory Compliance Team Leader

The regulatory compliance team leader (hereafter called compliance regulator) is responsible for

- working with operable unit project leaders (OUPLs) and the SWMU interim action review coordinator to perform independent verification of the existence of new PRSs;
- reporting verified SWMUs to the DOE, administrative authority (i.e., the EPA and/or NMED),and
- informing the LANL Public Relations office when appropriate.

4.5 SWMU Interim Action Review Coordinator

The SWMU interim action review coordinator (hereafter called SWMU review coordinator) is responsible for

- coordinating with the OUPL and the compliance regulator to verify newly discovered PRSs,
- assigning unique identifiers to new areas of concern and SWMUs, and
- compiling an annual summary report of newly identified SWMUs and areas of concern.

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5.0 PROCEDURE

5.1 Overview of Process To Identify PRSs

Because PRSs may be discovered during routine maintenance or construction projects, the site workers are instructed to report suspicious soil characteristics, odor, and color to the ER Program Office. The ER Program Office distributed an information copy of the SWMU Report to each division within LANL. Site workers will be provided maps of existing SWMUs beginning April, 1992.

5.2 Process for Reporting and Identifying Potential ER Sites

The OUPL initiates the formal reporting of potential ER sites by completing Part I of the form entitled Environmental Restoration Site Report (Attachment B). The following information, at a minimum, is to be recorded on Part I of Attachment B:

- date potential ER site discovered;
- location of potential ER site (e.g., Technical Area, private property);
- location of the nearest building or other structure in the area;
- description of potential ER site;
- suspected hazards or contamination; and
- names of individuals able to provide additional information.

Additionally, Part I lists questions that, when answered, identifies the type of unit or area, waste types, and whether there was a routine or systematic release at the site.

The information compiled provides enough information to determine if the site is a SWMU or area of concern that should be considered for management by the ER Program.

5.3 Evaluating Environmental Restoration Site Reports

The OUPL works with the SWMU review coordinator and

- determines if the site has already been reported by comparing the completed Environmental Restoration Site Report (Attachment B) to current PRS report documentation.

If listed, the SWMU review coordinator

- completes Part II of the Environmental Restoration Site Report form to document that the reported site is recorded in the SWMU Report or PRS data base, and
- signs the form and forwards a copy to the OUPL and the ER Records Processing Facility (RPF) in accordance with the Procedure for Environmental Restoration Records Management.

If the site is not listed in PRS documentation, the OUPL

- reviews historical records that are available to ascertain activities conducted at the reported site,
- contacts individuals identified on Part I of the report to obtain other pertinent information, and
- ensures that the compliance regulator receives the information reported on Part I and other completed supporting documentation to determine if a site visit is necessary.

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5.4 Verification of SWMUs or Areas of Concern

The compliance regulator reviews the reports and supporting documentation to determine if a site visit is necessary. If necessary, a visit is arranged within 24 hours to perform an independent verification of findings. The compliance regulator

- works with the OUPL to obtain clarification on the documentation submitted, if necessary,
- contacts other appropriate site visitors (e.g., Health and Safety Group), and
- completes Part III of the Environmental Restoration Site Report form.

When Part III is completed and signed, sufficient information is provided to confirm whether the reported site is a PRS. Any preliminary monitoring performed during the site visit (e.g., rad screening, health-related assessments) will be noted and the documentation of results attached to Site Report form.

The compliance regulator forwards all documentation back to the OUPL.

5.5 Uniquely Identifying SWMUs or Areas of Concern

If the PRS is determined to be a SWMU, the SWMU review coordinator assigns a unique numerical identifier, and notes the OU RCRA Facility Investigation (RFI) Work Plan start date. This information is recorded on Part IV of Attachment B.

Areas of concern are not formally reported to the DOE and EPA; however, they are assigned a unique numerical identifier and the information is provided in the PRS data base.

A unique SWMU number is assigned in the format "00-001" or "00-001a" where

- "00" is always the technical area (TA) within the Laboratory where the SWMU is located,
- "001" is the sequential number, and
- "a" is the designator when multiple SWMUs of the same description reside in a TA (e.g., where multiple storage containers exist).

A unique number for other areas of concern is assigned in the format "C-00-001" where

- "C" indicates PRS is an area of concern,
- "00" is the TA where the PRS is located, and
- "001" is the sequential number.

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Areas of concern are listed in the 1990 SWMU Report in Appendix C entitled "Potential Release Sites". Current information on SWMUs and areas of concern will be documented in the PRS data base.

Each unique number may only be assigned once.

5.6 Reporting Newly Identified SWMUs to DOE and EPA

When the PRS has been uniquely identified and confirmed as a SWMU, the compliance regulator

- prepares a notification letter for signature by the LANL Associate Director Operations office within 5 days of completing the checklist, and
- ensures that DOE Los Alamos Area Office (DOE-LAAO) has sufficient information to verify the findings without delay.

The EPA is notified when the DOE concurs with the information summarized in the notification letter. As stipulated in the Hazardous and Solid Waste Amendments (HSWA) permit (Sec. 6.1), the DOE-LAAO must notify the EPA within 15 days of DOE concurrence of discovery of a new SWMU.

The SWMU review coordinator compiles a summary report of newly identified SWMUs and areas of concern for inclusion in the annually updated Installation Work Plan (Sec. 6.2).

5.7 Notifying LANL Public Affairs Office

The compliance regulator notifies the LANL Public Affairs Office when a SWMU or area of concern is confirmed to be on the property of

- private homeowner,
- Los Alamos County,
- Santa Fe County,
- U.S. Forest Service,
- Indians,
- Department of the Interior,
- National Parks Service,
- Bureau of Land Management, or
- other non-DOE sites..

This notification is performed in conjunction with reports as described in Sec. 5.6.

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5.8 Process for Maintaining SWMU and Area of Concern Documentation

The OUPL ensures the update of the PRS data base when the PRS has been identified as a SWMU or area of concern. This is accomplished by summarizing the pertinent information identified on the completed Environmental Restoration Site Report form and entering the information into the PRS data base.

The FIMAD PL provides OUPLs with the tools and controlled access to update and validate the PRS data base.

5.9 Mapping of SWMUs or Areas of Concern

Using the best available information, the OUPL with assistance from FIMAD Project Leader or the SWMU reporting coordinator identifies the geographic extent of each SWMU or area of concern by delineating the area on base maps provided by FIMAD.

This is accomplished by performing a full evaluation of the available data and identifying the geographic extent of PRSs on the base map. The outlines of the PRSs should be drawn at a precision consistent with the accuracy of the data. The precision to which PRS outlines can be digitized is dependent on the scale of the base map, the line thickness used to depict the PRS boundary, and the geometry of the PRS outline. Discrete points on a drawing can be digitized with a precision of about .02". This equates to a precision of about ±2' for a map with a scale of 1" = 100'; a precision of ±10' for a map scale of 1' = 500'; a precision of ±20' for a map scale of 1" = 1000'. It is important that the "inherent" digitizing precision for a base map equal or exceed the accuracy of the data (e.g., locational certainty of the PRS outline), so that additional positional uncertainty is not introduced by the digitizing process. It is also important that line thickness be less than positional uncertainties. (I.e., one could not draw a PRS whose location is known to ±2' with a felt tip pen whose line width equates to a ground distance of 1' on a particular map.) Finally, the OUPL should describe the positional accuracy of his PRS depiction so that for complex geometries, sufficient points will be digitized to insure that the PRS is accurately portrayed. (I.e., a circular septic tank could be depicted by 100 or 1000 points depending on accuracy required/maximum allowable position error.)

The data must be depicted on base maps by indicating where the PRS is located and then by categorizing the mapped area into subregions, if possible. The following guidelines apply:

First, draw the SWMU or area of concern and label as "possible".

POSSIBLE: The known maximum extent of a PRS where there is greater than 1% chance that contamination exists that may require corrective action.

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Lastly, draw in the subregions defined below, as appropriate, and label them as shown.

PROBABLE:	The area for which the OUPL believes there is a greater than 50% chance that hazardous substances exist.
PRESENT:	The area for which the OUPL believes there is a greater than 95% chance that hazardous substances exist.
ABSENT:	The area for which the OUPL believes there is a less than 1% chance that hazardous substances exist.

Attachment C provides examples of mapped and labeled PRSs as described above.

5.10 Submittal of Records to ER Records Processing Facility

The SWMU review coordinator ensures that the Environmental Site Report form is submitted to the RPF.

The compliance regulator ensures that notification letters to DOE and EPA are forwarded to the ER RPF.

6.0 REFERENCES

6.1 Requirement Document

Module VIII of the RCRA permit (effective on May 23, 1990) issued to University of California and DOE-LAAO by the EPA Region VI to satisfy HSWA.

6.2 Documents Cited

LANL-ER-AP-2.01 (current version), Procedure for Environmental Restoration Records Management

Installation Work Plan for Environmental Restoration (current version)

7.0 RECORDS

The following records are completed as a result of implementing this procedure:

- Environmental Restoration Site Report
- Attachments to form, if any,
- Notification letter from DOE to the EPA, and
- Completed maps.

The PRS data base is maintained continuously.

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8.0 ATTACHMENTS

Attachment A, Definition of Solid Waste
Attachment B, Environmental Restoration Site Report
Attachment C, Example of Mapped SWMU

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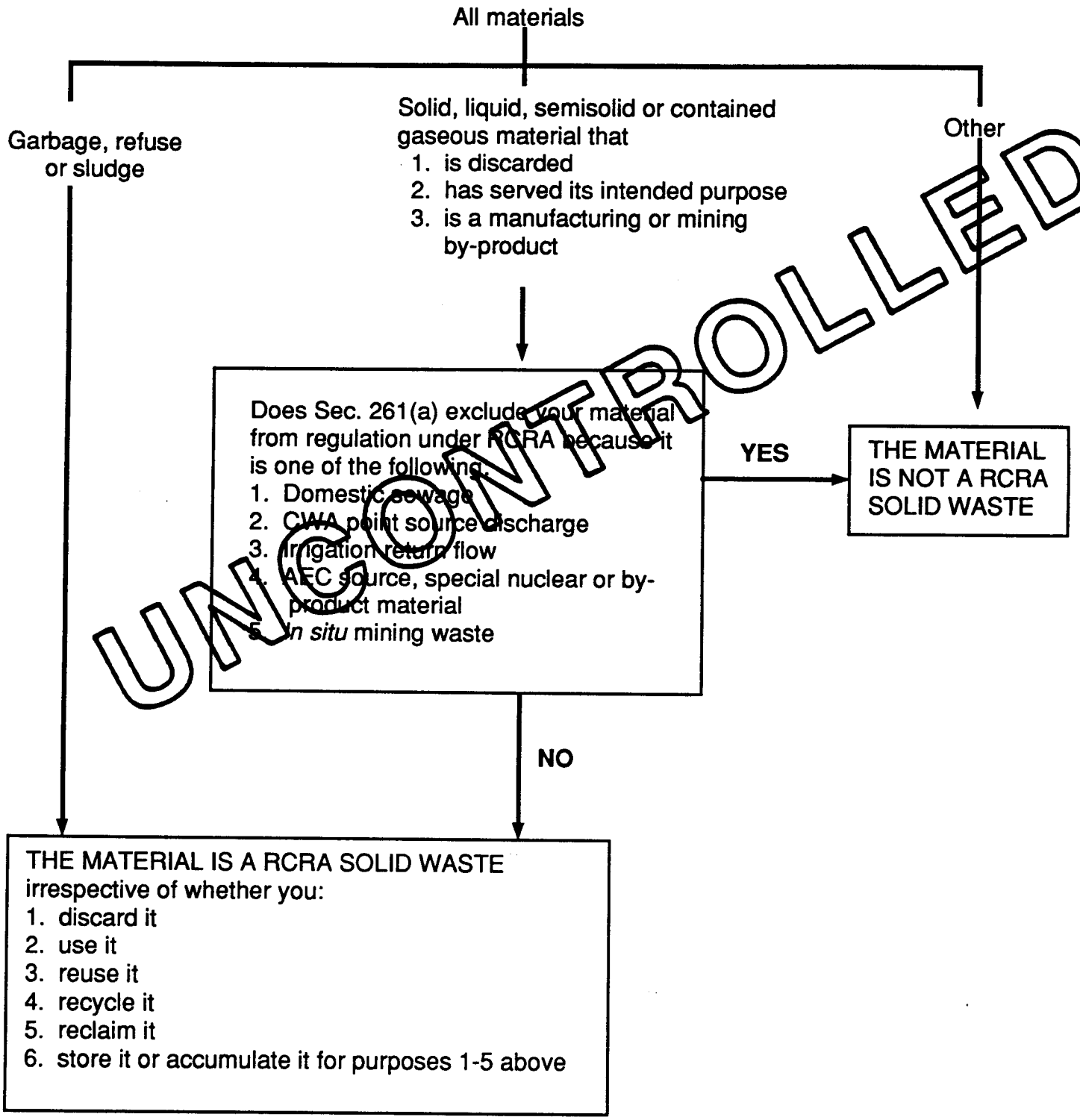
DEFINITION OF A SOLID WASTE*



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*Taken from Title 40 of CFR, Part 260, App. I.

Los Alamos National Laboratory
Environmental Restoration Site Report

Part I. Potential ER Site (Completed by OUPL) Date concern reported _____

Technical Area where potential release site located TA-____

Engineering structure number* _____ Location of nearest structure _____

Description of structures and area (e.g., size of drums, surface area, depth) _____

Other supporting information [e.g., indicate historical records referenced, including photographs, personnel to contact]. Identify where information exists. _____

EXAMPLE
UNCONTROLLED
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

Was the unit or area described above active prior to November 1988? Yes ___ No ___ Uncertain ___

If yes, state period of operation: From _____ to _____

Does the site intersect on private property? Yes ___ No ___ Uncertain ___ Describe _____

1. What type of unit or area is the potential release site? (Circle one or more from list on back of this page.)

2. Are solid wastes known to exist at site? Yes ____ No____ Unknown____

If yes, waste types: (circle one or more)

hazardous	high explosive	mixed	PCBs	petroleum product _____
radioactive	sanitary	solid	unknown	

3. Was there a routine or systematic release? Yes ___ No ___ Unknown ___ One time? Yes___ No___

4. Is the unit or area used for product storage? Yes___ No ___ If yes, name the product(s):

_____ _____

Based on <u>all information provided</u> on this form, the ER potential release site is a:

SWMU _____ Other Area of Concern _____

_____ _____

OUPL Signature Date

Forward to SWMU review coordinator to determine if site previously reported.

*Contact LANL Group, ENG-5, for Engineering structure number

Los Alamos National Laboratory
Environmental Restoration Site Report

aboveground tank	accumulation	bermed area	boneyard
burn site	calibration chamber	caisson	cement plant
chamber	containment area	compressed gas storage	decontamination facility
drop tower	dry well	evaporator	filter system
firing site	glass breaker	incinerator	injection well
lagoon	landfill	laundry	leach field
manhole	material disposal area	mortar impact area	off-gas system
open burning	open detonation area	other disposal area _____	
other disposal system _____		other structure _____	
outfall	pit	recycling unit	resin bed
satellite storage area	septic system	shaft	silver recovery unit
subsurface contamination	storage area	sump	surface disposal
surface impoundment	treatment facility	underground tank	
volume reduction facility	waste line system	waste water treatment facility	

EXAMPLE
UNCONTROLLED
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

Los Alamos National Laboratory
Environmental Restoration Site Report

Part II. (Completed by SWMU review coordinator)
Was the potential release site previously reported (i.e., listed in SWMU Report or PRS data base)?
Yes _____ No _____ Uncertain____ If yes: SWMU No. _____ ER Site No. _____

No action required** _____

_____ _____
Signature Date
Forward to compliance regulator for comfirmation.

Part III. Independent Verification (Completed by regulatory compliance team leader)

Date site visited_____

Visited by (print names) _____ _____

___ Site monitored? Yes___ No___ If yes, attach signed screening documentation.

___ Non-concurrence, no further action required (state reason)_____

___ Confirmed discovery ___SWMU ___AOC

___ Confirmed with modifications to Part I _____

___ Action required (e.g., contact public relations) State reason for action _____

_____ _____
Signature Date

Forward to SWMU review coordinator.

Part IV. Unique Identifier (completed by SWMU review coordinator)***

SWMU number assigned _____ OU number assigned _____

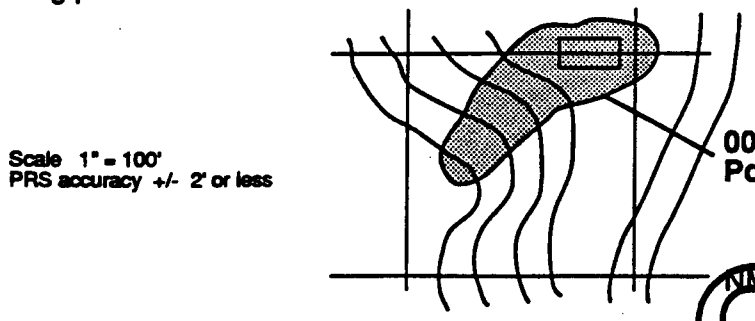
OU Work Plan start date (refer to ER Installation Work Plan for date) _____

**Send report to originator and ER Records Processing Facility (RPF).
SWMU review coordinator forwards to PM, compliance regulator, ER RPF, and OUPL.* (This completed form may be used as an attachment to DOE/EPA Notification letter.)
****OUPL ensures data entered into PRS data base - contact FIMAD for guidance/access.

EXAMPLE
UNCONTROLLED
CONTACT THE
ER PROGRAM OFFICE
(665-4557) TO OBTAIN
ORIGINAL FOR YOUR USE

EXAMPLES OF A MAPPED PRS

EXAMPLE 1: The only information available is the maximum possible extent of the contamination. Information is hand-plotted on base map provided by FIMAD. Digitizing precision is +/- 2' or less.



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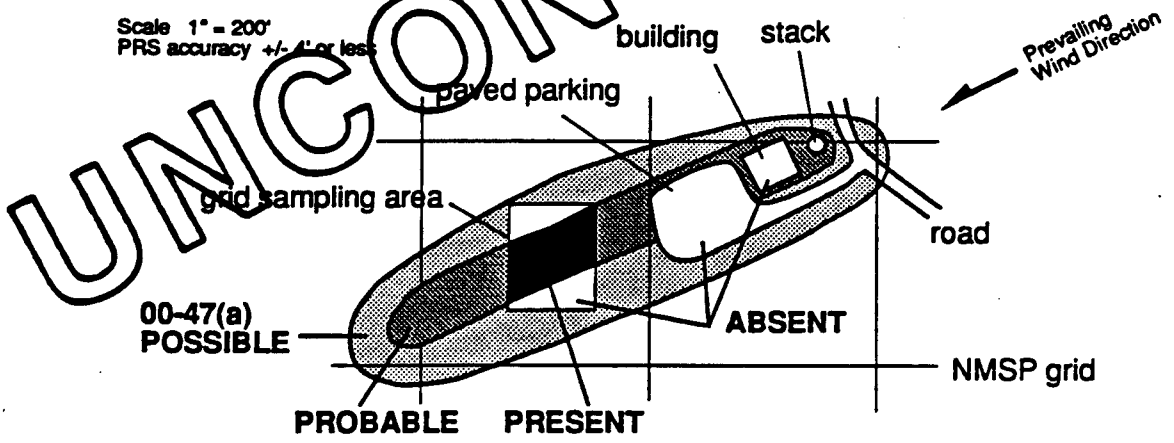
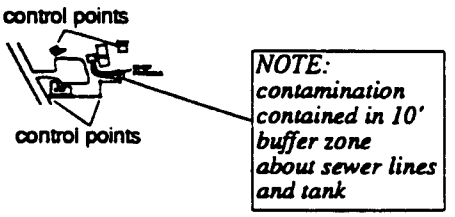
EXAMPLE 2: More detailed information about soil contamination from stack emission is known. Sampling has positively identified contamination or lack of contamination in some areas. In this case, soil contamination cannot occur where facilities (building, stack, parking lot, road) are located. Digitizing precision is +/- 4'.



EXAMPLE 3: Information available about possible contamination in sewer line at former building G-013, which is shown on an old engineering drawing without NMSP grid. Digitizing precision is +/- 10'.

Scale 1" = 500'
PRS accuracy is +/- 10' or less

The person reporting the PRS has indentified 4 control points; these are clear landmarks that exist both on the old drawing and in the present electronic database. The person has also provided a note explaining the nature of the contamination (10' buffer zone) to facilitate digitizing.



NOTE: 10' precision can be maintained in digitizing this map. However, a larger-scale map is preferable for ease of digitizing.

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-04.2 Rev: 0 Interim Procedure

Reporting of Newly Identified Releases from Solid Waste Management Units

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Prepared by	Karen L Foster (Print Name)	Karen L Foster (Signature)	June 17, 1991 (Date)
Quality Review by	John W. Krueger (Print Name)	John W. Krueger (Signature)	6/20/91 (Date)
Functional Review by	Robert L. Gonzales (Print Name)	Robert L. Gonzales (Signature)	June 20, 1991 (Date)
PM Approval	Robert W Vocke (Print Name)	Robert W Vocke (Signature)	June 20, 1991 (Date)
QPPL Approval	Larry Maassen (Print Name)	Larry Maassen (Signature)	20 June 1991 (Date)

Effective Date: June 25, 1991

Reporting of Newly Identified Releases From Solid Waste Management Units

Table of Contents

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REPORTING OF NEWLY IDENTIFIED RELEASES FROM SOLID WASTE MANAGEMENT UNITS

1.0 PURPOSE

This procedure describes the process for reporting a new release of a hazardous waste from a solid waste management unit (SWMU).

2.0 SCOPE

This procedure applies to SWMUs managed by the LANL Environmental Restoration (ER) Program and to ER personnel who are assigned tasks related to reporting new releases.

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3.0 DEFINITION

3.1 Hazardous Constituent

A hazardous constituent is any constituent identified in Appendix VIII of 40 CFR Part 261, or any constituent identified in Appendix IX of 40 CFR Part 264.

3.2 Hazardous Waste

A hazardous waste is a solid waste, or combination of solid wastes, that because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. The term hazardous waste includes hazardous constituent as defined above.

3.3 Release

A release is any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes or hazardous constituents into the environment. A release is also the abandoning or discarding of barrels, containers, or other closed receptacles containing hazardous wastes or hazardous constituents.

3.4 Solid Waste

As defined in the Resource Conservation and Recovery Act (RCRA), solid waste is any discarded material, either abandoned or recycled, including solids, liquids, semisolids, and contained gases (Attachment A).

NOTE: As shown on Attachment A, a solid waste can be hazardous, radioactive, or mixed waste; however, source, by-product, and special nuclear material in solid wastes as defined in the Atomic Energy Act are not regulated by RCRA.

3.5 SWMU

A SWMU is any discernible unit where solid wastes have been placed at any time, regardless of whether the unit was intended for the management of solid or hazardous waste. Such units include any area where solid wastes have been routinely and systematically released.

4.0 RESPONSIBILITIES

4.1 Emergency Management Office

The LANL Emergency Management Office (EMO) is responsible for reporting the release information to DOE Headquarters.

4.2 Operable Unit Project Leader (OUPL)

The OUPL is responsible for preparing a plan for assessing the SWMU release.

4.3 Program Manager

The ER Program Manager (PM) is responsible for confirming that SWMU releases are reported to the DOE and EPA.

4.4 Regulatory Compliance Team Leader

The Regulatory compliance team leader for the ER Program is responsible for independent verification of the SWMU release, coordinating the reporting of SWMU releases, by ensuring they are reported to the EMO, DOE, and EPA in accordance with Module VIII of the hazardous waste permit (Sec. 6.1), and submitting records of release to the ER Records Processing Facility.

4.5 SWMU Interim Action Coordinator

The SWMU interim action coordinator is responsible for completing the initial written report of a newly identified release, updating SWMU documentation, and providing a summary report on new releases for incorporation into the ER Installation Work Plan (Sec. 6.2).

5.0 PROCEDURE

As stipulated in the Hazardous and Solid Waste Amendments (HSWA) permit (Sec. 6.1), newly discovered releases from SWMUs must be verbally reported to the EPA within 24 hours. Written notification must be provided to the EPA 15 calender days after discovering the release. LANL reports SWMU releases to the EPA through the DOE Los Alamos Area Office (DOE-LAAO).

5.1 Overview of Process to Identify SWMU Releases

To ensure that new releases are identified, reported, and tracked, the ER Program Office has held seminars for the LANL Facilities Engineering Division and the

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LANL support contractor, Johnson Controls, Inc. Because releases may be discovered during routine maintenance or construction projects, the site workers were instructed during the seminars to report suspicious soil characteristics, odor, and color to the ER Program Office. Additionally, the Program Office distributed an information copy of the SWMU Report to each division within LANL. The SWMU Report, at a minimum, identifies the location of known environmental areas of concern. Also, a release from a SWMU may be discovered during interim action process as described in the procedure entitled Interim Actions for Environmental Restoration (Sec. 6.2).

5.2 Process for Reporting SWMU Releases

The SWMU interim action coordinator (hereafter called SWMU reporting coordinator) completes Part I of the SWMU Release Report (Attachment B) when a release from a SWMU is reported. The information to be reported includes the

- time release discovered,
- name of individual reporting,
- location (SWMU number) of release,
- description of area [including operable unit (OU) number],
- suspected or known hazardous constituents,
- extent of the release, and
- OU Resource Conservation and Recovery Act (RCRA) Facility Investigation Work Plan start date.

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The SWMU reporting coordinator works with the compliance regulator and ensures that the site is investigated if further information is necessary. The SWMU reporting coordinator and the compliance regulator sign Part I of the SWMU Release Report to indicate concurrence with the report.

5.3 LANL Internal and DOE Notification

The compliance regulator begins notifying the appropriate organizations and individuals within two hours of concurring with the reported release.

The compliance regulator

- informs the management of the LANL Environmental Protection Group (HSE-8) that a release has been reported,
- reports the release to the ER Program Manager,
- contacts the LANL EMO to report the release and describe the ER Program notification requirements,

- reports the release to the DOE-LAAO, and
- records pertinent information from the notification process by completing Part II of the SWMU Release Report.

The EMO reports the release to DOE Headquarters in accordance with DOE Order 5000.3A (Sec. 6.1).

5.4 Verbal Notification to the EPA

After informing DOE-LAAO of a confirmed release, the compliance regulator must inform the EPA. This is accomplished by coordinating a conference call among HSE-8, DOE-LAAO, and the EPA within 24 hours of discovering the release.

The compliance regulator documents the call to EPA on Part III of the SWMU Release Report.

5.5 Process for Written Notification to EPA

The compliance regulator prepares a letter addressed to the EPA from DOE-LAAO reporting the release. The draft letter is prepared for DOE-LAAO signature, because DOE-LAAO is required to submit the official report to the EPA. The draft letter is routed through LANL legal and appropriate management offices before it is forwarded to DOE-LAAO.

The DOE-LAAO must receive the final draft of the letter within 10 days of the SWMU release discovery.

DOE-LAAO transmits the letter to the EPA within 15 days of the SWMU release discovery.

The compliance regulator signs Part IV of the SWMU Release Report to indicate that the correct reporting protocol was observed, sufficient information was provided to the DOE and EPA, and the SWMU release was reported in the required time period.

The compliance regulator forwards a copy of the completed report and notification letter to:

- the ER program manager for confirmation,
- the project leader responsible for the OU where the SWMU release occurred, and
- the SWMU Reporting Coordinator.

5.6 Assessment of New Release

The EPA may require further investigation of the newly identified release(s). A plan for such investigation will be prepared by OUPL and reviewed for approval as part

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of the OU RCRA Facility Investigation (RFI) Work Plan submitted to the EPA. Interim measures will be conducted when appropriate.

5.7 Updating SWMU Documentation

The SWMU reporting coordinator ensures that SWMU documentation, including maps, are updated in accordance with the procedure entitled Identification and Reporting of Solid Waste Management Units and Identification of Other Areas of Concern for the Environmental Restoration Program. Additionally, a summary report of new releases is compiled for inclusion into the annual update of the ER Installation Work Plan (Sec. 6.2).

5.8 Submittal of SWMU Release Documentation to ER Records Processing Facility

The compliance regulator ensures that the records produced (Sec. 7.0) as a result of implementing this procedure are submitted to the ER Records Processing Facility in accordance with the Procedure for Environmental Restoration Records Management (Sec. 6.2).

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6.0 REFERENCES

6.1 Requirement Documents

Module VIII of the RCRA permit (effective on May 23, 1990) issued to University of California and DOE-LAAO by the EPA Region VI to satisfy the HSWA of RCRA.

DOE 5000.3A, Occurrence Reporting and Processing of Operations Information, 5-30-90.

6.2 Cited Document

Interim Actions for Environmental Restoration

Procedure for Environmental Restoration Records Management

Identification and Reporting of Solid Waste Management Units and Identification of Other Areas of Concern for the Environmental Restoration Program

Installation Work Plan for Environmental Restoration

7.0 RECORDS

The records generated to document the implementation of this procedure are the

- completed SWMU Release Report form and the
- letter from DOE-LAAO to EPA.

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-01.1 Rev: 0 Interim Procedure

Preparation, Review, and Approval of Administrative Procedures

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Prepared by	Karen L. Foster (Print Name)	Karen L Foster (Signature)	1/29/91 (Date)
Quality Review by	Terry L. Morgan (Print Name)	Terry Morgan (Signature)	1/31/91 (Date)
Functional Review by	Sandy Wagner (Print Name)	Sandy Wagner (Signature)	1-31-91 (Date)
PM Approval	Robert W Vocke (Print Name)	Robert W Vocke (Signature)	1-31-91 (Date)
QPPL Approval	Larry W Maassen (~~Print Name~~)	Larry W Maassen (Signature)	2-1-91 (Date)

Effective Date: 3/26/91

TABLE OF CONTENTS

Preparation, Review, and Approval of Administrative Procedures

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Preparation, Review, and Approval of Administrative Procedures

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1.0 PURPOSE

The purpose of this procedure is to describe the methods by which administrative procedures (APs) are initiated, prepared, reviewed, and approved.

2.0 SCOPE

This procedure is applicable to preparers and reviewers of APs and to APs written to administer the Environmental Restoration (ER) Program.

3.0 DEFINITIONS

3.1 Administrative Procedure

An AP is a document that describes methods to perform and implement administrative requirements that are identified in the ER Quality Program Plan (QPP) and/or ER Program Management Plan (PMP).

3.2 Quality Assurance Review

A quality assurance (QA) review is an examination of an AP to ensure that it is prepared in accordance with procedures that govern its preparation and that it addresses all applicable QA requirements.

3.3 Functional Review

A functional review is an examination of an AP to ensure that it applies to the activity for which it was written, adequately states how to perform the activity, and is sufficient to control the activity.

4.0 RESPONSIBILITIES

4.1 Preparer of Administrative Procedure

The preparer of an AP is responsible for

- preparing the AP in accordance with this procedure,

- ensuring that the procedure includes all provisions needed to govern the activity,
- completing appropriate document review forms,
- forwarding the draft procedure and review documentation forms to reviewers,
- resolving review comments, and
- forwarding completed review documentation and the final procedure to the Quality Program Project Leader (QPPL).

4.2 Program Manager

The PM is responsible for

- initiating the preparation of APs,
- designating the preparers of APs,
- designating functional reviewers of APs,
- ensuring that unique identifiers (ID) and titles are assigned to APs,
- approving APs for controlled distribution,
- determining the effective date of APs,
- ensuring the maintenance of a log of unique ID and title assignments, and
- ensuring the maintenance of the master copy of APs and AP forms.

4.3 Quality Program Project Leader

The QPPL is responsible for

- ensuring that APs implement the requirements specified in the QPP and
- approving APs.

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4.4 Reviewer of Administrative Procedures

The QA and functional reviewers of APs are responsible for

- reviewing APs in accordance with this procedure and
- completing and returning review forms to the preparer in the review period specified.

5.0 PROCEDURE

5.1 Elements of an AP

5.1.1 Unique Identifier

A unique alphanumeric identifier for an AP will be assigned and written on each page of an AP as described below:

LANL-ER-AP-XX, RN

- "LANL" identifies the AP as a Laboratory document for use by Laboratory ER personnel;
- "ER" identifies the AP as one that applies to the ER Program;
- "AP" identifies the document as an administrative procedure;
- "XX" represents the specific number assigned to the AP; and
- "RN" indicates the revision number of the AP. R0 will always be assigned to the first version.

5.1.2 Cover Page

The cover page contains the

- unique ID number and title of the AP,
- signature of a QA reviewer,
- signature of a functional reviewer,
- approval signature of the QPPL, and
- approval signature of the PM.

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The preparer formats the cover page to include the information described in this section. A suggested cover page format is shown as Attachment A.

5.1.3 AP Table of Contents

The preparer ensures that a table of contents is included when procedures are 10 or more pages. The table of contents follows the cover page.

5.1.4 AP Pagination

The preparer

- places the unique ID number and page number in the upper right-hand corner of each page as shown:

  LANL-ER-AP-XX, RN
  Page __ of __

- numbers attachment pages consecutively,

  Attachment X
  LANL-ER-AP-XX, RN
  Page __ of __

and

- numbers, formats and titles the AP sections, and includes the information in each section, as described in Section 5.1.5 below.

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5.1.5 Contents of an AP

The preparer includes the following information in the AP:

1.0 Purpose

The purpose statement of an AP is a brief description of the subject matter and intent of the procedure.

2.0 Scope

The scope section of an AP states to whom and what the procedure applies.

3.0 Definitions

The definitions section defines terms that are unique to the processes described in the procedure.

4.0 Responsibilities

This section identifies responsibilities associated with implementing the AP and briefly describes the task.

5.0 Procedure

The procedure section states, in a step-by-step fashion, how to perform the responsibilities outlined in Section 4.

6.0 References

6.1 Requirement Documents

This section identifies the requirements documents being implemented. (Specify the section of a requirements document when possible.)

6.2 Documents Cited

This section lists the documents that are cited in the AP and that are essential for the implementation of the AP.

7.0 Records

The records section identifies the documentation generated as a result of implementing a procedure.

8.0 Attachments

The attachment section lists forms and/or appendices that are part of the procedure.

5.2. Process for Preparing an AP

5.2.1 Identification of APs and AP Preparers

The PM implements the Program Management Plan and the quality requirements by identifying which APs must be prepared, revised, or deleted, and selects the preparers of APs.

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5.2.2 AP Preparation

The preparer of the AP

- secures copies of applicable requirement documents,
- prepares the AP (including revisions) as shown in section 5.1 of this procedure,
- indicates revised portions of an AP by placing a vertical line beside the affected text or by shading the text,
- marks the AP "DRAFT" when it is ready for formal review, and
- follows the guidance outlined in Section 5.3 of this AP.

5.3. Process for Reviewing an AP

5.3.1 Overview of Review Process

APs are to receive functional and quality reviews as defined in Section 3. Review check lists will be used to expedite the review process. A review sheet is to be used to explain the check list items marked "NO" or to add any material to the procedure.

5.3.2 Identification of AP Reviewers

The PM determines which organizations are affected by the AP and assigns at least one QA reviewer from the QA organization, and one functional reviewer from several organizations affected by AP and notifies the preparer of these selections.

The PM ensures that master copies of the review documentation forms are forwarded to the preparer, including

- Functional Review Check List (Attachment B) and
- QA Review Check List (Attachment C).
- Review Sheet (Attachment D).

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5.3.3 Distribution of Draft APs for Review

The preparer receives the names of functional and QA reviewers and master copies of review documentation forms and completes

- Part I of the Functional Review Check List for distribution to functional reviewer(s),
- Part I of the QA Review Check List for distribution to QA reviewer(s), and
- Part I of the Review Sheet for distribution to QA and functional reviewers.

The preparer compiles the review packages that include the appropriate review forms and the AP marked "DRAFT". The preparer retains a copy of a review package and forwards copies to the designated reviewers.

5.3.4 Review of APs

The AP reviewer receives a review package as described in Section 5.3.3. The reviewer reads the draft AP and performs the functional or QA review by completing a Functional Review Check List or a QA Review Check List. The reviewer records any additional comments on the Review Sheet. Space is provided on the forms to indicate

- the page and section number commented on and
- whether the comment is mandatory (M) or optional (O).

The reviewer writes mandatory or optional comments that

- clarify check list responses of "NO" and
- **clearly state the necessity for incorporating mandatory comments into the procedure (i.e., EPA/DOE Program requirement, technical clarity.**

The reviewer returns the completed forms on or before the due date.

If the reviewer is unable to complete the review in the time allowed, he contacts the AP preparer to arrange an agreeable time. If unable to conduct the review, indicate this on the review sheet and return the package to the preparer.

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5.3.5 Resolution of Review Comments

The preparer receives the completed review documentation forms from reviewers and resolves the comments. Space is provided on the Review Sheet for the preparer to indicate acceptance (A) or rejection (R) of reviewer comments and to propose resolutions. The preparer considers all optional comments and may accept or reject the comments without further documentation. The preparer and the reviewer must agree on the resolution of mandatory comments. The preparer completes the Review Sheet by

- writing the reason for rejecting the comment on the review sheet,
- contacting the reviewer to describe the resolution and working with the reviewer to arrive at an acceptable resolution, and
- indicating that mandatory comments have been resolved by placing an "X" in the box beside the reviewer's phone number (Part II).

5.4 Process for AP Approval

5.4.1 Finalizing the AP

The preparer of the AP performs the following

- ensures that all AP pages are properly formatted and numbered,
- ensures that cover page and attachments are intact,
- marks the forms attached to the AP "Example, and compiles a set of unmarked form masters,
- signs the cover page of the AP,
- obtains the signature of one QA reviewer and one functional reviewer,
- compiles a review package to include the completed Review Check Lists, Review Sheets, and the reviewed draft procedure, and
- forwards the signed AP, form masters, and review package to the PM.

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5.4.2 Approval of AP

The PM

- receives the final version of the AP, the form masters, and AP review package and
- approves the AP when assured that
  - all applicable QA requirements have been addressed,
  - reviewer comments have been adequately resolved, and
  - the AP sufficiently covers the subject matter.

The PM signs the AP and forwards it to the QPPL.

The QPPL

- reviews the AP to ensure that it adequately addresses QA requirements,
- resolves any additional comments with the PM,
- signs the AP to indicate approval, and
- returns the approved AP to the PM.

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5.5 Distribution of APs

The PM ensures that APs are distributed in accordance with the AP entitled Distribution of Controlled Documents Prepared for the ER Program.

5.6 Revision of APs

The PM ensures that revisions of APs are prepared in accordance with Section 5.1 of this AP.

Interim Changes (i.e, changes that modify a small portion of text) are made in accordance with the AP, Revision or Interim Change of ER Program Controlled Documents.

6.0 REFERENCES

6.1 Requirement Documents

Quality Program Plan (QPP), Section 6

6.2 Documents Cited

Revision or Interim Change of ER Program Controlled Documents
Distribution of Controlled Documents Prepared for ER Program

7.0 RECORDS

The records generated and completed as a result of implementing this procedure are the review sheets documenting the resolution of mandatory comments and the approved AP.

8.0 ATTACHMENTS

Attachment A - Cover Page
Attachment B - Functional Review Check List
Attachment C - Quality Assurance Review Check List
Attachment D - Review Sheet (2)

UNCONTROLLED

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP- Rev:

(Title)

Prepared by _____ (Print Name) _____ (Signature) _____ (Date)

Quality Review by _____ (Print Name) _____ (Signature) _____ (Date)

Functional Review by _____ (Print Name) _____ (Signature) _____ (Date)

PM Approval _____ (Print Name) _____ (Signature) _____ (Date)

QPPL Approval _____ (Print Name) _____ (Signature) _____ (Date)

Effective Date _____

EXAMPLE
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE
UNCONTROLLED

LANL ER PROGRAM
AP FUNCTIONAL REVIEW CHECK LIST

Part I (Preparer Completes)

AP NO: _____ Rev: _____

Title: _____

Part II (Reviewer Completes)

		(Enter an "X" in the applicable space; if "NO," enter comment number from review sheet)	
1.	Is this AP applicable to the activity for which it was written?	(_) YES (_) NO	NO. (____) (_) N/A
2.	Is this AP compatible with other APs?	(_) YES (_) NO	NO. (____) (_) N/A
3.	Can this AP be implemented?	(_) YES (_) NO	NO. (____) (_) N/A
4.	Does this AP provide statements of purpose and scope that are unambiguous and that clearly identify the objective of the procedure?	(_) YES (_) NO	NO. (____) (_) N/A
5.	Does this AP provide definitions - that are stated clearly and concisely? - for all words or phrases that have a special or limited meaning when applied within the context of this AP?	(_) YES (_) NO (_) YES (_) NO	NO. (____) (_) N/A NO. (____) (_) N/A
6.	Are the organizational and position titles in this AP correct?	(_) YES (_) NO	NO. (____) (_) N/A
7.	Does this AP clearly identify interfaces associated with the conduct of the procedures?	(_) YES (_) NO	NO. (____) (_) N/A
8.	Does this AP minimize references to other procedures and provide all instructional information to perform the activity?	(_) YES (_) NO	NO. (____) (_) N/A
9.	Does this AP provide individual steps that are short and concise as opposed to multisentence paragraphs?	(_) YES (_) NO	NO. (____) (_) N/A
10.	Are the revised portions of this AP indentified by a vertical line (if applicable)?	(_) YES (_) NO	NO. (____) (_) N/A

[ ] Completed an additional Review Sheet

_____ _____
Reviewed by (print name) ER Position Title (print)

_____ _____
Signature Date

EXAMPLE
UNCONTROLLED
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

LANL ER PROGRAM
QUALITY ASSURANCE REVIEW CHECKLIST

Part I (Preparer completes)

Procedure: _____ Rev: _____

Title: _____

Part II (Reviewer completes)

(Enter an "X" in the applicable space, if "No," enter comment number from Review Sheet)

1.	Does this procedure conform to the requirements of the procedure controlling its preparation and issue?	(_) YES (_) NO	NO. (____) (_) N/A
2.	Does this procedure have the correct format on each page?	(_) YES (_) NO	NO. (____) (_) N/A
3.	Does this procedure have the correct revision status on each page?	(_) YES (_) NO	NO. (____) (_) N/A
4.	Does this procedure reference paragraphs, attachments, and other procedures correctly (i.e., no references to obsolete or superseded procedures)?	(_) YES (_) NO	NO. (____) (_) N/A
5.	Does this procedure provide instructions that are adequate to control the activity?	(_) YES (_) NO	NO. (____) (_) N/A
6.	Does this procedure clearly state to whom and what the procedure is applicable (scope)?	(_) YES (_) NO	NO. (____) (_) N/A
7.	Does this procedure clearly define responsibilities?	(_) YES (_) NO	NO. (____) (_) N/A
8.	Does this procedure implement the quality requirements for which it was written?	(_) YES (_) NO	NO. (____) (_) N/A
9.	Does this procedure list in the "References" section all the documents referenced in the procedure?	(_) YES (_) NO	NO. (____) (_) N/A
10.	Does this procedure list the QA documentation that result from implementing the procedure?	(_) YES (_) NO	NO. (____) (_) N/A

[ ] Additional comments on Review Sheet.

_____ _____

Reviewed by (print name) ER Position Title (print)

_____ _____

Signature Date

EXAMPLE
UNCONTROLLED
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

DELETED
EX ANP
CONTACT THE OFFICE OF
ER PROGRAM RECORDS
(665-4572) TO OBTAIN
ORIGINAL FOR YOUR USE

Los Alamos National Laboratory Environmental Restoration Program

REVIEW SHEET

Page 1 of _____

Part I (To be filled out by ER Program Office) Date _____

Title _____ ID No. _____ Rev. _____

Reviewer's Name (print): _____ Group: _____ MS: _____

Comments due by _____ (Date) Return comments to _____ MS _____

Refer questions to _____ Phone _____

Part II (Reviewer completes)

Received On: _____(Date) Review Completed On: _____(Date) Signature: _____

Phone: _____

[ ] (Place an "X" in box if resolution of mandatory comments agreed to.)

No.	Location (Page, paragraph, line)	Reviewer's Comments/Suggestions [Mandatory (M) or Optional (O)]		Preparer's Proposed Revision/Resolution [Accept (A) or reject (R) Reviewer's comments/suggestions]	
		M/O		A/R	

EXAMPLE ONLY
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

Los Alamos National Laboratory Environmental Restoration Program

REVIEW SHEET
(Continued)

Page _____ of _____

Title: _____ Reviewer: _____

No.	Location (Page, paragraph, line)	Reviewer's Comments/Suggestions [Mandatory (M) or optional (O)]		Preparer's Proposed Revision/Resolution [Accept (A) or reject (R) Reviewer's comments/suggestions]	
		M/O		A/R	

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-01.2, R1 Rev: 1

Preparation, Review, and Approval of Standard Operating Procedures

UNCONTROLLED

Prepared by	Larry Maassen (Print Name)	Larry Maassen (Signature)	10/29/92 (Date)
Quality Review by	David Broxton (Print Name)	David Broxton (Signature)	10/30/92 (Date)
Functional Review by	E. Dow Davidson, Jr. (Print Name)	E. Dow Davidson, Jr. (Signature)	10-29-92 (Date)
PM Approval	Robert Vocke (Print Name)	Robert W Vocke (Signature)	11-2-92 (Date)
QPPL Approval	Karen Warthen (Print Name)	Karen L Warthen (Signature)	11/2/92 (Date)

Effective Date: 11/10/92

Preparation, Review, and Approval of Standard Operating Procedures

Table of Contents

UNCONTROLLED

Preparation, Review, and Approval of Standard Operating Procedures

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe how a Los Alamos National Laboratory Environmental Restoration (ER) Program Standard Operating Procedure (SOP) is prepared, reviewed and approved.

NOTE: This is not a Health and Safety (H&S) Standard Operating Procedure as defined in the LANL Health and Safety Manual (Administrative Requirement 1-3).

2.0 SCOPE

This procedure applies to the preparation of SOPs and to ER personnel responsible for preparing, reviewing, or approving SOPs.

3.0 DEFINITIONS

3.1 LANL ER Standard Operating Procedures (SOP)

An SOP is a document that describes operations, analyses, or actions that are commonly accepted as the usual method for performing certain routine or repetitive tasks.

3.2 Quality Assurance (QA) Review

A QA review is an examination of an SOP to ensure that it is prepared in accordance with procedures that govern its preparation and to ensure that it addresses all applicable QA requirements.

3.3 Technical Review

A technical review is an objective examination of an SOP by an individual who has relevant and appropriate technical expertise applicable to the activity being reviewed to evaluate the correctness and adequacy of methods or techniques described.

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4.0 RESPONSIBILITIES

4.1 Programmatic Project Leaders (PPLs), Operable Unit Project Leaders (OUPLs), and Technical Team Leaders (TTLs)

PPLs, OUPLs, and TTLs are responsible for

- identifying procedures for which SOPs are needed,
- ensuring the preparation of SOPs, and
- identifying technical staff to prepare and review SOPs.

4.2 Preparers

The preparers of SOPs are responsible for

- preparing SOPs in accordance with this administrative procedure (AP),
- assigning technical and quality reviewers; and
- incorporating review comments.

4.3 SOP Coordinator

The SOP Coordinator is responsible for

- maintaining an SOP log indicating the status of SOPs in process and
- assigning an SOP number to newly identified procedures.

4.4 Program Manager (PM)

The PM is responsible for approving SOPs for controlled distribution, and for ensuring that

- SOPs receive QA and technical review,
- an SOP number and title log is maintained,
- masters of the forms for this AP are maintained, and
- master copies of current SOPs are maintained.

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4.5 Quality Program Project Leader (QPPL)

The QPPL is responsible for assisting in identifying QA reviewers for SOPs and for approving SOPs.

4.6 Reviewer of SOPs

Technical and QA reviewers of SOPs are responsible for

- reviewing SOPs in accordance with this procedure and
- completing and returning review forms to the preparer in the review period specified.

4.7 Records Processing Facility (RPF)

Receives and maintains master forms and master copies of all SOPs.

5.0 PROCEDURE

5.1 Elements of the SOP

5.1.1 Unique Identifier

A unique alphanumeric identifier for each SOP must be assigned and written on each page of an SOP. An example is described below:

LANL-ER-SOP-XX, RN

- "LANL" identifies the SOP as a Los Alamos National Laboratory document, for use by LANL ER personnel and its contractors;
- "ER" identifies it as an Environmental Restoration Program SOP;
- "SOP" signifies the document as a Standard Operating Procedure;
- "XX" is the specific number assigned to the SOP, and
- "RN" is the revision number of the SOP. R0 will always be assigned to the first version.

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5.1.2 Cover Page

The cover page contains the

- unique ID number and title of the SOP,
- signature of preparer,
- signature of a QA reviewer,
- signature of technical reviewer(s),
- approval signature of the QPPL,
- approval signature of the PM, and
- effective date of the SOP.

The preparer formats the cover page to include the information described in this section. A suggested cover page format is shown as Attachment A.

5.1.3 SOP Table of Contents

The SOP preparer ensures that a table of contents is included as Page 1 of the SOP.

5.1.4 SOP Pagination

The preparer

- places the unique ID number and page number in the upper right-hand corner of each page as shown:

  LANL-ER-SOP-XX, RN
  Page __ of __

and

- numbers attachment pages consecutively:

  Attachment X
  LANL-ER-SOP-XX, RN
  Page __ of __

as shown in Attachment A.

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5.1.5 Contents of an SOP

The preparer ensures that, at a minimum, the following sections and information are included in SOPs. If a section is not relevant, place "N/A" under the heading.

1.0 PURPOSE

The purpose statement of an SOP is a brief description of the task or operation to be performed.

2.0 SCOPE

The scope section of an SOP incorporates two separate elements as described below.

2.1 Applicability

This element states the activity and ER Program personnel to which the SOP applies.

2.2 Training

This element identifies the scope of training required before the user(s) implement the procedure.

3.0 DEFINITIONS

The section includes definitions of terms that are unique to the SOP.

4.0 BACKGROUND AND/OR CAUTIONS

This section states cautions, conditions, general discussions, safety concerns, or limitations associated with performing a procedure or activity that are independent of the process.

5.0 EQUIPMENT

This section lists the equipment or supplies used to perform the procedure. (If the equipment is listed on an attachment to the SOP, indicate the attachment here.)

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6.0 PROCEDURE

This section is a set of step-by-step instructions on how to perform activities or processes, including calibration of equipment, quality control hold points, and acceptance criteria.

7.0 REFERENCES

This section lists the documents that are cited in the SOP and that are essential for conducting the activity or process described.

8.0 RECORDS

This section identifies the records that will be generated as a result of implementing the procedure and submitted to the LANL ER Records Processing Facility.

9.0 ATTACHMENTS

The attachment section lists forms and/or appendices that are part of the SOP.

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5.2. Process for Preparation

5.2.1 Identification of SOPs and SOP Preparers

The PPLs, OUPLs, and TTLs identify procedures for which SOPs must be prepared, revised, or deleted, and designates the preparers of SOPs. SOP preparers must be qualified in the subject matter by experience and education.

5.2.2 SOP Preparation

The preparer of the SOP

- notifies SOP Coordinator of intent to prepare SOP and obtains an SOP number,
- secures copies of applicable guidance and requirements documents, if any,
- prepares the SOP (including revisions) as shown in section 5.1 of this procedure,

- indicates revised portions of an SOP (for purposes of review) by placing a vertical line beside the affected text (other methods of indicating revised text are also acceptable),
- marks the SOP "DRAFT" when it is ready for formal review,
- identifies appropriate technical and quality reviewers by working with individual who assigned its preparation (Read Section 5.3.1),
- completes the review documentation, and
- distributes copies of the draft SOP to the PM.

5.3. Process for SOP Review

5.3.1 Overview of Review Process

SOPs will receive technical reviews and QA reviews as defined in Section 3. A review check list will be used to expedite the review process. A review sheet is to be used to explain the check list items marked "NO" or to add any material to the procedure.

5.3.2 Identification of SOP Technical Reviewers

The preparer coordinates with the PPL, OUPL, or TTL, if necessary, and determines technical reviewers. Technical reviewers must have education and experience in the subject matter.

The preparer completes the technical review documentation forms to accompany draft SOPs by

- completing Part I of the Technical Review Check List (Attachment B) and
- completing Part I of the Review Sheet (Attachment D).

These forms are maintained at the ER Program RPF.

5.3.3 Identification of QA Reviewers

The preparer works with the QPPL to identify at least one QA reviewer to review the SOP and prepares the review documentation forms to accompany the draft SOP by

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- completing Part I of the QA Review Check List (Attachment C) and
- completing Part I of a Review Sheet.

5.3.4 Distribution of Draft SOPs for Review

The preparer

- compiles review packages that include the appropriate review forms and the SOP marked "DRAFT,"
- prepares the transmittal correspondence that states when the comments are due, to whom questions may be addressed, and where to return the comments, and
- distributes to selected reviewers, as appropriate.

5.3.5 Review of SOPs

The reviewer performs a QA or technical review, whichever has been assigned, by completing a Technical Review Check List or a QA Review Check List. The reviewer records any additional comments on the Review Sheet. Space is provided on the forms to indicate

- the page and section number commented on and
- whether the comment is mandatory (M) or optional (O).

The reviewer writes mandatory or optional comments that

- clarify check list responses of "NO" and
- **clearly state the necessity for incorporating mandatory comments into the procedure (i.e., EPA/DOE Program requirement, technical clarity).**

The reviewer returns the completed forms on or before the due date.

If the reviewer is unable to complete the review in the time allowed, he contacts the SOP preparer to arrange an agreeable time. If unable to conduct the review, indicate this on the review sheet and return the package to the preparer.

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5.3.6 Resolution of Review Comments

The preparer receives the completed review documentation forms from reviewers and resolves the comments. Space is provided on the review sheet for the preparer to indicate acceptance (A) or rejection (R) of reviewer comments and to write resolutions. The preparer considers all optional comments and may accept or reject the comments without further documentation. The preparer and the reviewer must agree on the resolution of mandatory comments. If the preparer and reviewer are unable to resolve comments, the Program Manager will help to resolve the comments. The preparer completes the review sheet by

- writing the reason for rejecting the comment on the review sheet,
- contacting the reviewer to describe the proposed resolution and working with the reviewer to arrive at an acceptable resolution of all mandatory comments, and
- indicating that mandatory comments have been resolved by placing an "X" in the box beside the reviewer's phone number (Part II).

5.4 Process for SOP Approval

5.4.1 Finalizing the SOP

The preparer of the SOP performs the following

- ensures that all SOP pages are properly formatted and numbered,
- ensures that cover page and attachments are intact,
- marks the forms attached to the SOP "Example, Contact the RPF for Master Forms",
- compiles a set of unmarked form masters for the RPF to maintain,
- signs the cover page of the SOP,
- obtains the signature of at least one QA reviewer and one technical reviewer,

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- compiles a review package to include the completed review check lists, review sheets, and draft procedure reviewed, and
- forwards the signed SOP, form masters, and review package to the PM for approval.

5.4.2 Approval of SOP

The PM

- receives the final version of the SOP, the form masters, and SOP review package.
- ensures that review comments and the resolution of comments are compared against the final SOP.
- contacts the preparer to resolve additional comments on the procedure.
- signs the completed SOP approving the SOP for distribution and forwards the SOP form masters and SOP review back to the QPPL for QA verification.

The QPPL

- works with the preparer or PM, as appropriate, to resolve any additional comments, and
- approves the SOP after ascertaining that all applicable QA requirements have been addressed and forwards total package to the RPF for distribution and/or maintenance.
- notifies the SOP Coordinator that the procedure has been completed.

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5.5 Distribution of SOPs

The QPPL ensures that SOPs are distributed for use in accordance with the ER Distribution of Controlled Documents AP (LANL-ER-AP-1.04).

5.6 Revision of SOPs

Revisions and interim changes (i.e., changes that modify a small portion of text) are made in accordance with LANL-ER-AP-01.5, R0, Revision and Interim Change of ER Program Controlled Documents.

6.0 REFERENCES

6.1 Requirement Documents

LANL-ER-Quality Program Plan (current version) DOE Order 5700.6C, Quality Assurance, 8/21/91

6.2 Cited Documents

LANL-ER-AP-01.4, Distribution of Controlled Documents Prepared for the ER Program
LANL-ER-AP-01.5, Revision and Interim Change of ER Program Controlled Documents

7.0 RECORDS

The records generated and completed documenting the implementation of this AP are an approved SOP and the review sheets showing the resolution of mandatory comments.

8.0 ATTACHMENTS

Attachment A - Cover Page
Attachment B - Technical Review Check List
Attachment C - Quality Assurance Review Check List
Attachment D - Review Sheet

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Los Alamos National Laboratory **Environmental Restoration Program** **Standard Operating Procedure**	No: LANL-ER-SOP- Rev:

(Title)

UNCONTROLLED
EXAMPLE
CONTACT THE
ER PROGRAM OFFICE
(665-4557) TO OBTAIN
ORIGINAL FOR YOUR USE

Prepared by: _____ (Print Name) _____ (Signature) _____ (Date)

Quality Review by: _____ (Print Name) _____ (Signature) _____ (Date)

Technical Review by: _____ (Print Name) _____ (Signature) _____ (Date)

PM Approval: _____ (Print Name) _____ (Signature) _____ (Date)

QPPL Approval: _____ (Print Name) _____ (Signature) _____ (Date)

Effective Date: _____

LANL ER PROGRAM
SOP TECHNICAL REVIEW CHECK LIST

Part I

Procedure: _____ Rev: _____

Title: _____

Part II (Reviewer Completes) (Enter an "X" in the applicable space) (If "No", enter comment No. from Review Sheet)

1.	Is the SOP applicable to the activity for which it was written?	(_) YES (_) NO	NO. (____) (_) N/A
2.	Is the scope of training clearly specified?	(_) YES (_) NO	NO. (____) (_) N/A
3.	Are hazards associated with performing this SOP clearly identified?	(_) YES (_) NO	NO. (____) (_) N/A
4.	Is this SOP technically correct?	(_) YES (_) NO	NO. (____) (_) N/A
5.	Is this SOP written so a user with the appropriate education and training can properly implement it in a step by step manner?	(_) YES (_) NO	NO. (____) (_) N/A
6.	Does this SOP provide definitions for all words that have a special meaning for this SOP?	(_) YES (_) NO	NO. (____) (_) N/A
7.	Does this SOP list all equipment necessary to perform the procedure?	(_) YES (_) NO	NO. (____) (_) N/A
8.	Does this SOP provide diagrams of equipment as appropriate?	(_) YES (_) NO	NO. (____) (_) N/A
9.	Does this SOP define the parameters to be recorded after performing the procedure?	(_) YES (_) NO	NO. (____) (_) N/A
10.	Are calibration, quality control hold points, or data acceptance criteria given?	(_) YES (_) NO	NO. (____) (_) N/A
11.	Is it clear what documentation will be produced as a result of implementing the procedure?	(_) YES (_) NO	NO. (____) (_) N/A
12.	Does this SOP provide steps to perform for "troubleshooting" and reducing errors?	(_) YES (_) NO	NO. (____) (_) N/A
13.	Is this SOP consistent with current EPA/DOE regulations and guidelines?	(_) YES (_) NO	NO. (____) (_) N/A

[ ] Additional comments on Review Sheet.

_____ _____

Reviewed By (Print Name) Position Title (Print)
(ER Personnel use ER Position Title)

_____ _____

Signature Date

EXAMPLE
UNCONTROLLED
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

LANL ER PROGRAM
QUALITY ASSURANCE REVIEW CHECK LIST

Part I

Procedure: _____ Rev: _____

Title: _____

Part II (Reviewer Completes)

(Enter an "X" in the applicable space)
(If "No", enter comment No. from Review Sheet)

1.	Does this procedure conform to the requirements of the procedure controlling its preparation and issue?	(_) YES (_) NO	NO. (____) (_) N/A
2.	Does this procedure have the correct format on each page?	(_) YES (_) NO	NO. (____) (_) N/A
3.	Does this procedure have the correct revision status on each page?	(_) YES (_) NO	NO. (____) (_) N/A
4.	Does this procedure reference paragraphs, attachments, and other procedures correctly (i.e., no references to obsolete or superseded procedures)?	(_) YES (_) NO	NO. (____) (_) N/A
5.	Does this procedure provide instructions that are adequate to control the activity?	(_) YES (_) NO	NO. (____) (_) N/A
6.	Does the procedure clearly state who and what the procedure is applicable to (scope)?	(_) YES (_) NO	NO. (____) (_) N/A
7.	Does this procedure clearly define responsibilities?	(_) YES (_) NO	NO. (____) (_) N/A
8.	Does this procedure implement the quality requirements for which it was written?	(_) YES (_) NO	NO. (____) (_) N/A
9.	Are calibration or data acceptance criteria stated?	_) YES (_) NO	NO. (____) (_) N/A
10.	Does this procedure list, in the "References" section, all the documents referenced in the procedure?	(_) YES (_) NO	NO. (____) (_) N/A
11.	Does this procedure list the records produced as a result of implementing the procedure?	(_) YES (_) NO	NO. (____) (_) N/A

[ ] Additional comments on Review Sheet.

_____ _____
Reviewed By (Print Name) ER Position Title (Print)

_____ _____
Signature Date

EXAMPLE
UNCONTROLLED
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

Los Alamos National Laboratory Environmental Restoration Program

REVIEW SHEET

Page 1 of _____

Part I (To be filled out by ER Program Office) Date: _____

Title: _____ ID No: _____ Rev: _____

Reviewer's Name (Print): _____ Group: _____ MS: _____

Comments Due By: _____ (Date) Return Comments To: _____ MS: _____

Refer Questions To: _____ Phone: _____

Part II (Reviewer completes)

Received On: _____ (Date) Review Completed On: _____ (Date) Signature: _____

Phone: _____ [ ]

(Place an "X" in box if resolution of Mandatory Comments agreed to.)

No.	Location (Page, Paragraph, Line)	Reviewer's Comments/Suggestions [Mandatory (M) or Optional (O)]	M/O	Preparer's Proposed Revision/Resolution [Accept (A) or Reject (R) Reviewer's Comments/Suggestions]	A/R

UNCONTROLLED
ER PROGRAM OFFICE
TO OBTAIN
YOUR USE
ORIGINAL FOR

Los Alamos National Laboratory Environmental Restoration Program

REVIEW SHEET
(Continued)

Page _____ of _____

Title: _____ Reviewer: _____

No.	Location (Page, Paragraph, Line)	Reviewer's Comments/Suggestions [Mandatory (M) or Optional (O)]		Preparer's Proposed Revision/Resolution [Accept (A) or Reject (R) Reviewer's Comments/Suggestions]	
		M/O		A/R	

UNCONTROLLED
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE
EXAMPLE

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-01.3 Rev: 0

Review and Approval of Environmental Restoration Program Plans and Reports

UNCONTROLLED

Prepared by:	Karen L Foster (Print Name)	Karen R. Foster (Signature)	3/2/91 (Date)
Quality Review by:	Mike Ray (Print Name)	Mike Ray (Signature)	3/6/91 (Date)
Functional Review by:	Paul L. Arnold (Print Name)	Paul L Arnold (Signature)	3/6/91 (Date)
PM Approval:	Robert W. Vocke (Print Name)	Robert W Vocke (Signature)	3/13/91 (Date)
QPPL Approval:	Larry Maassen (Print Name)	Larry Maassen (Signature)	3/21/91 (Date)

Effective Date: 3/26/91

TABLE OF CONTENTS
REVIEW AND APPROVAL OF ENVIRONMENTAL RESTORATION PROGRAM PLANS AND REPORTS

UNCONTROLLED

REVIEW AND APPROVAL OF ENVIRONMENTAL RESTORATION PROGRAM PLANS AND REPORTS

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe the process by which Environmental Restoration (ER) Program Plans and Reports (hereafter referred to as documents) are reviewed and approved.

2.0 SCOPE

This procedure applies to documents prepared for the ER Program and is applicable to preparers, internal reviewers, and the user of documents.

NOTE: Documents prepared for the ER Program are identified in the HSWA Module of the Laboratory's Resource Conservation and Recovery Act permit and are scheduled for submittal to the Environmental Protection Agency (EPA) in accordance with the permit. Documents for preparation are also identified in the ER Program Installation Work Plan (IWP).

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3.0 DEFINITIONS

3.1 Quality Assurance (QA) Review

A QA review is an examination of a document to ensure that it addresses applicable quality requirements.

3.2 Technical Memo

A technical memo is a report or document that describes a major deviation that must be made from an approved RFI Work Plan based on the results of previous work conducted.

3.3 Technical Review

A technical review is an objective examination of a document by an individual who has relevant and appropriate technical expertise applicable to the activity being reviewed to evaluate the correctness and adequacy of methods or techniques described.

4.0 RESPONSIBILITIES

4.1 Preparer

Document preparers are responsible for scheduling formal internal reviews of draft documents, ensuring that documents are delivered on schedule for review by regulatory agencies, and for resolving comments.

4.2 Program Manager

The PM is responsible for working with preparers to designate document reviewers within the Program and for verifying that documents receive internal and external reviews.

4.3 Reviewers

Document reviewers are responsible for conducting reviews in accordance with this procedure and for returning review comments in the period of time specified.

5.0 PROCEDURE

5.1 Identification of Documents for Review

The documents identified to be reviewed include, but are not limited to, the Installation Work Plan (IWP), Solid Waste Management Unit (SWMU) Report, RCRA facility investigation (RFI) work plans, RFI Reports, Corrective Measure Study (CMS) plans, CMS reports.

5.2 Scheduling Documents for Review

The PM and the preparer work together to schedule a time to distribute documents for internal reviews. The schedule is intended to help expedite the review process.

5.3 Identification of Document Reviewers

The PM works with document preparer to designate appropriate internal reviewers. Reviewers are selected taking into account the contents of the document, the technical expertise required to provide an adequate review, and ER Personnel whose work may be affected by the document. Multidisciplinary documents should be reviewed in sections by individuals with the appropriate technical background.

The PM manager or preparer work with the designated reviewer(s) to ensure that reviewers are available and are able to conduct the review in the time scheduled.

5.4 Preparing Documents for Review

A document is ready for a formal internal review once the document has been edited and compiled.

The preparer ensures that the document is marked "Internal Review Draft". (Drafts should be assigned a number (i.e., Draft 1, Draft 2, etc.) when the preparer anticipates more than one internal review cycle.)

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The preparer distributes the draft document and includes instructions that

- identify the point of contact for questions,
- specify the date comments are due, and
- state where to return comments.

5.5 Conducting Internal Document Reviews

The reviewer writes comments on the draft document or may list comments on a separate sheet of paper. Reviewers must provide explanations that clarify the necessity for incorporating technical or administrative comments when the comment identifies a critical error that would affect the quality of end results if not corrected.

The reviewer mails comments so that they are received on the due date.

5.6 Resolution of Internal Comments

The preparer considers all comments and works with the reviewer to arrive at an acceptable resolution of all comments. If the preparer and reviewer do not agree on the resolution of technical comments, the PM is contacted to provide mediation by working to resolve comments. The PM determines if another subject matter expert is necessary to arrive at a resolution.

The document is finalized by incorporating comments and compiling the completed version. The preparer completes a Record of Comment Resolution (Attachment A) by performing the following:

- the preparer completes Part I of the form and mails the form and the final version of the document to the reviewer;
- the reviewer signs Part II of the form when assured that comments have satisfactorily been resolved;
- the reviewer mails the signed form and document to the preparer; and
- the preparer ensures that the documentation showing resolution is maintained.

5.7 Internal Approval of Plans and Reports

The preparer forwards the final version of the document and the completed Record of Comment Resolution to the PM. Concurrence by the PM or designee to verify the resolution of comments constitutes management approval of documents.

The PM or designee signs Part III of the Record of Comment Resolution form to indicate concurrence.

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The PM ensures that preparers forward the approved documents to external agencies for final review and approval.

5.8 External Review of Plans and Reports

Documents must be reviewed and approved by the responsible external regulatory agencies before implementation. The preparer submits documents for review to the administrative authority (i.e., EPA or the State) and the DOE, as scheduled in the HSWA permit (Section 6.1).

5.9 Resolution of External Comments

The preparer incorporates or resolves the comments received from external reviewers and resubmits the document for approval.

The preparer ensures that a letter is received and maintained that verifies the approval of documents.

5.10 Submittal of Review Documentation

The preparer ensures that a compilation of records documenting the review process are submitted to the Records Facility in accordance with the AP entitled, Procedure for LANL ER Records Management. Section 7.0 of this AP lists the records generated that document the implementation of the review process described herein.

5.11 Deviations from Approved Documents

When work plans are implemented in the field, it is likely that deviations will be necessary. Minor deviations from Plans are to be described and documented in final reports.

Major deviations may be necessary based on the results of previous work conducted in the field. In such cases, a technical memo (Section 3.2) must be prepared and submitted to the administrative authorities and DOE for review and approval.

6.0 REFERENCES

6.1 Requirement Documents

Hazardous Waste Permit issued to University of California which was effective on May 23, 1990 by EPA, Region VI, to satisfy HSWA of 1984, Module of RCRA.

Environmental Restoration Program Installation Work Plan

6.2 Cited Documents

Procedure for LANL ER Records Management

UNCONTROLLED

7.0 RECORDS

The record package generated to document the implementation of this procedure is

- completed Record of Comment Resolution,
- final document resulting from internal review,
- external review comments,
- letters from external agencies approving documents, and
- the final document.

This package should be compiled as listed above and submitted to the records facility.

Technical memos are to be submitted with the appropriate final reports documenting actual work conducted.

8.0 ATTACHMENTS

Attachment A, Record of Comment Resolution

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Environmental Restoration Program
RECORD OF COMMENT RESOLUTION

Date_____

Part I (preparer completes)

*Document title _____

_____

Document preparer _____ (Print Name)

Document reviewer _____ (Print Name)

Date comments resolved _____

Part II (reviewer completes)

I am satisfied with the incorporation and/or resolution of my technical/administrative comments on the document identified above.

_____ _____
(Signature) (Date)

Return the signed form and attached document to the preparer.

Part III (Program manager or designee concurrence)

_____ _____
(Signature) (Date)

*Attach the final version of the document reviewed to this form and forward to the reviewer.

EXAMPLE
CONTACT THE ER PROGRAM OFFICE (6654557) TO OBTAIN ORIGINAL FOR YOUR USE
UNCONTROLLED

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-01.4	Rev: 0

Distribution of Controlled Documents Prepared for the Environmental Restoration Program

UNCONTROLLED

Prepared by:	Karen L Foster (Print Name)	Karen L Foster (Signature)	2/21/91 (Date)
Quality Review by:	Mike Ray (Print Name)	Mike Ray (Signature)	3/7/91 (Date)
Functional Review by:	Sandy Wagner (Print Name)	Sandy Wagner (Signature)	2/28/91 (Date)
PM Approval:	Robert W Vocke (Print Name)	Robert W Vocke (Signature)	3/13/91 (Date)
QPPL Approval:	Larry Maassen (Print Name)	Larry Maassen (Signature)	3/21/91 (Date)

Effective Date: 3/26/91

Table of Contents

Distribution of Controlled Documents Prepared for the Environmental Restoration

UNCONTROLLED

Distribution of Controlled Documents Prepared for the Environmental Restoration Program

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe the process for identifying, distributing, and maintaining controlled documents prepared for the Environmental Restoration (ER) Program.

2.0 SCOPE

This procedure is applicable to controlled documents for the ER Program, to ER personnel responsible for identifying the recipients of controlled documents, and to the recipients of controlled documents.

3.0 DEFINITIONS

3.1 Document Control

Document control is the process whereby an ER Program plan, procedure, drawing, or report is reviewed, approved, and released for guidance or detailed instruction.

3.2 Controlled Distribution

Controlled distribution is the process whereby certain instructions are issued to specific personnel and whereby personnel are required to acknowledge their receipt.

3.3 Controlled Working Copy

A controlled working copy is a controlled procedure that is duplicated, assigned a limited effective date, and distributed to employees for use at work sites.

3.4 Master List of Controlled Documents

The master list of controlled documents is a current record of procedures, plans, drawings, reports, or instructions that have been issued through controlled distribution or are maintained and retrievable.

3.5 Receipt Acknowledgment Form

A Receipt Acknowledgment Form is a record that accompanies instructions issued by controlled distribution. The form is used to enumerate package contents and to provide instructions including, the time frame for completing instructions and acknowledging receipt of the contents, and states where to return the signed form.

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4.0 RESPONSIBILITIES

4.1 Program Manager

The Program Manager (PM) identifies documents controlled by the ER Program and has overall responsibility for the controlled distribution process described herein.

4.2 Operable Unit Project Leaders

Operable unit project leaders (PLs) are responsible for identifying the controlled documents essential to the performance of work assignments and the recipients of controlled documents.

4.3 Quality Program Project Leader

The quality program project leader (QPPL) is responsible for verifying that this procedure is implemented.

4.4 Technical Team Leaders

Technical team leaders (TTLs) are responsible for identifying the controlled documents essential to the performance of work assignments and identifying the recipients of the documents.

4.5 Custodian of Controlled Documents

The custodian of controlled documents is responsible for the

- maintenance of the master list of controlled documents,
- distribution of controlled documents, and
- maintenance of records associated with the distribution process.

4.6 Recipient of Controlled Documents

Recipients of controlled documents are responsible for

- following instructions on receipt acknowledgment forms,
- maintaining the controlled documents they receive, and
- returning controlled documents when they leave the ER Program or when their responsibilities change.

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5.0 PROCEDURE

The procedures stated in this section are essential to ensure that personnel conducting ER work receive or have access to current versions of controlled documents and to ensure that the PM reviews, approves, and releases revisions to instructions.

5.1 Identification of Controlled Documents

The ER Program Office controls documents, including but not limited to, the Installation Work Plan (IWP), Solid Waste Management Unit Report (SWMU), RCRA Facility Investigation (RFI) work plans, RFI Reports, Corrective Measure Study plans (CMS), CMS reports, and implementing procedures such as, APs, Quality Procedures (QPs), and technical standard operating procedures (SOPs).

The PM determines which of these documents are to be released through controlled distribution (Section 3.2).

The PM

- ensures that a master list of the documents identified for control is prepared (Section 3.4) and
- determines the recipients of the master list.

The custodian of controlled documents

- maintains the master list of controlled documents, which includes, but is not limited to, the document's unique number (including revision number, if applicable), title, and effective date; and
- prepares a letter to accompany the master list of controlled documents to be reviewed and approved by the PM.

5.2 Determining Recipients of Controlled Documents

The PM ensures that the PLs have access to all controlled documents related to their ER Program work assignments.

The PM, PL, or TTL determines other recipients of controlled documents based on ER Program work assignments. At a minimum, supervisors of personnel conducting ER work will receive or have access to controlled documents applicable to an individual's ER work.

The PM, PL or TTL supplies the custodian of controlled documents with the names and locations of personnel who are to receive working copies of controlled documents.

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5.3 Distribution Process

ER Program controlled documents that are identified for distribution will be contained in uniquely numbered and titled manuals (binders); however, controlled working copies of individual procedures may be issued separately to ER personnel when it is essential to have certain procedures at the work site. The guidelines stated in Sections 5.3.1 and 5.3.2 must be followed.

5.3.1 Distribution of Controlled Documents

When the controlled document custodian receives the documents for distribution and the names of the recipients, the custodian

- marks each page of the controlled document "CONTROLLED" using indelible red ink (ER documents that are not marked in red are to be considered information copies only);
- assigns a unique number and title to manual(s);
- prepares and maintains a table of contents for each manual that lists the documents contained within by unique numbers, if applicable, and title;
- prepares and maintains a distribution list to include manual numbers, recipient(s) of numbered manual(s), and the location (address) of recipient(s);
- completes Parts I and II of the receipt acknowledgment form shown in Attachment A (Definition 3.5);
- prepares a distribution cover letter for the PM's signature;
- distributes packages containing the cover letter, controlled documents, and receipt acknowledgment form; and
- ensures that all receipt acknowledgment forms are returned within the specified time.

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5.3.2 Distribution of Working Copies

Working copies of controlled documents (i.e., instructions or procedures) are distributed on a case-by-case basis. For example, before conducting field sampling activities, procedures to be used in the field are determined and working copies of the applicable procedures are requested. The maximum effective period may not exceed 90 working days.

Short-term effective dates are assigned to working copies to eliminate the need for retaining distribution documentation. **Documentation such as final reports, field forms, or notebooks must identify the title and revision number of procedures followed.**

ER Program PLs or TTLs

- identify the tasks and work sites to which procedures and other controlled documents must be provided;
- mark a current copy of the master list of controlled documents by highlighting the documents needed at a particular work site;
- indicate the recipient's name and location and the effective period of the working copy; and
- forward the request to the controlled document custodian.

The custodian of the controlled document receives the request and prepares the working copy(s) for distribution. The custodian

- then marks the first page of the controlled document copy with red indelible ink as shown below:

CONTROLLED WORKING COPY
EFFECTIVE FROM _____ TO _____
begin date end date

- fills in the effective period provided by the PL or TTL, and
- distributes the working copy without further documentation.

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5.4 Receipt and Maintenance of Controlled Documents

The recipients of manuals follow the instructions specified on the receipt acknowledgment form. The form must be signed and returned as directed to verify that the controlled documents have been received and that appropriate updates have been made.

Manuals must be maintained. Controlled documents or portions thereof may not be removed from the manuals.

The recipients of controlled working copies are to dispose of (recycle) the copies after the effective period has expired.

5.5 Return of Controlled Documents

Controlled documents are to be returned to the custodian of controlled documents when recipients are no longer conducting work for the ER Program or when their responsibilities change.

5.6 Maintenance of Superseded Documents

The custodian of controlled documents maintains copies of superseded documents. The custodian

- marks the document

SUPERSEDED BY

_____

(Document No. and title)

and,

- maintains a Table of Contents that lists the superseded document and the document replacing it.

5.7 Revision of Controlled Documents

The revision of controlled documents are to be made in accordance with the guidance governing the development of the original document or are made in accordance with the AP, Revision and Interim Changes of ER Program Controlled Documents.

5.8 Submittal of Distribution Documentation

The custodian of controlled documents ensures that the records listed in Section 7.0 of the AP are submitted in accordance with the AP entitled Procedure for LANL ER Records Management.

6.0 REFERENCES

6.1 Requirement Documents

Quality Program Plan, Section 6.0 and 7.0

6.2 Cited Documents

Revision or Interim change of ER Program Controlled Documents.

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7.0 RECORDS

The records produced as a result of implementing this procedure are

- master list of controlled documents,
- distribution list of manual recipients,
- manual table of contents for each manual, and
- signed receipt acknowledgment forms.

8.0 ATTACHMENTS

Receipt Acknowledgment Form (Attachment A)

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ENVIRONMENTAL RESTORATION PROGRAM
RECEIPT ACKNOWLEDGMENT FORM

Distribution Date_____

Part I. Enclosures (completed by document custodian). List all documents included in this distribution

* Please return this form by _____

Part II. Instructions (completed by document custodian). Add, delete, or replace documents as described below:

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Part III. Receipt Acknowledgment (completed by recipient)

I have received/revised Manual No. _____. I understand that I am responsible for familiarizing myself with the document/manual contents and for maintaining documents received.

Name (Print)	Signature	Date
_____	_____	_____

*Return to: ER Controlled Document Custodian, MS K481

Environmental Restoration Program
INTERIM CHANGE NOTICE

EFFECTIVE DATE (Dist. date) 1-27-92 ICN NO. 002 Page 1 of 1

Document No. LANL-ER-AP-01.5 Rev. 0 Title Revison or Interim Change of ER Program Controlled

Reason for Change

The procedure states that revised portions of documents will be indicated by shading the changed text or drawing vertical lines by revised text. ER Program software does not have a text shading capability and it is not convenient to draw vertical lines. It is more reasonable to state that changes are indicated only during review cycle.

Description of Change (Specify page, paragraph, and/or section revised, and clearly write new text to be incorporated in the document).

Page 4, Section 5.1, 2nd bullet. Rewritten as follows:

- changes made to text are underlined and italized while the revised document is in a review cycle.

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Change requested by	Karen Foster (Print)	Karen Foster (Signature)	12/3/91 (Date)
Technical Reviewer	N/A (Print)	N/A (Signature)	N/A (Date)
or			
Functional Reviewer	Micheline Devaurs (Print)	Micheline Devaurs (Signature)	12/3/91 (Date)
Program Manager Approval	Robert W Vocke (Print)	Robert W Vocke (Signature)	12/5/91 (Date)
Quality Program Project Leader (QA review and approval)	Karen L Foster (Print)	Karen L Foster (Signature)	12/6/91 (Date)

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-01.5 INTERIM PROCEDURE	Rev: 0

Revision or Interim Change of ER Program Controlled Documents

UNCONTROLLED

Prepared by	Karen C Foster (Print Name)	Karen L Foster (Signature)	2/27/91 (Date)
Quality Review by	Mike Ray (Print Name)	Mike Ray (Signature)	3/6/91 (Date)
Functional Review by	Michelle Devours (Print Name)	Michelle Devours (Signature)	2/28/91 (Date)
PM Approval	Robert W Vocke (Print Name)	Robert W Vocke (Signature)	3/13/91 (Date)
QPPL Approval	Larry Maassen (Print Name)	Larry Maassen (Signature)	3/21/91 (Date)

Effective Date: 3/26/91

TABLE OF CONTENTS

REVISION OR INTERIM CHANGES OF ER PROGRAM CONTROLLED DOCUMENTS

UNCONTROLLED

Revision or Interim Change of ER Program Controlled Documents

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to state the process by which the documents controlled by the Environmental Restoration (ER) Program are revised, reviewed, and approved.

NOTE: The ER Records Management procedure addresses the requirements for submitting revised records.

2.0 SCOPE

This procedure applies to documents issued in accordance with the AP entitled Distribution of Controlled Documents Prepared for the ER Program, and is applicable to preparers and recipients of documents.

3.0 DEFINITIONS

3.1 Document Control

Document control is the process whereby an ER Program plan, procedure, drawing, or report is reviewed, approved, and released for guidance or detailed instruction.

3.2 Controlled Distribution

Controlled distribution is a process whereby instructions are issued to specific personnel and whereby personnel are required to acknowledge their receipt.

3.3 Interim Change Notice

An Interim Change Notice (ICN) is a form used to document a major change to a portion of a controlled document and that is distributed through controlled distribution to personnel in possession of the original document.

3.4 Major Change

A major change is the addition or deletion of information that modifies the intent of a document or that changes the responsibilities of ER personnel.

3.5 Revision

A revision is an extensive rewrite of a document whereby the document receives a new revision number.

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4.0 RESPONSIBILITIES

4.1 ER Program Manager

The ER Program Manager (PM) is responsible for ensuring that changes to controlled documents are made in accordance with this procedure.

4.2 ER Program Personnel

The preparers, recipients, and users of controlled documents are responsible for initiating changes to documents.

4.3 Quality Program Project Leader

The quality program project leader (QPPL) is responsible for verifying that this procedure adequately addresses quality requirements and is implemented.

5.0 PROCEDURE

A major change (Section 3.4) constitutes the revision of a controlled document. Documents are revised to reflect current technology and administrative directives, to update personnel responsibilities and referenced material, and to correct instructions that result in numerous deviations.

Minor changes in the original such as typographical errors, sentence structure, or punctuation, do not constitute a revision to a controlled document.

ER personnel who use controlled documents in the performance of work assignments initiate or request changes to controlled documents by one of the two methods described below.

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5.1 Process for Revising Controlled Documents

ER personnel contact the preparer of a controlled document when extensive or numerous changes to a document are necessary. (The PM is contacted if the preparer is no longer assigned to the ER Program or if the preparer's responsibilities have changed.)

The preparer updates the controlled documents in accordance with the written instructions or requirements that governed the development of the original document. (Section 6.2)* . The preparer ensures that

- each iteration of a controlled document has a revision number,

* The documents listed in Section 6.2 represent the guidance that governed the preparation/review of the original document.

- revised portions of a document are indicated by shading the text or placing a vertical line by the affected text, and

- the revised document contains a statement identifying the superseded version if the title and number have been changed.

The PM ensures that revised documents are reviewed and approved in accordance with the instructions and requirements that governed the development of the original document. (Section 6.2).

5.2 Process for Revising Controlled Documents With An Interim Change Notice

ER Personnel execute revisions that affect limited portions of controlled documents by preparing an ICN (Attachment A). The individual requesting the change completes the form by providing the

- document number;

- document title;

- reason for change; and

- description of the change, which is to include the page, paragraph, and section being revised; new text to be added; and/or text to be removed.

The preparer signs and dates the ICN.

The preparer ensures that the ICN is reviewed and approved in accordance with the guidance that directed the review of the original controlled document. (Section 6.2). [ER controlled documents receive technical or functional (administrative) reviews, which ever is appropriate, and QA reviews.]

The preparer obtains the signatures of the reviewers on the ICN to indicate that the ICN is agreed upon.

The preparer forwards the ICN and review documentation to the PM.

The PM approves the INC or contacts the preparer to resolve additional comments. The PM signs the ICN when the additional comments are satisfied and forwards it to the QPPL.

The QPPL signs the ICN to indicate that the quality requirements were addressed and returns the ICN to the PM.

The PM ensures that an ICN number log (Attachment B) is maintained.

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The ICN Number Log is used to document the

- unique ICN number,
- title and number of document being revised,
- ICN review date,
- ICN approval date,
- ICN effective date, and
- date ICN was superseded or withdrawn.

The PM ensures that

- ICNs are assigned a unique number and effective date,
- recipients of ICNs are instructed to place the ICN in front of the updated document, and to place a note in the document beside the affected text, which refers readers to the ICN, and
- records listed in Section 7.0 of this AP are submitted in accordance with the AP entitled Procedure for LANL ER Records Management.

5.3 Distribution of Revisions and ICNs

The PM ensures that ICN and revisions are released for distribution in accordance with the procedure for distributing ER controlled documents (Section 6.2).

6.0 REFERENCES

6.1 Requirement Documents

- Quality Program Plan, Section 7.

6.2 Documents Cited

- Hazardous Waste Permit issued to University of California which was effective on May 23, 1990 by EPA, Region VI, to satisfy HSWA of 1984, Module of RCRA.
- Distribution of Controlled Documents Prepared for the ER Program
- Preparation, Review, and Approval of Administrative Procedures
- Preparation, Review, and Approval of Standard Operating Procedures
- Procedure for LANL ER Records Management

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7.0 RECORDS

The records generated documenting the implementation of this procedure are

- revised controlled documents and
- approved ICN, and

8.0 ATTACHMENTS

Attachment A- Interim Change Notice
Attachment B- ICN Number Log

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Environmental Restoration Program
INTERIM CHANGE NOTICE

EFFECTIVE DATE (Dist. date)_____ ICN NO. _____ Page _____ of _____

Document No. _____ Rev. _____ Title _____

Reason for Change

EXAMPLE

Description of Change (Specify page, paragraph, and/or section revised, and clearly write new text to be incorporated in the document).

CONTACT THE
ER PROGRAM OFFICE
(665-4557) TO OBTAIN
ORIGINAL FOR YOUR USE

UNCONTROLLED

Change requested by _____ (Print) _____ (Signature) _____ (Date)

Technical Reviewer _____ (Print) _____ (Signature) _____ (Date)

or

Functional Reviewer _____ (Print) _____ (Signature) _____ (Date)

Program Manager Approval _____ (Print) _____ (Signature) _____ (Date)

Quality Program Project Leader (QA review and approval) _____ (Print) _____ (Signature) _____ (Date)

Environmental Restoration Program
ICN NUMBER LOG

ICN NO.	Document Title and Number	Review Date	Approval Date	Effective Date	Date ICN Superseded or Withdrawn

DELETED
EXAMPLE
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE
UNCONTROLLED

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-01.6 Rev: 0

APPROVAL PROCESS FOR EXTERNAL PROCEDURES USED IN THE ENVIRONMENTAL RESTORATION PROGRAM

UNCONTROLLED

Prepared by	A.E. NORRIS (Print Name)	A.E. Norris (Signature)	JUNE 30, 1993 (Date)
Quality Review by	Larry Maassen (Print Name)	Larry Maassen (Signature)	8 July 1993 (Date)
Functional Review by	M. ULRICH (Print Name)	M. Ulrich (Signature)	8 July 93 (Date)
PM Approval	Robert W Vocke (Print Name)	Robert W Vocke (Signature)	7-9-93 (Date)
QPPL Approval	A.E. NORRIS (Print Name)	A.E. Norris (Signature)	JULY 9, 1993 (Date)

Effective Date: July 14, 1993

APPROVAL PROCESS FOR EXTERNAL PROCEDURES USED IN THE ENVIRONMENTAL RESTORATION PROGRAM

Contents

UNCONTROLLED

APPROVAL PROCESS FOR EXTERNAL PROCEDURES USED IN THE ENVIRONMENTAL RESTORATION PROGRAM

1.0 PURPOSE

The purpose of this procedure is to describe the method used to review and approve existing procedures for use in Los Alamos National Laboratory (Laboratory) work administered by the Laboratory's Environmental Restoration (ER) Program.

2.0 SCOPE

This procedure is applicable to all contractors and Laboratory organizations that are performing work for the Laboratory's ER Program and to those who manage this work.

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3.0 DEFINITIONS

3.1 Contractor

A contractor is a private company that performs ER work under a contract awarded by the Laboratory. Qualified contractors are selected through the Laboratory procurement process. Their Laboratory contracts require that they conduct their activities in conformance with applicable Department of Energy, federal, state, and Laboratory requirements. They are expected to follow standard professional practices that are documented in written procedures, as appropriate.

3.2 ER Representative

An ER Representative is a University of California/Los Alamos National Laboratory employee who is working on the ER Program; he or she might be an operable unit project leader, technical team leader, or other qualified person.

3.3 Laboratory Organization

A Laboratory organization is any Laboratory subdivision other than the ER Program that performs work at the Laboratory.

3.4 Proprietary Information

Proprietary information in a procedure describes processes or equipment developed by a contractor that is not in the public domain and that the contractor does not intend to make available.

4.0 RESPONSIBILITIES

4.1 ER Representative

The ER Representative is responsible for identifying existing procedures that can be used for ER work and for ensuring that procedures not previously approved for use by the ER Program are reviewed and approved in accordance with this administrative procedure.

4.2 Manager of Field Work

It is the responsibility of the manager of the ER field work to ensure that workers using the procedure are properly trained and that documentation of the training is sent to the Records Processing Facility, MS M707. The form shown as Attachment A or a similar form shall be used to document training.

UNCONTROLLED

5.0 PROCEDURE

5.1 Identification of Applicable Procedures

The ER Representative shall identify existing procedures that will be used to obtain data from the field for making decisions in the ER Program, including data bearing on recommendations for no further actions. The procedures may come from contractors, from Laboratory organizations, or from sources such as other Department of Energy facilities.

Procedures provided by contractors should not contain proprietary information, because auditors may require access to the procedures to verify that they are being implemented appropriately.

5.2 Review of Applicable Procedures

The ER Representative shall review the procedure or arrange to have an appropriate Laboratory person review the procedure for its adequacy to meet ER technical standards. The Technical Review Check List, Attachment B, will be used. If the procedure is adequate, the reviewer must complete the approval form, Attachment C.

5.3 Records

After the procedure has been accepted, the reviewer must send all records—including the procedure, the Technical Review Check List (Attachment B), and the Approval Form (Attachment C)—to the ER Records Processing Facility in accordance with LANL-ER-AP-02.1, Procedure for LANL ER Records Management.

6.0 REFERENCES

6.1 Requirement Documents

Quality Program Plan, Section 6

6.2 Documents Cited

LANL-ER-AP-02.1, Procedure for LANL ER Records Management

7.0 RECORDS

It is the responsibility of the ER Representative to ensure that all records generated as a result of this procedure are submitted to the Records Processing Facility. These records include, but are not limited to:

Records of Appropriate Training in the Use of this Administrative Procedure
Copy of Procedure
Technical Review Check List
Approval Form for External Procedure
Procedure Training Documentation Sheet

8.0 ATTACHMENTS

Attachment A: Procedure Training Documentation Sheet
Attachment B: Technical Review Check List
Attachment C: Approval Form for External Procedure

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Los Alamos National Laboratory Environmental Restoration Program
PROCEDURE TRAINING DOCUMENTATION SHEET

Procedure Title

Identifier and Revision Number

Date

Source

I have read and do understand the procedure, and I agree to follow the steps indicated while I am performing the type of operations it describes.

Name (printed)	Name (signed)	Number/ Identification Number	Organization
1.	1.		
2.	2.		
3.	3.		
4.	4.		
5.	5.		
6.	6.		
7.	7.		
8.	8.		
9.	9.		
10.	10.		
11.	11.		
12.	12.		
13.	13.		
14.	14.		

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Los Alamos National Laboratory Environmental Restoration Program
TECHNICAL REVIEW CHECK LIST

UNCONTROLLED

Part I

_____
Procedure Title

_____
Identifier and Revision Number

_____
Date

_____
Source

Part II (Reviewer Completes)

1.	Is this procedure technically correct?	(_) YES	(_) NO	(_) N/A
2.	Is this procedure written so a user with the appropriate education and training can properly implement it in a step by step manner?	(_) YES	(_) NO	(_) N/A
3.	Does this procedure list all equipment necessary to perform the procedure?	(_) YES	(_) NO	(_) N/A
4.	Does this procedure provide diagrams of equipment as appropriate?	(_) YES	(_) NO	(_) N/A
5.	Does this procedure define the parameters to be recorded after performing the procedure?	(_) YES	(_) NO	(_) N/A
6.	Are calibration, quality control hold points, or data acceptance criteria given?	(_) YES	(_) NO	(_) N/A
7.	Is it clear what documentation will be produced as a result of implementing the procedure?	(_) YES	(_) NO	(_) N/A
8.	Is this procedure consistent with current EPA/DOE regulations and guidelines?	(_) YES	(_) NO	(_) N/A

Part III (Comments)

_____
Reviewed By (Print Name)

_____
Position Title (Print)
(ER Personnel use ER Position Title)

Los Alamos National Laboratory Environmental Restoration Program
APPROVAL FORM FOR EXTERNAL PROCEDURE

UNCONTROLLED

Procedure Title

Identifier and Revision Number

Date

Source

A technical review of this procedure was completed, and it is approved for use in the Los Alamos National Laboratory's Environmental Restoration Program.

Copies of all records generated through the use of this procedure shall be transmitted to the Environmental Restoration Program's Records Processing Facility, MS M707.

Technical Reviewer Date

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-02.1 Rev: 1 Interim Procedure--Draft

Procedure for LANL ER Records Management

UNCONTROLLED

Prepared by	Mike Ray (Print Name)	Mike Ray (Signature)	3/4/92 (Date)
Quality Review by	Larry Maassen (Print Name)	Larry Maassen (Signature)	3 March 92 (Date)
Functional Review by	Marja Shaver (Print Name)	Marja H Shaver (Signature)	3 March 92 (Date)
PM Approval	Robert W Vocke (Print Name)	Robert W Vocke (Signature)	3-4-92 (Date)
QPPL Approval	Karen L Warthen (Print Name)	Karen L Warthen (Signature)	3/4/92 (Date)

Effective Date: 3-4-92

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PROCEDURE FOR LANL ER RECORDS MANAGEMENT

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PROCEDURE FOR LANL ER RECORDS MANAGEMENT

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe the methods by which Environmental Restoration (ER) Program (hereafter called Program) records (including technical data) are identified, transmitted, and processed.

2.0 SCOPE

This AP applies to all personnel conducting work for the ER Program (including contract and subcontract employees) and to Program records as defined herein.

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3.0 DEFINITIONS

3.1 ER Program Records

ER Program records, regardless of physical form, are programmatic records or reference records (as defined below) that are essential or required for the continued functioning and/or interests of the ER Program or that contribute to the logic for reaching ER decisions. Information may be identified as a Program record at the discretion of Program participants (normally the originator), even if it is not specifically identified as a record in Program procedures, plans, or other guidance. All references to "record" in this procedure refer to an ER Program record unless stated otherwise.

3.1.1 Programmatic Records

Programmatic records, regardless of physical form, are records specifically identified in Program quality procedures (QPs), administrative procedures (APs), standard operating procedures (SOPs), ER plans (e.g. work plans and sampling plans), management guidance documents, or records that are generated in the routine conduct of Program activities.

3.1.2 Reference Records

Reference records, regardless of physical form, are records that have been published or widely disseminated or that can be readily duplicated from publishers, professional organizations, libraries, vendors, or other similar sources. Generally, these can be referenced by identifying criteria assigned by the originator (e.g. No., Vol., ISBN, Serial No., LA-UR, etc.). They are compiled as a resource for conducting Program activities and to make citations available Program-wide.

3.2 Record Package

A record package is a collection of two or more completed records that support one topic (e.g., audit files, major procurement files, design drawing package, etc.).

3.3 Machine-Readable Records

Machine-readable records are those on various media (e.g., magnetic tape, diskette, optical disk, etc.) that are only readable by use of equipment; i.e., they are not directly human-readable. Legal acceptance, regulatory requirements, and certain industry standards of machine-readable records are not well established nor widely accepted and, in many aspects, are still being defined and evaluated.

3.4 Records Processing

Records processing, as used in this procedure, is the conduct of records management activities including, but not limited to, reviewing after transmittal, indexing, copying, retaining, protecting, accessing, and, as needed, returning transmittals to the originator for action, correcting processed records, handling machine-readable records, or retrieving records upon request.

3.5 Records Processing Facility

The Records Processing Facility (RPF) is where all ER records are received and processed.

3.6 Facility for Information Management, Analysis, and Display

The Facility for Information Management, Analysis, and Display (FIMAD) is the Program's central computing support facility at which machine-readable information is managed.

4.0 RESPONSIBILITIES

4.1 ER Program Manager

The ER Program Manager has overall responsibility for the ER records management system.

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4.2 Project Leader for Records Management

The Project Leader for Records Management is responsible for developing and implementing the ER Records Management Program Plan, the Program's records management procedure, internal procedures relevant to RPF activities, and the conduct of daily RPF operations.

4.3 Project Leader for FIMAD

The Project Leader for FIMAD is responsible for developing and implementing procedures relevant to FIMAD activities and the conduct of daily FIMAD operations.

4.4 Quality Program Project Leader

The Quality Program Project Leader approves this AP by signature if it meets quality program requirements.

4.5 Operable Unit Project Leader

Each Operable Unit Project Leader (OUPL) has overall responsibility for ensuring the transmittal to the RPF of ER records resulting from Program activities conducted under their authority.

4.6 Record Originator

The originator of a record is responsible for

- o identifying records (Sec. 5.1.1);
- o reviewing records (Sec. 5.1.2);
- o transmitting records to the RPF (Sec. 5.1.3); and, if required, performing
- o other records actions (Sec. 5.1.4).

4.7 RPF Records Processor

The RPF Records Processor is responsible for operating the RPF and processing records (Sec. 5.2).

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5.0 PROCEDURES

5.1 Procedures to be followed by the Record Originator

5.1.1 Identification of ER Records

The originator identifies information as an ER Program record (Sec. 3.1).

5.1.2 Review of ER Records

The originator must review each Program record before transmitting it to the RPF to ensure that

- o the record is legible, and
- o the record is complete (i.e., applicable attachments, enclosures, and authorizations are included).

5.1.3 Transmittal of ER Records

Transmittal of Single Records

When a Program record is complete, it must be sent to the RPF in a timely manner to ensure protection. The transmittal can be accomplished by simply including the RPF (Mailstop M707) on the regular distribution of Program records. Indexing the record by use of an ER Record Index Form (Attachment A) and Attachment Sheet (Attachment B) is performed at the RPF unless the originator prefers to do it. The appropriate forms and assistance are available at the RPF.

[Note: Originators of ER records may be required to transmit records through an OUPL. This requirement upon originators of Program records is at the discretion of the OUPL responsible for the respective work].

Transmittal of a Record Package

Individual elements of a record package must be easily distinguished from one another (e.g., sequentially numbered pages; other materials, such as photos, maps, and floppy disks, should be individually labeled and clearly identified). Record packages must include a listing of the following information for each record in the record package:

- o *Date* (date of the record)
- o *Record Type* (i.e., memo, report, photo, map, etc.)

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- *Title/Subject* (topic addressed by the record)
- *Symbol* (organizational symbol; e.g., EM-13:92-63; this is optional)
- *Page Count* (number of pages in record or items; e.g., number of photos).

5.1.4 Other ER Records Actions (As Needed)

Records Returned to Originator

Originators must correct records that have been returned for administrative corrections. An ER Record Return Form (Attachment C) initiated at the RPF is attached to returned records specifying the action required of the originator.

Correction of Processed Records

The originator can correct records that have been previously processed by completing an ER Record Correction Form (Attachment D) available from the RPF. Previously processed records that require extensive corrections or revisions should be retransmitted as a new ER Record. Space is provided on the form to indicate the record being superseded. The RPF can assist the originator with this information.

Transmittal of Machine-Readable Records

Records produced by the originator on machine-readable media, must be transmitted in the following manner:

- Transfer files directly into FIMAD, whenever possible, and provide a hard copy (i.e., human-readable form) to the RPF.
- Records transmitted to the RPF on various machine-readable media must also include a hard copy of the record. The machine-readable version will be immediately forwarded to FIMAD. The hard-copy will be used to verify file content and format in coordination with FIMAD and to ameliorate unresolved issues in legality and industry standards for machine-readable records.

Transmit machine-readable records in accordance with "Preliminary FIMAD Guidelines for Information Transfer" (Attachment E). The originator of machine-readable records should contact the Project Leader for Records

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Management or the Project Leader for FIMAD for assistance, if needed.

Retrieval of Records

RPF personnel will retrieve records at the RPF upon request. Periodically, a records list is sent to each originator of ER records to provide an opportunity for records originators to ascertain the RPF receipt of their records transmittals. This list can also be used to identify specific records by ER Record Identification Number for retrieval purposes. Records are not to be removed from the RPF. Records may be copied by users (or FAXed to them) if a copy is needed outside the RPF. Under extenuating circumstances, records *may* be taken from the RPF with approval of the Project Leader for Records Management. Working copies of Program records will eventually be retrievable at local work stations through the FIMAD network.

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5.2 Procedures to be followed by the RPF Records Processor

5.2.1 Reviewing ER Records After Transmittal

The RPF Records Processor inspects records for

- o legibility;
- o completeness (i.e., proper authorization and inclusion of all attachments or enclosures, if applicable);
- o damage; and,
- o page count.

After acceptance of the record, the records processor date-stamps the record and initials the stamp mark.

5.2.2 Indexing ER Records

Completion of an ER Record Index Form

A record indexing system specific to the ER Program is followed. An ER Record Index Form (Attachment A) is completed for each record received to allow automated record searches and retrievals by use of a computerized relational data base. If additional space is required for indexing, an ER Record Index Form Attachment Sheet (Attachment B) is also used. The index system utilizes approximately 40 fields and over 300 "keywords"

derived with input from Operable Unit Project Leaders. The index form and attachment sheet are viable working elements of the records indexing system and are modified as necessary with a revision date noted on the footer of each form.

Assignment of ER Record Identification Numbers

The RPF assigns a numerical identifier (ER Record Identification Number) permanently unique to each record. ER record numbers are assigned in simple sequence with a bar code label affixed to the space indicated on the record index form. After records are indexed they are prepared (staples, rubber bands, and "dog ears" are removed) for copying.

5.2.3 Copying ER Records

Copying, as used in this procedure, includes reproduction of records on the same media or conversion of records to different media.

Micrographics

The capture of records onto microfilm by rotary camera, as applicable, is to provide a working copy (diazo duplicate) at the RPF. The original silver-halide film is stored at a protected dual storage facility and the records originally transmitted to the RPF are forwarded to CRM Division for authorizing long-term storage and/or disposition. Microfilming is conducted according to the pertinent internal procedure at the RPF implemented consistent with industry-wide standards and practices. Records not suitable for rotary camera (e.g., large documents, field books, etc.) are to be captured on aperture cards or filmed as source documents on planetary cameras, or other suitable equipment, by the Laboratory's in-house graphics services.

Digital Images

Most records will be scanned at the RPF in coordination with FIMAD to make them available as digitized images through the work stations. This will allow handling of paper records at one location. The capture will be directly into the FIMAD network or onto magnetic tapes or optical disk for transport to FIMAD for Program-wide access.

5.2.4 Retaining ER Records

Records will be retained consistent with a records retention schedule to be developed in coordination with CRM Division for ER Program records. The

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schedule will specify the records retention required to meet or exceed regulatory guidelines, Laboratory policy, and management guidance documents. Until this schedule is finalized and approved, all ER records are considered to be permanent.

5.2.5 Protecting ER Records

Records are protected by storage in two separated areas for dual storage. Dual storage minimizes the risk of losing records from damage or destruction. The RPF Records Processor sees that records are protected by

- temporarily storing original transmittals in 1-hr-rated fire-proof file cabinets until copied and sent to dual storage,
- storing all records in an area with lockable doors and/or in lockable metal cabinets to protect them from larceny and vandalism,
- replacing records upon discovering they are missing or damaged, and
- organizing and indexing the records.

Reference records (Sec. 3.1.2) are not unique one-of-a-kind records and , therefore, do not warrant protection in fire-proof files. Unpublished drafts, referred to as "attachments" in the Policy for Publications and Presentations (see Sec. 6.2), are programmatic records and *are* subject to protection; only the final published version is categorized as a reference record.

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5.2.6 Accessing ER Records

Access to ER Records through the RPF

Access to Program records at the RPF is supervised by personnel specified on an access list posted at the RPF. Controlled access is maintained by use of a key-control box to protect records. An out-card system or sign-out log (as applicable) is used when Program records are removed from the files and records are refiled by RPF personnel only.

Access to ER Records through the FIMAD

The FIMAD will provide rapid dissemination and access to Program records through a network of computer work stations. The RPF coordinates with FIMAD to perform scanning activities for digitizing records to allow full text retrieval of documents through the FIMAD network.

Public Access to ER Records

Program records at the RPF are currently accessible to the public through coordination with the Environmental Restoration Community Relations Reading Room and the Project Leader for Community Relations. A work station on the FIMAD network and the necessary data links are to be located at the Community Relations Reading Room for public access to Program records.

5.2.7 Other ER Records Actions (As Needed)

Return of Transmittals to the Originator

If record transmittals do not comply with the procedural requirements (Sec. 5.1), records are returned to the originators along with the reason specified on the ER Record Return Form (Attachment C). The RPF staff will work with originators to find satisfactory solutions. The RPF maintains a file to track records that have been returned to originators. As a reminder, the RPF contacts originators at intervals of 10 and 20 working days to retransmit returned records. After 30 working days, returned records must either be reissued or retransmitted with an explanatory cover letter.

Correction of Processed Records

Originators can correct records that have been previously processed by completing a Record Correction Form (Attachment D). Previously processed records requiring extensive corrections or revisions should be retransmitted as a new ER Record. Space is provided on the form to indicate the record being superseded. RPF assistance will be provided upon the originator's request.

Handling of Machine-Readable Records

Machine-readable records transmitted to the RPF are processed in the following manner:

- Records transmitted to the RPF on machine-readable media are to be immediately forwarded to FIMAD.
- The accompanying hard copy required from the originator is to be processed as a normal paper record (Sec. 5.2).

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- The hard-copy will be used in coordination with FIMAD to verify file content and format and to ameliorate unresolved issues of legality and industry standards for machine-readable records.

The RPF records processor should contact the Project Leader for Records Management or the Project Leader for FIMAD for assistance, if needed.

Retrieval of Records

RPF records processors retrieve records upon request based on information provided by the requester. The periodic records listing sent to each originator of ER records can be used to identify specific records by ER Record Identification Number for retrieval purposes. Records are not removed from the RPF. The requester may either copy records or have them FAXed if a copy is needed away from the RPF. Under extenuating circumstances records may be removed from the RPF with approval of the Project Leader for Records Management.

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6.0 REFERENCES

6.1 Requirements Documents

Installation Work Plan for Environmental Restoration, 1991, Los Alamos National Laboratory, Report No. LA-UR-91-3310.

Quality Program Plan for Environmental Restoration (LANL-ER-QPP,R0), June 25, 1991, Sec. No. 6 and Sec. No. 17.,Los Alamos National Laboratory.

6.2 Documents Cited

LANL-ER-AP-03.1, Environmental Restoration Policy for Publications and Presentations

7.0 RECORDS

- ER Record Index Form
- ER Record Index Form Attachment Sheet
- ER Record Return Form
- ER Record Correction Form
- List of personnel authorized to oversee access to RPF files

8.0 ATTACHMENTS

Attachment A: ER Record Index Form

Attachment B: ER Record Index Form Attachment Sheet

Attachment C: ER Record Return Form

Attachment D: ER Record Correction Form

Attachment E: Preliminary FIMAD Guidelines for Information Transfer

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AFFIX BAR CODE LABEL WITH ER I.D. NUMBER HERE

DATE RECEIVED:_____ PROCESSOR:_____

LOS ALAMOS
LOS ALAMOS NATIONAL LABORATORY

ENVIRONMENTAL RESTORATION
Record Processing Facility
ER Record Index Form
(Side 1 of 2)

Part I: Complete all fields; indicate NA (Not Applicable) if appropriate. Please write legibly.

DOCUMENT TO:_____ DOCUMENT DATE:_____

ORIGINATOR NAME:_____ ORGANIZATION:_____

SYMBOL:_____ PAGE COUNT:_____

SUBJECT/TITLE:_____

_____

RECORD TYPE (Circle relevant type):

Analytical Data	Figure	Memo	Procedure	Telephone Record
Chain-of-Custody	Form	Microform	Purchase Request	Transcription
Computer Output	Interview	Notebook	Receipt Acknowledgment	Video
Contract	Letter	Personal Notes	Report	Work Plan
Drawing	Logbook	Photo	Review	Other_____
FAX	Map	Plan	Study	_____

RECORD CATEGORY:_____ RECORD PACKAGE #_____

art II: Complete all fields; indicate NA (Not Applicable) if appropriate. Please write legibly. Use *ER Record Index Form Attachment Sheet* if needed.

TECH AREA(S)	SWMU NO(S)	ADS NO(S)	STRUCTURE NO(S)
LIST RELEVANT **TECH AREA(S)** *HERE.*	*LIST RELEVANT* **SWMU(S)** *HERE.*	*LIST RELEVANT* **ADS NO(S)** *HERE.*	*LIST RELEVANT* **STRUCTURE NO(S)** *HERE.*

Part III: Complete all fields; indicate NA (Not Applicable) if appropriate. Please write legibly. Use *ER Record Index Form Attachment Sheet* if needed.

WBS NO(S)	DOCUMENT TO	ORIGINATOR NAMES
LIST RELEVANT **WBS NO(S)** *HERE.*	*LIST MULTIPLE RECIPIENTS HERE.*	*LIST MULTIPLE* **ORIGINATORS** *HERE.*

CORRECTION Y/N:_____ SUPERCEDES #:_____ SUPERCEDED BY #:_____

CORRECTION DESCRIPTION:_____

REPLACE:_____ DELETE:_____ ADD:_____ REVISE:_____

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Part IV: KEYWORDS; *Circle relevant* **KEYWORDS** *from the list below.*

ER Record Index Form
(Side 2 of 2)

MISCELLANEOUS (Please write legibly):

ndon
veground Tank
celerator
Access
Accident
Accumulation
Acid
Administrative
ADS (Activity Data Sheet)
AEC (Atomic Energy Commission)
Air
Alpha
Americium
Analysis
Analytical
AOC (Area of Concern)
Approval
Aquifer
ARAR (Applicable, Relevant, or Appropriate Requirements)
Archeology
Archive
Area
Arsenic
Asbestos
Assessment
Audit

Bacteria
Barium
Baseline
Bermed Area
Beryllium
Beta
Biology
ter
oyard
ied
Burn
Burn Site

Cadmium
Caisson
Calibration
Canyon
Caustic
CEARP (Comprehensive Environmental Assessment and Response Program)
Cement
CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)
Cesium
Chamber
Change Control
Change Order
Chemical
Chromium
Cleanup
Closure
CMI/RA (Corrective Measures Implementation/Remedial Action)
CMS/FS (Corrective Measures Study/Feasibility Study)
Comments
Committee
Community Relations
Compressed Gas
mputer Modeling
crete
nfiguration
Construction
Container
Containment
Contaminant
Contract
Controlled Distribution
Correspondence
Cost

Data
Debris
Decision Analysis
Decommission
Decontamination
Deficiency
Deliverables
Demolition
Detection
Detonation
Development
Disposal
Documentation
DOE (Department of Energy)
DQO (Data Quality Objectives)
Draft
Drainage
Drainline
Drawings
Drilling
Drop Tower
Drum
Dry Well
Dump

Ecology
EIS (Environmental Impact Statement)
Emission
Engineering
Environmental Research
Environmental Restoration
EPA (Environmental Protection Agency)
Equipment
ERDA (Energy Research and Development Administration)
Erosion
ESH (Environment, Safety, and Health)
Estimate
Evaluation
Evaporator
Excavation
Exclusion
Experiment
Explosive
Extension
Extraction

Facility
Farm
Fence
Field
Filter
FIMAD (Facility for Information Management, Analysis, and Display)
Finding
Fire
Firing Site
Fiscal
Five Year Plan
Flowchart
Framework
Fuel

Gamma
Gas
Generic
Geochemistry
Geology
Geophysics
Glass Breaker
Glove Box
Graph
Guidance
Gun

Hazardous
Health
High Explosive
History
Home Owner
HSWA (Hazardous and Solid Waste Amendments)
Hydrology

Implementation
Implosion
Impoundment
Inactive
Incinerator
Injection Well
Inorganic
Interim
Interim Action
Inventory
Investigation
IRM (Interim Remedial Measure)
Isotope
IWP (Installation Work Plan)

Lab Job
Lagoon
Land
Landfill
Laundry
Leach
Lead
Legal
Liqui
List

Management
Manhole
Map
Material
MDA (Material Disposal Area)
Meeting
Mercury
Metal
Minimization
Minutes
MIS (Management Information System)
Mixed Waste
Model
Modification
Money (Allocation, Budget, Funding, etc.)
Monitoring
Monthly Report
Mortar Impact Area

NEPA (National Environmental Policy Act)
Nitrate
NMED (New Mexico Environmental Division)
NMEID (New Mexico Environmental Improvement Division)
Non-explosive
Notebook
Notification
NPDES (National Pollutant Discharge Elimination System)
NRC (Nuclear Regulatory Commission)

Off-gas
Oil
Open
Open Burning
Order
Organic
OSHA (Occupational Safety & Health Administration)
OU (Operable Unit)
Outfall
Outline

PA/RFA (Preliminary Assessment /RCRA Facility Assessment)
PCB (Polychlorinated Biphenyl)
Permit
Personnel Description
Personnel Qualification
Photo
Pilot Study
Pipe
Pit
Plan
Plant
Plutonium
Pollution
Polonium
Potentia
Procedur
Programmatic
Project Leader
Propellant
Proposal
PRS (Potential Release Site)
Public
Pump

Quality
QA (Quality Assurance)
QP (Quality Procedure)

Radioactive
Radiochemistry
Radionuclide
RCRA (Resource, Conservation and Recovery Act)
Records
Recovery
Recycle
Reduction
Reference
Regulation
Release
Removal
Report
Request
Requirements
Resin Bed
Results
Review
Revision
RFI/RI (RCRA Facility Investigation/Remedial Investigation)
Risk
RPF (Records Processing Facility)

Safety
Sample
Sampling Plan
Satellite
Schedule
Scope
Scrap Detonation Site
Screening
Scrubber
Seep
Seminar
Semivolatile
Septic
Sewer
Shaft
Silver
Site
Soil
Solid
Solvent
SOP (Standard Operating Procedure)
SOW (Statement of Work)
Spill
Stack
Statistics
Steamline
Steel
Storage
Strontium
Structur
Subcontractor
Subsurface
Summary
Sump
Support
Surface
Surveillance
Survey
Swipe
SWMU (Solid Waste Management Unit)
System

Tank
TCLP (Toxicity Characteristic Leaching Procedure)
Technical
Technical Team
Technology
Test Area
Testing
TLD (Thermoluninescent Dosimeter)
TOC (Table of Contents)
Townsite
Toxic Metal
Tracking
Training
Transfer
Transport
Treatment
Trench
Trip Report
Tritium
TRU (Transuranic)
TSCA (Toxic Substances Control Act)
Tuff

Underground
Uranium
USGS (United States Geological Survey)
UST (Underground Storage Tanks)

Validation
VE (Value Engineering)
Ventilation
Volatile
Volume

Waste
Water
WBS (Work Breakdown Structure)
Weapon
Well
Work

Zinc

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ER Record Index Form Attachment Sheet
(Side 1 of 2)

ER Records Index Form Attachment Sheet for ER Record I.D. #:_____

Part II Attachment: Complete all fields; indicate NA (Not Applicable) if appropriate. Please write legibly.

TECH AREA(S)	SWMU NO(S)	ADS NO(S)	STRUCTURE NO(S)
LIST RELEVANT **TECH AREA(S)** *HERE.*	*LIST RELEVANT* **SWMU(S)** *HERE.*	*LIST RELEVANT* **ADS NO(S)** *HERE.*	*LIST RELEVANT* **STRUCTURE NO(S)** *HERE.*

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Part III Attachment: **Complete all fields; indicate NA (Not Applicable) if appropriate. Please write legibly.**

WBS NO(S)	DOCUMENT TO	ORIGINATOR NAMES
LIST RELEVANT **WBS NO(S)** *HERE.*	*LIST MULTIPLE RECIPIENTS HERE.*	*LIST MULTIPLE* **ORIGINATORS** *HERE.*

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ER Record Return Form

Part I
(Completed by RPF)

The attached record(s) have been reviewed and determined to be incomplete for processing.

Originator Name _____ Date of Record _____

Organization _____ Mail Stop _____

Date Returned to Originator _____ Please Return to RPF by _____

____ 1. Incomplete (pages, attachments, or enclosures are missing).

____ 2. Not properly authorized (required signatures or initials are missing).

____ 3. Missing hard copy for machine-readable media.

____ 4. Incomplete records listing for records package. Information not properly identified.

____ 5. Document quality is poor, will not provide adequate image. If this is the best available copy, return the document to the RPF.
Please initial _____ and date _____ here.

____ 6. Other: _____

_____

_____

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EXAMPLE
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

Part II
(Completed by Originator)

Please take appropriate corrective action and return the record(s) and this form to the ER Records Processing Facility (RPF), MS M707.

Comments _____
(Optional)

ER Record Correction Form

Part I
(Completed by Originator)

ER Record to be corrected (ER ID Number) _____

Correction description _____

_____

_____

_____

Nature of Correction

[ ] Replace [ ] Deletion [ ] Addition [ ] Revision

Correction(s) (Additional pages may be attached; indicate number of pages if attachments are used):

EXAMPLE
UNCONTROLLED
CONTACT THE
ER PROGRAM OFFICE
(665-4557) TO OBTAIN
ORIGINAL FOR YOUR USE

Originator (Must be the same as the originator of the original record):

_____ _____ _____
Name (Print) Signature Date

Part II
(Completed by RPF)
RPF Record Processor

_____ _____ _____
Name (Print) Signature Date

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PRELIMINARY FIMAD GUIDELINES FOR INFORMATION TRANSFER

These preliminary guidelines are provided by the Facility for Information Management, Analysis, and Display (FIMAD) to assist in the orderly and efficient transfer of technical and administrative machine-readable information to the FIMAD data base.

PURPOSE: The purpose of establishing standardized formats for the transfer of information from ER Program participants to the FIMAD, is to facilitate transfer of machine-readable records or the conversion of information to electronic media that are readily accessible to all participants in the ER Program.

REQUIRED FORMATS FOR INFORMATION TRANSFER: Anticipated technical information will consist of text, figures, photos, and/or numerical tables. Administrative information will be mainly text. Preferred formats for transfer of three data types to the FIMAD are described: text, figures, and numerical data. These formats will facilitate and improve the quality control of the massive data transfer effort envisioned for the ER Program. Records that consist of mixed data types should be supplied to the FIMAD in segregated form: an ASCII file of text (which can include or duplicate numeric data), an ASCII file of numerical tables, a set of original photographs (or digital photography on floppies), and a set of original figures, one per sheet. An unbound hard copy (i.e., human readable version) of the delivered record must be sent to the RPF for scanning and coordination with FIMAD to ensure correct data transfer. Electronic data can be accepted on 3-1/2- or 5-1/4-in. floppies, 4-mm "DAT" or 8-mm "Exabyte" helican scan tape, 1/4" tape, 9-track tape (1200 or 6250 bpi) or CD-ROMs.

Text

Format: Text as simple ASCII files, without imbedded control characters, is preferred. Word processor files are acceptable so long as they can be converted to UNIX format through existing, commercially available programs. FIMAD can assist record originators in this matter.

Identification: The first text page should adequately identify the document so that it can be correlated with the ER Record Index Form.

Figures

Identification: The folder of figures should be labeled, and individual figures should contain their figure number. A set of figure captions should be included.

Quality: Figures may be scanned, vectorized, and/or reproduced for other documents or presentations. High-quality figures will reduce the additional work required to reuse illustrations.

Photos

Identification: Photo sets should be labelled and individual photos should contain their photo number. A set of photo captions should be included.

Caption Information: Captions for site photos should contain the position (coordinates) of the photographer, the direction in which the camera was pointing, camera and lens type, and similar information.

Media: Still video can be provided as photos, slides, or analog (industry-standard) 2-in. floppy disks.

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Numerical Data

The following procedures/formats apply to numerical data, such as analytical data or coordinate data.

Tables: Numeric data should be provided as ASCII tables, one table per file. Each row of the table should describe parameters relating to a particular site, sample, etc. Each column of the table describes a particular parameter for all sites, samples, etc. The table can be in fixed or free format, one row per record, with a maximum record length of 130 characters. Table headings that identify the data parameters are required at the beginning of the file. The table heading needs to identify the associated document or study, the measured parameters, the units of measurement, a "No Data" flag, if data are lacking in some fields, and the data format. Additional information can be provided to the RPF for inclusion on the ER Record Index Form. The file can contain character fields but should not contain any of the following: trailing blank lines, imbedded special characters (except > or <) or tabs, page numbers, additional headings, imbedded blank lines, word processing punctuation.

Detection Limits: Numerical data above or below detection limits should be entered as > or < "Detection Limit." There should be no space between the "greater than" or "less than" symbol and the numeric detection limit.

Significant Figures: Representation of the data should not indicate more precision than that which is actually measured or known. If the system is automated with certain output formats that misrepresent the number of significant figures, the true precision should be indicated in the file heading for each numeric field either by using S = significant and I = insignificant over the appropriate power-of-ten columns or by indicating the number of significant figures by a number preceding an "S."

Example: An example of a typical ASCII file is as follows

Site Study for TA-84, Jones and Associates, 7/29/91 Table 6 of rpt

SAMPLE #	PPM As	PPM Hg	PPM Fe	Sample Collector
	SS.I	2S	3S	
NO DATA FLAG = " "				
FORMAT = "(T1, A10, T12, F8.1, T25, F8.1, T48, E10.3, T51, A20)"				
AG-340	67.0	2.40	1.260E+05	Smith
AF-221	16.0	1.20	1.280E+04	Jones
AC-220		.63		Collins
AC-222	>99.0	<.03	2.380E+04	Collins

.
.
.

EOF (explicitly state "end of file").

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-03.1 Rev: 1

Procedure for Acquiring Concurrence to Publish or Present Environmental Restoraton Data or Information

UNCONTROLLED

Prepared by	Karen L Foster (Print Name)	Karen L Foster (Signature)	1/16/92 (Date)
Quality Review by	Paul L. Hammond (Print Name)	Paul L. Hammond (Signature)	1/17/92 (Date)
Functional Review by	ALLEN R. OGARD (Print Name)	Allen R. Ogard (Signature)	1/17/92 (Date)
PM Approval	LARS F. SOLGAT A-76 (Print Name)	Lars F. Solgat (Signature)	1/23/92 (Date)
QPPL Approval	Karen L. Foster (Print Name)	Karen L Foster (Signature)	1/24/92 (Date)

Effective Date: 1-27-92

Procedure for Acquiring Concurrence to Publish or Present Environmental Restoration Data or Information

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Procedure for Acquiring Concurrence to Publish or Present Environmental Restoration Data or Information

1.0 PURPOSE

This procedure states Environmental Restoration (ER) Program publication and presentation procedures for ensuring that ER Program policies are correctly and consistently presented/portrayed to the public.

2.0 SCOPE

This procedure applies to personnel funded by the ER Program, including support contractors It applies to journal articles, technical reports, and presentations (e.g., poster presentation, formal speaking engagements) conveying data or information generated as the result of performing ER activities.

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3.0 DEFINITIONS

Not applicable.

4.0 RESPONSIBILITIES

4.1 Environmental Management (EM) Division Leader

The EM division leader is responsible for establishing policies for groups in the EM Division and for resolving conflicts, as necessary.

4.2 ER Program Manager (PM)

The PM is responsible for ensuring that published technical data depicting ER activities for dissemination outside LANL adequately and appropriately represent ER Program policies and objectives.

4.3 ER Program Personnel (Authors and Presenters)

The ER Program personnel authoring publications or presentations are responsible for obtaining concurrence from the ER program manager to publish or present data/information that has been generated on behalf of the ER Program.

5.0 PROCEDURE

The EM Division and ER Program Office publication policy establishes this mandatory procedure to ensure that administrative or technical data are presented in the appropriate forum and accurately represent the objectives of the ER Program.

5.1 Submittal of Abstracts or Presentation Outlines

The author of a publication or presentation (including poster presentations) submits the abstract or presentation outline, whichever is appropriate, to the ER PM for policy review and concurrence to publish or present ER information. The author accomplishes this by

- completing Part I of the Environmental Restoration Abstract and Presentation Outline Concurrence form (Attachment A),
- attaching the abstract or outline to the form,
- mailing or telecopying them to the PM, and
- verifying that the PM received the information.

The PM concurs with the material identified for publication when satisfied that ER Program objectives and policies are appropriately represented. Concurrence is documented by completing Part II of Attachment A and returning the signed form to the author.

The PM reviews the material within 10 working days. If the material is not approved within 10 working days, the material is approved by default.

The author

- forwards the completed concurrence form and attached abstract or outline to the ER Records Processing Facility in accordance with the ER Records Management procedure (Sec. 6.2) and
- prepares the publications in accordance with LANL policies and procedures.

Technical papers, reports, and articles are prepared in accordance with the administrative requirements that are stated in the LANL Publications manual. Additionally, publications are categorized (e.g., classified or unclassified) in accordance with the LANL Office Procedures manual (Sec. 6.1).

5.2 Submittal of Final Versions of Publications and Presentation Material

The ER PM must review and concur with the technical information to be released. The PM review is performed **before** submitting publications to the LANL Operational Security and Safeguards (OS) division for approval and

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unique numbering and before oral or poster presentations of ER data or information are released. The author

- completes Part I of the Environmental Restoration Publication Concurrence form (Attachment B),
- attaches the complete and final version of publication or oral presentation material to the form,
- forwards the information to the ER PM for review and concurrence, and
- verifies that the PM received the information.

The PM reviews the material within 10 working days. If the material is not approved within 10 working days, the material is approved by default.

The PM

- provides comments and returns the material to the author for resolution, or
- completes part II of Attachment B affirming that the information to be released appropriately and accurately represents ER Program objectives, and
- forwards the completed form and attachments to the author.

The author proceeds with finalizing publications in accordance with LANL policies and procedures (Sec. 6.1) when final concurrence has been obtained.

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5.3 Conflict Resolution

The EM division leader works with the PM and author to resolve any disagreements that may arise between authors and the PM.

5.4 Indicating Unique Identifier

The author completes Part III of Attachment B after obtaining a LANL unique identifier (e.g., LA-UR number).

5.5 Submittal of Documentation

The author forwards completed forms and attachments to the ER Records Processing Facility.

6.0 REFERENCES

6.1 Requirement Documents

LANL Publications Manual, current version.

LANL Office Procedures Manual, current version.

NOTE: These documents are maintained in Group offices or are available from LANL Group IS-11.

6.2 Cited Documents

LANL-ER-AP-02.1, Procedure for Environmental Restoration Records Management

7.0 RECORDS

The records completed when implementing this procedure are the Environmental Restoration Abstract and Presentation Outline form, Environmental Restoration Publication Concurrence form, and appropriate attachments.

8.0 ATTACHMENTS

Attachment A—Environmental Restoration Abstract and Presentation Outline Concurrence
Attachment B—Environmental Restoration Publication Concurrence

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Los Alamos National Laboratory
ENVIRONMENTAL RESTORATION ABSTRACT AND PRESENTATION OUTLINE CONCURRENCE

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Part I ABSTRACT/OUTLINE SUBMITTAL (completed by author)

Requestor _____ _____ _____
Name (print) Signature Date

Group _____ MS _____ Phone _____

Enclosed is an abstract or outline for a

[ ] written report abstract [ ] oral presentation [ ] both

entitled _____

Attach the outline or abstract and forward it to the ER program manager, MS M992, or Fax 665-4747.

Part II CONCURRENCE (completed by ER program manager)

I [ ] concur [ ] do not concur

with the development of technical or administrative data [ ] publication [ ] presentation outline as presented in the information provided.

Reason for nonconcurrence _____

_____

_____

_____

_____ _____ _____
Name (print) Signature Date

Program Manager–Return completed form and package to the author.

EM-13:rfr:1/9/92

Author—Attach approved abstracts or outlines to this form and submit to the ER Records Processing Facility, MS M707.

Los Alamos National Laboratory
ENVIRONMENTAL RESTORATION PUBLICATION CONCURRENCE

Part I CONCURRENCE REQUEST (completed by author)

Publication: (check one)

[ ] Journal article [ ] Conference paper and presentation [ ] Poster Presentation

[ ] Technical report [ ] Other _____

Title _____

_____ _____ _____
Name (print) Signature Date

MS _____ Phone _____

Attach publication and forward it to the ER program manager, MS M992, or Fax 665-4747.

Part II CONCURRENCE (completed by ER program manager)

I [ ] concur [ ] do not concur with the publication material as presented.

Reason for nonconcurrence _____

_____

_____

_____

_____ _____ _____
Name (print) Signature Date

Concurrence—Forward to author to obtain unique identifier.
Noncurrence—Return comments to author.

Part III (completed by author)

LANL Unique Identifier (e.g., LANL LA-UR)_____

Forward to ER Records Processing Facility, MS M707.*

EM-13:rfr:1/9/92

*Submit final approved or published documents (large posters are exempt).

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Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-03.2	Rev: 0

Handling Media and Public Requests for Information During Field Work

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Prepared by	Marja Shaner (Print Name)	Marja H Shaner (Signature)	10/14/92 (Date)
Quality Review by	Larry Maassen (Print Name)	[illegible] (Signature)	20 Nov 92 (Date)
Functional Review by	PATRICIA RIVERA-OVIEDO (Print Name)	[illegible] (Signature)	11/23/92 (Date)
PM Approval	Robert W Vocke (Print Name)	Robert W Vocke (Signature)	11/24/92 (Date)
QPPL Approval	Karen L Warthen (Print Name)	Karen L Warthen (Signature)	11/25/92 (Date)

Effective Date: 12-4-92

Handling Media and Public Requests for Information During Field Work

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Handling Media and Public Requests for Information During Field Work

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe how the Environmental Restoration (ER) Program personnel handle media and public information requests during field work. On occasion, a formally established procedure may not be adequate to handle specific situations involving requests for information from the media. In those cases and as deemed necessary by EM-13 management, the judgment of a Public Affairs professional must be exercised. If the request is extremely sensitive, the ER Program Manager (PM) should be advised before a response is issued.

A one-page summary of this AP is included as Attachment A, which is designed to provide operable unit project leaders (OUPLs) and their field staff with a brief outline of the AP for quick reference in the field. The summary is designed as an aid only. It is recommended that the OUPL and field staff familiarize themselves with the full AP presented here.

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2.0 SCOPE

This AP applies to all personnel conducting field work for the ER Program (including contract and subcontract employees).

3.0 DEFINITIONS

3.1 Information

Information refers to questions or concerns that the media and individuals (or groups) may have about the field work being conducted or about the ER Program or related LANL activities.

3.2 Media

Media refers to representatives of newspapers, magazines, and television and radio stations. This definition includes such media as newsletter authors, television documentary producers and writers, and authors of books.

3.3 "Off-the-Record"

"Off-the-record" is a request occasionally made by media representatives or by an individual speaking with a media representative to keep a conversation from being used in print or on the air.

3.4 Public

Any person other than personnel connected directly with the ER Program.

3.5 Public Participation Data Base

The Public Participation Data Base is used to track interactions between the ER Program and outside parties who have questions and concerns about the ER Program. These parties include the media, members of the public, property owners, community leaders, etc. The data base is primarily a mailing list management tool, but also contains data about visits and telephone calls, materials provided, and referrals/responses resulting from specific questions. The data base is also used to track the relationships between property parcels, potential release sites (PRSs) [solid waste management units (SWMUs) and areas of concern (AOCs)], and owner information. A record of participation and contact by members of the public is retained in this computer data base and is tied to the mailing list maintained for the ER Program public involvement plan.

4.0 RESPONSIBILITIES

4.1 ER Program Community Relations Project Leader (CRPL)

The ER Program CRPL is a group member of PA-3, and has overall responsibility for

- answering all requests for information.
- ensuring timely and complete follow-up of each request.
- gathering and communicating requested information or contacting the OUPL or on-site designated contact to answer request.
- ensuring completion of the ER Program Information Request Log (Attachment B) and/or the ER Program Media Information Request Form (Attachment C) either by the OUPL or on-site designated contact.
- forwarding the ER Program Information Request Log (Attachment B) and/or the ER Media Information Request Form (Attachment C) weekly to the PM (MS M992), Community Relations Liaison (CR Liaison) (MS M992), and the Public Participation Data Base (MS M314).

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4.2 OUPL

While on site, the OUPL has the overall responsibility for

- answering all information requests.
- designating the on-site contact to answer questions in his/her absence, following the criteria established in this AP.
- responding to all requests in a timely and complete manner and advising the CRPL about media and public requests for information.
- completing the ER Program Information Request Log (Attachment B) and/or the ER Program Media Information Request form (Attachment C) and forwarding forms to the CRPL for appropriate distribution.
- responding to media requests which have been referred to the OUPL by the CRPL. The OUPL will provide specific technical and programmatic answers.
- ensuring that media requests, which cannot be satisfied by the OUPL, are referred to the CRPL for further follow-up.

4.3 Community Relations Liaison (CR Liaison)

The CR Liaison is a member of EM-13 and is responsible for

- coordinating all ER Program public participation and community relations activities with the CRPL.
- preparing, in conjunction with the CRPL, the Program-specific APs for the Community Relations Program.

4.4 On-Site Designated Contact

In the absence of the OUPL, the Field Team Manager is the on-site designated contact for media representatives or members of the public. When the Field Team Manager is also absent from the site, he or she will name the most senior Field Worker as the on-site designated contact. The on-site designated contact is responsible for

- answering questions from the public such as:

  1. Who are you/who do you represent?
  2. Why are you here/what are you doing?
  3. How long will you be here?
  4. Who is your supervisor/how can I contact your supervisor?

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- contacting or referring the media representative or member of the public to the CRPL or OUPL when an information request is made which is outside the scope specified in this section. The CRPL can be contacted at 665-5000 or 665-2127. The individual making the request can also be directed to the ER Reading Room at 2101 Trinity Drive, Los Alamos (open 9:00 a.m. to 4:00 p.m., Monday through Friday).

NOTE: In the Spring of 1993, the ER Reading Room will be relocated to the Museum Parke Complex, corner of Central Avenue and 15th Street in Los Alamos.

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5.0 PROCEDURES

5.1 Procedures to be followed by the ER Program CRPL

5.1.1 Identification of Individual Requesting Information and Individual to Answer Request

As the ER Program's designated point of contact with the public and media representatives, the CRPL is ultimately responsible for ensuring that all requests for information are answered in a timely and complete manner, and that the request and response is properly documented. OUPLs will provide technical and programmatic information the CRPL may not have available.

Upon receiving a request for information from a member of the public, the CRPL determines the information required for the ER Program Information Request Log (Attachment B). If an immediate response to the individual's request is not possible, the CRPL should speak with the individual and explain when the information can be gathered and communicated to them. A response should be available within seven days.

Because the media often have special deadline requirements, the CRPL is responsible for responding in a timely manner to a media request. Upon receiving a request for information, the CRPL determines the information required for the ER Program Media Information Request Form (Attachment C). If the CRPL cannot meet the media representative's request immediately, the CRPL shall contact the representative and provide information when a response can be expected. If necessary, the CRPL will contact the OUPL who can answer the media request. If an immediate response is possible, the OUPL will talk in person or by phone directly to the media representative. The OUPL will contact the CRPL as soon as possible to report how the inquiry was answered.

5.1.2 Follow-up with Individual Answering Information Request

Request by member of the public: within three days after an information request has been forwarded to an OUPL, the CRPL should contact the OUPL and determine that contact has been made with the individual, the request has been responded to, and that the Information Request Log has been completed.

Request by media representative: If the OUPL has not reported how a media request was answered, the CRPL should contact the OUPL to assure timely and appropriate follow up, and completion of the Media Information Request Form.

The CRPL is responsible for filling out the ER Program Information Request Log and the Media Information Request Form when contacted directly by a member of the public or media representative, even if the request was then forwarded to an OUPL to be addressed.

5.1.3 Transmittal of ER Records

The CRPL is responsible for assuring that the ER Program Information Request Log is complete and distributed to the PM (MS M992), Public Participation Data Base (MS M314), the RPF (MS M707), the CR Liaison (MS M992), and other appropriate recipients.

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5.2 Procedures to be Followed by the OUPL

5.2.1 Identification of Individual Requesting Information and Individual to Answer Request

When contacted by a member of the public, the OUPL determines the information the individual requires and which is needed for the Information Request Log (Attachment B). The OUPL then provides the appropriate answer or, if unable to answer the request, contacts the CRPL for assistance. If the individual's request cannot be answered immediately, the OUPL should inform the individual when a response can be expected.

When contacted by a media representative, the OUPL determines the information required and then provides the appropriate answer or, if unable to answer the request, contacts the CRPL for assistance. If there will be a delay or if the media representative's request cannot be met immediately, the OUPL should contact the CRPL to get the information to the media as soon as possible (normally within minutes or hours). The OUPL shall inform the CRPL when contacted directly by a media representative.

The OUPL may designate the Field Team Manager to answer requests from the public in his or her absence. However, questions beyond the scope stated in Section 4.3 should be referred to the CRPL at 665-2127 or 665-5000.

5.2.2 Transmittal of ER Records

When an OUPL is contacted directly by a member of the public or a media representative (i.e., the CRPL has not forwarded the request), the OUPL will complete the ER Program Information Request Log or the Media Information Request Form, as appropriate, and forward the completed log or form to the CRPL for distribution.

5.3 Procedures to be Followed by the On-Site Designated Contact

When the OUPL is not on-site, the Field Team Manager is the on--site designated contact for members of the public and media representatives. When the Field Team Manager is also absent from the site, he or she identifies the most senior Field Worker as the on-site designated contact.

If a member of the public enters the field work site, the on-site designated contact will ask the individual to stay out of the exclusion area. The on-site designated contact should refer questions about ER Program activities other than those referred to in Section 4.4 of this procedure to the CRPL. Individuals requesting information about sampling or survey results or more detailed ER Program activities should be instructed to call the CRPL at 665-2127 or 665-5000 for further information. The on-site designated contact may also call the CRPL for assistance in answering the questions the individual may have. If a phone is not available, the individual should be instructed to call the numbers listed above or be directed to the ER Reading Room at 2101 Trinity Drive (open 9 a.m. to 4 p.m., Monday through Friday).

NOTE: In the Spring of 1993, the ER Reading Room will be relocated to the Museum Parke Complex, corner of Central Avenue and 15th Street in Los Alamos.

The on-site designated contact should immediately telephone the CRPL at 665-2127 or 665-5000, for assistance in answering questions a media representative may have. If a phone is not available, the media representative should be instructed to call the phone numbers listed above or be directed to the ER Reading Room at 2101 Trinity Drive. The on-site designated contact shall refer any media questions to the CRPL, even if assured they are "off-the-record."

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6.0 REFERENCES

LANL-ER-AP-02.1,R1, Procedures for LANL ER Records Management
LANL Administrative Manual, Section 700, Subject 707-Public Relations
U.S. Environmental Protection Agency, "Module VIII of the RCRA Permit - Special Conditions Pursuant to the 1984 Hazardous and Solid Waste Amendments to RCRA for Los Alamos National Laboratory," March 8, 1990

7.0 RECORDS

The records generated and completed as a result of implementing this procedure are the ER Program Information Request Log (Attachment B) and/or the Media Information Request Form (Attachment C).

8.0 ATTACHMENTS

Attachment A - Summary of "Handling Media and Public Requests for Information During Field Work
Attachment B - ER Program Information Request Log
Attachment C - ER Program Media Information Request Form

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Summary of : "Handling Media and Public Requests for Information During Field Work," LANL-ER-AP-3.02, R0

The purpose of this summary is to provide operable unit project leaders (OUPLs) and their field staff with a brief outline of the "Handling Media and Public Requests" administrative procedure (AP) for quick reference in the field. This summary is designed as an aid only: OUPLs and field staff should be familiar with the full AP, which can be found in the "Administrative and Quality Procedures for Environmental Restoration" manual. Responsibilities for the Community Relations Project Leader (CRPL) are detailed in the AP.

Responsibilities:

While on site, the **OUPL** has the overall responsibility for

- answering all information requests, including those forwarded by the CRPL;
- designating the Field Team Manager to answer questions in his/her absence;
- responding to all requests in a timely and complete manner, and advising the CRPL about media and public requests for information;
- completing the ER Program Information Request Log (Attachment B) and/or the ER Program Media Information Request Form (Attachment C) and forwarding forms to the CRPL for distribution;
- ensuring that information requests which cannot be satisfied by the OUPL are referred to the CRPL for further follow-up.

When designated, the **Field Team Manager** or most senior **Field Worker** is responsible for

- answering general questions such as:
  - Who are you/who do you represent?
  - Why are you here/what are you doing?
  - How long will you be here?
  - Who is your supervisor/how can I contact your supervisor?
- information requests beyond that specified above, referring media representatives or the members of the public to the CRPL at 665-5000 or 665-2127, or direct them to the ER Reading Room at 2101 Trinity Drive.

NOTE: In the Spring of 1993, the ER Reading Room will be relocated to the Museum Parke Complex, corner of Central Avenue and 15th Street in Los Alamos.

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Los Alamos National Laboratory Environmental Restoration
INFORMATION REQUEST LOG

Date	T-W-IP*	Person Taking Request	Name/Organization of Person Making Request	City/State	Information Requested	Response

*** Refers to how information request was made (T = telephone call; W = written request; IP = in person)**

cc: CRPL File, MS M314
RPF, MS M707
Public Participation Data Base, MS M314

Los Alamos National Laboratory Environmental Restoration
MEDIA INFORMATION REQUEST FORM

Field personnel initiating call:		
Date:	Time:	Location:
Technical Area Number:	Operable Unit Number:	SWMU Number(s):
Name of media representative:		Name of media organization:
Address of media organization:		Office phone number: Other number where media representative can be reached:
Deadline for information:		
Media request::		
Person contacted for response to request:	Phone: Department:	Date: Time:
Response to request::		
Is any additional follow-up to this request necessary: Check one: _____ No _____ Yes If yes, what needs to be provided?		
Date:	Name of Responder:	

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cc: CRPL File, MS M314
RPF, MS M707
Public Participation Data Base, MS M314

Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-03.3 Rev: 0

NOTIFICATION AND NOTICE OF NO FURTHER ACTION TO NON-DOE PROPERTY OWNERS REGARDING SOLID WASTE MANAGEMENT UNITS AND OTHER AREAS OF CONCERN FOR THE ENVIRONMENTAL RESTORATION PROGRAM

UNCONTROLLED

	(Print Name)	(Signature)	(Date)
Prepared by	Maria H. Shaner	Maria H Shaner	5/4/93
Quality Review by	Larry Maassen	Larry Maassen	5/5/93
Functional Review by	Ron Conrad	Ron Conrad	5/5/93
PM Approval	Robert W Vocke	Robert W Vocke	5/6/93
QPPL Approval	A.E. Norris	A. E. Norris	May 6, 1993

Effective Date: May 7, 1993

NOTIFICATION AND NOTICE OF NO FURTHER ACTION TO NON-DOE PROPERTY OWNERS REGARDING SOLID WASTE MANAGEMENT UNITS AND OTHER AREAS OF CONCERN FOR THE ENVIRONMENTAL RESTORATION PROGRAM

Contents

UNCONTROLLED

NOTIFICATION AND NOTICE OF NO FURTHER ACTION TO NON-DOE PROPERTY OWNERS REGARDING SOLID WASTE MANAGEMENT UNITS AND OTHER AREAS OF CONCERN FOR THE ENVIRONMENTAL RESTORATION PROGRAM

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1.0 PURPOSE

The purpose of this administrative procedure (AP) is to describe the process by which Los Alamos National Laboratory (the Laboratory) and the Department of Energy (DOE) notify non-DOE property owners whose property contains or is located near a solid waste management unit (SWMU) or an area of concern (AOC) that access to their property may be necessary during the Resource Conservation and Recovery Act (RCRA) facility investigation (RFI). This process also establishes a formal notification record. Hereafter, the term "potential release site" (PRS) is used to refer to either or both SWMUs and AOCs.

2.0 SCOPE

This procedure applies to Environmental Restoration (ER) Program and subcontractor personnel and may involve the DOE-Los Alamos Area Office (LAAO) personnel who perform functions related to the Laboratory's ER Program.

3.0 DEFINITIONS

3.1 Solid Waste

As defined in the RCRA of 1976, Section 1004 (27), solid waste is any discarded material, either abandoned or recycled, including solids, liquids, semisolids, and contained gases (Attachment A). (As shown on Attachment A, a solid waste can be hazardous, radioactive, or mixed waste; however, source, by-product, and special nuclear material in solid wastes, as defined in the Atomic Energy Act, are not regulated by RCRA.)

3.2 Solid Waste Management Unit

A SWMU is any discernible unit at which solid wastes have been placed at any time, regardless of whether the unit was intended for the management of solid or hazardous waste. Such units include any area where solid wastes have been routinely and systematically released.

3.3 Area of Concern

An AOC is a PRS that does not meet the definition of a SWMU.

3.4 Potential Release Site

A PRS is an identified SWMU or AOC that may contain hazardous substances that have the potential for migrating.

3.5 Potential Release Site Data Base

The PRS Data Base contains current information on SWMUs and AOCs. This information includes digitized maps.

3.6 Public Participation Data Base

The Public Participation Data Base consists of a mailing list that contains the names of individuals outside the Laboratory who are affected by or are interested in the conduct of the ER Program. Included are notified property owners, interested members of the public, state and federal agency contacts, and others. Various types of information are linked to the names in the data base.

3.7 Non-DOE-Owned Property

Non-DOE-owned property is land and buildings (real estate) owned or held in trust by an individual, company, corporation, government agency, Los Alamos County, Indian pueblo, or nonprofit organization.

3.8 Operable Unit

An operable unit (OU) is an aggregation of PRSs.

3.9 Survey Coordinates

The term "survey coordinates" refers to a set of coordinates (Northing, Easting) in feet that are derived from the New Mexico State Plane (NMSP) Coordinate System, North American Datum of 1927 and 1983 (NAD 27/83).

4.0 RESPONSIBILITIES

4.1 Community Relations Liaison

The Laboratory's ER Program community relations liaison is responsible for

- preparing documents for the notification and Notice of No Further Action process for the signature of the DOE-LAAO area manager;

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- determining that the DOE-LAAO area manager has signed all notification and Notice of No Further Action documents;
- determining that DOE-LAAO has returned copies of all relevant RFI documents (i.e., notification and no further action documents) to the community relations liaison;
- sending completed notification and no further action documents to the Records-Processing Facility (RPF), and
- providing data received from DOE-LAAO regarding the notification/Notice of No Further Action to the Public Participation Data Base.

4.2 Program Manager

The program manager (PM) is responsible for managing the ER Program for the Laboratory.

4.3 Operable Unit Project Leaders

Operable Unit Project Leaders (OUPLs) are responsible for

- verifying new PRSs and refining specific PRS locations and
- verifying, to the greatest extent practicable, the correct number of every parcel or lot that contains a refined or relocated PRS boundary and the name and address of the owner. In cases when it is not immediately apparent who owns the property, the OUPL will obtain that information from the Los Alamos County tax assessor's office so that the owner may be notified.

5.0 PROCEDURE

5.1 Process for Identifying, Verifying, and Mapping New PRSs and for Revising PRS Locations

The process for identifying, verifying, and mapping new and revised PRSs consists of the following steps:

- As approximate PRS boundary locations are relocated or expanded based on new or more accurate information, the OUPL verifies the refinement or relocation of the PRS boundaries using current Los Alamos County plats.

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- If necessary, the identified PRS boundaries and location from the source map base (e.g., source map using obsolete Los Alamos Scientific Laboratory coordinates) are transposed to the current NMSP, NAD 27/83.

- The OUPL identifies the parcel or lot number of the non-DOE property by merging the PRS boundaries and location as mapped on NMSP, NAD 27/83, with current Los Alamos County parcel maps.

- The OUPL determines the name and address of the property owner by referring to the parcel number in the current list maintained by the Los Alamos County tax assessor.

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5.2 Process for Notifying Non-DOE Property Owners

When an OUPL locates a new PRS or revises a PRS boundary, he/she identifies property owners on or near the PRS by consulting the current Los Alamos County tax assessor's list. Notification must occur when the PRS location and boundary are known as accurately as possible. Once a property owner has been identified, the community relations liaison prepares a notification package consisting of

- a letter of notification with references to the particular PRS(s) that is (are) located on or near the property for signature by the DOE-LAAO area manager,

- fact sheet for the relevant OU, and

- information specific to each PRS located on non-DOE property.

The notification package is signed by the Laboratory's Associate Director for Operations and by the DOE-LAAO area manager and is mailed or hand-delivered by the community relations liaison, if the package is subject to programmatic deadlines. The community relations liaison coordinates with the DOE-LAAO area manager's office to ensure delivery of copies of the signed notification package to the OUPL, RPF, Central Records Management (CRM-4), and to the community relations project leader for entry in the Public Participation Data Base.

5.3 Process for Informing Property Owners of No Further Action

Three significant events lead to the no-further-action process:

- The ER Program recommends to EPA that no further action be taken after ascertaining from the best available information that no significant risk to human health or the environment exists.
- EPA reviews the recommendation.
- If EPA concurs and the action is significant enough, a public hearing is held and a public comment period is provided, after which the EPA considers the comments and decides whether to allow modification to Module VIII of the Laboratory's permit to operate under RCRA, the result of which is to remove the PRS(s) from any further action.

If EPA concurs with the recommendation for no further action, the community relations liaison prepares the documents for the DOE-LAAO area manager's signature. DOE-LAAO mails a certified letter, together with the documents, to the property owner indicating EPA's concurrence with the no-further-action decision. The community relations liaison coordinates with the DOE-LAAO area manager's office to deliver copies of the signed notification packages to the RPF, CRM-4, and to the community relations project leader for entry in the Public Participation Data Base.

Occasionally, approximate PRS boundary locations may need to be corrected and/or the size of a PRS may need to be adjusted, which could result in dissociating an owner of non-DOE-owned property from a PRS. Correction or refinement of the PRS boundary in these cases is verified on a case-by-case basis. In some instances, a site investigation may need to be conducted before verification is adequate for actual notice of no further action. In such cases, the community relations liaison prepares a letter to be signed and mailed by the DOE-LAAO area manager informing the owners of the current status. The letter specifies that, based on the current best available information, the property does not appear to contain a PRS. The community relations liaison coordinates with DOE-LAAO the delivery of the documentation to the manager of the Laboratory's ER Program, RPF, and the community relations project leader for entry in the Public Participation Data Base.

5.4 Submittal of Records to the RPF and the Public Participation Data Base

The community relations liaison ensures that the records generated as a result of implementing this procedure are submitted to the RPF, CRM-4, and to the community relations project leader for inclusion in the Public Participation Data Base. This process includes verifying that copies of signed letters mailed by DOE-LAAO are submitted to the RPF and the community relations project leader.

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The ER Program uses the Public Participation Data Base to track interactions between the ER Program and outside parties who have questions and concerns about the program. These parties include members of the public, property owners, press representatives, community leaders, etc. The data base is primarily a mailing list management tool; however, it also contains data about visits and telephone calls, materials provided, and referrals and responses resulting from specific questions.

6.0 REFERENCES

6.1 Requirements Document

Module VIII of the RCRA permit (effective on May 23, 1990) issued to the University of California and DOE-LAAO by EPA Region 6 to satisfy the Hazardous and Solid Waste Amendments.

7.0 RECORDS

The following records are completed as a result of implementing this procedure:

- notification packages from DOE to non-DOE property owners and
- Public Participation Data Base updates.

The PRS and Public Participation data bases are maintained continuously.

8.0 ATTACHMENTS

Attachment A Definition of Solid Waste

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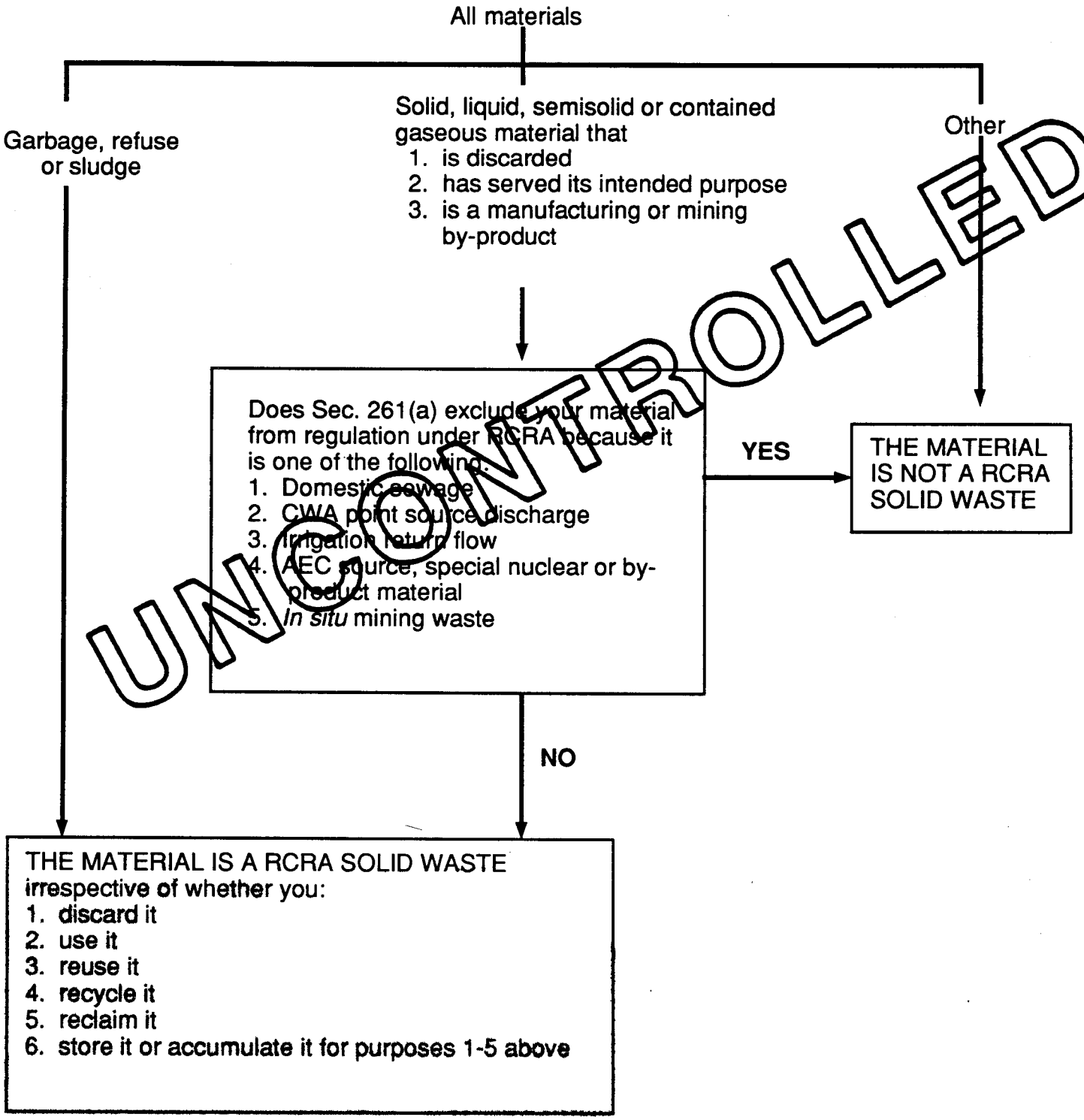
DEFINITION OF A SOLID WASTE*



UNCONTROLLED

*Taken from Title 40 of CFR, Part 260, App. I.

8.0 ATTACHMENTS

Attachment A, Definition of a Solid Waste
Attachment B, SWMU Release Report

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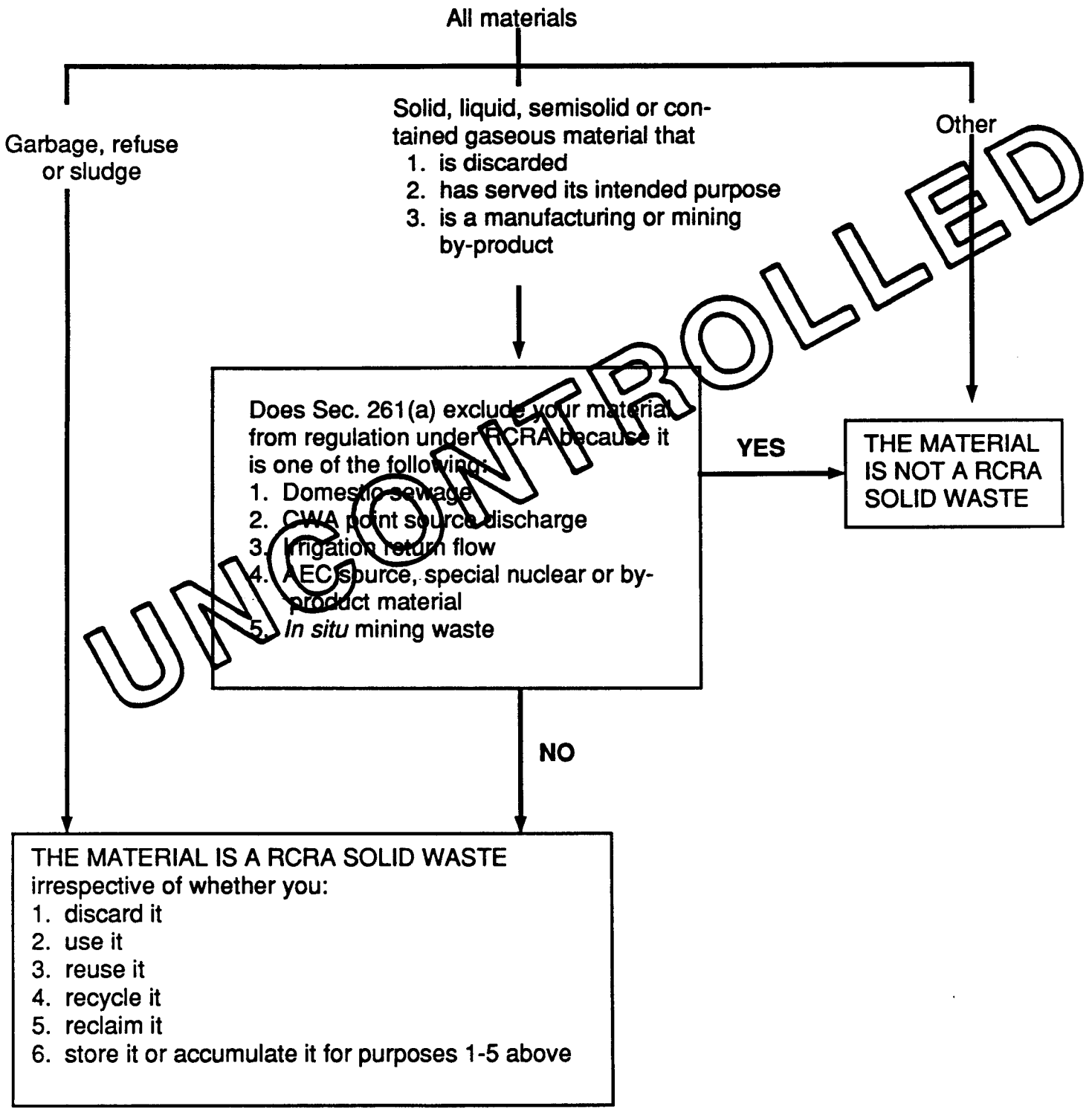
DEFINITION OF A SOLID WASTE*



UNCONTROLLED

*Taken from Title 40 of CFR, Part 260, App. I.

Los Alamos National Laboratory Environmental Restoration Program
SWMU Release Report

Part I. Release Report (completed by SWMU reporting coordinator)

Date _____ Time _____

Release reported by _____ Phone _____

Location of release (SWMU number) _____

Description of SWMU release area (include OU number) _____

_____

Substance(s) released _____

Extent of release _____

Other (e.g., actions taken) _____

RFI Work Plan start date _____

_____ _____ _____ _____

Signature SWMU reporting coordinator | Date | Signature compliance regulator (independent verification) | Date

EXAMPLE
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE
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Part II. Protocol—Record of Notification Process (completed by compliance regulator)

[ ] LANL Environmental Protection Group (HSE-8) informed

Individual contacted _____ Title _____

Instructions provided/received _____

[ ] ER Program Manager informed

_____

[ ] LANL Emergency Management Office (EMO) informed

Individual contacted _____ Title _____

Instructions provided/received _____

Part II. (continued)

[ ] Department of Energy—Los Alamos Area Office informed

Individual contacted _____ Title_____

Instructions received:

[ ] Further investigation of release required

[ ] Coordinate conference call to EPA

[ ] Other (e.g., actions taken) _____

_____

EXAMPLE

Part III. Report to EPA (completed by compliance regulator)

CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

Record of conference call:

Date _____ Time _____

Individual(s) contacted _____

Title _____ _____

Instructions _____

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Part IV. (Signature of compliance regulator.)

The verbal and written notification process was completed as required.

_____	_____	_____
Name (print)	Signature	Date

Attach EPA notification letter to this form and submit to the ER Records Processing Facility (RPF), ER Program Manager, ER Operable Unit Project Leader, and SWMU Reporting Coordinator.

Los Alamos National Laboratory Environmental Restoration Program Administrative Procedure	No. LANL-ER-AP-05.1 Rev. 1

READINESS REVIEW FOR ENVIRONMENTAL RESTORATION PROJECT FIELD ACTIVITIES

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	(Print Name)	(Signature)	(Date)
Prepared by:	R. L. Kidman		5/15/95
Quality Review by:	PATRICIA M. TILLERY	Patricia M. Tillery	5/18/95
Functional Review by:	Donna Katzman		6/13/95
QPPL Approval:	Lawrence A. Souza		8/11/95
PM Approval:	Jorg Jansen		8-15-95

Effective Date: 8-21-95

READINESS REVIEW PROCEDURE FOR ENVIRONMENTAL RESTORATION PROJECT

Contents

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READINESS REVIEW PROCEDURE FOR ENVIRONMENTAL RESTORATION PROJECT

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to assist personnel conducting Environmental Restoration (ER) Project field activities at Los Alamos National Laboratory (Laboratory) to ensure readiness for field operations. The readiness review is a final verification that the field team is ready to mobilize for field work and that the work complies with the applicable guidances, procedures, and regulations in effect at the time of the readiness review.

2.0 SCOPE

This procedure applies to all field activities conducted under the ER Project and to all Laboratory and contractor personnel involved in these field activities.

3.0 DEFINITIONS

N/A.

4.0 RESPONSIBILITIES

4.1 Field Project Leader

The Field Project Leader (FPL) conducts the readiness reviews and approves or disapproves the start of field activities. The FPL ensures that any unresolved issues have been resolved and that all documentation is complete before field work begins. The Readiness Review Checklist Form (Attachment A) is signed by the FPL, who is responsible for sending all pertinent records to the ER Records Processing Facility (RPF).

The FPL is also responsible for overseeing the field investigation. These responsibilities include:

- completing the environment, safety, and health (ES&H) questionnaire;
- ensuring that the site-specific Quality Assurance Project Plan or Sampling and Analysis Plan meets the requirements of the 1991 Generic Quality Assurance Project Plan or the February 1995 Quality Assurance Project Plan;
- planning and coordinating the field preparation process;
- contacting Laboratory groups whose operations may be affected by field work;
- assigning specific duties to the field unit project team;

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- checking the progress of field preparation activities;
- addressing issues that arise during the field preparation process;
- ensuring compliance with site-specific requirements;
- working with the Field Team Manager (FTM) to schedule readiness review meetings;
- determining any requirements not specified and add them to the Readiness Review Checklist; and
- addressing comments and findings from the readiness review meetings and scheduling additional meetings, if necessary.

The decontamination and decommissioning (D&D) FPL must determine the applicability of these responsibilities for D&D activities.

4.2 Field Team Manager

The FTM assists the FPL with field preparation, manages site activities, and coordinates the activities of field personnel. The FTM or appropriate designee attends readiness review meetings.

4.3 Technical Coordinators

Technical coordinators involved in field work at a field unit prepare any necessary documentation. The technical coordinators also coordinate and track progress and approvals for requirements in their area of technical expertise. Technical coordinators involved in the project attend readiness review meetings at the discretion of the FPL.

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5.0 PROCEDURE

The readiness review will be conducted before field activities commence per 10 CFR 831.120, Quality Assurance. The review will confirm:

- appropriate measures have been taken for
  - environmental and cultural protection,
  - health and safety (H&S) protection of involved personnel,
  - waste management responsibilities,
  - permit procurement,
  - site access, and
  - notification;
- Laboratory ER standard operating procedures (LANL-ER-SOP) and other applicable procedures have been reviewed for adequacy;

- personnel have received all training; and
- proper equipment and resources are available.

5.1 Readiness Review Checklist

This procedure provides a checklist of activities and requirements that may be necessary to ensure that preparation activities are complete and documentation is in place prior to mobilization for field work. The Readiness Review Checklist serves as a guide for the field team in planning for field activities. Although the checklist can be a useful tool, users should not assume it to be comprehensive for every type of field activity or that all items on the checklist apply to every field activity. The first step in using the checklist is to determine which items apply to the specific activity and then check off the applicable items as they are completed.

The FPL is responsible for identifying the items within the Readiness Review Checklist that are applicable to the field activity. The following sections clarify certain items in the checklist. The D&D FPL may use a checklist that is more applicable to the D&D field activities.

Advance time required for the activities addressed in Readiness Review are varied. The FPL must ensure that lead time for any requirement is adequate to prevent delays to the start of field activities.

5.1.1 Environmental and Cultural Protection

The ES&H Questionnaire review is required by Laboratory Administrative Requirement (AR) 1-10, Environment, Safety, and Health Questionnaire, to identify laws, regulations, and procedures that may have to be addressed. The ES&H Questionnaire is to be filled out for new or significantly-modified programs or processes. Once the questionnaire has been completed and the project approved by the appropriate Laboratory groups, only significant changes to the field activities (e.g., encountering unexpected contaminants that had not been addressed in the original questionnaire) require reinitiation of the questionnaire process.

Based on a US Department of Energy (DOE) review of the ES&H Questionnaire, a categorical exclusion, as defined in AR 9-2, National Environmental Policy Act Documentation, may be obtained for an individual activity or a group of activities. If a categorical exclusion is received, or exists, an environmental assessment or an environmental impact statement will not be required.

Characterization studies and assessments must be performed prior to field mobilization to determine how field activities would affect the following areas:

- Flood plains/wetlands

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- Threatened and endangered species
- Cultural resources, as defined in AR 9-5, Cultural Resources
- National Emission Standards for Hazardous Air Pollutants, as defined in AR 9-1, Air Pollution Control
- National Pollutants Discharge Elimination System, as defined in AR 9-6, Water Pollution Control

5.1.2 Health and Safety

Site-specific H&S plans developed by each field team need to be approved by the appropriate personnel within the Laboratory ESH group(s).

Contractor's H&S programs must be submitted for review to the Laboratory contract administrator and approved by the Laboratory. This ensures that the policies and procedures of the contractor are consistent with both governmental regulations and contract requirements.

The occupational medicine program as outlined in AR 2-1, Occupational Medicine Program, promotes the health and well-being of Laboratory employees and contractors. For Laboratory employees, the Occupational Medicine Group (ESH-2) conducts the medical surveillance programs for early identification and prevention of illnesses or injuries that may arise from low-level exposures to hazardous materials or agents and maintains records of employee health status and related activities.

Contractor personnel implement and maintain medical programs for their site personnel. ESH-2 has oversight responsibilities for contractor medical programs.

The Health Physics Checklist, ES&H Form 3-1A, is used to assess the potential radiation exposures of all personnel who perform work at the Laboratory and to ensure use of the appropriate personal dosimetry, as required by AR 3-6, Personnel Radiation Dosimetry. This checklist must be in place before any occupational exposure from internal or external sources of radiation is incurred.

5.1.3 Waste Management

If wastes are to be generated, the following steps must be taken:

- Waste minimization activities, as required by AR 10-8, Waste Minimization, must be incorporated into all waste-generating activities whenever possible.

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- Arrangements must be made with the Hazardous and Solid Waste Group (ESH-19) prior to mobilization if on-site waste storage is necessary. These areas may include satellite storage areas and less than 90-day storage areas.

- A waste characterization checklist must be approved by the Waste Services Group (CST-17) and ESH-19 before wastes are generated.

- A waste coordinator and a waste generator must be assigned to the activity.

5.1.4 Training

The FPL is responsible for ensuring that each member of the field team is appropriately trained for the role they are expected to fulfill. This may include providing facility- and activity-specific training. This section lists some ES&H training that may be applicable to field operations.

- Personnel who will be working at sites regulated by 29 CFR 1910.120 must successfully complete a 24- or 40-hour HAZWOPER training followed by on-site training.

- The Laboratory's General Employee Training is required of all site personnel working on Laboratory property for 10 days or more.

- Refer to the site-specific H&S Plan to determine CPR and First Aid training requirements.

- Refer to the site-specific H&S Plan to determine training requirements for Hazard Communication. This training is required of all site personnel.

- Laboratory procedures training includes the applicable ARs, ER SOPs, APs, and Quality Procedures.

- Site-specific training includes the Resource Conservation and Recovery Act facility investigations (RFI) Work Plan; the site-specific H&S Plan, Waste Management Plan, and Quality Assurance/Quality Control Plan; and Technical Area (TA)-specific procedures.

- Radiation Worker II training is required of all site personnel working in areas where there is a potential for radiation exposure.

- Respirator training and fit testing, as required by AR 12-1, Personal Protective Equipment, ensures proper fit of any air-purifying respiratory protection required on a site. Refer to the H&S Plan for site-specific requirements.

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- Refer to the site-specific H&S Plan for Lockout/Tagout training requirements.

Personnel training documentation for all site personnel must include the following information:

- personnel who will be involved in field work and the specific tasks they will perform;
- a training requirements matrix that has been tailored to meet the needs of each field investigation; and
- appropriate records of all training, as required in LANL-ER-AP-05.2, Determination, Completion, and Documentation of ER Worker Training.

Training documentation must be sent to the ER Training Coordinator.

5.1.5 Work Requests and Permit Reviews

The FPL must ensure that all permits required for site activities have been obtained. The following permits are the most commonly required permits for ER sites.

- Work requests or service requests are necessary when support services (e.g., backhoe, fence opening, fence repair) on Laboratory property are needed. AR 1-11, Work Request Review, describes the procedure for reviewing and approving work requests and service requests. FSS-9 is contacted to begin the process.
- Excavation or fill permits are required by AR 1-12, Excavation or Fill Permit Review, when the depth of excavation exceeds 12 in. The excavation permit process is started by the engineering technical coordinator. If activities are taking place on Los Alamos County property or private land, permits from the county or written permission from the private landowner are required in addition to the Laboratory Excavation Permit.
- A special work permit (SWP) required by AR 1-3, Standard Operating Procedures and Special Work Permits, is a document required for performing a limited-term or potentially hazardous one-time operation or activity. If needed, an application for the SWP is filled out and given to the engineering technical coordinator of the TA in which the work is to take place. AR 1-3 states the limiting conditions and precautions to be observed for a complete list of task-specific permits. Work in a limited egress/confined space, as defined in AR 8-1, Limited Egress/Confined Spaces, needs an SWP.

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- The radiation work permit (RWP) defined in LP 107-02.0, Handling Radiological Work Permits, is issued when radioactive material or contamination has been identified at the site. Determination of the need for a RWP is based on radiation survey results and is indicated on the site-specific H&S plan. For Laboratory groups using Health Physics Operations Group (ESH-1) staff, the RWP is issued by a radiological control technician. For contractors providing their own health physics support with ESH-1 and Policy and Program Analysis Group (ESH-12) oversight, the RWP is initiated by the contractor and approved by ESH-1 and ESH-12. The requirements for the RWP are listed in AR 1-3.

- A burn/hot work permit, as defined in AR 8-4, Welding, Cutting, and Other Spark-/Flame-Producing Operations, may be required for welding, cutting, and other spark- or flame-producing operations.

5.1.6 Support and Equipment

Use of support services must be arranged early enough to allow the supporting organization to schedule the services or equipment.

- Support services (e.g., drill rig or backhoe procurements, fence installments, or electrical hook-up installments), if necessary, must be arranged prior to field mobilization.

- On-site underground utilities such as gas, electric, and telephone lines must be located and marked in areas where the subsurface will be disturbed. This activity is conducted by appropriate Laboratory groups, Johnson Controls Inc., and US West Communications. In addition, Los Alamos County utilities on non-DOE property must be located and marked. This is usually done in conjunction with the excavation permit.

- Support services may include sanitation facilities and communication equipment.

- ER photographer must be notified.

- Other requirements may include sampling, survey, and H&S equipment including lockout/tagout equipment support.

- Arrangements must be made to have copies of all applicable procedures, sampling analysis plans, health and safety plans, etc., on site during field work.

5.1.7 Sample Planning

All arrangements must be made to conduct sampling. The Field Implementation and/or Sampling Analysis Plan must meet the requirements of the 1991 Generic Quality Assurance Project Plan or the February 1995

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Quality Assurance Project Plan. Additionally, these plans must include written evidence that the Quality Program Project Leader has reviewed the plans for compliance with the Project Plan.

- If a field database is to be used, information and data should be downloaded into the computer and the database readied for field use prior to mobilization.

- Appropriate plans (e.g., field implementation plan) should be prepared.

- Sampling Analysis Plan must be approved by the New Mexico Environment Department (NMED) and/or the Environmental Protection Agency (EPA) if it is not included in the RFI or if it represents significant deviation from the RFI.

- Applicable SOPs must be available or written per LANL-ER-AP-01.2, Preparation, Review, and Approval of Standard Operating Procedures. Associated forms can be obtained from the RPF.

- If necessary, sampling location numbers must be obtained from Facility for Information Management, Analysis, and Display.

- Arrangements should be made to transport hazardous materials (e.g., nitric acid, sulfuric acid, or environmental samples). A Bill of Lading and/or a Uniform Hazardous Waste Manifest for the specific material may be required. Materials to be shipped may require initial characterization to determine shipping regulations.

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5.1.8 Sample Coordination and Management

If samples are to be collected, sample coordination and management must be arranged and include the following:

- The field team must coordinate with the Sample Management Office (SMO) or analytical laboratory at least 45 days before the start of sampling concerning analytical needs and requirements. The SMO or analytical laboratory will provide information on containers, preservatives, and quantities for the types of analysis to be performed.

- The field team must notify the SMO or analytical laboratory of the anticipated number of samples, analytical suites of the samples, and an estimate of when the samples will be submitted.

- The SMO must also receive advance notification if the services of the mobile chemistry or radiation laboratories are required.

5.1.9 Subsurface Technical Coordinator Notification

If drilling using the Laboratory Subsurface Team will be part of the field activity, a Drilling Package must be submitted to the Laboratory Subsurface Technical Coordinator for review at least 30 days in advance. The Drilling Package consists of the following:

- A Drilling Plan, which contains information on drilling requirements, methods, and objectives; see LANL-ER-SOP-05.01, Monitoring Well and RFI Borehole Construction, for detailed requirements;
- A Curation Plan, which provides details on core recovery , handling, and archiving; see Section 12.0 of the LANL-ER-SOPs for specifications;
- A Sampling and Analysis Plan, which presents the site-specific work plan sampling requirements and a description of core handling and decontamination between samples; and
- A Geophysical Logging Plan, if geophysical logging is required.

Drilling should be scheduled through the Subsurface Technical Coordinator, and if geophysical logging is needed, the geophysical contractor should also be scheduled.

5.1.10 Laboratory and Site Access

Before mobilization, the field team must coordinate site access with appropriate personnel from the operating groups where the field activities will be conducted. Sites requiring access agreements, special security requests, landowner permission, or county notice are defined in LANL-ER-AP-03.4, Access Agreements. The team may need to obtain site access, including gaining permission to work within given areas, building or grading roads, or obtaining keys to buildings and gates. Site control may include fencing certain areas or obtaining secured buildings for storage purposes. The team may also need to arrange access agreements or security orders (e.g., escort papers) if working in security areas.

Laboratory identification badges must be issued to all site personnel working on Laboratory property.

5.1.11 Notifications

The notifications required for each project depend on the location of the field work. In general, the group leader(s) and ES&H officer(s) of all organizations located at the affected technical area should be notified.

If environmental samples are to be collected, the FPL must notify the ER Regulatory Compliance Manager, who will then notify the EPA and NMED

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through the DOE Los Alamos Area Office. The Regulatory Compliance Manager must be given sufficient advance notice because notification to the EPA and NMED must be at least 10 calendar days before the start of sampling. The notification to the EPA and NMED must include the following

- Operable Unit
- Technical Area
- Field Unit
- Location or Potential Release Site Number
- Field Unit
- Number of Samples
- Sample Type (soil, water, sediment, sludge, etc.)
- Chemicals of Potential Concern

- The ER Policy and Public Involvement Representative must be provided with sufficient information to notify the public as necessary, and for work conducted on non-DOE property, property owners must be notified of planned field work.

5.2 Readiness Review Meeting

A readiness review meeting is the final step in the field preparation process. A Readiness Review Meeting Attendance Form (Attachment B) is signed by everyone present at the review. This review is an opportunity for all concerned parties (especially the field team) to discuss each applicable item on the checklist

The readiness review meeting should include, at a minimum, the FPL, the FTM, and the Field Team Leader, the ER Training Coordinator and the Quality Program Project Leader must be informed about the meeting. The readiness review meeting may also include the following as appropriate:

- H&S Coordinator

  Project Waste Management Coordinator and other waste management personnel

- Policy and Public Involvement Representative
- Members of the Biological Resources and Cultural Resources team
- Air Pollution Group personnel
- Field Unit Statistician
- Project Risk Assessor
- Representatives from SMO and RPF

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- Other field unit team members

5.3 Completion of Open Items and Final Signature

For each item on the checklist that is discussed, the FPL will agree that the item is adequately completed or assignments will be made to complete it. During this review, other applicable requirements may be identified. If so, the FPL will make the appropriate assignments to complete these newly-identified requirements.

Incomplete items or activities identified during the readiness review meeting will be assigned to a person(s) who will be responsible for the completion of the item. When the FPL has been formally notified of the completion of all open items, the FPL then signs the Readiness Review Checklist as confirmation that the readiness review is complete.

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6.0 REFERENCES

ER Procedures

LANL-ER-AP-01.2, Preparation, Review, and Approval of SOPs
LANL-ER-AP-02.1, Procedure for LANL ER Records Management
LANL-ER-AP-05.2, Determination, Completion and Documentation of Environmental Restoration Worker Training
LANL-ER-AP-03.4, Obtaining Access Agreements for Non-DOE Owned Property for Purposes of Resource Conservation and Recovery Act Facility Investigations and Remediation
LANL-ER-SOP-05.01, Monitoring Well and RFI Borehole Construction

Laboratory ES&H Administrative Requirements

AR 1-3, Standard Operating Procedures and Special Work Permits
AR 1-9, Hazard Communication
AR 1-10, Environment, Safety, and Health Questionnaire
AR 1-11, Work Request Review
AR 1-12, Excavation or Fill Permit Review
AR 2-1, Occupational Medicine Program
AR 3-6, Personnel Radiation Dosimetry
AR 8-1, Limited Egress/Confined Spaces
AR 8-4, Welding, Cutting, and Other Spark-/Flame-Producing Operations
AR 9-1, Air Pollution Control
AR 9-2, National Environmental Policy Act Documentation
AR 9-5, Cultural Resources
AR 9-6, Water Pollution Control
AR 10-8, Waste Minimization
AR 12-1, Personal Protective Equipment

Laboratory ES&H Procedures

LP 106-01.2, Lockout/Tagout for Control of Hazardous Energy Sources for Personnel Safety
LP 107-02.0, Handling Radiological Work Permits

Federal Regulations

Code of Federal Regulations Title 29, Labor, Part 1910.20, Access to Employee Exposure and Medical Records.
10 CFR 831.120, Quality Assurance
29 CFR 1910.120, Hazardous Waste Operations and Emergency Response

7.0 RECORDS

All records pertinent to the Readiness Review are the responsibility of the FPL and must be forwarded to the RPF in accordance with the Interim Administrative Procedure for Los Alamos National Laboratory ER Records Management, LANL-ER-AP-02.1. These records will include the Readiness Review Checklist, the Readiness Review Meeting Attendance Form, and any documentation demonstrating completion of the applicable checklist items.

8.0 ATTACHMENTS

Attachment A — Readiness Review Checklist
Attachment B — Readiness Review Meeting Attendance Form

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Los Alamos National Laboratory Environmental Restoration Project
READINESS REVIEW CHECKLIST

Field Unit: _____ TA(s): _____ Date: _____
PRS Types _____
Description of Field Activity: _____

Applicable	Complete	R/A Assignment*	**1. GENERAL**
√	___	_____	Scope of Activity Defined

Applicable	Complete	R/A Assignment	**2. ENVIRONMENTAL AND CULTURAL PROTECTION (Section 5.1.1)**
√	___	_____	ES&H Questionnaire Submitted and Approved
___	___	_____	Appropriate NEPA Approval is Received
___	___	_____	Flood Plains/Wetlands Assessment Performed
___	___	_____	Threatened and Endangered Species Assessment Performed
___	___	_____	Cultural Resources Assessment Performed
___	___	_____	NESHAP Evaluated
___	___	_____	NPDES Evaluated

Applicable	Complete	R/A Assignment	**3. HEALTH & SAFETY (Section 5.1.2)**
√	___	_____	Site-Specific H&S Plan Approved
___	___	_____	Contractor H&S Program Approved
√	___	_____	Medical Monitoring Established
√	___	_____	Health Physics Checklist Completed

Applicable	Complete	R/A Assignment	**4. WASTE MANAGEMENT (Section 5.1.3)**
___	___	_____	Site-Specific Waste Management Plan Completed
___	___	_____	Waste Characterization Checklist Approved
___	___	_____	On-Site Waste Storage Areas Arranged
___	___	_____	Trained Waste Coordinator Assigned
___	___	_____	Trained Waste Generator Assigned

Applicable	Complete	R/A Assignment	**5. TRAINING (Section 5.1.4)**
___	___	_____	HAZWOPER
___	___	_____	GET
___	___	_____	First Aid and CPR
___	___	_____	HAZCOM
___	___	_____	Procedural Training
___	___	_____	Site-Specific Training
___	___	_____	Radiation Worker Training
___	___	_____	Respirator Training and Fit Test
___	___	_____	Lockout/Tagout Training
___	___	_____	Documentation of Personnel Training Forwarded to the ER Training Coordinator

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Los Alamos National Laboratory Environmental Restoration Project
READINESS REVIEW CHECKLIST (continued)

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Applicable	Complete	R/A Assignment	**6. WORK REQUESTS AND PERMIT REVIEWS (Section 5.1.5)**
___	___	_____	Fencing
___	___	_____	Excavation/Fill
___	___	_____	Special Work
___	___	_____	Confined-Space
___	___	_____	Radiation Work
___	___	_____	Burn/Hot Work

Applicable	Complete	R/A Assignment	**7. SUPPORT AND EQUIPMENT** (Section 5.1.6)
___	___	_____	Support Services Arranged
___	___	_____	Subcontractors Identified
___	___	_____	Utilities Located and Marked
___	___	_____	Sanitation Facilities Arranged
___	___	_____	Communication Equipment Obtained
___	___	_____	Sampling and Survey Equipment and Supplies Obtained
___	___	_____	H&S Equipment and Supplies Obtained
___	___	_____	Copies of Applicable Precedures, H&S Plan, etc., on site

Applicable	Complete	R/A Assignment	**8. SAMPLE PLANNING (Section 5.1.7)**
___	___	_____	Data Quality Objectives Prepared
___	___	_____	Sample Documentation Database Prepared
___	___	_____	Field Implementation Plan and Other Appropriate Plans Prepare and Approved
___	___	_____	Sampling Analysis Plan Approved by NMED and/or EPA as Appropriate
___	___	_____	SOPs and Forms Prepared and/or Obtained
___	___	_____	FIMAD Location Numbers Obtained
___	___	_____	Transportation of Hazardous Materials Arranged

Applicable	Complete	R/A Assignment	**9. SAMPLE COORDINATION AND MANAGEMENT (Section 5.1.8)**
___	___	_____	SMO or Analytical Laboratory Notified of Analytical Requirement
___	___	_____	Mobile Chemistry Laboratory Scheduled
___	___	_____	Mobile Radiation Laboratory Scheduled
___	___	_____	SMO or Analytical Laboratory Instructed on Sample Analysis Requirements

Applicable	Complete	R/A Assignment	**10. SUBSURFACE TECHNICAL TEAM NOTIFICATI (Section 5.1.9)**
___	___	_____	Drilling Package Submitted
___	___	_____	Drilling Scheduled
___	___	_____	Geophysical Contractor Scheduled

Los Alamos National Laboratory Environmental Restoration Project
READINESS REVIEW CHECKLIST (continued)

Applicable	Complete	R/A Assignment	**11. LABORATORY AND SITE ACCESS** (Section 5.1.10)
___	___	_____	Operating Group Interface Established
___	___	_____	Site Access Coordinated
___	___	_____	Access Agreement and Other Permissions Obtained
___	___	_____	Site Control and Security Planned and Arranged
___	___	_____	Laboratory Identification Badges Issued

Applicable	Complete	R/A Assignment	**12. NOTIFICATIONS (Section 5.1.11)**
___	___	_____	ES&H Officer(s), Group Leader(s), and Facility Managers at Affected TA(s)
___	___	_____	Non-DOE Property Owners
___	___	_____	Los Alamos County
___	___	_____	Regulatory Compliance Manager
___	___	_____	Policy and Public Involvement Representative

Applicable	Complete	R/A Assignment	**13. OTHER**
___	___	_____	
___	___	_____	
___	___	_____	

Signature confirms that all actions for readiness review have been completed.

Signature: _____ Date: _____
FPL, Field Unit #_____

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Los Alamos National Laboratory Environmental Restoration Program
READINESS REVIEW MEETING ATTENDANCE FORM

Field Unit: __________ TA (s): __________ Date: __________

Description of Field Activity: ____

PRINTED NAME	SIGNATURE	ORGANIZATION	MS	PHONE

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ENVIRONMENTAL RESTORATION PROGRAM
INTERIM CHANGE NOTICE

EFFECTIVE DATE : (Dist. Date) 5/15/95 ICN No. 012 Page 1 of 7

Document No. LANL-ER-AP-05.2 **Rev.** 1 **Title:** Determination, Completion, and Documentation of Environmental Restoration Worker Training

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Reason for Change:

In the recently distributed LANL-ER-AP-05.2, Revision 1 the training guidelines for LANL Administrative Requirements (ARs) were inadvertantly omitted from Attachment A.

Description of Change (Specify page, paragraph, and/or section revised, and clearly write new text to be incorporated in the document).

LANL-ER-AP-05.2, Revision 1, Attachment A was revised to include guidelines for LANL ARs. Replace LANL-ER-AP-05.2 Attachment A, pages, 6-10 with the newly revised Attachment A, pages, 2-7 of this ICN.

Change Requested by:	KATHY ARMSTRONG (Print)	Kathleen Armstrong (Signature)	5-11-95 (Date)
Functional Reviewer	DAVID McINROY (Print)	(Signature)	5/11/95 (Date)
Program Manager Approval:	B. MARTIN (Print)	B. Martin (Signature)	5/11/95 (Date)
Quality Program Project Leader (QA review and approval)	Lawrence A. Souza (Print)	(Signature)	5/11/95 (Date)

ENVIRONMENTAL RESTORATION PROJECT
WORKER READ TRAINING REQUIREMENTS
REV. 1

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			Worker Role																										
LANL-AR-1-1	3-Aug-92	0	Accident and Occurrence Reporting	R	R	R	R	R				R																	
LANL-AR-1-3	30-Oct-87	0	Standard Operating Procedures and Special Work Permits	R	R	RC	RC																						
LANL-AR-1-5	1-Oct-89	0	Environment, Safety & Health Audits & Appraisals	R	R	R	R	RC				RC		RC															
LANL-AR-1-9	10-Dec-86	0	Hazard Communication	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
LANL-AR-1-10	30-Aug-91	0	Environment, Safety, and Health Questionnaire	R	R	R	R	RC				RC																	
LANL-AR-1-12	1-Oct-91	0	Excavation or Fill Permit Review	R	R	R	R																						
LANL-AR-3-1	30-Nov-90	0	Radiation Protection Program	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
LANL-AR-3-5	18-Jan-91	0	Shipment of Radioactive Materials	RC	RC	RC	RC																			RC	RC	RC	
LANL-AR-3-7	11-Jan-91	0	Radiation Exposure Controls	R	R	R	R	RC		R	R	RC														RC	RC	RC	
LANL-AR-6-1	18-Dec-91	0	Chemicals	RC	RC	RC	RC																						
LANL-AR-6-5	30-Jul-91	0	Flammable and Combustible Liquids	RC	RC	RC	RC																						
LANL-AR-6-6	20-Sep-91	0	Explosives	RC	RC	RC	RC																	R					
LANL-AR-8-1	1-Aug-84	0	Limited Egress/Confined Space	R	R	R	R	R																					
LANL-AR-8-3	31-Jul-91	0	Ventilation	RC	RC	RC	RC																						
LANL-AR-8-4	16-Nov-92	0	Welding, Cutting, & Spark-Flame Prod. Operations	RC	RC	RC	RC																						
LANL-AR-8-7	3-Apr-91	0	Landlords and Building Managers	RC	RC	RC	RC																						
LANL-AR-9-2	1-May-92	0	National Environmental Policy Act (NEPA)	R	R	R	R																						
LANL-AR-9-4	30-Aug-91	0	Accidental Oil, Chemical, and Airborne Releases	R	R	R	R	RC				RC														RC	RC		
LANL-AR-9-5	1-May-92	0	Cultural Resources	R	R	R	R					RC																	
LANL-AR-10-1	29-May-92	0	Radioactive Liquid Waste	RC	RC	RC	RC																			R	R	RC	
LANL-AR-10-2	15-Feb-91	0	Low Level Radioactive Waste	R	R	R	R																			R	R	RC	
LANL-AR-10-3	1-Jun-90	0	Hazardous and Mixed Wastes	R	R	R	R																			R	R	RC	
LANL-AR-10-4	3-May-91	0	Polychlorinated Biphenyls	RC	RC	RC	RC																			R	R	RC	
LANL-AR-10-5	31-Jul-91	0	Transuranic (TRU) Solid Waste	RC	RC	RC	RC																			R	R	RC	
LANL-AR-10-8	31-Jul-91	0	Waste Minimization	R	R	R	R																			R	R	R	
LANL-AR-10-9	26-Apr-93	0	Waste Profile Form	RC	RC	RC	RC																			R	R	RC	
LANL-AR-11-1	3-Aug-92	0	Exits and Fire Doors	RC	RC	RC	RC	RC				RC																	
LANL-AR-11-2	1-May-92	0	Fire Protection	R	R	R	R	R	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
LANL-AR-12-1	20-Sep-91	0	Personal Protective Equipment	R	R	R	R	R	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
LANL-AR-12-2	22-Mar-93	0	Seat Belts	R	R	R	R	RC				RC																	

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LANL-AR-13-1	26-Apr-93	0	Forklifts and Powered Industrial Trucks	RC	RC	RC	RC														RC									
LANL-AR-13-2	30-Aug-91	0	Cranes, Hoists, Lifting Devices and Rigging	RC	RC	RC	RC														RC									
LANL-AR-14-1	24-May-91	0	Pressure Systems Inc. Compressed Gas Systems	RC	RC	RC	RC														RC									
LANL-AR-15-1	19-Jul-91	0	Field Work	R	R	R	R	R				R																		
LANL-ER-AP-01.4	26-May-91	0	Distribution of Controlled Documents	R	R	R	RC							R																
LANL-ER-AP-01.6	14-Jul-93	0	Approval Process for External Procedures Used in the ER Program	R	RC	RC	RC																							
LANL-ER-AP-02.1	4-Mar-92	1	Procedure for LANL ER Records Management (DRAFT)	R	R	R	RC																							
LANL-ER-AP-03.2	4-Dec-92	0	Handling Media and Public Requests for Information During Field Work	R	R	R	R					R																		
LANL-ER-AP-04.1	4-Mar-92	1	Identification, Documentation, and Reporting of Newly Discovered PRSs for the ER Program	R	R	R																								
LANL-ER-AP-04.2	25-Jun-91	0	Reporting of Newly Identified Releases from SWMUs	R	R	R		R																						
LANL-ER-AP-05.1	10-May-93	0	Readiness Review Procedure for ER Program Field Activities	R	R	R	RC																							
LANL-ER-AP-05.2	1-Apr-95	1	Determination, Completion and Documentation of Environmental Restoration Worker Training	R	R	R																								
LANL-ER-AP-05.3	15-Feb-95	0	Management of ER Program Waste	R	R	R																					R	R	R	
LANL-ER-AP-06.2	26-Aug-94	0	Procedure for the Sample Management Organization	R	R	R							RC																	
LANL-ER-QPP-17.0	25-Jun-91	0	Records	R	R	R	RC																							
LANL-ER-QPP-18.0	25-Jun-91	0	Audits and Surveys	R	R	R	RC																							
LANL-ER-QAPP-04.1	1-Feb-95	4	Introduction	R	R	R	RC																							
LANL-ER-QAPP-04.2	1-Feb-95	4	Approval Process - Sampling & Analysis Plans	R	R	R	RC																							
LANL-ER-QAPP-04.3	1-Feb-95	4	Project Overview & Sampling & Analysis Plans	R	R	R	RC																							
LANL-ER-QAPP-04.4	1-Feb-95	4	Requirements for Sampling Operations	R	R	R	RC																							
LANL-ER-QAPP-04.5	1-Feb-95	4	Requirements for Selecting Analytical Methods & Quality Control Samples	R	R	R	RC																							
LANL-ER-QAPP-04.6	1-Feb-95	4	Specification of Acceptance Criteria and Selection of Quality Assessment & Quality Control Samples	R	R	R	RC																							

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				Worker Role																									
LANL-ER-QAPP-04.7	1-Feb-95	4	Data Management	R	R	R	RC						R																
LANL-ER-QAPP-04.8	1-Feb-95	4	Quality Assurance Assessments & Response Actions	R	R	R	RC																						
LANL-ER-QAPP-04.9	1-Feb-95	4	Data Verification and Validations	R	R	R	RC						C																
LANL-ER-QAPP-04.10	1-Feb-95	4	Requirements for Using Archived Data and Unmeasurement Data	R	R	R	RC						C																
LANL-ER-QAPP-04.11	1-Feb-95	4	Maintenance, Inspection, Calibration, & Acceptance of Measurement Equipment and Consumables	R	R	R	RC																						
LANL-ER-QAPP-04.12	1-Feb-95	4	Training and Certification	R	R	R	RC																						
LANL-ER-QAPP-04.13	1-Feb-95	4	Reports to Management	R	R	R	RC																						
RMMA Program Plan			Radioactive Material Management Area Program Plan - Section 7.0 ONLY			R																							
LANL-ER-SOP-01.01	16-Mar-92	0	General Instructions for Field Investigations	R	R	R	RC	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
LANL-ER-SOP-01.02	16-Mar-92	0	Sample Containers and Preservation	R	RC	R	RC						R	R		R	R	R	R										
LANL-ER-SOP-01.03	16-Mar-92	0	Handling, Packaging, and Shipping of Samples	R	RC	R	RC	RC	RC	R			R	R		RC	RC	RC	RC								RC	RC	RC
LANL-ER-SOP-01.04	5-Jan-93	1	Sample Control and Field Documentation	R	RC	R	RC						R	R		RC	RC	RC	RC										
LANL-ER-SOP-01.05	16-Mar-92	0	Field Quality Control Samples	R	RC	R	RC						R	R		RC	RC	RC	RC										
LANL-ER-SOP-01.06	16-Mar-92	0	Management of RFI-Generated Waste	R	R	R	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC		RC				RC		R	R	R
LANL-ER-SOP-01.07	21-Mar-95	0	Operatioonal Guidelines for Taking Soil & Water Samples in Explosives Areas	R	R	R	RC	RC				RC	RC			RC	RC	RC	RC		RC				RC				
LANL-ER-SOP-01.08	31-Mar-95	0	Field Decontamination of Drilling & Sampling Equip.	R	R	R	RC								R														
LANL-ER-SOP-01.09		0	Management of ER Project Radioactive Material Management Areas	R	R	R	RC																						
LANL-ER-SOP-03.01	14-Feb-95	1	Land Surveying Procedures	R	R	R	RC																			R			
LANL-ER-SOP-03.02	16-Mar-92	0	General Surface Geophysics	RC	RC	RC														R		RC							
LANL-ER-SOP-03.04	16-Mar-92	0	Petrography	RC	RC	RC														R		RC							
LANL-ER-SOP-03.05	16-Mar-92	0	Determination of Volume Constituents in Thin Sections of Rock	RC	RC	RC														R		RC							
LANL-ER-SOP-03.06	16-Mar-92	0	Fracture Characterization	RC	RC	RC																RC							

ENCLOSURE 1
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ENVIRONMENTAL RESTORATION PROJECT
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			Worker Role																										
LANL-ER-SOP-03.07	16-Mar-92	1	Characterization of Lithologic Variations within Rock Outcrops of a Volcanic Field	RC	RC	RC																RC								
LANL-ER-SOP-03.08	16-Mar-92	0	Geomorphic Characterization	RC	RC	RC																RC								
LANL-ER-SOP-03.09	16-Mar-92	1	Geologic Mapping of Bedrock Units	RC	RC	RC																RC								
LANL-ER-SOP-03.10	19-May-93	0	Trenching and Logging	RC	RC	RC																RC								
LANL-ER-SOP-03.11	21-Mar-95	0	Coordination and Evaluation of Geodetic Surveys	RC	RC	RC	RC																							
LANL-ER-SOP-03.12	17-Nov-93	0	Field and Laboratory Notebook Documentation for ER Earth Science Studies	RC	RC	RC																RC								
LANL-ER-SOP-04.01	1-Jun-92	0	Drilling Methods and Drill Site Management	RC	RC	RC	RC	RC													R					RC				
LANL-ER-SOP-04.04	25-Jun-93	0	General Borehole Logging	RC	RC	RC	RC														RC									
LANL-ER-SOP-05.01	1-Jun-92	0	Monitor Well Construction	RC	RC	RC															R		RC							
LANL-ER-SOP-05.02	1-Jun-92	0	Well Development	RC	RC	RC															R		RC							
LANL-ER-SOP-06.01	16-Mar-92	0	Purging of Wells for Representative Sampling of Groundwater Samples	RC	RC	RC							RC	RC	RC			RC					RC							
LANL-ER-SOP-06.02	16-Mar-92	0	Field Analytical Measurements of Groundwater Samples	RC	RC	RC							RC	RC	RC			RC					RC							
LANL-ER-SOP-06.03	16-Mar-92	0	Sampling Volatile Organics	RC	RC	RC	RC						RC	RC	RC			RC					RC							
LANL-ER-SOP-06.04	16-Mar-92	0	Sampling Commercial/Municipal/Domestic Wells	RC	RC	RC							RC	RC				RC					RC							
LANL-ER-SOP-06.05	16-Mar-92	0	Soil Water Samples	RC	RC	RC	RC						RC	RC	RC			RC			RC		RC							
LANL-ER-SOP-06.06	16-Mar-92	0	Tensiometer (Soil Suction Meter) Installation and Measurement	RC	RC	RC																RC	RC	RC						
LANL-ER-SOP-06.09	16-Mar-92	0	Spade and Scoop Methods for Collection of Soil Samples	RC	RC	RC	RC							RC	RC	RC								RC						
LANL-ER-SOP-06.10	16-Mar-92	0	Hand Auger and Thin-Wall Tube Sampler	RC	RC	RC	RC							RC		RC						RC		RC						
LANL-ER-SOP-06.11	16-Mar-92	0	Stainless Steel Surface Soil Sampler	RC	RC	RC	RC							RC	RC	RC								RC						
LANL-ER-SOP-06.13	16-Mar-92	0	Surface Water Samples	RC	RC	RC	RC							RC	RC			R					RC							
LANL-ER-SOP-06.14	16-Mar-92	0	Sediment Material Collection	RC	RC	RC								RC	RC	RC						RC		RC						
LANL-ER-SOP-06.15	16-Mar-92	0	Coliwasa Sampler for Liquids and Slurries	RC	RC	RC	RC	RC	RC	RC	RC			RC	RC	RC														
LANL-ER-SOP-06.16	16-Mar-92	0	Thief Sampler for Dry Powders or Granules	RC	RC	RC		RC	RC	RC	RC			RC	RC	RC			R											

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				Worker Role																									
LANL-ER-SOP-06.17	16-Mar-92	0	Trier Samplers for Sludges and Moist Powders or Granules	RC	RC	RC		RC	RC	RC	RC			RC	RC	RC			RC										
LANL-ER-SOP-06.18	16-Mar-92	0	Collection of Sand, Packed Powder, or Granule Samples Using Hand Auger	RC	RC	RC								RC	RC	RC	RC					RC		RC					
LANL-ER-SOP-06.19	16-Mar-92	0	Weighted Bottle Sampler for Liquids and Slurries in Tanks	RC	RC	RC	RC	RC	RC	RC	RC			RC	RC	RC													
LANL-ER-SOP-06.21	16-Mar-92	0	Volatile Organic Sampling	RC	RC	RC	RC												RC										
LANL-ER-SOP-06.22	16-Mar-92	0	Canister Sampling for Organics - EPA Method TO-14	RC	RC	RC	RC												RC										
LANL-ER-SOP-06.23	19-May-93	0	Measurement of Gamma-Ray Fields Using a Sodium Iodide Detector	RC	RC	RC	RC	RC	RC	RC	RC																		
LANL-ER-SOP-06.24	19-May-93	0	Sample Collection from Detector Split Spoon Samplers & Shelby Tube Samples	RC	RC	RC	RC									RC	RC												
LANL-ER-SOP-06.25	19-May-93	0	Total Suspended Particulate Air Sampling	RC	RC	RC	RC	RC	RC	RC									RC											
LANL-ER-SOP-6.26	19-May-93	0	Core Barrel Sampling for Subsurface Earth Materials	RC	RC	RC				RC	RC						RC				RC								
LANL-ER-SOP-06.29	17-Sep-93	0	Single-Stage Sampling for Surface Water Run-Off	RC	RC	RC												RC											
LANL-ER-SOP-07.01	16-Mar-92	0	Pressure Transducers	RC	RC	RC																	RC						
LANL-ER-SOP-07.02	16-Mar-92	0	Fluid Level Measurements	RC	RC	RC																	RC						
LANL-ER-SOP-07.03	16-Mar-92	0	Well Slug Tests	RC	RC	RC																	RC						
LANL-ER-SOP-07.04	16-Mar-92	0	Aquifer Pumping Tests	RC	RC	RC																	RC						
LANL-ER-SOP-09.01	16-Mar-92	0	Thin Section Preparation	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.02	16-Mar-92	0	Operating the Microprobe	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.03	16-Mar-92	0	Operation of The Siemens X-Ray Diffractometer	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.04	16-Mar-92	0	Calibration and Alignment of The Siemens Diffractometer	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.05	16-Mar-92	0	Clay Mineral Separation for X-Ray Diffraction Analysis	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.06	16-Mar-92	0	Zeolite Purification and Separation	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.07	16-Mar-92	0	Operating Instructions for ISI Model DS-130 Scanning Electron Microscope and Tracor Northern Series II X-Ray Analyzer	RC	RC	RC																RC		RC					

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ENVIRONMENTAL RESTORATION PROJECT
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TRAINING MATRIX KEY

R = Read Training-Required
RC = Read Training-Considered

Procedure ID	Eff. Date	Version	Procedure/Course Name	Field Project Leader	Field Team Manager	Field Team Leader	Job Supervisor	Site Safety Officer	Industrial Hygiene Technician	Radiological Control Technician	Radiation Screening Personnel	Site Control Officer	Sample Coordinator	Documentation Coordinator	Decontamination Technician	Surface Sampler	Subsurface Sampler	Water Sampler	Air Sampler	Geophysicist	Driller/Drilling Specialist	Geologist	Hydrologist	Soils Scientist	Explosives Ord. Disposal Worker	Surveyor	Waste Management Coordinator	On-site Waste Manager	Waste Generator
			Worker Role																										
LANL-ER-SOP-09.09	16-Mar-92	0	Certification of Standards for Electron Microanalysis	RC	RC	RC																RC		RC					
LANL-ER-SOP-10.01	16-Mar-92	0	Screening of PCBs in Soil	RC	RC	RC	RC	RC						RC	RC														
LANL-ER-SOP-10.04	17-Sep-93	0	MCA-465/Fidler Instrument System	RC	RC	RC	RC																						
LANL-ER-SOP-10.05	9-Mar-94	0	Field Analysis of Total Hydrocarbons Using the Hanby Method	RC	RC	RC																							
LANL-ER-SOP-10.07	20-Sep-94	0	RO-Field Monitoring for Surface & Vol. Radioactivity	RC	RC	RC																							
LANL-ER-SOP-11.01	16-Mar-92	0	Measurement of Bulk Density, Dry Density, Water Content, and Porosity in Soil	RC	RC	RC																							
LANL-ER-SOP-11.02	16-Mar-92	0	Particle Size Distribution of Soil/Rock Samples	RC	RC	RC																							
LANL-ER-SOP-11.03	16-Mar-92	0	Permeability of Granular Soils	RC	RC	RC																							
LANL-ER-SOP-11.04	16-Mar-92	0	Soil and Core pH	RC	RC	RC									RC	RC								RC					
LANL-ER-SOP-11.05	16-Mar-92	0	Total Organic Carbon	RC	RC	RC									RC	RC								RC					
LANL-ER-SOP-11.06	16-Mar-92	0	Cation-Exchange Capacity	RC	RC	RC									RC	RC								RC					
LANL-ER-SOP-12.01	25-Jun-93	0	Field Logging, Handing, and Documentation of Borehole Materials	RC	RC	RC											RC				RC								
LANL-ER-SOP-12.02	17-Nov-93	0	Transportation, Receipt, and Admittance of Borehole Samples for the Sample Management Facility	RC	RC	RC							RC								RC								
LANL-ER-SOP-12.03	25-May-94	0	Acceptance of Non-Borehole Samples by the Sample Management Facility	RC	RC	RC							RC								RC								
LANL-ER-SOP-12.04	10-Mar-95	1	Physical Processing & Storage of Borehole Samples at the Sample Management Facility	RC	RC	RC							RC				RC				RC								
LANL-ER-SOP-12.05	10-Mar-95	1	Examination of Samples at the Sample Management Facility	RC	RC	RC							RC																
LANL-ER-SOP-14.01	16-Aug-93	0	Berthold Low Alpha Beta Activity Counter Calibration, Quality Control, Detection Limit, and Use	RC	RC	RC	RC	RC	RC	RC	RC																		
LANL-ENG Facilities Manual	Oct-92	0	Survey Procedures Manual				RC																		R				

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Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-05.2 Rev: 1

DETERMINATION, COMPLETION, AND DOCUMENTATION OF ENVIRONMENTAL RESTORATION WORKER TRAINING

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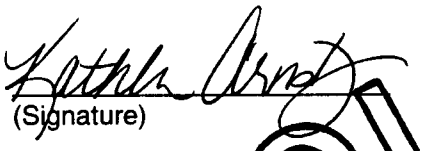
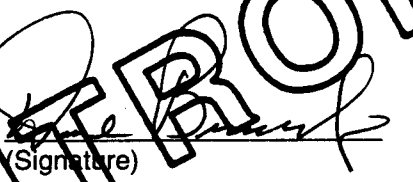
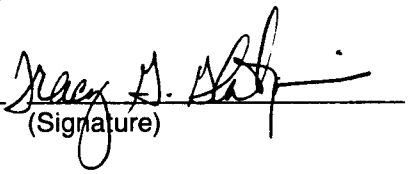
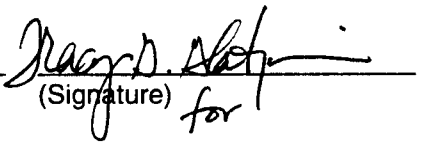
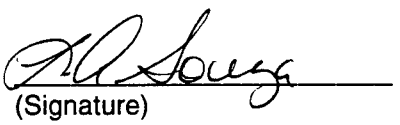
Prepared by	Kathy Armstrong (Print Name)	 (Signature)	4-24-95 (Date)
Quality Review by	Dave Bradbury (Print Name)	 (Signature)	4/24/95 (Date)
Functional Review by	Tracy Glatzmaier (Print Name)	 (Signature)	4/24/95 (Date)
PM Approval	Jorg Jansen (Print Name)	 (Signature) for	4/24/95 (Date)
QPPL Approval	Larry Souza (Print Name)	 (Signature)	4/24/95 (Date)

Effective Date: 04/27/95

DETERMINATION, COMPLETION AND DOCUMENTATION OF ENVIRONMENTAL RESTORATION WORKER TRAINING

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DETERMINATION, COMPLETION AND DOCUMENTATION OF ENVIRONMENTAL RESTORATION WORKER TRAINING

1.0 PURPOSE

The purpose of this administrative procedure (AP) is to provide a training requirements guide to Environmental Restoration (ER) Project personnel, to ensure that ER workers are properly trained and are in compliance with applicable federal and state regulations, Department of Energy (DOE) orders, Los Alamos National Laboratory (the Laboratory) Administrative Requirements (ARs), ER Administrative Procedures (APs), the Quality Assurance Project Plan, and ER Standard Operating Procedures (SOPs) prior to beginning ER field activities.

2.0 SCOPE

This procedure applies to all ER Project personnel, including Laboratory personnel and contract employees and ER subcontractor personnel who are involved in ER activities conducted under the direction of the Laboratory's ER Project.

3.0 DEFINITIONS

3.1 ER Worker Read Training Requirements Matrix

Matrix guidelines based upon assigned ER worker duties. The matrix is to be used as a guide for determining Read training requirements for ER workers.

3.2 Field Site

The term 'field site' denotes either a Potential Release Site (PRS) or a decommissioning site. A PRS is any area that may contain hazardous substances that has the potential for migrating and can be classified as either a solid waste management unit or an area of concern. A solid waste management unit is any discernible unit at which solid wastes have been placed at any time, irrespective of whether it was intended for the management of solid or hazardous waste. An area of concern is a site that contains potentially hazardous materials but no hazardous substances defined by the Resource Conservation and Recovery Act. A decommissioning site may consist of one or more structures (building, tank, bunker, etc.) and associated support utilities (underground waste lines, electrical lines, ventilation systems, etc.) that are destined to be decommissioned.

3.3 Field Team and Decommissioning Field Team

The Field Team may consist of the Field Project Leader, Field Team Manager, Field Team Leader, the site safety officer, and others whose expertise is applicable to the field project and have been selected to perform various field tasks. The Decommissioning Field Team may consist of the Decommissioning Field Project Leader, supervisor, engineering project coordinator, the site safety officer, those

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crafts whose expertise is applicable to the project, and others selected to perform various tasks.

3.4 ER Worker Positions Matrix

Typical duties for each ER worker position are described in the ER Worker Positions Matrix (Attachment B).

4.0 RESPONSIBILITIES

4.1 Field Project Leader

The Field Project Leader is responsible for ensuring that all personnel performing ER work are trained in accordance with the guidelines set forth in this procedure, the ER Health and Safety Plan (HASP) and the ER Site-Specific Health and Safety Plan (SSHASP). The Field Project Leader is also ultimately responsible for ensuring the ER Project Training Coordinator receives documentation of training completion for all personnel performing ER work.

4.2 Field Team Manager

The Field Team Manager is responsible for overseeing all activities at the field/decommissioning site, and assists the Field Project Leader in planning and executing work.

4.3 Field Team Leader

The Field Team Leader is responsible for identifying required Read and Environment, Safety, and Health (ES&H) training for ER workers on the field/decommissioning team. The Field Team Leader must also provide documentation of training compliance for personnel working at the field/decommissioning site(s) to the ER Project Training Coordinator before field work begins (for details see Documentation sections 5.2 and 5.4).

4.4 ER Project Training Coordinator

The ER Project Training Coordinator is responsible for revising this LANL-ER-AP; managing and tracking ER Project worker training records; notifying ER Project workers of training deficiencies and course availability when appropriate; and forwarding completed copies of the Read Training Documentation Form and ES&H Training Checklist to the Records Processing Facility (RPF).

4.5 Other Project Personnel

Project personnel assigned to ER Project activities are responsible for reviewing their training requirements, the ER Project HASP, and the ER SSHASP, based upon their assigned duties.

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5.0 PROCEDURE

This section provides instructions for identifying and documenting worker Read and ES&H training requirements during the ER work preparation process.

5.1 Read Training Requirements

All Read training requirements applicable to the ER Project are indicated in the ER Project Worker Read Training Requirements Matrix (Attachment A). Courses/training marked "R" on the matrix indicate a requirement for training that is completed by reading the specified documents. "RC" marked on the matrix indicates Read only training that is recommended, but not required. Personnel should complete "RC" training if exposures to specific hazards covered by the reading are likely or if applicable LANL-ARs, LANL-ER-APs, and/or LANL-ER-SOPs will be used during specific ER activities. The Field Team Leader should compare assigned duties with typical duties for each ER worker position (Attachment B) and determine the corresponding required Read training for each position at his/her field/decommissioning site(s).

5.2 Read Training Documentation

The Field Team Leader must complete the Read Training Documentation Form (Attachment C) for each ER worker on the field/decommissioning team and return copies, signed by the worker indicating completion of assigned readings, to the ER Project Training Coordinator before ER field work begins. Once the Training Coordinator has received forms for each individual worker on the field/decommissioning team, the data will be entered into the ER Project training database and copies will be sent to the RPF. Documentation of ER worker training requirements is necessary to show that all federal, state, DOE, and Laboratory training requirements have been met.

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5.3 ES&H Training Requirements

All DOE, Occupational Safety and Health Act, and Laboratory worker health and safety training requirements applicable to ER Project field work are described in Section 10 - Training, of the ER Project HASP and Section 10 - Training, of the ER Project SSHASP. Field Team Leaders should refer to these documents when determining ES&H training requirements for ER workers on the field/decommissioning team.

5.4 ES&H Training Documentation

The Field Team Leader must complete the ES&H Training Checklist (Attachment D) for each ER worker on the field/decommissioning team and return copies, signed by the worker indicating completion dates of required ES&H training, to the ER Project Training Coordinator before ER field work begins. Once the Training Coordinator has received checklists for each individual worker on the field/decommissioning team, the data will be entered into the ER Project training

database and copies will be sent to the RPF. Documentation of ER worker training requirements is necessary to show that all federal, state, DOE, and Laboratory training requirements have been met.

6.0 REFERENCES

6.1 Requirement Document

ER Project Read Training Documentation Form (Attachment C).

ER Project ES&H Training Checklist (Attachment D).

6.2 Documents Cited

ER Project Health and Safety Plan (HASP)

ER Project Site-Specific Health and Safety Plan (SSHASP)

Los Alamos National Laboratory Administrative Requirements

Los Alamos National Laboratory, Environmental Restoration Administrative Procedures, Controlled Document

Los Alamos National Laboratory, Environmental Restoration Standard Operating Procedures, Controlled Document

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7.0 RECORDS

All records pertinent to ER worker Read and ES&H training must include copies of the Read Training Documentation Form (Attachment C) and ES&H Training Checklist (Attachment D). These must be forwarded to the ER Project Training Coordinator upon completion and before field work begins. All Read and ES&H training information will be entered and maintained in the ER Project training database. ER worker training records may be requested at any time from the ER Project Training Coordinator.

8.0 ATTACHMENTS

Attachment A – ER Project Worker Read Training Requirements Matrix
Attachment B – ER Worker Positions Matrix
Attachment C – ER Project Read Training Documentation Form
Attachment D – ER Project ES&H Training Checklist

ENVIRONMENTAL RESTORATION PROJECT
WORKER READ TRAINING REQUIREMENTS
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TRAINING MATRIX KEY

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Procedure ID	Eff. Date	Version	Procedure/Course Name	Worker Role																												
				Field Project Leader	Field Team Manager	Field Team Leader	Job Supervisor	Site Safety Officer	Industrial Hygiene Technician	Radiological Control Technician	Radiation Screening Personnel	Site Control Officer	Sample Coordinator	Documentation Coordinator	Decontamination Technician	Surface Sampler	Subsurface Sampler	Water Sampler	Air Sampler	Geophysicist	Driller/Drilling Specialist	Geologist	Hydrologist	Soils Scientist	Explosives Ord. Disposal Worker	Surveyor	Waste Management Coordinator	On-site Waste Manager	Waste Generator
LANL-ER-AP-01.4	26-May-91	0	Distribution of Controlled Documents	R	R	R	RC							R																		
LANL-ER-AP-01.6	14-Jul-93	0	Approval Process for External Procedures Used in the ER Program	R	RC	RC	RC																									
LANL-ER-AP-02.1	4-Mar-92	1	Procedure for LANL ER Records Management (DRAFT)	R	R	R	RC																									
LANL-ER-AP-03.2	4-Dec-92	0	Handling Media and Public Requests for Information During Field Work	R	R	R	R					R																				
LANL-ER-AP-04.1	4-Mar-92	1	Identification, Documentation, and Reporting of Newly Discovered PRSs for the ER Program	R	R	R																										
LANL-ER-AP-04.2	25-Jun-91	0	Reporting of Newly Identified Releases from SWMUs	R	R	R		R																								
LANL-ER-AP-05.1	10-May-93	0	Readiness Review Procedure for ER Program Field Activities	R	R	R	RC																									
LANL-ER-AP-05.2	1-Apr-95	1	Determination, Completion and Documentation of Environmental Restoration Worker Training	R	R	R																										
LANL-ER-AP-05.3	15-Feb-95	0	Management of ER Program Waste	R	R	R																					R	R	R			
LANL-ER-AP-06.2	26-Aug-94	0	Procedure for the Sample Management Organization	R	R	R							RC																			
LANL-ER-QPP-17.0	25-Jun-91	0	Records	R	R	R	RC																									
LANL-ER-QPP-18.0	25-Jun-91	0	Audits and Surveys	R	R	R	RC																									
LANL-ER-QAPP-04.1	1-Feb-95	4	Introduction	R	R	R	RC																									
LANL-ER-QAPP-04.2	1-Feb-95	4	Approval Process - Sampling & Analysis Plans	R	R	R	RC																									
LANL-ER-QAPP-04.3	1-Feb-95	4	Project Overview & Sampling & Analysis Plans	R	R	R	RC																									
LANL-ER-QAPP-04.4	1-Feb-95	4	Requirements for Sampling Operations	R	R	R	RC																									
LANL-ER-QAPP-04.5	1-Feb-95	4	Requirements for Selecting Analytical Methods & Quality Control Samples	R	R	R	RC																									
LANL-ER-QAPP-04.6	1-Feb-95	4	Specification of Acceptance Criteria and Selection of Quality Assessment & Quality Control Samples	R	R	R	RC																									
LANL-ER-QAPP-04.7	1-Feb-95	4	Data Management	R	R	R	RC						R																			
LANL-ER-QAPP-04.8	1-Feb-95	4	Quality Assurance Assessments & Response Actions	R	R	R	RC																									

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			Worker Role																										
LANL-ER-QAPP-04.9	1-Feb-95	4	Data Verification and Validations	R	R	R	RC						RC																
LANL-ER-QAPP-04.10	1-Feb-95	4	Requirements for Using Archived Data and Unmeasurement Data	R	R	R	RC						RC																
LANL-ER-QAPP-04.11	1-Feb-95	4	Maintenance, Inspection, Calibration, & Acceptance of Measurement Equipment and Consumables	R	R	R	RC																						
LANL-ER-QAPP-04.12	1-Feb-95	4	Training and Certification	R	R	R	RC																						
LANL-ER-QAPP-04.13	1-Feb-95	4	Reports to Management	R	R	R	RC																						
RMMA Program Plan			Radioactive Material Management Area Program Plan - Section 7.0 ONLY			R																							
LANL-ER-SOP-01.01	16-Mar-92	0	General Instructions for Field Investigations	R	R	R	RC	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
LANL-ER-SOP-01.02	16-Mar-92	0	Sample Containers and Preservation	R	RC	R	RC						R			R	R	R	R										
LANL-ER-SOP-01.03	16-Mar-92	0	Handling, Packaging, and Shipping of Samples	R	RC	R	RC	RC	RC	R			R	R		RC	RC	RC	RC								RC	RC	RC
LANL-ER-SOP-01.04	5-Jan-93	1	Sample Control and Field Documentation	R	RC	R	RC						R	R		RC	RC	RC	RC										
LANL-ER-SOP-01.05	16-Mar-92	0	Field Quality Control Samples	R	RC	R	RC						R	R		RC	RC	RC	RC										
LANL-ER-SOP-01.06	16-Mar-92	0	Management of RFI-Generated Waste	R	R	R	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC		RC				RC		R	R	R
LANL-ER-SOP-01.07	21-Mar-95	0	Operatioonal Guidelines for Taking Soil & Water Samples in Explosives Areas	R	R	R	RC	RC				RC	RC			RC	RC	RC	RC		RC				RC				
LANL-ER-SOP-01.08	31-Mar-95	0	Field Decontamination of Drilling & Sampling Equip.	R	R	R	RC								R														
LANL-ER-SOP-01.09		0	Management of ER Project Radioactive Material Management Areas	R	R	R	RC																						
LANL-ER-SOP-03.01	14-Feb-95	1	Land Surveying Procedures	R	R	R	RC																			R			
LANL-ER-SOP-03.02	16-Mar-92	0	General Surface Geophysics	RC	RC	RC														R									
LANL-ER-SOP-03.04	16-Mar-92	0	Petrography	RC	RC	RC														R		RC							
LANL-ER-SOP-03.05	16-Mar-92	0	Determination of Volume Constituents in Thin Sections of Rock	RC	RC	RC																RC							
LANL-ER-SOP-03.06	16-Mar-92	0	Fracture Characterization	RC	RC	RC																RC							
LANL-ER-SOP-03.07	16-Mar-92	1	Characterization of Lithologic Variations within Rock Outcrops of a Volcanic Field	RC	RC	RC																RC							

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			Worker Role																										
LANL-ER-SOP-03.08	16-Mar-92	0	Geomorphic Characterization	RC	RC	RC																RC							
LANL-ER-SOP-03.09	16-Mar-92	1	Geologic Mapping of Bedrock Units	RC	RC	RC																RC							
LANL-ER-SOP-03.10	19-May-93	0	Trenching and Logging	RC	RC	RC																RC							
LANL-ER-SOP-03.11	21-Mar-95	0	Coordination and Evaluation of Geodetic Surveys	RC	RC	RC	RC																						
LANL-ER-SOP-03.12	17-Nov-93	0	Field and Laboratory Notebook Documentation for ER Earth Science Studies	RC	RC	RC																RC							
LANL-ER-SOP-04.01	1-Jun-92	0	Drilling Methods and Drill Site Management	RC	RC	RC	RC	RC													R				RC				
LANL-ER-SOP-04.04	25-Jun-93	0	General Borehole Logging	RC	RC	RC	RC														RC								
LANL-ER-SOP-05.01	1-Jun-92	0	Monitor Well Construction	RC	RC	RC															R		RC						
LANL-ER-SOP-05.02	1-Jun-92	0	Well Development	RC	RC	RC															R		RC						
LANL-ER-SOP-06.01	16-Mar-92	0	Purging of Wells for Representative Sampling of Groundwater Samples	RC	RC	RC							RC	RC	RC			RC					RC						
LANL-ER-SOP-06.02	16-Mar-92	0	Field Analytical Measurements of Groundwater Samples	RC	RC	RC							RC	RC	RC			RC					RC						
LANL-ER-SOP-06.03	16-Mar-92	0	Sampling Volatile Organics	RC	RC	RC	RC						RC	RC	RC			RC					RC						
LANL-ER-SOP-06.04	16-Mar-92	0	Sampling Commercial/Municipal/Domestic Wells	RC	RC	RC							RC	RC				RC					RC						
LANL-ER-SOP-06.05	16-Mar-92	0	Soil Water Samples	RC	RC	RC	RC						RC	RC	RC			RC			RC		RC						
LANL-ER-SOP-06.06	16-Mar-92	0	Tensiometer (Soil Suction Meter) Installation and Measurement	RC	RC	RC																RC	RC	RC					
LANL-ER-SOP-06.09	16-Mar-92	0	Spade and Scoop Methods for Collection of Soil Samples	RC	RC	RC	RC							RC	RC	RC								RC					
LANL-ER-SOP-06.10	16-Mar-92	0	Hand Auger and Thin-Well Tube Sampler	RC	RC	RC	RC							RC			RC					RC		RC					
LANL-ER-SOP-06.11	16-Mar-92	0	Stainless Steel Surface Soil Sampler	RC	RC	RC	RC							RC	RC	RC								RC					
LANL-ER-SOP-06.13	16-Mar-92	0	Surface Water Samples	RC	RC	RC	RC							RC	RC			RC					RC						
LANL-ER-SOP-06.14	16-Mar-92	0	Sediment Material Collection	RC	RC	RC								RC	RC	RC						RC		RC					
LANL-ER-SOP-06.15	16-Mar-92	0	Coliwasa Sampler for Liquids and Slurries	RC	RC	RC	RC	RC	RC	RC	RC			RC	RC	RC													
LANL-ER-SOP-06.16	16-Mar-92	0	Thief Sampler for Dry Powders or Granules	RC	RC	RC		RC	RC	RC	RC			RC	RC	RC			RC										
LANL-ER-SOP-06.17	16-Mar-92	0	Trier Samplers for Sludges and Moist Powders or Granules	RC	RC	RC		RC	RC	RC	RC			RC	RC	RC			RC										

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				Worker Role																									
LANL-ER-SOP-06.18	16-Mar-92	0	Collection of Sand, Packed Powder, or Granule Samples Using Hand Auger	RC	RC	RC								RC	RC	RC	RC					RC		RC					
LANL-ER-SOP-06.19	16-Mar-92	0	Weighted Bottle Sampler for Liquids and Slurries in Tanks	RC	RC	RC	RC	RC	RC	RC	RC			RC	RC	RC													
LANL-ER-SOP-06.21	16-Mar-92	0	Volatile Organic Sampling	RC	RC	RC	RC												RC										
LANL-ER-SOP-06.22	16-Mar-92	0	Canister Sampling for Organics - EPA Method TO-14	RC	RC	RC	RC												RC										
LANL-ER-SOP-06.23	19-May-93	0	Measurement of Gamma-Ray Fields Using a Sodium Iodide Detector	RC	RC	RC	RC	RC	RC	RC	RC																		
LANL-ER-SOP-06.24	19-May-93	0	Sample Collection from Detector Split Spoon Samplers & Shelby Tube Samples	RC	RC	RC	RC									RC	RC												
LANL-ER-SOP-06.25	19-May-93	0	Total Suspended Particulate Air Sampling	RC	RC	RC	RC	RC	RC	RC									RC											
LANL-ER-SOP-6.26	19-May-93	0	Core Barrel Sampling for Subsurface Earth Materials	RC	RC	RC				RC	RC						RC				RC								
LANL-ER-SOP-06.29	17-Sep-93	0	Single-Stage Sampling for Surface Water Run-Off	RC	RC	RC												RC											
LANL-ER-SOP-07.01	16-Mar-92	0	Pressure Transducers	RC	RC	RC																	RC						
LANL-ER-SOP-07.02	16-Mar-92	0	Fluid Level Measurements	RC	RC	RC																	RC						
LANL-ER-SOP-07.03	16-Mar-92	0	Well Slug Tests	RC	RC	RC																	RC						
LANL-ER-SOP-07.04	16-Mar-92	0	Aquifer Pumping Tests	RC	RC	RC																	RC						
LANL-ER-SOP-09.01	16-Mar-92	0	Thin Section Preparation	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.02	16-Mar-92	0	Operating the Microprobe	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.03	16-Mar-92	0	Operation of The Siemens X-Ray Diffractometer	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.04	16-Mar-92	0	Calibration and Alignment of The Siemens Diffractometer	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.05	16-Mar-92	0	Clay Mineral Separation for X-Ray Diffraction Analysis	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.06	16-Mar-92	0	Zeolite Purification and Separation	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.07	16-Mar-92	0	Operating Instructions for ISI Model DS-130 Scanning Electron Microscope and Tracor Northern Series II X-Ray Analyzer	RC	RC	RC																RC		RC					
LANL-ER-SOP-09.09	16-Mar-92	0	Certification of Standards for Electron Microanalysis	RC	RC	RC																RC		RC					

ENVIRONMENTAL RESTORATION PROJECT
WORKER READ TRAINING REQUIREMENTS
REV. 1

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TRAINING MATRIX KEY

R = Read Training-Required
RC = Read Training-Considered

Procedure ID	Eff. Date	Version	Procedure/Course Name	Field Project Leader	Field Team Manager	Field Team Leader	Job Supervisor	Site Safety Officer	Industrial Hygiene Technician	Radiological Control Technician	Radiation Screening Personnel	Site Control Officer	Sample Coordinator	Documentation Coordinator	Decontamination Technician	Surface Sampler	Subsurface Sampler	Water Sampler	Air Sampler	Geophysicist	Driller/Drilling Specialist	Geologist	Hydrologist	Soils Scientist	Explosives Ord. Disposal Worker	Surveyor	Waste Management Coordinator	On-site Waste Manager	Waste Generator
			Worker Role																										
LANL-ER-SOP-10.01	16-Mar-92	0	Screening of PCBs in Soil	RC	RC	RC	RC	RC						RC	RC														
LANL-ER-SOP-10.04	17-Sep-93	0	MCA-465/Fidler Instrument System	RC	RC	RC	RC																						
LANL-ER-SOP-10.05	9-Mar-94	0	Field Analysis of Total Hydrocarbons Using the Hanby Method	RC	RC	RC																							
LANL-ER-SOP-10.07	20-Sep-94	0	RO-Field Monitoring for Surface & Vol. Radioactivity	RC	RC	RC																							
LANL-ER-SOP-11.01	16-Mar-92	0	Measurement of Bulk Density, Dry Density, Water Content, and Porosity in Soil	RC	RC	RC																							
LANL-ER-SOP-11.02	16-Mar-92	0	Particle Size Distribution of Soil/Rock Samples	RC	RC	RC																							
LANL-ER-SOP-11.03	16-Mar-92	0	Permeability of Granular Soils	RC	RC	RC																							
LANL-ER-SOP-11.04	16-Mar-92	0	Soil and Core pH	RC	RC	RC									RC	RC								RC					
LANL-ER-SOP-11.05	16-Mar-92	0	Total Organic Carbon	RC	RC	RC									RC	RC								RC					
LANL-ER-SOP-11.06	16-Mar-92	0	Cation-Exchange Capacity	RC	RC	RC									RC	RC								RC					
LANL-ER-SOP-12.01	25-Jun-93	0	Field Logging, Handing, and Documentation of Borehole Materials	RC	RC	RC											RC				RC								
LANL-ER-SOP-12.02	17-Nov-93	0	Transportation, Receipt, and Admittance of Borehole Samples for the Sample Management Facility	RC	RC	RC							RC								RC								
LANL-ER-SOP-12.03	25-May-94	0	Acceptance of Non-Borehole Samples by the Sample Management Facility	RC	RC	RC							RC								RC								
LANL-ER-SOP-12.04	10-Mar-95	1	Physical Processing & Storage of Borehole Samples at the Sample Management Facility	RC	RC	RC							RC				RC				RC								
LANL-ER-SOP-12.05	10-Mar-95	1	Examination of Samples at the Sample Management Facility	RC	RC	RC							RC																
LANL-ER-SOP-14.01	16-Aug-93	0	Berthold Low Alpha Beta Activity Counter Calibration, Quality Control, Detection Limit, and Use	RC	RC	RC	RC	RC	RC	RC	RC																		
LANL-ENG Facilities Manual	Oct-92	0	Survey Procedures Manual				RC																		R				

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Los Alamos National Laboratory Environmental Restoration Project
WORKER READ TRAINING REQUIREMENTS MATRIX

General Job Category (DOE 5480.20)	ER Worker Position	General Duties
I. Managers	Field Project Leader	Responsible for RCRA facility investigations (RFI) in assigned Field Unit. Implements RFI and ensures compliance with all requirements of ER Project, ES&H regulations, Quality Assurance (QA) procedures, worker training, readiness reviews, and planning documents. Notifies appropriate DOE and LANL offices about sampling events. Oversees day-to-day operations, technical reporting, and administrative activities.
	Field Team Manager	Oversees all field activities at field site. Assists Field Project Leader in planning and executing field work. Supports Field Team Leader, provides off-site management of field activities, serves as liaison between Field Team Leader and Field Project Leader, and ensures that field work is conducted according to ER Project and other program requirements and SOPs.

Los Alamos National Laboratory Environmental Restoration Project
WORKER READ TRAINING REQUIREMENTS MATRIX
(cont.)

General Job Category (DOE 5480.20)	ER Worker Position	General Duties
II. Supervisors	Field Team Leader	Supervises assigned field team personnel. Ensures compliance with applicable regulations, QA, training requirements and requirements for field records. Conducts initial QA checks, manages on-site field activities, and coordinates activities with subcontractors and LANL services. I
	Supervisor	Provides on-site supervision, verifies work permits, project documentation, and provides detailed reports.
	Site Control Officer	Controls access to site according to LANL and ER Project procedures. Provides emergency response, community relations, and implements other site-specific procedures relating to field work.
	Waste Management Coordinator	Ensures proper disposal of radioactive, hazardous, and non-hazardous wastes generated during field activities. Follows QA, H&S, and LANL waste management procedures for waste disposal.

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Los Alamos National Laboratory Environmental Restoration Project
WORKER READ TRAINING REQUIREMENTS MATRIX
(cont.)

General Job Category (DOE 5480.20)	ER Worker Position	General Duties
IV. Technicians	Air Sampler	Sets up/takes down field air emissions samplers and collects particulate samples. Ensures that correct sample bottles/jars/filters are used, and that samples are screened for radioactivity at specified intervals.
	Surface Sampler	Decontaminates and transports equipment to site, uses correct sample containers and preservatives, collects samples following specified ER-SOPs on surface sampling. Reports deviations in sampling technique to supervisor. Documents and labels samples.
	Subsurface Sampler	Decontaminates and transports equipment to site, uses correct sample containers and preservatives, collects samples following specified ER-SOPs on subsurface sampling. Reports deviations in sampling technique to supervisor. Documents and labels samples.
	Water Sampler	Decontaminates and transports sample equipment, and uses correct sample containers and preservatives to collect samples. Follows water sampling ER-SOPs, records necessary sampling deviations, and documents and labels samples.
	Decontamination Technician	Decontaminates field equipment before and after use, transports cleaned equipment to field or storage, properly disposes of decontamination fluids, and documents decontamination activities and waste generation.
	Driller	Provides drilling services, equipment, and assistance as required by site-specific sampling plans.

Los Alamos National Laboratory Environmental Restoration Project
WORKER READ TRAINING REQUIREMENTS MATRIX
(cont.)

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General Job Category (DOE 5480.20)	ER Worker Position	General Duties
IV. Technicians (cont.)	Explosives Ordnance Disposal Worker	Detects, identifies, and removes ordnance and explosive waste. Has completed required technical training and/or certification.
	Surveyor	Performs geodetic surveys following requirements of LANL QA and H&S procedures, draft survey guidance, and records management procedures.
	Sample Coordinator	Coordinates field sample handling after receiving samples from field crew. Ensures sample screening and delivery to appropriate laboratories following chain-of-custody procedures.
	Document Coordinator	Maintains field library of SSHASPs, SOPs, work plans, H&S training records and other required reference materials. Distributes and collects required documents, notes, or forms to field personnel and files returned materials.
	On-site Waste Manager	Minimizes waste and manages the disposition of Personal Protective Equipment, decontamination fluids, and sample type materials.
	Waste Generator	Certifies the waste characterization and completes waste profile and disposal forms.
	Facility Operator	Required for small Decommissioning efforts. LANL employees with specific knowledge of process equipment, for example, gloveboxes, and machining.

Los Alamos National Laboratory Environmental Restoration Project
WORKER READ TRAINING REQUIREMENTS MATRIX
(cont.)

UNCONTROLLED

General Job Category (DOE 5480.20)	ER Worker Position	General Duties
V. Maintenance Personnel	Equipment Operator	Operates heavy equipment, including back hoes, drum handlers, bulldozers, and other earth-moving equipment as directed by supervisor.
	Laborer	Site preparation, decontamination, dismantlement/removal packaging, loading, off-loading, of contaminated/hazardous materials. Equipment, process systems, buildings, earthwork, and other associated items.
	Electrician	Perform tracing, identifying, and original disconnects of electrical systems associated with the dismantlement/removal on Hazardous Waste Operations.
	Pipe fitter	Perform tracing, identifying, and original disconnects of mechanical piping systems associated with dismantlement/removal on Hazardous Waste Projects.
	Iron Worker/Rigger	Rig mechanical/electrical systems and package waste associated with Hazardous Waste Operations.
	Carpenter	Fabricate special packaging containers for waste disposal. Erect scaffolding as required. Fabricate and install shelving, bins, etc. as required.
	Sheet metal Worker	Perform original disconnects of mechanical exhaust systems, to include associated equipment (i.e. goods, glove boxes, etc.) on Hazardous Waste Operations.
	Teamsters	Load, transport, off-load waste associated with hazardous waste operations.

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Los Alamos National Laboratory Environmental Restoration Project
WORKER READ TRAINING REQUIREMENTS MATRIX
(cont.)

General Job Category (DOE 5480.20)	ER Worker Position	General Duties
VI. Technical Support Personnel	Site Safety Officer	Provides on-site H&S monitoring. Determines that workers are medically certified and properly trained for their jobs and that they observe all H&S requirements.
	Industrial Hygiene Technician	Ensures that safe industrial hygiene conditions are met, that exposures to hazardous materials are below specified levels and that HASPs, ER Project and specific project requirements are followed so that all work is performed in a safe environment.
	Geologist	Provides technical expertise in geology, including collecting data and samples, preparing geologic maps and reports.
	Geophysicist	Provides technical expertise in geophysics, including the conduct of borehole and surface geophysical surveys and analysis and interpretation of data.
	Hydrologist	Provides technical expertise in hydrology, including stream gauging, hydrograph analysis, well design and installation, surface water and ground water modeling, and field test design and performance.
	Soil Scientist	Provides technical expertise in soil science, including soil type determination and mapping and other technical soil evaluations.
	Radiological Control Technician	Performs H&S radiation screening to ensure that personnel radiation exposures are below levels specified by LANL and DOE. Provides information on radiation hazards associated with field work.
	Radiation Screening Personnel	Screens field samples to detect radiological constituents and ensures that the radiation levels in shipped samples are below specified levels.

Los Alamos National Laboratory Environmental Restoration Project
READ TRAINING DOCUMENTATION FORM

Field Team Leader:_____
Z Number:_____
Field Unit Number:_____
Technical Area(s):_____
_____

Worker Name:_____
Z Number:_____
Worker Role(s)_____
_____
Employer_____

Field Team Leader Instructions	Procedure Identification	Worker Instructions
Place a check or an 'X' in the *Required* column and sign and date the last page of this form to indicate the procedure(s) the worker must read to training requirements for the applicable worker role(s).	Environmental Restoration	Place a check or an 'X' in the *Completed* column and sign and date the last page of this form to indicate each required procedure has been meet read and understood.
Required		Completed

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Required			Completed
	LANL-AR-1-1	Accident and Occurrence Reporting	
	LANL-AR-1-3	Standard Operating Procedures and Special Work Permits	
	LANL-AR-1-5	Environment, Safety & Health Audits & Appraisals	
	LANL-AR-1-6	Safety Analysis Review System	
	LANL-AR-1-9	Hazard Communication	
	LANL-AR-1-10	Environment, Safety, and Health Questionnaire	
	LANL-AR-1-12	Excavation or Fill Permit Review	
	LANL-AR-3-1	Radiation Protection Program	
	LANL-AR-3-5	Shipment of Radioactive Materials	
	LANL-AR-3-7	Radiation Exposure Control	
	LANL-AR-6-1	Chemicals	
	LANL-AR-6-5	Flammable and Combustible Liquids	
	LANL-AR-6-6	Explosives	
	LANL-AR-8-1	Confined Spaces	
	LANL-AR-8-3	Ventilation	
	LANL-AR-8-4	Welding, Cutting, & Spark-Flame-Producing Ops.	
	LANL-AR-8-7	Landlords and Building Managers	
	LANL-AR-9-2	National Environmental Policy Act (NEPA) Doc.	
	LANL-AR-9-4	Accidental Oil, Chemical, and Airborne Releases	
	LANL-AR-9-5	Cultural Resources	
	LANL-AR-10-1	Radioactive Liquid Waste	
	LANL-AR-10-2	Low Level Radioactive Solid Waste	
	LANL-AR-10-3	Hazardous and Mixed Wastes	
	LANL-AR-10-4	Polychlorinated Biphenyls	
	LANL-AR-10-5	Transuranic (TRU) Solid Waste	
	LANL-AR-10-6	Excess Government Personal Property	
	LANL-AR-10-8	Waste Minimization	
	LANL-AR-10-9	Waste Profile Form	
	LANL-AR-11-1	Exits and Fire Doors	
	LANL-AR-11-2	Fire Protection	
	LANL-AR-12-1	Personal Protective Equipment	
	LANL-AR-12-2	Seat Belts	
	LANL-AR-13-1	Forklifts and Powered Industrial Trucks	

Los Alamos National Laboratory Environmental Restoration Project
READ TRAINING DOCUMENTATION FORM
(cont.)

Field Unit #:_____
Worker Z#:_____

Required	Procedure Identification		Completed
	LANL-AR-13-2	Cranes, Hoists, Lifting Devices and Rigging	
	LANL-AR-14-1	Pressure Systems Inc. Compressed Gas Sys.	
	LANL-AR-15-1	Field Work	
	LANL-ER-AP-01.4	Distribution of Controlled Documents	
	LANL-ER-AP-01.6	Approval Process for External Procedures Used in the ER Program	
	LANL-ER-AP-02.1	Procedure for LANL ER Records Management (DRAFT)	
	LANL-ER-AP-03.2	Handling Media and Public Requests for Information During Field Work	
	LANL-ER-AP-04.1	Identification, Documentation, and Reporting of Newly Discovered PRSs for the ER Program	
	LANL-ER-AP-04.2	Reporting of Newly Id. Releases from SWMUs	
	LANL-ER-AP-05.1	Readiness Review for ER Program Field Act.	
	LANL-ER-AP-05.2	Determination, Completion & Documentation of ER Worker Training	
	LANL-ER-AP-05.3	Management of ER Program Wastes	
	LANL-ER-AP-06.2	Procedure for the ER Program Sample Management Organization	
	LANL-ER-QPP-17.0	Records	
	LANL-ER-QPP-18.0	Audits and Surveys	
	LANL-ER-QAPP-4.1	Introduction	
	LANL-ER-QAPP-4.2	Approval Process - Sampling & Analysis Plans	
	LANL-ER-QAPP-4.3	Project Overview & Sampling & Analysis Plan	
	LANL-ER-QAPP-4.4	Requirements for Sampling Operations	
	LANL-ER-QAPP-4.5	Requirements for Selecting Analytical Methods & Quality Control Requirements	
	LANL-ER-QAPP-4.6	Specification of Acceptance Criteria and Selection of Quality Assessment and Quality Control Samples	
	LANL-ER-QAPP-4.7	Data Management	
	LANL-ER-QAPP-4.8	Quality Assurance Assessments and Response Actions	
	LANL-ER-QAPP-4.9	Data Verification and Validations	
	LANL-ER-QAPP-4.10	Requirements for Using Archived Data and Unmeasurement Data	
	LANL-ER-QAPP-4.11	Maintenance, Inspection, Calibration, and Acceptance of Measurement Equipment and Consumables	
	LANL-ER-QAPP-4.12	Training and Certification	
	LANL-ER-QAPP-4.13	Reports to Management	
	RMMA Program Plan	RMMA Program Plan (Section 7.0)	
	LANL-ER-SOP-01.01	General Instructions for Field Investigations	
	LANL-ER-SOP-01.02	Sample Containers and Preservation	
	LANL-ER-SOP-01.03	Handling, Packaging, and Shipping of Samples	
	LANL-ER-SOP-01.04	Sample Control and Field Documentation	
	LANL-ER-SOP-01.05	Field Quality Control Samples	

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Los Alamos National Laboratory Environmental Restoration Project
READ TRAINING DOCUMENTATION FORM
(cont.)

Field Unit #:_____
Worker Z#:_____

Required	Procedure Identification		Completed
_____	LANL-ER-SOP-01.07	Operational Guidelines for Taking Soil & Water Samples in Explosives Areas	_____
_____	LANL-ER-SOP-01.08	Field Decontamination of Drilling and Sampling Equipment	_____
_____	LANL-ER-SOP-01.09	Management of ER Project RMMAs	_____
_____	LANL-ER-SOP-03.01	Land Surveying Procedures	_____
_____	LANL-ER-SOP-03.02	General Surface Geophysics	_____
_____	LANL-ER-SOP-03.04	Petrography	_____
_____	LANL-ER-SOP-03.05	Determination of Volume Constituents in Thin Sections of Rocks	_____
_____	LANL-ER-SOP-03.06	Fracture Characterization	_____
_____	LANL-ER-SOP-03.07	Characterization of Lithologic Variations within Rock Outcrop of a Volcanic Field	_____
_____	LANL-ER-SOP-03.08	Geomorphic Characterization	_____
_____	LANL-ER-SOP-03.09	Geologic Mapping of Bedrock Units	_____
_____	LANL-ER-SOP-03.10	Trenching and Logging	_____
_____	LANL-ER-SOP-03.11	Coordination & Evaluation of Geodetic Surveys	_____
_____	LANL-ER-SOP-03.12	Field and Laboratory Notebook Documentation for ER Earth Science Studies	_____
_____	LANL-ER-SOP-04.01	Drilling Methods and Drill Site Management	_____
_____	LANL-ER-SOP-04.04	General Borehole Logging	_____
_____	LANL-ER-SOP-05.01	Monitor Well Construction	_____
_____	LANL-ER-SOP-05.02	Well Development	_____
_____	LANL-ER-SOP-06.01	Purging of Wells for Representative Sampling of Groundwater	_____
_____	LANL-ER-SOP-06.02	Field Analytical Measurements of Groundwater Samples	_____
_____	LANL-ER-SOP-06.03	Sampling Volatile Organics	_____
_____	LANL-ER-SOP-06.04	Sampling Commercial/Municipal/Domestic Wells	_____
_____	LANL-ER-SOP-06.05	Soil Water Samples	_____
_____	LANL-ER-SOP-06.06	Tensiometer (Soil Suction Monitor) Installation and Measurement	_____
_____	LANL-ER-SOP-06.09	Spade and Scoop Method for Collection of Soil Samples	_____
_____	LANL-ER-SOP-06.10	Hand Auger and Thin-Well Tube Sampler	_____
_____	LANL-ER-SOP-06.11	Stainless Steel Surface Soil Sampler	_____
_____	LANL-ER-SOP-06.13	Surface Water Samples	_____
_____	LANL-ER-SOP-06.14	Sediment Material Collection	_____
_____	LANL-ER-SOP-06.15	Coliwasa Sampler for Liquids and Slurries	_____
_____	LANL-ER-SOP-06.16	Thief Sampler for Dry Powders or Granules	_____
_____	LANL-ER-SOP-06.17	Trier Samplers for Sludges and Moist Powders or Granules	_____
_____	LANL-ER-SOP-06.18	Collection of Sand, Packed Powder, Granule Samples Using Hand Auger	_____
_____	LANL-ER-SOP-06.19	Weighted Bottle Sampler for Liquids and Slurries in Tanks	_____
_____	LANL-ER-SOP-06.21	Volatile Organic Sampling Train	_____
_____	LANL-ER-SOP-06.22	Canister Sampling for Organics - EPA Method TO-14	_____

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Los Alamos National Laboratory Environmental Restoration Project
READ TRAINING DOCUMENTATION FORM
(cont.)

Field Unit #:_____
Worker Z#:_____

Required	Procedure Identification		Completed
_____	LANL-ER-SOP-06.23	Measurement of Gamma-Ray Fields Using a Sodium Iodide Detector	_____
_____	LANL-ER-SOP-06.24	Sample Collection from Split Spoon Samplers and Shelby Tube Samplers	_____
_____	LANL-ER-SOP-06.25	Total Suspended Particulate Air Sampling	_____
_____	LANL-ER-SOP-06.26	Core Barrel Sampling for Subsurface Earth Materials	_____
_____	LANL-ER-SOP-06.28	RO-Chip Sampling of Porous Surfaces	_____
_____	LANL-ER-SOP-06.29	Single-Stage Sampling for Surface Water Run-Off	_____
_____	LANL-ER-SOP-07.01	Pressure Transducers	_____
_____	LANL-ER-SOP-07.02	Fluid Level Measurements	_____
_____	LANL-ER-SOP-07.03	Well Slug Tests	_____
_____	LANL-ER-SOP-07.04	Aquifer Pumping Tests	_____
_____	LANL-ER-SOP-09.01	Thin Section Preparation	_____
_____	LANL-ER-SOP-09.02	Operating the Microprobe	_____
_____	LANL-ER-SOP-09.03	Operation of the Siemens X-Ray Diffractometer	_____
_____	LANL-ER-SOP-09.04	Calibration and Alignment of the Siemens Diffractometer	_____
_____	LANL-ER-SOP-09.05	Clay Mineral Separation for X-Ray Diffraction Analysis	_____
_____	LANL-ER-SOP-09.06	Zeolite Purification and Separation	_____
_____	LANL-ER-SOP-09.07	Operating Instructions for ISI Model/DS-130 Scanning Electron Microscope and Tracor Northern Series II X-Ray Analyzer	_____
_____	LANL-ER-SOP-09.09	Certification of Standards for Electron Microanalysis	_____
_____	LANL-ER-SOP-10.01	Screening of PCBs in Soil	_____
_____	LANL-ER-SOP-10.04	MCA-465/Fidler Instrument System	_____
_____	LANL-ER-SOP-10.05	Field Analysis of Total Hydrocarbons Using The Hanby Method	_____
_____	LANL-ER-SOP-10.07	RO- Field Monitoring for Surface and Volume Radioactivity Levels	_____
_____	LANL-ER-SOP-11.01	Measurement of Bulk Density, Dry Density, Water Content, and Porosity in Soil	_____
_____	LANL-ER-SOP-11.02	Particle Size Distribution of Soil/Rock Samples	_____
_____	LANL-ER-SOP-11.03	Permeability of Granular Soils	_____
_____	LANL-ER-SOP-11.04	Soil and Core pH	_____
_____	LANL-ER-SOP-11.05	Total Organic Carbon	_____
_____	LANL-ER-SOP-11.06	Cation-Exchange Capacity	_____
_____	LANL-ER-SOP-12.01	Field Logging, Handling, and Documentation of Borehole Materials	_____
_____	LANL-ER-SOP-12.02	Transportation, Receipt, & Admittance of Borehole Samples for the Sample Management Facility	_____
_____	LANL-ER-SOP-12.03	Acceptance of Non-Borehole Samples by the Sample Management Facility	_____
_____	LANL-ER-SOP-12.04	Physical Processing & Storage of Borehole Samples at the Sample Management Facility	_____

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Los Alamos National Laboratory Environmental Restoration Project
READ TRAINING DOCUMENTATION FORM
(cont.)

Field Unit #:_____
Worker Z#:_____

Required	Procedure Identification		Completed
_____	LANL-ER-SOP-12.05	Examination of Samples at the Sample Management Facility	_____
_____	LANL-ER-SOP-14.01	Berthold Low Alpha and Beta Activity Counter Calibration, Quality Control, Detection Limit, and Use	_____
_____	LANL-ENG Facilities	Survey Procedures Manual	_____

Additional Procedures: (i.e., contractor or other LANL organization approved Procedures)

Required	Procedure Identification		Completed
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
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_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

_____
Field Team Leader (Signature)

_____
Date

_____
ER Worker (Signature)

_____
Date

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Los Alamos National Laboratory Environmental Restoration Project
READ TRAINING DOCUMENTATION FORM
(cont.)

SUPPLEMENTAL FORM

This form may be used as a supplement to the completed Read Training Documentation Form.

Field Team Leader:_____
Z Number:_____
Field Unit Number:_____
Technical Area(s):_____
_____

Worker Name:_____
Z Number:_____
Worker Role(s)_____
_____
Employer_____

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The following procedures should be added to the worker's existing Read training file:

Required	Procedure Identification		Completed

_____
Field Team Leader (Signature)

_____
Date

_____
ER Worker (Signature)

_____
Date

Los Alamos National Laboratory Environmental Restoration Project
ES&H TRAINING CHECKLIST

Field Team Leader:_____
Z Number:_____
Field Unit Number:_____
Technical Area(s):_____
_____

Worker Name:_____
Z Number:_____
Worker Role(s)_____
_____
Employer_____

Field Team Leader Instructions

Place a check or an 'X' in the *Required* column to indicate the required ES&H training the worker must complete to ES&H training requirements for their applicable worker role(s). See the SSHASP for worker role-specific ES&H training requirements. Sign and date the last page of this checklist.

Environmental Restoration

Worker Instructions

Indicate the completion date for each ES&H training requirement in the *Completion Date* column. Sign meet and date the last page of this checklist.

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Required	Training Requirement	Completion Date
_____	ER Project Health and Safety Plan	_____
_____	ER Project Model Site Health and Safety Plan	_____
_____	Pre-Job Start Health and Safety Briefing	_____
_____	General Employee Training (GET) - LANL [2 Year Refresher]	_____
_____	Employer's Hazard Communication Program	_____
_____	Conduct of Operations and Occurrence Reporting	_____
_____	OSHA Rights and Responsibilities	_____
_____	Health Physics Checklist	_____
_____	Radiological Worker II Training [2 Year Refresher]	_____
_____	40 Hour HAZWOPER	_____
_____	24 Hour HAZWOPER Supervised Field Work	_____
_____	24 Hour HAZWOPER	_____
_____	8 Hour HAZWOPER Supervised Field Work	_____
_____	8 Hour Annual HAZWOPER Refresher	_____
_____	Site Safety Officer	_____
_____	Industrial Health Technician	_____
_____	Health Physics Personnel	_____
_____	First Aid [2 Year Refresher]	_____
_____	CPR [1 Year Refresher]	_____
_____	First Responder Awareness Level	_____
_____	First Responder Operations Level	_____

Los Alamos National Laboratory Environmental Restoration Project
ES&H TRAINING CHECKLIST
(cont.)

Field Unit #:_____
Worker Z#:_____

Required	Training Requirement	Completion Date
_____	PPE (per Section 7.1 of HASP)	_____
_____	Fire Extinguisher Use	_____
_____	Fire Fighting Equipment	_____
_____	Hearing Conservation (per Section 4.2.2.7 of HASP)	_____
_____	Respiratory Protection - Level C (per Section 7.1 of HASP)	_____
_____	Respiratory Protection - Level B (per Section 7.1 of HASP)	_____
_____	Level B Equipment Supervisor (per Site-Specific SOP & Section 7.1 of HASP)	_____
_____	Plutonium Safety (LANL)	_____
_____	Tritium Safety (LANL)	_____
_____	Spot Test for High Explosives (HE) [DX-16]	_____
_____	High Explosives (HE) Identification/Hazard Awareness Video [DX-16]	_____
_____	Resource Conservation and Recovery Act Training	_____
_____	Department of Transportation Training	_____
_____	Waste Generation Training	_____
_____	Sanitation	_____
_____	Materials Handling, Storage, Use, Disposal	_____
_____	Signs, Signals, Barricades	_____
_____	Traffic Flagging System	_____
_____	Stairways, Ladders	_____
_____	Tools - Hand and Power	_____
_____	Excavation/Trenching Competent Person	_____
_____	Excavation/Trenching Protective Systems Competent Person	_____
_____	Confined Space Entry	_____
_____	Confined Space Entry Supervisor	_____
_____	Electrical Safety Awareness	_____
_____	Lockout/Tagout (Booklet)	_____
_____	Lockout/Tagout Red Control of Hazardous Energy Sources	_____
_____	Motor Vehicles, Mechanized Equipment, &/or Material Handling Equip.	_____
_____	Forklift Safety	_____
_____	Crane and Rigging Operator Safety	_____

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Los Alamos National Laboratory Environmental Restoration Project
ES&H TRAINING CHECKLIST
(cont.)

Field Unit #:_____
Worker Z#:_____

Required	Training Requirement	Completion Date
_____	Hoists	_____
_____	Conveyors	_____
_____	Welding and Cutting	_____
_____	Scaffolding	_____
_____	Arsenic - inorganic	_____
_____	Asbestos Worker	_____
_____	Asbestos Competent Person	_____
_____	Benzene	_____
_____	Beryllium (LANL-AR-6-7)	_____
_____	Bloodborne Pathogens	_____
_____	Cadmium	_____
_____	Formaldehyde	_____
_____	Lead	_____
_____	Vinyl Chloride	_____

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Additional Training Requirements:

Required	Training Requirement	Completion Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____
Field Team Leader (Signature)

_____
Date

_____
ER Worker (Signature)

_____
Date

Los Alamos National Laboratory Environmental Restoration Project
ES&H TRAINING CHECKLIST
(cont.)

SUPPLEMENTAL FORM

This form may be used as a supplement to the completed ES&H Training Checklist.

Field Team Leader:_____
Z Number:_____
Field Unit Number:_____
Technical Area(s):_____
_____

Worker Name:_____
Z Number:_____
Worker Role(s)_____
_____
Employer_____

The following requirements should be added to the worker's existing ES&H training file:

Required	Training Requirement	Completion Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____
Field Team Leader (Signature)

_____
Date

_____
ER Worker (Signature)

_____
Date

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LOS ALAMOS

ENVIRONMENTAL RESTORATION PROGRAM INTERIM CHANGE NOTICE

EFFECTIVE DATE : (Dist. Date) 2/15/95 ICN No. 008 Page 1 of 1

Document No. LANL-ER-AP-05.3 Rev. 0 Title: Management of Environmental Restoration Wastes

Reason for Change:

This interview checklist was prepared as part of the commitments made in the Response to Compliance Order #2, Knowledge of Process Corrective Action Plan, as required by the Compliance Order NMHWA-94-12, issued by the New Mexico Environment Department to the Laboratory on August 12, 1994.

The checklist will be required for waste characterization if sample analyses indicate that a potential RCRA constituent is present but has not been previously identified. Its use in the waste characterization process will help ESH-19 to make a RCRA determination.

Description of Change (Specify page, paragraph, and/or section revised, and clearly write new text to be incorporated in the document).

Page 10, Section 5.1.6. Add the following paragraph:

If sample analyses indicate that a potential RCRA constituent is present that was not identified in the investigative process, use the Interview Checklist to Help Determine RCRA Status, Attachment F.

Page 11, Section 5.1.6.3. Add the following bulleted information:

- Interview Checklist (Attachment F), if used

Page 20, Section 7.0. Add the following information:

K. Interview Checklist, if used

Page 20, Section 8.0. Add the following information:

F. Interview Checklist

After last page: Include Interview Checklist as Attachment F.

Change Requested by:	A E. NORRIS (Print)	A. E. Norris (Signature)	January 18, 1995 (Date)
Functional Reviewer	DAVID McINROY (Print)	(Signature)	1-27-95 (Date)
Program Manager Approval:	JORG JANSEN (Print)	(Signature)	1-31-95 (Date)
Quality Program Project Leader (QA review and approval)	Lawrence A. Souza (Print)	(Signature)	1/31/95 (Date)

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Cover Page
Los Alamos National Laboratory
Environmental Restoration Project

____-___*

Interview Checklist to Help Determine RCRA Status of Wastes

All questions are to be answered. Use No Known Information (NKI) as responses to questions if the interviewee has no information on the subject matter. Put the interviewer's initials and the number of the interviewer's completed checklist in the identifier location at the right hand corner of the cover page and on each succeeding page. Follow all instructions in the checklist, and give the entire record package to the Field Team Leader.

The Field Team Leader or designee will submit the record package to the Environmental Restoration Project's waste management liaison for delivery to ESH-19 for the RCRA determination. The record will be submitted to the RPF in accord with Section 7.0 of this AP.

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1. Name of Interviewee:	Date:
2. Interviewee's Z Number:	
3. Interviewee's Address (if retired):	
4. Phone: (w) (___) _____ (h) (___) _____	
5. Names of other personnel involved with work at the site. Addresses and phone numbers, if available:	
6. Name of Interviewer (Print and sign name):	Date:

*Use interviewer's initials before dash, and put number of interview after dash.
□Check here if information continues on the back.

___-___*

Los Alamos National Laboratory
Environmental Restoration Project

Interview Checklist to Help Determine RCRA Status of Wastes

Date of Interview: _____
PRS or SWMU Designation: OU:
TA ___ Building _____ (if applicable)
Interviewee's dates of service at site:
Job title and brief description of interviewee's work:

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*Use interviewer's initials before dash, and put number of interview after dash.
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Los Alamos National Laboratory
Environmental Restoration Project

Interview Checklist to Help Determine RCRA Status of Wastes

RCRA characteristic wastes will not be addressed in this checklist, because the purpose of the checklist is to obtain information about potential RCRA listed constituents.

Environmental Restoration Project's policy is to obtain the best available information to help ESH-19 determine if a constituent identified from analysis is a RCRA listed waste. Information about the uses of the constituent is important for correct characterization. Use of this checklist will help obtain relevant information. The only RCRA waste codes considered likely by ESH-19 to occur at this laboratory are:

Solvents	F001 - F005
Electroplating	F006 - F012
Leachate from multi source	F039
Explosive Manufacturing	K044 - K047
Lead, hexavalent chromium - from formulation of ink	K086
Off Specification or Spilled Chemicals	P and U

List the chemicals and potential RCRA waste codes that are being researched.

Chemical name (also use common name, if one exists)	Potential RCRA Waste Codes (from above list)

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*Use interviewer's initials before dash, and put number of interview after dash.
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Los Alamos National Laboratory
Environmental Restoration Project

Interview Checklist to Help Determine RCRA Status of Wastes

QUESTIONS	
1.	Describe activity and waste-generating process. Include information on raw materials used, process, product, rework. Include dates of activity. Diagram or sketch, if it would be helpful.
2.	Facility history. (Dates of interviewee's service at facility): Group's Designation or Name/Group responsible for facility use. Mission:

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*Use interviewer's initials before dash, and put number of interview after dash.
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Environmental Restoration Project

Interview Checklist to Help Determine RCRA Status of Wastes

3. Were there chemistry labs, machine shops, maintenance shops, or mechanical repair shops where you worked?

   A. Were degreasers, solvents, or non-soap type cleaners used?

   B. What degreasers or solvents were used? Also include concentration of chemicals prior to use. (*Use list of chemicals in Attachment A to help interviewee recognize chemicals.*)

   C. How were they used?

   D. What was done with the spent cleaners, still bottoms, or chemicals? (*Please list each one separately, if possible.*)

   E. How was the waste managed? (Where was it stored?)

   F. Where was it disposed? (*Give interviewee map of Technical Area to identify disposal location.*)

   G. Were any chemicals used for degreasing or cleaning also used for other purposes? Can examples of these other uses be given?

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*Use interviewer's initials before dash, and put number of interview after dash.
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Los Alamos National Laboratory
Environmental Restoration Project

_____-_____*

Interview Checklist to Help Determine RCRA Status of Wastes

4. Were there electroplating operations using cyanides? Describe the processes, what was plated, and the raw materials.

   A. What was done with the plating solutions, residues, stripping baths or cleaning baths? (*Please list each one separately if possible.*)

   B. Where and when were solutions or residues disposed? (*Give interviewee map of Technical Area to identify disposal location.*)

      i. Did wastewater treatment occur at this site?
      ii. What was done with the wastewater treatment sludges?

   C. Were wastewater treatment sludges generated from sulfuric acid anodizing of aluminum; tin plating on carbon steel; zinc, aluminum, or zinc-aluminum plating on carbon steel; cleaning or stripping of zinc, aluminum, or tin on carbon steel; or chemical etching or milling of aluminum?

   D. Where did the treatment occur? How was the waste managed?

   E. Where and when was the waste disposed?

   F. Were cyanides used other than for electroplating operations? Can examples of such uses be given?

5. Were there metal heat treating operations using cyanides where you worked? Describe the processes, raw materials, and the product.

   A. What was done with the quenching bath residues from oil baths or spent cyanide solutions from salt bath pot cleaning? (*Please list separately, if possible.*)

      i. Did wastewater treatment occur at this site?
      ii. What was done with the wastewater treatment sludges?

   B. Where and when were the sludges disposed?

   C. Were cyanides used other than for heat treating operations? Can examples of such uses be given?

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*Use interviewer's initials before dash, and put number of interview after dash.
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Environmental Restoration Project

Interview Checklist to Help Determine RCRA Status of Wastes

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6. A. Were explosives manufactured or produced?

   B. Was wastewater from this explosives work generated or treated?

   C. Describe the processes, raw material, and the products.

   D. What was done with the pink/red water, sludges or spent carbon from explosives wastewater treatment? (*Please list separately, if possible.*)

   E. Where and when were these materials disposed?

7. A. Were any unused chemicals (including pesticides and insecticides) that were unwanted, out of date, or off specification disposed?

   B. What were the chemicals' names and uses?

   C. Where and when were they disposed?

      i. Were there any spills (e.g., in storage areas) from any unused chemicals?
      ii. What was done with the cleanup materials?

   D. Were there any other incidents that may have caused contaminants to be deposited on the soil?

8. A. Was there a landfill for chemicals in or near your work area? _____ Where?

      i. Were there liquids associated with the landfill?

      ii. Were the liquids in the bottom or below the pit ever collected for further processing or management?

   B. What was done with the liquids and where were they disposed?

9. A. Were there printing operations on site?

   B. What was done with the liquids and sludges from the type-cleaning operations?

*Use interviewer's initials before dash, and put number of interview after dash.
□Check here if information continues on the back.

Los Alamos National Laboratory
Environmental Restoration Project

Interview Checklist to Help Determine RCRA Status of Wastes

10. A. Were there other waste generating processes in the vicinity that might have an impact on this site?

B. Who would have details about the process or practice?

11. A. Were other chemicals used at the site? What were their uses?

B. Were other wastes (for example, vacuum pump oil or other oils) managed or disposed at the site?

12. Method of disposal

- ☐ Into drain (indicate destination, if known)
- ☐ Into holding tank
- ☐ Evaporation
- ☐ Spill (chemical storage or waste storage area?)
- ☐ Poured onto or injected into ground
- ☐ Buried (for example in Material Disposal Area or buried in place)
- ☐ Burned

Explain checked boxes:

_____

_____

_____

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*Use interviewer's initials before dash, and put number of interview after dash.
☐Check here if information continues on the back.

Los Alamos National Laboratory
Environmental Restoration Project

_____-___*

Interview Checklist to Help Determine RCRA Status of Wastes

13. Was waste packaged?

Describe:

14. Is other information available?

- ☐ Letters/Memos
- ☐ Ordering Information
- ☐ Transportation/shipping information
- ☐ Final Report

Give available detail on checked items:

15. To interviewer: If no information is available, briefly relate the effort to determine information (for example, phone calls, letters, archival research, etc.):

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*Use interviewer's initials before dash, and put number of interview after dash.
☐Check here if information continues on the back.

ICF KAISER

ICF KAISER ENGINEERS, INC.
1900 DIAMOND DRIVE
LOS ALAMOS, NM 87544
505/661-5200
FAX: 505/661-5222

MEMORANDUM

To: Dave Bradbury, ER, M992 **Date:** November 15, 1994

From: Pat Tillery

Subject: ICN for LANL-ER-AP-05.3, R0.

Included with this memo is an Interim Change Notice that changes LANL-ER-AP-05.3, Management of Environmental Restoration Program Wastes. Changes in the procedure are being made to make it consistant with the Response to Compliance Order Requirement 2, Knowledge of Process Corrective Action Plan. This Interim Change Notice was requested by Larry Souza, and Ted Norris concurred with the request. Ted Norris has indicated that the entire procedure needs revision, but he wanted the fast change that the Interim Change Notice can provide.

If you have questions or comments, please call me at 661-5216.

Copy:
ICF KE 93069-015 Project File
Memo File w/o enclosure

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Los Alamos
NATIONAL LABORATORY
memorandum
ENVIRONMENTAL RESTORATION
ER, M992

To/MS: Distribution
From/MS: Jorg Jansen, Project Manager
Phone/FAX: 7-0808/5-4747
Symbol: ER:94-J383
Date: September 16, 1994

SUBJECT: DISTRIBUTION OF ENVIRONMENTAL RESTORATION (ER) ADMINISTRATIVE PROCEDURES

Attached are documents for insertion on your **controlled copy** of the Environmental Restoration (ER) Standard Administrative and Quality Procedures manual.

The documents for this distribution are:

a) ICN 005 for pages 16, 17, and 30 to LANL-ER-AP-05.3, R0 – Management of Environmental Restoration Waste

Please follow the instructions on the Receipt Acknowledgment forms to complete all updates. Sign and return the Receipt Acknowledgment for to Renee Archuleta, MS M707, by **September 29, 1994.**

If you have any questions on this update please contact Renee Archuleta, ER Controlled Document Coordinator, at 5-6498. If you are no longer on the distribution or your group has changed names you will also need to contact me with the current information.

LS/lp

Attachments: ICN 005 for LANL-ER-AP-05.3, R0

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Distribution: w/att.
J. Aldrich, EES-1, MS D462
L. Ettinger, EES-5, MS D452
R. Archuleta, ER, MS M707
C. Duffy, INC-7, MS J514
A. White, ERM, MS M327
P. Fresquez, ESH-8, MS K490
R. Gonzales, ER, MS M768
E. Kelly, ER, MS M773
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H. Gram, ICF-Kaiser, MS M703
K. Armstrong, ER, MS M992
A. Cogbill, EES-3, MS F659
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A. Rey, ESA-4, MS G787
L. Souza, MS M992
D. Conover, Morrison-Knudson
J. Williams, ERM, MS M827
D. Hickens, ER, MS M992
K. Walter, ERM, MS M327
D. Faulk, ERM, MS M327
C. Frostenson, LAO-2, MS G783
D. Newell, ERM, MS M327
D. Michaels, Neptune & Co.
D. Katzman, LATA, MS M321
V. Fry, ERM, MS M327
M. Henke, ESA-4, MS G787

Cy: w/o att.
L. Soholt, EM/ER, MS M773
RPF, MS M707

B. Martin, CST-6, MS E525
T. Glatzmaier, ER, MS M992
J. Noel, ER, MS M992
P. Scott Den-Baars, IT Corp., MS M992
M. Madonia, Weston, MS M992
L. Byars, ER, MS M773
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J. Day, LATA, MS M321
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G. Allen CST-6, MS E525
L. Coons, Daniel B. Stephens & Assoc.
D. Bradbury, ER, MS M992
C. Wilson, ERM, MS M327
D. Krier, EES-1, MS J577
T. Taylor, LAAO, MS A316
B. Boltman, ESA-4, MS G787
D. Armstrong, CST-8, MS K490
T. Mcfarland, ERM, MS M327
S. Stellavato, EES-13, MS J521
J. Shipley, EM, MS J591
L. Ambercrombie, ER, MS M768
D. Pippin, ESA-4, MS G787
J. Novak, EES-1, MS D462
D. Finnegan, CST-10, MS J514
N. McCranie Jr., ERM/PMC, MS M327
L. Reese, ESH-14, MS C307
J. Harris, ERM, MS M327
R. Garnett, ERM, MS M327
L. Shastri, ERM, MS M327
C. Martinez, LATA, MS M321
V. Trujillo, ESA-13, MS J577
R. Mynard, ESA-4, MS G787

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Los Alamos National Laboratory
Environmental Restoration Project

Interview Checklist to Help Determine of RCRA Status of Wastes

ATTACHMENT A
TECHNICAL AND TRADE NAMES FOR F001-F005 CONSTITUENTS

TETRACHLOROETHYLENE
tetrachloroethene
perchloroethylene
ethylene tetrachloride
Nema
Tetracap
Tetropil
Perclene
Ankilostin
Didakene

TRICHLOROETHYLENE
trichloroethene
ethinyl trichloride
Tri-Clene
Trielene
Trilene
Trichloran
Trichloren
Algylen
Trimar
Triline
Tri
Trethylene
Westrosol
Chlorylen
Gemalgene
Germalgene

METHYLENE CHLORIDE
dichloromethane
methylene bichloride

1,1,1-TRICHLOROETHANE
methylchloroform
chlorothene

CARBON TETRACHLORIDE
tetrachloromethane
perchloromethane
Necatorina
Benzinoform

CHLORINATED FLUOROCARBONS
all *liquid* freons

CHLOROBENZENE
monochlorobenzene
benzene chloride

1,1,2-TRICHLORO-1,2,2
-TRIFLUOROETHANE

ORTHO-DICHLOROBENZENE
1,2-dichlorobenzene

TRICHLOROFLUOROMETHANE
trichloromonofluoromethane
fluorotrichloromethane
Freon 11
Frigen 11
Arcton 11

1,1,2-TRICHLOROETHANE
vinyl trichloride

XYLENE
dimethylbenzene
Xylol

ACETONE
2-propanone
dimethyl ketone
β-ketopropane
pyroacetic ether

ETHYL ACETATE
acetic acid ethyl ester
acetic ether
vinegar naptha

ETHYLBENZENE

ETHYL ETHER
1,1'-oxybisethane
ethoxyethane
ether
diethyl ether
ethyl oxide
diethyl oxide
sulfuric ether
anesthetic ether

METHYL ISOBUTYL KETONE

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Los Alamos National Laboratory
Environmental Restoration Project

Interview Checklist to Help Determine of RCRA Status of Wastes

n-BUTYL ALCOHOL
1-butanol
butyl alcohol
propyl carbinol

CYCLOHEXANONE
ketohexamethylene
pimelic ketone
Hytrol O
Anone
Nadone

METHANOL
methyl alcohol
carbinol
wood spirit
wood alcohol

CREOSOLS
cresylic acid
cresylol
tricresol
ortho-creosol
2-methylphenol
o-hydroxytoluene
meta-creosol
3-methylphenol
para-creosol
4-methylphenol

NITROBENZENE
nitrobenzol
essence of mirbane
oil of mirbane

TOLUENE
methyl benzene
toluol
phenyl methane
Methacide

METHYL ETHYL KETONE
2-butanone
ethyl methyl ketone
MEK
2-oxobutane

CARBON DISULFIDE
carbon bisulfide
dithiocarbonic anhydride

ISOBUTANOL

PYRIDINE

BENZENE
benzol
cyclohexatriene

2-ETHOXYETHANOL
ethylene glycol monoethyl ether
Cellosolve
Oxitol

2-NITROPROPANE

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ENVIRONMENTAL RESTORATION PROGRAM INTERIM CHANGE NOTICE

EFFECTIVE DATE : (Dist. Date) 12-2-94 ICN No. 005 Page 1 of 7

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Document No. LANL-ER-AP-05.3 Rev. 0 Title: Management of Environmental Restoration Program Wastes

Reason for Change:

The following changes will be made in order to be consistent with the Response to Compliance Order Requirement 2 - Knowledge of Process Corrective Action Plan, dated October 14, 1994. The term "Knowledge of Process" will be deleted and the terms "acceptable knowledge" and "process knowledge" will be added and defined.

Description of Change (Specify page, paragraph, and/or section revised, and clearly write new text to be incorporated in the document).

Page 2 1.0 Add second paragraph:
The process of waste characterization is premised on the regulations currently in effect. In the event that de minimus levels are established for listed wastes or changed for characteristic wastes by the Environmental Protection Agency or New Mexico Environmental Division, then the process will be amended to reflect these changes.

Page 2 3.0 Add: Acceptable Knowledge: Acceptable knowledge refers to information that is used for waste characterization in lieu of waste sampling and analysis. Acceptable knowledge includes process knowledge and previous chemical/analytical results associated with the waste and any associated information, if available.

Changes continue on page 2.

Change Requested by:	LARRY SOUZA (Print)	(Signature)	11/17/94 (Date)
Functional Reviewer	Julie Winslow (Print)	(Signature)	11-15-94 (Date)
Program Manager Approval:	JORG JANSEN (Print)	(Signature)	11-17-94 (Date)
Quality Program Project Leader (QA review and approval)	LARRY SOUZA (Print)	(Signature)	11/17/94 (Date)

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Add: Previous chemical/physical analytical results and associated information: Previous chemical/physical analytical results are defined as existing, published, or documented waste analysis data, site characterization analytical results, or other previous analytical results or studies. Associated information includes, if available: the sampling strategy (e.g., random sampling), the number of samples collected, sample collection technique (e.g., grab sampling using a pole-mounted beaker), analytical methods, quality assurance/quality control sample results, and detection limits. The previous analytical results must include all constituents identified in the past, not just those of concern for health risks. Previous chemical/physical analytical results are used to identify specific constituents and their concentrations that may be present in the waste. This information is especially important for helping determine whether the waste may be RCRA listed or characteristic waste.

Add: Process knowledge: Process knowledge is defined as the site history, which includes, to the extent possible, the start and end dates and a description of the waste generation activity or process for the wastes potentially managed at the site or that resulted in the contamination of the site. Process knowledge includes all previous and current waste generating activities or processes affecting the site. Process knowledge could also include the raw materials used and associated material safety data sheets, products produced, associated wastes, suspected areas of contamination, other knowledge of contamination, whether the personal protective equipment or disposable items made direct contact with contaminated materials, presence or absence of visible contamination on the personal protective equipment or disposable items, medium in which the potential constituents are found, and the properties of the potential constituents. Process knowledge is used to identify specific constituents that may be present and the sources of these constituents. The latter information is especially important for helping determine whether associated wastes may be RCRA-listed.

Page 3	3.0	I. Delete KOP: Knowledge of Process
Page 8	5.1.5	2nd bullet. Change KOP to acceptable knowledge.
Page 10	5.1.6	Change KOP to acceptable knowledge.
Page 10	5.1.6.1	Change section heading from "Knowledge of Process" to "Evaluation of Acceptable Knowledge"
Page 10	5.1.6.1	Prior to and during any field work that generates waste, acceptable knowledge will be described and evaluated in the site-specific Waste Management Plan for each type of waste. Based on this evaluation, the following will be identified in the waste management plan: • Potential regulated constituents (e.g., RCRA hazardous waste constituents, Toxic Substances Control Act constituents, constituents regulated by the Underground Storage tank regulations) • Potential RCRA hazardous waste code (e.g., F001, D001) If acceptable knowledge is sufficient, chemical/physical analyses are not required for characterization.
Page 10	5.1.6.2	Change KOP to acceptable knowledge.

Changes continue on page 3.

Page 11	5.1.6.3	Three changes of KOP to acceptable knowledge.
Page 13	5.2 #3.	Change KOP to acceptable knowledge.
Page 14	5.2 #3. 1st bullet.	Change KOP to acceptable knowledge.
Page 15	5.2 #5. 3rd paragraph.	Two changes of KOP to acceptable knowledge.
Page 21	Attachment A 2nd paragraph.	Two changes of KOP to acceptable knowledge.
Page 21	Attachment A Last paragraph.	Change KOP to acceptable knowledge.
Page 22	Attachment A 6th paragraph.	Change KOP to acceptable knowledge.
Page 23	Attachment A 5th paragraph.	Two changes of KOP to acceptable knowledge.
Page 24	Attachment A 4th paragraph, after bullets.	Change KOP to acceptable knowledge.
Page 24	Attachment A 5th paragraph, after bullets.	Change KOP to acceptable knowledge.
Page 24	Attachment A 6th paragraph, after bullets.	Three changes of KOP to acceptable knowledge.
Page 28	Attachment C	Two changes of KOP to acceptable knowledge.
Page 32	Attachment E	Change KOP to acceptable knowledge.
Pages 23 & 24	Attachment A	Remove the Section Listed hazardous wastes. Replace with the following insert:

Listed hazardous wastes. A waste will be classified as a RCRA listed waste if it meets the listing descriptions in 20 NMAC 4.1, Part 261, Subpart D or if the waste is "mixed with" or "derived from" a listed hazardous waste or listed mixed waste. The waste must be designated as listed waste if the source of a waste constituent of a listed waste is known to be any of the following:

- Wastes from non-specific sources listed in 20 NMAC 4.1, Part 261.31 (F-listed wastes)
- Wastes from specific sources listed in 20 NMAC 4.1, Part 261.32 (K-listed wastes)
- Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof listed in 20 NMAC 4.1, Part 261.33 (U- and P-listed wastes)

To determine that a waste is a F- or a K-listed waste, the following criteria must be met:

- There must be sufficient information to identify a waste-generating process listed in 20 NMAC 4.1, Part 261.31 and Part 261.32 at the particular site.
- A hazardous waste constituent identified in 20 NMAC 4.1, Part 261.31 and Part 261.32 must be detected in the waste associated with the waste-generating process. Table A.1 includes the constituents of listed wastes that may be present in the ER waste, based on the types of activities and materials historically used at the Laboratory.

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Sufficient historical information dating back to the Manhattan Project is sometimes available to determine the waste-generating processes at each site that may have produced F- or K-listed wastes. In addition, if a constituent of a listed waste is detected in the environmental or waste samples, additional interviews may need to be conducted to determine if the waste is listed. Based on an analysis of historical information, the only F-listed wastes that potentially were generated at the Laboratory in the past were F001-F005 solvent wastes and F006-F012 electroplating wastes. The only K-listed wastes that potentially were generated at the Laboratory in the past were K044-K047 explosive manufacturing wastes. Table A.1 includes the hazardous waste constituents expected to be present in F-listed and K-listed wastes and the hazardous waste constituents identified in 20 NMAC 4.1, Part 261.31 and Part 261.32 associated with these specific waste codes.

To determine that a waste is a P- or a U-listed waste, the following criteria must be met:

- There must be sufficient information to determine that commercial chemical products, off-specification species, and container residues listed in 20 NMAC 4.1, Part 261.33 were discarded or spilled at the site.
- A P- or U-listed substance must be detected in the waste.

Little information indicating historical spills or product disposal is available at the Laboratory. Therefore, at most sites it is unlikely that the ER waste will include P- and U-listed wastes. If a constituent of a listed waste is detected in the environmental or waste samples, additional interviews can be conducted to determine if the waste is RCRA-listed waste or non-RCRA waste.

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Table A.1
Constituents of Listed "F" and "K" Wastes and Listing Description

EPA CODE	PROCESS DESCRIPTION	HAZARDOUS WASTE CONSTITUENTS
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of 10 percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10 percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, methanol Note: Presence of these nonhalogenated organic compounds means the waste is a listed waste only if the waste also exhibits the characteristic of ignitability.
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	cresols and cresylic acid, nitrobenzene

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EPA CODE	PROCESS DESCRIPTION	HAZARDOUS WASTE CONSTITUENTS
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, (before use) a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	cadmium, hexavalent chromium, nickel, cyanide (complexed)
F007	Spent cyanide-plating bath solutions from electroplating operations	Cyanide (salts)
F008	Plating bath residues from electroplating operations where cyanides are used in the process	Cyanide (salts)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	Cyanide (salts)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process	Cyanide (salts)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations	Cyanide (salts)
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process	Cyanide (complexed)
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	Note: Only constitutes a listed hazardous waste when the reactivity characteristic is exhibited. No hazardous waste constituents.

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EPA CODE	PROCESS DESCRIPTION	HAZARDOUS WASTE CONSTITUENTS
K045	Spent carbon from the treatment of wastewater containing explosives	Note: Only constitutes a listed hazardous waste when the reactivity characteristic is exhibited; no hazardous waste constituents
K046	Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds	Lead
K047	Pink/red water from TNT operations	Note: Only constitutes a listed hazardous waste when the reactivity characteristic is exhibited. No hazardous waste constituents

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ENVIRONMENTAL RESTORATION PROGRAM INTERIM CHANGE NOTICE

EFFECTIVE DATE : (Dist. Date) 9/20/94 ICN No. 5 Page 1 of 3

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Document No. LANL-ER-AP-05.03 **Rev.** 0 **Title:** Management of Environmental Restoration Waste

Reason for Change:

To ensure compliance with a Compliance Order from NMED which requires the Laboratory to use the Uniform Manifest and to clarify that if the NOI requirements are not met, then approval must be obtained for the deviation from the NOI requirements.

Description of Change (Specify page, paragraph, and/or section revised, and clearly write new text to be incorporated in the document).

See attached pages 2 and 3.

Change Requested by:	Larry Souza (Print)	(Signature)	9/15/94 (Date)
Functional Reviewer	Julie Wanslow (Print)	(Signature)	9/15/94 (Date)
Program Manager Approval:	Jorg Jansen (Print)	(Signature)	9-15-94 (Date)
Quality Program Project Leaser (QA review and approval)	Larry Souza (Print)	(Signature)	9/15/94 (Date)

Page 16, Item 6, last bullet, Add the following text after the last sentence:

"In addition, an EPA Hazardous Waste Manifest must accompany any shipment of waste or material if the waste or material is transported over public access roads prior to receiving the analytical results. See Section 5.2.12 for additional information regarding the manifest."

Page 17, Renumber existing item #12 to #13 and add the following new text to item #12:

"An EPA Uniform Hazardous Waste Manifest (EPA Form 8700-22 with additional form 8700-22A, if necessary) must accompany hazardous or mixed waste shipments if the waste will be transported over public access roads. In addition, a manifest must accompany any shipment of ER waste or material that is generated off Laboratory property if the waste or material will be transported on public access roads prior to receiving the analytical results.

The Waste Generator will obtain copies of the manifest from the Waste Management Coordinator. For assistance in completing the manifest, contact the Waste Management Group at 665-4000. The manifest requirements from 40 CFR, Sections 262.20, 262.22, 262.23, 262.40(a), and 262.42(a) are described below. All signatures on the manifest must be handwritten.

The Waste Generator must complete and sign all copies of the Uniform Manifest for hazardous or mixed waste in accordance with the specific instructions in the 40 CFR Part 262, Appendix A. The Waste Generator must complete and sign sufficient copies of the manifest so that the Waste Generator, each transporter, the owner or operator of the designated facility that receives the waste will retain one copy for their records, as well as another copy which will be returned to the Waste Generator from the designated facility. The Waste Generator must ensure that the transporter provides his signature and the date of acceptance on all copies of the Uniform Manifest prior to transporting the waste. The Waste Generator must retain a copy of the manifest signed by the transporter until the initial signed copy is received from the designated facility.

The Waste Generator should receive the initial copy with the original signatures from the designated facility within 35 days of the date the waste was accepted by the initial transporter. The Waste Generator must send the initial copy to the ER Records Processing Facility, MS M707. The Records Processing Facility must retain the initial, signed copy of the manifests for at least three years from the date that the waste was accepted by the initial transporter.

If the Waste Generator does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter, then the Waste Generator must contact the transporter and/or the operator of the designated facility to determine the status of the waste.

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If the Waste Generator does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter, then the Waste Generator must submit an Exception Report to the New Mexico Environment Department. The Exception Report must include a legible copy of the manifest for which the Waste Generator does not have confirmation of delivery, and a cover letter signed by the Waste Generator or his authorized representative explaining the efforts taken to locate the hazardous or mixed waste and the results of those efforts."

Page 30, Attachment C, second column, line 15,

Insert the following new sentence:

"If the NOI requirements cannot be met, contact ESH-8 to obtain approval for deviations from the NOI requirements prior to the disposal of liquids."

after the following existing sentence: "Dispose of liquids on Laboratory property if the NOI requirements are met."

Page 30, Attachment C, second column, line 14,

Delete the following:

"...on laboratory property..."

in the following sentence:
'Disposal of liquids on Laboratory property if the NOI requirements are met."

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Los Alamos National Laboratory **Environmental Restoration Program** **Administrative Procedure**	No: LANL-ER-AP-05.3	Rev: 0

MANAGEMENT OF ENVIRONMENTAL RESTORATION PROGRAM WASTES

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	(Print Name)	(Signature)	(Date)
Prepared by	Julie Wanslow	Julie Wanslow	7-22-94
Quality Review by	Patricia F. Goulding		7/22/94
Functional Review by	DAVID McINROY		8/4/94
PM Approval		JORG JANSEN	8-30-94
QPPL Approval	LAWRENCE A. SOUZA		8/4/94

Effective Date: 9/6/94

MANAGEMENT OF ENVIRONMENTAL RESTORATION WASTE

Contents

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MANAGEMENT OF ENVIRONMENTAL RESTORATION WASTE

1.0 PURPOSE

This administrative procedure (AP) provides decision-making guidelines related to the handling and disposition of wastes and materials generated by the Environmental Restoration (ER) field investigation and corrective action activities. This includes wastes and materials generated during the investigation and corrective action phases of the Resource Conservation and Recovery Act (RCRA) Corrective Action Program, RCRA closures, and the characterization, decontamination, and decommissioning (D&D) phases of D&D projects.

2.0 SCOPE

This AP is intended to cover and is applicable to ER waste management from the point of generation in the field to the point of release for final treatment, storage, or disposal. In addition, this AP is applicable to personnel responsible for characterizing the waste and supervising the management of the waste. This AP supersedes Laboratory ER Standard Operating Procedure (LANL-ER-SOP)-1.06, Management of RCRA Facility Investigation (RFI)-Generated Waste. This AP does not supersede more stringent waste disposal requirements developed by operating groups at individual technical areas.

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3.0 DEFINITIONS/ACRONYMS

A. AR: Laboratory Environment, Safety, and Health Administrative Requirement.

B. CERCLA: Comprehensive Environmental Response Compensation and Liability Act.

C. Chemical Waste Disposal Request (CWDR): Laboratory Form 1541 (ES&H Form 10-3A) found in AR 10-3, Hazardous and Mixed Waste, used to document the waste characterization information for hazardous waste and the radioactive component of mixed waste. Also used as a request for waste disposal.

D. Contamination Zone (CZ): Potentially contaminated area within the boundary of a solid waste management unit or potential release site for RFIs, a RCRA unit for RCRA closures, and a D&D site.

E. D&D: Decontamination and decommissioning.

F. EPA: Environmental Protection Agency.

G. FTL: Field Team Leader. For D&D activities, the FTL responsibilities will be handled by the D&D Project Leader or designee.

H. HWMR-7: State of New Mexico Hazardous Waste Management Regulations Parts 260-270, which are equivalent to the RCRA hazardous waste regulations in 40 CFR, Parts 260-270.

I. KOP: Knowledge of process.

J. Project Leader (PL): This includes the Project Leader for RFI and RCRA closure activities or the Project Leader for D&D activities.

K. Potential contaminants of concern (PCOC): The potential radioactive or chemical contaminants identified in the RFI Work Plan or other planning document that may be encountered during the site investigation.

L. PPE: Personal protective equipment.

M. Radioactive Liquid Waste Disposal Request (RLWDR): Laboratory Form 1624 obtained from the Waste Management Group, used to document waste characterization information for the radioactive component of liquid radioactive waste. Also used as a request for waste disposal.

N. Radioactive Solid Waste Disposal Record (RSWD): Laboratory form 1354 (ES&H Form 10-2A) found in AR 10-2, Low-Level Radioactive Solid Waste, used to document waste characterization information for the radioactive component of solid radioactive waste. Also used as a request for waste disposal.

O. RFI: RCRA Facility Investigation.

P. SWMR-4: State of New Mexico Environmental Improvement Board Solid Waste Management Regulations.

Q. Toxicity characteristic (TC): If a waste or an extract of the waste contains contaminants listed in HWMR-7, Part 261, Table 1 at the concentration equal to or greater than the respective value given in that table, the waste exhibits the RCRA characteristic of toxicity.

R. Toxicity Characteristic Leaching Procedure (TCLP): The procedure described in HWMR-7, Part 261, Appendix II that is used to determine if a waste exhibits the RCRA characteristic for toxicity.

S. Waste acceptance criteria (WAC): (See Section 6.0 and Attachment B for WAC documents.)

T. Waste profile form (WPF): Laboratory Form 1346 (ES&H Form 10-9A) found in AR 10-9, Waste Profile Form, used to document waste characterization information for the RCRA component.

U. Wastes/Materials

- Explosive waste: Waste potentially contaminated with explosives, equipment potentially contaminated with explosives, and explosive scrap.

- Hazardous waste: As defined by RCRA, any solid waste that is corrosive, toxic, ignitable, or reactive or that meets the definition of a listed

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hazardous waste in Title 40 CFR and HWMR-7, Part 261. (See Attachment A for characterization of hazardous wastes.)

- Mixed waste: Hazardous waste containing radioactive components as defined by the Atomic Energy Act of 1954 (as amended).

- Municipal refuse wastes: Non-radioactive, non-hazardous solid wastes that are regulated by SWMR-4 and may be disposed of at a sanitary solid waste landfill.

- Potential radioactive waste: Waste that is generated in an area where radioactive materials are present. This waste can be verified, using laboratory or equivalent methods, as being radioactive or non-radioactive but cannot be verified using field instruments as being non-radioactive. (See Attachment A for characterization of wastes for radioactivity.)

- Radioactive liquid low-level waste: Liquid waste contaminated or potentially contaminated with radionuclides.

- Radioactive solid low-level waste (LLW): Solid radioactive waste that is not classified as high-level waste, transuranic waste, or spent nuclear fuel (as defined in Department of Energy [DOE] Order 5820.2A, Radioactive Waste Management). Wastes contaminated with only natural or depleted uranium are, by definition, LLW. Test specimens of fissionable material irradiated for research and development purposes only, not for the production of power or plutonium, may be classified as low-level waste, provided that the concentration of transuranic waste is less than or equal to 100 nCi/g.

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Regulated chemical waste: Chemical waste that is regulated by the Toxic Substances Control Act, Clean Water Act, Clean Air Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or Underground Storage Tank regulations but is not regulated by DOE as radioactive waste or by RCRA as hazardous waste.

- Solid waste: As defined in RCRA (40 CFR or HWMR-7, Part 261), any discarded material, either abandoned or recycled, including solids, liquids, semisolids, and contained gases. Solid waste can be hazardous or mixed waste. However, source, by-product, and special nuclear material, as defined in the Atomic Energy Act, are exempt from the definition of solid waste.

- Suspect Radioactive Waste: Waste that is generated in an area where radioactive materials are present but that cannot be verified as being radioactive or non-radioactive.

- Transuranic (TRU) waste: Solid waste contaminated with alpha-emitting radionuclides that have atomic numbers >92 and half-lives >20 years in concentrations >100 nCi/g of waste and that does not contain hazardous waste.

- TRU mixed waste: Waste that is contaminated with both RCRA hazardous and TRU waste components.

- Uncontaminated material: Materials including borehole cuttings, sample residues, excavation materials, decontamination liquids and sludges, other types of sludges, monitor-well development and purge water, and other materials that are not contaminated with chemical constituents, and are not regulated by DOE as radioactive waste or by RCRA as hazardous waste.

- Unregulated chemical waste: Chemical waste that is not regulated by the Toxic Substances Control Act, Clean Water Act, Clean Air Act, CERCLA, or Underground Storage Tank regulations, and is not regulated by DOE as radioactive waste or by RCRA as hazardous waste. Because these wastes may pose a threat to human health or the environment, they must be administratively controlled.

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4.0 RESPONSIBILITIES

The site-specific Waste Management Plan will identify the person(s) responsible for ensuring proper implementation of this procedure. The Field Team Leader (FTL) and appropriate field team members must document that they have read and understand this procedure. Waste Management Coordinators must be the primary contact with the Waste Management Group regarding waste management and minimization efforts, and a Waste Generator must be the primary contact for waste characterization. The specific responsibilities of the Waste Management Coordinator and Waste Generator are described in Laboratory Environment, Safety, and Health Administrative Requirements (AR) 10-1, 10-2, 10-3, 10-5, 10-8, and 10-9. The FTL, the Waste Generator, and the Waste Management Coordinator must be familiar with the appropriate waste acceptance criteria (WAC) documents identified in Attachment B and Section 6.0. For D&D activities, the FTL responsibilities will be handled by the D&D Project Leader or designee.

5.0 PROCEDURE

5.1 General

5.1.1 Deviations

Deviations from this AP will be allowed on a case-by-case basis but must be approved by the Waste Management Group and ESH-8. The FTL must ensure that the approved deviation is documented in the Daily Activity Log or field notebook in accordance with LANL ER-SOP-01.04, Sample Control and Field Documentation.

5.1.2 Coordination with the Waste Management Group and ESH-8

Coordination with the Waste Management Group and ESH-8 is required and includes the following:

- The Waste Management Coordinator must submit the site-specific Waste Management Plan to the Waste Management Group and ESH-8 for review before starting field work. The Waste Management Plan provides specific waste management details, including information on types and amounts of wastes expected to be generated and waste analyses required to meet the appropriate WAC for on-site or off-site treatment, storage, or disposal facilities.

- The Waste Management Coordinator must coordinate with the Waste Management Group regarding waste disposition at Waste Management Group or off-site facilities in preparing the site-specific Waste Management Plan. This action is necessary because the WAC requirements for off-site facilities may differ from the Waste Management Group WAC requirements.

- The Waste Management Coordinator must submit a notification memorandum to the Waste Management Group listing the activities that may generate greater than 10 m^3 of radioactive waste. The notification memorandum requirements are specified in AR 10-2.

- The Waste Management Coordinator must obtain approval from the Waste Management Group for predisposal treatment of any radioactive waste as required by AR 10-2.

- The Waste Management Coordinator must coordinate with the Waste Management Group regarding all waste management-related DOE Order 5000.3B reports.

- The Waste Management Coordinator must coordinate with ESH-8 regarding regulatory requirements for management, treatment, and storage of hazardous or mixed wastes.

- The Waste Management Coordinator, before treating any RCRA hazardous or mixed waste, must contact ESH-8 as required by AR 10-3, Hazardous and Mixed Waste.

5.1.3 Waste Types

During ER investigation or corrective action activities, the following seven general types of wastes may be generated:

- Disposable personal protective equipment (PPE), such as Tyvek™ suits, cloth coveralls, gloves, booties, and respirator canisters; and disposable sampling equipment such as broken or used sampling equipment or parts, rope, glassware, plastic liners, other plastic materials, metal, and wood.

- Decontamination liquids, which include wash and rinse solutions. The wash solution can include water with small amounts of non-hazardous, non-phosphate detergent or steam-cleaning condensate. The rinse

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solution can include tap water, organic-free deionized water, methanol or other organic solvents, and/or dilute acids.

- Decontamination sludges, which are derived from the same source as decontamination liquids; they also include soil residue.

- Monitor-well purge and development water, which consists of groundwater generated during the installation, development, and sampling of monitor wells.

- Borehole cuttings, sample residues, and excavation material, which can include sludge, soil, sediment, tuff, basalt, and other rock types.

- Wastes generated outside the contamination reduction or exclusion zones, which can include packaging, drink containers, food containers, and office-type waste.

- Corrective action wastes and waste residues, which can include liquids, soils, sludges, sediment, tuff, basalt, other rock types, containment system components, subsoils, structures, equipment, machinery, concrete, building demolition debris.

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5.1.4 Waste Segregation

As required by the appropriate WAC, the wastes or materials must be segregated for treatment, storage, or disposal purposes. At a minimum, the wastes or materials must be segregated into the following classifications:

- Hazardous and mixed wastes (e.g., hazardous waste, potential hazardous waste, explosive hazardous waste, explosive mixed waste, mixed waste, potential mixed waste, suspect mixed waste, and transuranic [TRU] mixed waste).

- Radioactive wastes (e.g., LLW, potential radioactive waste, TRU waste, radioactive liquid waste, and suspect radioactive waste).

- Regulated chemical wastes (e.g., polychlorinated biphenyl (PCB) waste, non-PCB Toxic Substances Control Act waste, asbestos, and Underground Storage Tank regulation wastes).

- Municipal refuse waste (e.g., non-radioactive, visibly uncontaminated PPE).

- Unregulated chemical wastes (e.g., non-hazardous, non-radioactive soils contaminated with chemicals above background or detection limits).

- Uncontaminated material (e.g., non-radioactive soil that does not contain chemical constituents).

These classifications will be further subdivided as either liquids or solids. If practical, the wastes must be segregated at the time of generation or upon

receipt of the analytical results. Otherwise, segregate the wastes after ESH-8 has assigned the appropriate waste classification on the Waste Profile Form (WPF).

Additional waste segregation requirements must be met. These segregation requirements are identified in the WAC documents, which can be obtained from the Waste Management Coordinator. The Laboratory WAC documents are identified in Attachment B and Section 6.0.

5.1.5 Waste Minimization

The FTL must manage waste collection in a manner that ensures the minimization of radioactive/hazardous waste generation in accordance with the Laboratory Waste Minimization and Pollution Prevention and Awareness Plan and with applicable ARs (see Section 6.0). The waste minimization actions, as found in the site-specific Waste Management Plan, include the following, as appropriate:

- Conduct routine briefings. Waste minimization must be addressed in the meetings before work starts. Site workers will be reminded to keep materials and working areas clean and free of excess debris that could become solid waste and to use only the minimum materials necessary for the job. They will be encouraged to identify additional waste minimization opportunities.

- Segregate wastes to avoid mixing and cross-contaminating the different waste classifications. The wastes must be segregated based on knowledge of process (KOP), radiological and chemical field screening or equivalent methods, visible contamination, borehole location, and depth interval, as appropriate. Using best scientific judgment, the FTL (in conjunction with the Project Leader [PL]) can anticipate the location and level of possible contamination and type of contaminants as identified in the site-specific Waste Management Plan.

- Return borehole cuttings, sample residues, dried decontamination sludges, and excavation materials to the borehole or site of origin. If the conditions described in section 5.1.8 are met, these materials need not be classified as wastes.

- Remove contamination and reuse equipment and supplies. An effort must be made to decontaminate and reuse equipment (e.g., plastic liners, drip pallets, sampling equipment, cotton coveralls) whenever practical. For example, plastic mats or liners can be reused from site to site if contaminated material has not come in contact with the plastic or if the visible contamination and radioactive contamination is removed. Cotton coveralls may be laundered and reused. In addition, self-contained plastic drip pallets can be chosen instead of plastic liners for secondary containment because they can be reused indefinitely. However, some operating groups may not allow the reuse of equipment and supplies and may require all equipment and supplies to be "flashed" or burned if the items were used in high-explosives-contaminated areas.

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- Remove visible contamination from disposable items before discarding. Visible contamination can be removed by decontamination or by cutting off the contaminated portions to reduce the waste volume and eliminate the need to classify the disposable equipment as radioactive, hazardous, or mixed waste.

- Avoid the use of organic solvents during decontamination. The use of organic solvents should be avoided during decontamination because the solvents may become subject to RCRA hazardous waste regulation immediately after use. The use of methanol as a solvent may not result in hazardous decontamination liquids, because liquids containing less than 24% alcohol by volume are exempted from the RCRA characteristic of ignitability per HWMR-7, Part 261.21(1). This exemption applies to all alcohols.

- Use drip, spray, squirt bottles or tanks for decontamination rinses. Drip, spray, squirt bottles or tanks can be used for rinses wherever practical to minimize the generation of rinse water.

- Use impermeable materials such as plastic liners or mats and drip pallets, as appropriate, to prevent wastes such as decontamination liquids and borehole cuttings from contaminating the surrounding ground surface.

- Practice contamination avoidance. Personnel must practice contamination avoidance by carrying only the minimum amount of equipment and by minimizing direct contact with hazardous and radioactive substances. Personnel should avoid sitting or kneeling in contaminated areas. Minimizing the number of people in the sampling or exclusion zones and people touching the potentially contaminated material can minimize the spread of contaminants. The bottoms of coveralls should be rolled up or cut off to avoid dragging through potentially contaminated material. Techniques can be used to keep contamination of the plastic liners to a minimum. For example, contaminated material such as borehole cuttings can be placed on small plastic liners overlying the large plastic liner.

- Reduce waste volume. Solid wastes should be placed in the waste storage containers until the containers are as full as possible to reduce the volume of compactible waste as well as the number of containers sent offsite for disposal.

- Consider waste treatment and recycling options in accordance with AR 10-8, Waste Minimization.

- Minimize generation of corrective action waste by first assessing risk and need for removal.

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5.1.6 Waste Characterization

The wastes or materials must be characterized for radiological and chemical contamination using KOP and/or radiological/chemical/physical analyses or equivalent methods as required by the appropriate WAC. Attachment A describes how to characterize waste for RCRA and radioactivity, analytical methods that must be used, and sampling strategies.

5.1.6.1 Knowledge of Process

Prior to and during any field work that generates waste, KOP must be evaluated by considering the following, as applicable:

- Potential contaminants of concern (PCOC) and their properties
- Site history, including past and current waste processes, raw materials used, material safety data sheets, product produced, and sources of listed or characteristic RCRA wastes (including the processes that will result in newly generated waste, such as decontamination liquid wastes)
- Existing, published, or documented waste analysis data or other previous analytical results or studies
- The medium in which the PCOCs are found
- Whether the PPE or disposable items made direct contact with contaminated materials
- Presence or absence of visible contamination on the PPE or disposable items
- Identification of regulated wastes or regulated constituents, such as those regulated by RCRA, Toxic Substances Control Act, or the Underground Storage Tank regulations
- Suspected areas of contamination
- Other knowledge of contamination

If KOP is sufficient, chemical/physical analyses are not required for characterization.

5.1.6.2 Chemical/Physical Analyses

A chemical/physical analysis is required when KOP is not sufficient, when a waste has an unknown origin, when a chemical reaction has occurred that may have created unknown chemical compounds, or when the waste has potential volume radioactive contamination and requires a radiochemical analysis to determine if it has become contaminated. In addition, as described in Attachment C, if decontamination liquids will be sent to the Sanitary Waste

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System Consolidation plant for disposal, chemical/physical analysis for certain water quality parameters is required.

5.1.6.3 Documentation

The waste characterization documentation must include the following:

- A WPF for each wastestream
- A Radioactive Solid Waste Disposal Record (RSWD) for each solid radioactive wastestream
- A Chemical Waste Disposal Request (CWDR) for each hazardous or mixed waste stream
- A Radioactive Liquid Waste Disposal Request (RLWDR) for each liquid radioactive wastestream
- An evaluation of KOP as described above
- Field screening results, tests, or field analyses, if any
- Results of the laboratory analyses or equivalent methods, if any

The evaluation of KOP must be documented by the PL or designee. The field screening results, tests, or field analyses must be documented by the FTL or designee in the field logbook or the Daily Activity Log. The KOP, field screening, and the analytical results must be attached to the WPF, the RSWD, the CWDR, and the RLWDR.

Additional information must be documented in the field logbook or the Daily Activity Log that supports the waste characterization documentation, such as container identification numbers, associated waste or site characterization sample numbers, contents of containers, and the accumulation start date, as appropriate.

5.1.7 RCRA Waste Storage

Except as noted below in Section 5.1.8, RCRA wastes must be stored in hazardous or mixed-waste satellite accumulation areas, less-than-90-day storage areas or RCRA interim-status or permitted storage areas. The wastes can be placed in satellite accumulation areas if the hazardous wastes are less than or equal to 55 gallons and if the areas are under control of the Waste Generator. If the wastes are listed in HWMR-7 Section 261.33 (e) as acutely hazardous, only one quart or less may be placed in a satellite accumulation area.

Waste containers that exceed the satellite accumulation area amounts must be labeled with the date the waste exceeded the allowable amounts and placed in less-than-90-day storage areas or other appropriate RCRA storage areas within 3 days of exceeding these amounts. If the wastes are moved from a satellite

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storage area to a less-than-90-day storage area, the start date for the 90-day clock must begin the date the wastes exceed the allowable amounts or the date the wastes were moved if the wastes were moved within 3 days of exceeding the allowable amounts.

If the wastes are not placed in satellite accumulation areas at the time of generation but are placed in less-than-90-day storage areas, each container must be labeled with the accumulation start date. This date is the start date for the RCRA 90-day clock and is the date when the waste was first placed in the containers, regardless of when results of the laboratory analyses or equivalent methods are received.

The hazardous or mixed wastes must be moved from the 90-day storage area to a RCRA interim-status or RCRA-permitted treatment, storage, or disposal area within 90 days. To meet the RCRA 90-day storage requirement, it may be necessary to send RCRA waste that is pending analyses for the radiological component to the Waste Management Group. The RCRA components must be identified prior to sending the waste to the Waste Management Group.

5.1.8 Management of Materials Within A Contamination Zone

The RCRA waste storage requirements described above do not apply to borehole cuttings, sample residues, dried decontamination sludges, or excavated materials resulting from investigation or characterization activities, if these materials are stored within the boundaries of a Contamination Zone (CZ). An CZ boundary is equivalent to a solid waste management unit or potential release site boundary for RFIs, a RCRA unit boundary for RCRA closures, and a D&D site contamination boundary.

The materials must be stored in closed containers or piles within the CZ. Piles can only be used in areas under institutional controls to prevent unauthorized access. Piles must be placed on and covered with plastic liners or other impermeable material in a manner that avoids dispersion by wind and water. In areas not under institutional control, the material must be placed in appropriate containers. The container storage areas must be maintained within demarcated (e.g., yellow caution tape) exclusion zones during the drilling, sampling, or excavation activities.

Once removed from the CZ, potentially contaminated materials or wastes must be placed in a RCRA storage area (as described above), a RCRA treatment or disposal facility, or a non-RCRA storage area, as appropriate, and must be not be returned to the CZ.

These materials may be returned to the same location from which they originated after the drilling, sampling, or excavation is completed if the following conditions are met:

- The materials were never removed from the CZ.
- Borehole cuttings are not returned to boreholes greater than 200 feet deep.

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- The returned materials will not pose a potential for increased exposure to humans or the environment.

- The PL, in conjunction with the FTL, must evaluate at least the following criteria to determine whether these materials pose a potential for increased exposure to humans or the environment: route of exposure, mobility, evidence of contamination based on field instruments, and proximity to water sources. This evaluation must be documented in the field notebook or the Daily Activity Log.

The Laboratory policy for returning materials to the site of origin is based on CERCLA and Environmental Protection Agency (EPA) RFI guidance (EPA 1990, 1991, 1992). The Laboratory policy is only applicable during the investigation or characterization phases.

If the return of the materials could pose a potential for increased exposure, the materials can be stored within the CZ until sufficient information (e.g., analytical results) is received to determine whether the materials can be returned to the site of origin or until the material is sent to an appropriate treatment, storage, or disposal facility as a waste.

5.1.9 Equipment

Attachment D provides an example of the suggested equipment that can be used by the field team to manage the ER wastes.

5.2 Procedure

1. Coordinate with the operating group of the technical area to ensure that special precautions, such as those required for high-explosives-contaminated and explosive waste, are observed.

2. If the conditions described in Section 5.1.8 are expected to be met, segregate the borehole cuttings, sample residues, dried decontamination sludges, or excavated materials at the time of generation based on site of origin and depth interval, as appropriate. Place these materials in piles or containers within the CZ. Label piles or containers so that their relationship between the site of origin or depth interval, as appropriate, is maintained. Manage the CZ as described in 5.1.8.

   Return materials to the site of origin if the conditions described in Section 5.1.8 are met. If the conditions cannot be met, segregate as described below and place in appropriate containers.

3. Segregate the wastes at the time of generation based on KOP and/or radiological and chemical field screening or equivalent methods, and visible contamination, as appropriate. Segregate as follows:

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- If, based on KOP, no radiological constituents are expected and there is no potential for radioactive contamination, segregate as non-radioactive.

- If the wastes (e.g., PPE and disposable equipment) have potential surface radioactive contamination, field screen the wastes for surface radioactivity. Remove any volume contamination (e.g., soil, mud) from items prior to field screening for surface contamination, if practical. If radioactivity levels are above the DOE Order 5400.5 criteria, segregate as radioactive as described in Attachment A. If radioactivity levels are below the DOE criteria, segregate as non-radioactive as described in Attachment A.

- If the wastes have potential volume radioactive contamination (e.g., soil, liquids, heavily soiled PPE), field screen the waste for surface contamination. If radioactivity levels are above the instrument decision amount, segregate as radioactive as described in Attachment A. If the radioactivity levels are below the instrument decision amount, segregate as "potential radioactive pending analysis" or suspect radioactive as described in Attachment A.

- If wastes are determined to be explosive or contaminated with high-explosives material, consult with the Weapons Prototype Group (ESA-2) at 667-6310 and the Explosive Review Committee Chairperson, DX Division, at 665-0111. If the wastes are determined to be explosive mixed waste, also contact ESH-8. Implement Laboratory AR 6-6, Explosives. If the wastes contain high levels of high explosives that could explode or detonate, segregate and store separately as directed by the above sources. Implement more stringent waste management requirements as directed by the operating group at the technical area, if applicable. Some operating groups may require all wastes, including visibly uncontaminated PPE, to be "flashed" or burned prior to disposal at TA-54.

- If there is enough information to fully characterize the wastes for chemical contamination, segregate the wastes as hazardous, mixed, regulated chemical, municipal refuse, unregulated chemical, or uncontaminated materials.

- If there is not enough information to characterize the wastes for chemical contamination, segregate the wastes as "potential hazardous pending analysis" or as specified in the site-specific Waste Management Plan.

- If solvents were used during the decontamination process, consult with ESH-8 to determine if the resulting waste would be considered hazardous or mixed and to determine if chemical analyses, tests, or equivalent methods are necessary.

- If decontamination liquids are radioactive or potentially hazardous, use an absorbent material to collect the residual liquids that cannot

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be pumped or poured. Contact the Waste Management Group for information regarding solidification and immobilization techniques. Segregate the absorbent material as either radioactive or potentially hazardous.

4. Place the waste in bags or containers and label as required by the appropriate AR and site-specific Waste Management Plan. Label each container with the accumulation start date and the date that the hazardous or mixed wastes exceeded the satellite accumulation area amounts as described in Section 5.1.7.

5. If the waste is "potential hazardous or mixed pending analysis" or "potential radioactive pending analysis", collect samples for chemical/physical analyses. In addition, collect samples for chemical/physical analyses so that the types and amounts of radionuclides in the wastes can be identified to meet the disposal site WAC.

   Label the containers in such a manner that identifies the waste pending analysis and maintains its relationship with the results of the waste samples or the associated site characterization samples.

   If KOP is sufficient or if the radioactivity is below certain levels in the WAC for LLW disposal at TA-54, Area G, analysis is not required. Estimate the types and amounts of radionuclides using the results of KOP, field screening, and/or scaling factors as described in the WAC.

6. Store the wastes as described in the site-specific Waste Management Plan and as described below:

   - If the waste is radioactive, potential radioactive, or suspect radioactive, place in radioactive waste storage areas. Locate and post storage areas and label containers as required by the LANL Radiological Control Manual. Contact Health Physics Operations (ESH-1) for additional information. Conduct and document monthly inspections to check container integrity as described in the site-specific Waste Management Plan.

   - If the waste is potential hazardous, place waste in RCRA hazardous-waste satellite accumulation areas, less-than-90-day storage areas, interim-status or permitted storage areas, or other appropriate RCRA storage areas or as specified in the site-specific Waste Management Plan. Conduct and document inspections as described in the site-specific Waste Management Plan.

   - If the waste is potential mixed, place waste in radioactive waste storage area or in RCRA mixed-waste satellite accumulation areas, less-than-90-day storage areas, interim-status or permitted storage areas, or store as specified in the site-specific Waste Management Plan, as appropriate. Conduct and document

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inspections as described in the site-specific Waste Management Plan.

- If the waste is regulated chemical waste, unregulated chemical waste, or uncontaminated material, place in non-RCRA storage areas and conduct and document inspections as described in the site-specific Waste Management Plan.

- If the waste is hazardous or mixed, immediately contact ESH-8 and place in RCRA hazardous-waste or mixed-waste satellite accumulation areas, less-than-90-day storage areas, or interim status or permitted storage areas. Manage the RCRA storage areas in accordance with AR 10-3. Locate and post mixed-waste storage areas and label containers as required by the LANL Radiological Control Manual. Contact ESH-1 for additional information. Conduct and document weekly inspections at the RCRA storage areas looking for leaks and deterioration caused by corrosion or other factors. Document the inspections with the Laboratory Hazardous and Mixed Waste Facility Inspection Record Form available from ESH-8.

- If materials are stored in containers or piles within a CZ as described in Section 5.1.8, conduct inspections, at least monthly, looking for leaks and deterioration caused by corrosion, weathering, or other factors. Document the inspections in the field logbook or the Daily Activity Log. If the containerized materials are radioactive, locate the storage areas as required by the LANL Radiological Control Manual. Contact ESH-1 for additional information.

- The PL or designee will determine whether ER waste generated off laboratory property can be stored at the project site or must be transported to Laboratory property. If the waste cannot be stored at the project site, transport waste to the appropriate waste storage area on Laboratory property. If waste is radioactive, potential radioactive, or suspect radioactive, contact Property and Transportation Group (BUS-6) for details on meeting Department of Transportation requirements. If waste generated off LANL property is hazardous, mixed, or potential hazardous or mixed, contact ESH-8 to obtain a generator identification number prior to transport.

7. Upon receiving analytical results, segregate any newly identified hazardous, mixed, or radioactive waste, if practical. If more than one batch of waste with varying compositions is placed in the same container, maintain a list of the type, character, and approximate volume of each waste. Relabel the containers as appropriate and move newly identified waste to the appropriate storage areas as described above.

8. Consider waste treatment and recycling options per AR 10-8.

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9. Contact the Waste Management Coordinator for copies of the WPF, the RSWD, the CWDR, and the RLWDR. Complete the WPF for all wastes, including uncontaminated liquid or solid material, in accordance with the instructions on the back of the WPF. Submit the WPF and the associated waste characterization documentation described in Section 5.1.6.3 to ESH-8 for approval.

   Complete the RSWD for solid radioactive wastes in accordance with the instructions in AR 10-2. Submit the RSWD and the associated waste characterization documentation to the Waste Management Group for review and approval.

   Receive approved WPF and RSWD from ESH-8 and the Waste Management Group. If ESH-8 classified the waste as hazardous or mixed waste on the approved WPF, complete the CWDR and submit to the Waste Management Group. Receive approval from the Waste Management Group prior to arranging the transportation of the waste to a Waste Management Group storage facility.

   If radioactive liquid waste is not classified as hazardous or mixed waste on the approved WPF, complete the RLWDR and submit to the Waste Management Group. Receive approval from the Waste Management Group prior to arranging the transportation of the waste to a Laboratory liquid waste treatment facility.

10. Ensure that the wastes are segregated based on the waste classifications assigned by ESH-8 on the approved WPF. Ensure the wastes are packaged, labeled, and meet the applicable AR and WAC requirements (see Attachment B and Section 6.0). If the wastes do not meet the WAC, consult with the Waste Management Group.

    Decontaminate, if necessary, and weigh the radioactive and mixed waste containers. Contact BUS-6 or the Waste Management Group Customer Service Office (665-4000) for assistance with packaging and transportation requirements for waste shipments.

11. Complete the Hazardous Materials Transfer Form for hazardous or mixed waste. Complete the Radioactive Materials Transfer Form for solid radioactive waste. Obtain these forms from the Waste Management Coordinator..

12. Contact the Waste Management Group for arranging the receipt of these wastes at the appropriate Waste Management Group facility. Contact the Waste Management Group for scheduling pickup and transport of hazardous waste, mixed waste, suspect mixed waste, LLW dumpsters, radioactive liquid waste, regulated chemical waste, unregulated chemical waste, and uncontaminated material. Contact the Operations and Maintenance Services Group (FSS-9) site representative for scheduling pickup and transport of suspect radioactive, LLW, and TRU waste. Contact the FSS-9 site representative to arrange for transport of municipal refuse waste to another solid-waste landfill site if the Los

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Alamos County Landfill cannot be used. See Attachment C for further details regarding the disposition of the most common waste classifications. See Attachment C for Notice of Intent to Discharge (NOI) requirements and Attachment E for NOI to Discharge Record.

6.0 REFERENCES

The following references are directly associated with this procedure.

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DOE Orders

Order 5000.3B, Occurrence Reporting and Processing of Operations Information
Order 5400.5, Radiation Protection of the Public and the Environment
Order 5820.2A, Radioactive Waste Management
Draft Order 5820.2B, Waste Management

Laboratory ES&H Administrative Requirements

AR 3-5, Shipment of Radioactive Materials
AR 3-7, Radiation Exposure Control
AR 6-6, Explosives
AR 9-4, Accidental Oil, Chemical and Airborne Releases
AR 10-1, Radioactive Liquid Waste
AR 10-2, Low-Level Radioactive Solid Waste
AR 10-3, Hazardous and Mixed Waste
AR 10-4, Polychlorinated Biphenyls
AR 10-5, Transuranic (TRU) Solid Waste
AR 10-8, Waste Minimization
AR 10-9, Waste Profile Form

Laboratory Health Physics Operations Procedures

LANL-ESH-1-02-02, Surveying for Alpha and/or Beta/Gamma Contamination

Laboratory Environmental Restoration Program Standard Operating Procedures

Section 1.0, General Instructions
LANL ER-SOP-01.04, Sample Control and Field Documentation
LANL ER-SOP-10.07, Field Monitoring for Surface and Volume Radioactivity Levels (Draft)

Other Laboratory Documents

LANL Environmental Restoration Installation Work Plan

LANL Waste Minimization and Pollution Prevention and Awareness Plan, LA-UR 92-1306

LANL Radiological Control Manual, LM 107-01, Chapter 4

Radiation Regulations and Management

Atomic Energy Act of 1954 (as amended)

A. Brodsky, R.G. Gallaghar, "Statistical Considerations in Practical Contamination Monitoring," Radiation Protection Management, Vol. 8, No. 4, 1991

Hazardous Waste Regulations

Title 40 CFR, Part 260-270

State of New Mexico Hazardous Waste Management Regulations (HWMR-7), Part 260-270

55 Federal Register 30798, Corrective Action for Solid Waste Management Units at Hazardous Waste Management Facilities, (Proposed Subpart S) July 27, 1990

Waste Acceptance Criteria Documents

WIPP/DOE-069, TRU Waste Acceptance Criteria for the Waste Isolation Pilot Plant

Los Alamos National Laboratory, Waste Acceptance Criteria for Liquid Waste Managed by the CST-7 Liquid Waste Section, LWA-CST-7-APO1,R0

Los Alamos National Laboratory, "Waste Acceptance Criteria for Chemical, Hazardous, and Low-Level Mixed Waste Managed by the EM-7 Chemical and Mixed Waste Section, Revision 3," EM7-CHEM/MIXED-AD-02

Los Alamos National Laboratory, "Waste Acceptance Criteria for Solid Low-Level Radioactive Waste Disposal at TA-54, Area G," RAD-EM7-AO-02,R01.AP.2EM7G-005.1

Solid Waste Regulations

State of New Mexico Environmental Improvement Board, Solid Waste Management Regulations, Part 1, Section 105

EPA Analytical Methods

EPA, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846)

EPA CERCLA and RFI Guidance

EPA, Letter from A. Davis to J. Tillman, July 23, 1990

EPA, "Management of Investigation-Derived Wastes During Site Inspections," Office of Emergency and Remedial Response, Directive 9345.3-02, May 1991

EPA, "Guide to Management of Investigation-Derived Wastes," Office of Solid Waste and Emergency Response, Publication 9345.3-03FS, April 1992

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7.0 RECORDS

The following completed forms, as applicable, are the records generated during the use of this procedure. The Waste Management Coordinator can obtain forms A through G from the Waste Management Group (665-4000), and sample forms can be found in the referenced ARs. The PL or designee must send copies of the completed forms to the ER Record Processing Facility, MS M707.

A. Form 1346 (ES&H Form 10-9A), Waste Profile Form (from AR 10-9)

B. Form 1354 (ES&H Form 10-2A), Radioactive Solid Waste Disposal (RSWD) Record (from AR 10-2)

C. Form 1624, Radioactive Liquid Waste Disposal Request (RLWDR) (obtain from the Waste Management Group)

D. Hazardous Materials Transfer Form (obtain from the Waste Management Group)

E. Radioactive Materials Transfer Form (obtain from the Waste Management Group)

F. Form 1541 (ES&H Form 10-3A), Chemical Waste Disposal Request (CWDR) (from AR 10-3)

G. Form 1502 (ES&H Form 10-5A) TRU Waste Storage Record (from AR 10-5)

H. Notice of Intent to Discharge Record (See Attachment E)

I. Daily Activity Log or field notebook (ER-SOP-01.04, Sample Control and Field Documentation)

J. Laboratory Hazards and Mixed Waste Facility Inspection Record Form (obtain from ESH-8)

8.0 ATTACHMENTS

A. Characterization of Environmental Restoration Wastes

B. Management Requirements for Environmental Restoration Wastes

C. Disposition of Environmental Restoration Wastes

D. Equipment for Managing the Environmental Restoration Wastes

E. Notice of Intent to Discharge Record

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CHARACTERIZATION OF ENVIRONMENTAL RESTORATION WASTES

Radioactive Wastes

The DOE definition of radioactive waste states that if a material was received as non-radioactive, any resulting waste is not a radioactive waste if it contains no measurable increase in radioactivity (at a statistically defined confidence interval) above background in volume or bulk resulting from DOE operations and contains no surface radioactivity above limits established in DOE orders or guidance, e.g., surface contamination limits and requirements of DOE Order 5400.5, II.5.c.(1) (DOE Draft Order 5820.2B).

Wastes must be characterized for radioactivity using KOP and/or field screening and laboratory analyses or equivalent methods based on waste samples or environmental samples associated with the wastes. KOP can also be used to determine if wastes are potential radioactive.

Surface Contamination. The wastes must be evaluated to determine if they have potential surface contamination based on whether the wastes originated in a contaminated area and whether the contamination is limited to the surface of the waste. If the waste did not originate in a contaminated area, the wastes need not be considered as having potential surface contamination.

Contamination could be limited to the surface of the waste if the following criteria are met:

- The waste has a non-porous matrix or an impervious coating that prevents the radioactive contamination of the interior of the waste.
- The original surface of the waste does not contain fractures or cracks that could conduct radioactive contamination into the interior.
- The waste has not been subjected to chemicals that could cause fractures or cracks on the surface of the waste (e.g. acid on concrete).
- The interior of the waste may not have been activated by an activation source.

Other relevant criteria may be considered, as appropriate.

Examples of investigation-derived wastes having potential surface radiological contamination include PPE and disposable equipment used in contaminated areas. Any volume contamination, such as mud or soil, must be removed from PPE and disposable equipment prior to field screening for surface contamination. Examples of corrective action wastes having potential surface radiological contamination include concrete blocks with non-porous coating, concrete sections without fractures, glass, and metal that originated in contaminated areas.

Wastes having potential surface contamination must be characterized using KOP and field instruments. DOE allows the release of material and equipment for unrestricted

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use if the items have surface contamination below specific levels listed in DOE Order 5400.5. This approach can be applied to potentially surface-contaminated wastes. The determination of surface radioactivity using field instruments is described in LANL-ER-SOP-10.07, Field Monitoring for Surface and Volume Radioactivity Levels. According to this procedure, if the surface contamination of the wastes is below the DOE Order 5400.5 criteria, the wastes must be designated as non-radioactive. If the surface contamination is at or above the DOE criteria, the wastes must be designated as radioactive. This determination is based upon measurement with a field instrument having a standard minimum detectable activity at the 95% confidence interval below the levels required by DOE Order 5400.5.

Volume Contamination. The wastes must be evaluated to determine if they have potential volume contamination based on whether the wastes originated in a contaminated area and whether the contamination could be distributed throughout the waste volume. If the waste did not originate in a contaminated area, the wastes need not be considered to have potential volume contamination.

Contamination could be distributed throughout the waste area volume if the surface contamination criteria listed above are not met.

Other relevant criteria may be considered, as appropriate.

Examples of investigation-derived wastes having potential volume radiological contamination include heavily soiled PPE and disposable equipment, decontamination sludges, borehole cuttings, sample residues, excavation materials, decontamination liquids, and monitor-well development or purge water that originated in contaminated areas. Examples of corrective action wastes having potential volume radiological contamination include fractured concrete, ceiling panels, wood, carpet, concrete blocks, machinery, waste residues, soils, and tuff that originated in contaminated areas.

Wastes with potential volume radioactivity contamination must be characterized using KOP, field screening, and laboratory analysis or equivalent methods. The determination of volume radioactivity using field instruments and the determination of background is defined in LANL-ER-SOP-10.07. According to this procedure, if wastes potentially contaminated with volume radioactivity are found (using portable, hand-held radiation detectors) to have radioactivity levels above background (measured at the 95% confidence level, which is the decision amount), they must be designated as radioactive.

However, radioactivity levels below the decision amount cannot be considered to be non-radioactive. Wastes having potential volume contamination below the decision amount must be designated as potential radioactive waste until the wastes or associated site characterization samples are analyzed by a laboratory or equivalent method and found to be non-radioactive or radioactive.

The volume radioactivity characterization will generally be based on laboratory analyses. Field instruments normally do not have a sufficiently low minimum detectable activity to make a non-radioactive determination for wastes contaminated with volume radioactive contamination. This determination requires analytical

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methods that have greater sensitivity, such as those used by environmental laboratories. Brodsky and Gallaghar (1991) describe the minimum-detectable-activity method for making the no-radioactivity determination for volume contaminated wastes. In the near future, field methods having greater sensitivity could be developed and used to characterize wastes for volume radioactive contamination.

Field screening and laboratory analyses may not be feasible or appropriate for characterizing certain items, such as the interior of liquid drum samplers or plastic tubing used to convey groundwater during the purging, sampling, or development of monitor wells. These types of items can be characterized for radioactivity based on the radioactivity status of the environmental or waste samples associated with these items. Some items are not normally sampled or associated with site characterization samples, such as concrete, building demolition debris, and machinery. These types of items must be designated as suspect radioactive waste if they have potential volume radioactivity or suspect mixed waste if they are hazardous waste and have potential volume radioactivity.

Radiochemical Analyses and Field Screening. Waste samples and site characterization samples collected for radiochemical analyses must be analyzed according to current Laboratory and DOE protocols for the particular radionuclide or radionuclides involved. The methods used for the radiochemical analyses must be able to detect radioactivity at a statistically defined confidence interval below background as described above.

Samples collected for radiological field screening for surface contamination must be analyzed using Procedure ESH-1-02-02, Surveying for Alpha and/or Beta/Gamma Contamination, or equivalent methods. The equivalent methods used for the field screening must be able to detect radioactivity at the 95% confidence interval below the levels required by DOE Order 5400.5 as described above.

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RCRA Wastes

As a general rule, waste types must be characterized to determine if they are RCRA hazardous using KOP and/or chemical analyses. In accordance with HWMR-7, Part 262.11(c)(2), the Waste Generator can determine whether the waste is a hazardous waste based solely on KOP without the need for chemical analysis. Wastes may be designated as RCRA hazardous wastes because they are listed wastes or because they exhibit the characteristics of hazardous wastes.

Listed hazardous wastes. As required by HWMR-7, Part 262.11(b), the Waste Generator must first determine whether the waste is a listed waste under HWMR-7, Part 261, Subpart D. The determination of whether the waste is listed must be based on KOP concerning the source of the waste and/or the source of hazardous constituents in the waste. In applying KOP, the Waste Generator must evaluate the source of any RCRA-regulated constituents in the waste. The waste must be designated as hazardous if the source of the hazardous constituent is any of the following:

- Wastes listed in HWMR-7 Part 261.31

- Wastes listed in HWMR-7 Part 261.32
- Discarded commercial chemical products listed in HWMR-7 Part 261.33.

If KOP indicates that the waste is derived from the above listed sources, the waste must be designated as hazardous.

If KOP indicates the waste is potentially derived from the above listed sources and/or potentially contains hazardous constituents from the above sources, the waste must be designated as "potential RCRA pending analyses". If laboratory analysis confirms the presence of the hazardous constituents, the waste must be designated as hazardous.

If KOP indicates that hazardous constituents from any of the above sources are not present, the waste can be designated as non-hazardous.

Characteristic hazardous wastes. As required by HWMR-7, Part 262.11(c), if the waste is not a listed waste, the Waste Generator must then determine whether it is a characteristic hazardous waste identified in Subpart C of HWMR-7, Part 261. This determination must be made by either applying KOP and/or chemical analyses, tests or equivalent methods.

A waste must be designated as a hazardous waste if the toxicity characteristic leaching procedure (TCLP) analyses indicate that the RCRA toxicity characteristic (TC) regulatory levels (HWMR-7, Part 261.24, Table 1) are equaled or exceeded. In addition, the wastes must be designated as hazardous waste if the waste exhibits one or more of the RCRA-defined characteristics of ignitability, corrosivity, or reactivity. If KOP indicates that the waste is a potentially characteristic waste, the waste must be designated as "potential RCRA pending analyses" until the laboratory results have been received. If the laboratory analyses confirm the wastes are characteristic, the wastes must be designated as hazardous.

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In most cases, liquid ER waste can be characterized for RCRA based solely on KOP. KOP can be used to evaluate the types and properties of the PCOCs, evidence of contamination, the chemical properties of the wash and rinse solutions, and dilution of any contaminants by the wash and rinse solutions or groundwater. KOP can be used to show that most liquids are not RCRA corrosive, reactive, ignitable, or toxic characteristic wastes. Metal or organic TC contaminants would be expected to be present at very low concentrations because of the dilution effects of the detergent solution, water from the steam cleaning, rinse liquids, or groundwater. These concentrations could be assumed to be below the TC levels. However, wastes from the decontamination of highly contaminated materials could require chemical analyses to determine if they are hazardous.

As an alternative to the TCLP, total analyses can be used to demonstrate that the waste is not a TC hazardous waste. The total analyses of solid samples can be compared with "TC screening levels" to determine whether the TC regulatory levels could potentially be exceeded. The TC screening levels (mg/kg) are numerically equivalent to 20 times the TC regulatory levels (mg/L). The factor of 20 is based on the twenty-fold dilution that is incurred during the TCLP analysis. If the total analyses

equal or exceed the TC screening levels, the samples must be characterized using the TCLP.

The comparison of the total analyses to the TC screening levels is valid only for solid samples or solid portions of sludge samples. Therefore, total analyses of sludge samples must be performed on both the liquid and the solid phases. The solids must be separated from the liquids with a 0.6- to 0.8-µm glass-fiber filter, and the solid phase must be compared with the TC screening levels.

RCRA Analytical Methods. Samples collected for RCRA characterization must be analyzed using the analytical methods described in EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846) or equivalent methods.

If equivalent chemical methods are used, they must be approved by EPA and NMED.

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Sampling Strategies

In order to characterize a waste, representative samples must be collected in accordance with the sampling strategy requirements described in SW-846, Volume II, Part III, Chapter Nine.

The statistical guidance provided in the SW-846 methods on developing sampling plans suggests that the 90% upper confidence interval of the mean concentration of the wastestream should be compared with waste classification concentration limits. This confidence interval can be used to define the prespecified margin of error, which can be used to calculate the number of waste samples needed to adequately characterize the waste. The statistical approach provided in SW-846 can be applied to any wastestream (e.g., hazardous, LLW, or mixed), even though the SW-846 methods were developed for RCRA hazardous wastes. An appropriate margin of error to use in the statistical design model is the likely difference between the average constituent concentrations in the wastestream and the waste classification concentration limits (e.g., RCRA TCLP regulatory level, LLW concentration limits). The number of samples are calculated based on prespecifying that the margin of error should be exceeded less than 20% of the time (or [100% - 90%] x2).

Waste generators should be aware that this confidence interval calculation differs from the 95% confidence level used to calculate an instrument detection level for determining whether a waste is radioactive as described above. This selection of a confidence level for determining the presence or absence of radioactivity does not preclude the Waste Generator from specifying a different confidence level for determining the waste classification (as described above).

The number of samples required to meet the prespecified margin of error could be prohibitive. Therefore, the following recommendations are made:

- Apply a more sophisticated statistical model to cases where a large waste volume or expensive disposal cost will be encountered. This model should include the cost of disposal and the number of wastestreams generated.

- Take composite samples of the waste to reduce the population variation and reduce the number of analytical samples.
- Determine indicators of the constituents (field screening or mobile laboratory application) to allow real-time characterization of the wastestream.

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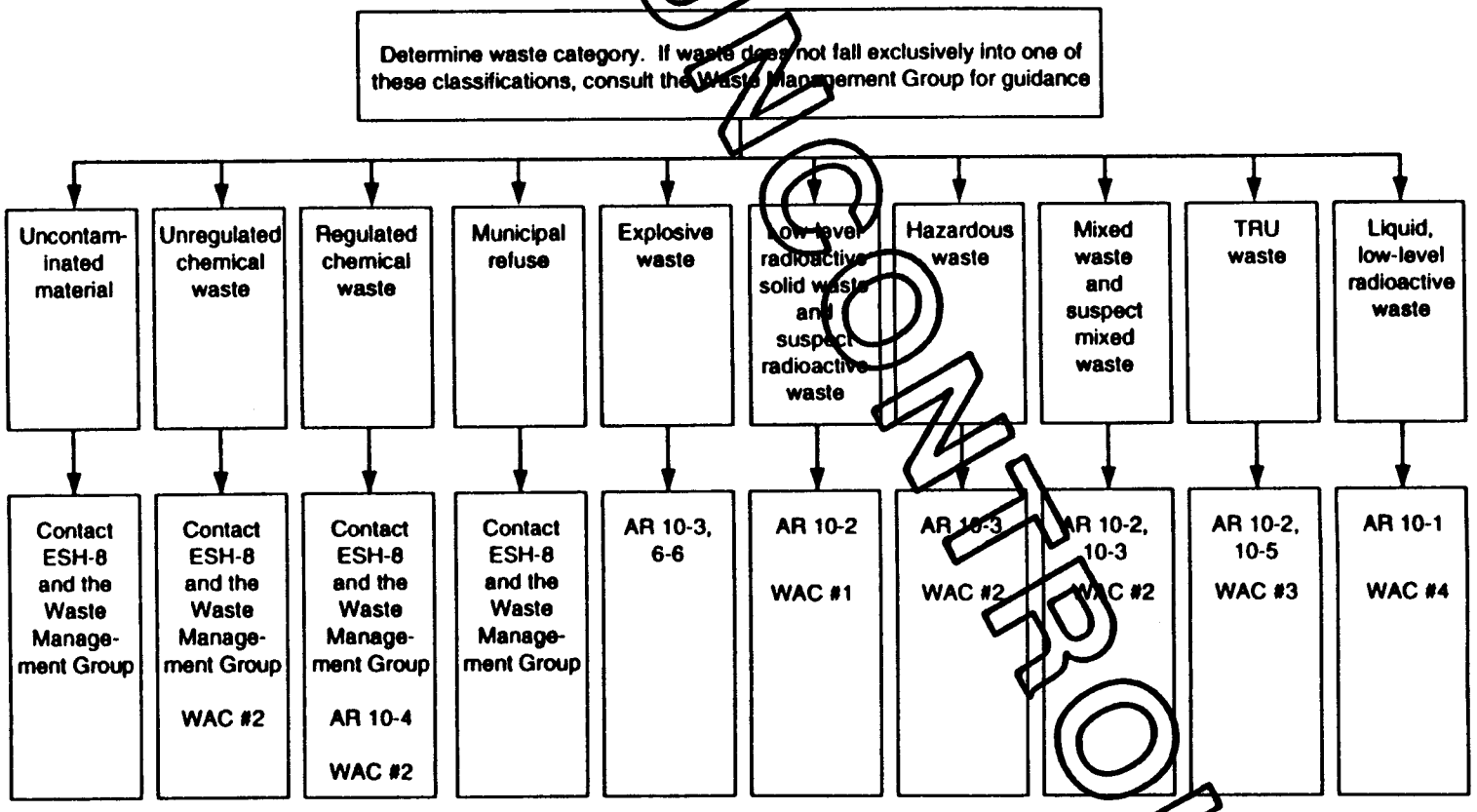
Management Requirements for Environmental Restoration Wastes



WAC:	Waste Acceptance Criteria
WAC #1:	WAC for Solid, Low-Level Radioactive Waste Disposal at TA-54, Area G
WAC #2:	WAC for Chemical, Hazardous, and Low-Level Mixed Waste Managed by the CST-7 Chemical and Mixed Waste Operations Section
WAC #3:	TRU WAC for the Waste Isolation Pilot Plant
WAC #4:	WAC for Liquid Waste Managed by the CST-7 Liquid Waste Section

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DISPOSITION OF ENVIRONMENTAL RESTORATION WASTES

Waste Type	Liquids	Solids
Radioactive Wastes and Suspect Radioactive Wastes	Contact FSS-9 site representative to arrange for transport of radioactive, non-hazardous liquid wastes to Laboratory radioactive liquid waste treatment plant (e.g., TA-50, TA-21-257) for disposal.	Contact FSS-9 site representative to arrange transport of suspect radioactive, LLW and TRU wastes to appropriate Waste Management Group facility. Pretreat by solidification or immobilization is required to meet WAC prior to transport. Contact the Waste Management Group for special packaging requirements for non-routine LLW and TRU wastes.
Potential Radioactive Wastes	Do not send to Waste Management Group. Classify as either radioactive or non-radioactive based on KOP and/or analysis of waste or environmental samples associated with wastes.	Do not send to Waste Management Group. Classify as either radioactive or non-radioactive based on KOP and/or analysis of waste or environmental samples associated with wastes.
Mixed Wastes, Suspect Mixed, or Hazardous Wastes	Perform elementary neutralization of acids/bases in tanks/containers as allowed by AR 10-3. Coordinate with Waste Management Group and ESH-8 prior to neutralization. Contact the Waste Management Group to arrange transport to appropriate facility within 90 days of generation.	Contact Waste Management Group to arrange for waste transport to appropriate Waste Management Group facility within 90 days of waste generation. If explosive, consult with ESA-2 and DX Division for transport and receipt at appropriate facility within 90 days of generation.

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DISPOSITION OF ENVIRONMENTAL RESTORATION PROGRAM WASTES (continued)

Waste Type	Liquids	Solids
Regulated Chemical Wastes	Contact FSS-9 site representative to arrange for transport to Laboratory radioactive liquid waste treatment plants or Sanitary Waste System Consolidation plant. Liquids can be disposed of at the Sanitary Waste System Consolidation plant if approved by ESH-8 and if water meets applicable water-quality standards. Contact ESH-8 Water Quality and Management Section for list of parameters. Collect water samples and submit analytical results to ESH-8 for review and approval.	Contact ESH-8 and Waste Management Group to determine the waste acceptance requirements that must be met. Contact FSS-9 site representative to arrange for transport of wastes to appropriate treatment, storage, or disposal facilities.
Municipal Refuse Waste	N/A	Contact ESH-8 to determine if Los Alamos County landfill will accept these wastes. Package in double plastic bags and place in municipal refuse dumpsters or contact ESH-8 to arrange for another disposal site. Contact FSS-9 site representative to arrange for transport to another solid-waste landfill site. Document method used for determining that these wastes are not hazardous, radioactive, or contaminated with regulated chemical wastes along with volume and disposal option used.

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DISPOSITION OF ENVIRONMENTAL RESTORATION PROGRAM WASTES (continued)

Waste Type	Liquids	Solids
Unregulated Chemical Wastes and Uncontaminated Materials	Contact FSS-9 site representative to arrange for transport to Laboratory radioactive liquid waste treatment plant or Sanitary Waste System Consolidation plant. Liquids can be disposed at Sanitary Waste Consolidation System plant if water meets applicable water-quality standards (see previous page). Contact ESH-8 to determine if NOI has been granted for disposal of uncontaminated liquids. Dispose of liquids on Laboratory property if NOI requirements are met. Do not discharge more than 100 gal./day. Do not discharge to surface water or groundwater. Contact ESH-8 for assistance in completing NOI discharge record (Attachment F). Maintain NOI discharge record for each day of discharge. Submit copy of NOI discharge record to ESH-8 Water Quality and Hydrology Section, MS K490, at end of sampling activity that produced waste.	Contact ESH-8 and Waste Management Group to determine waste acceptance requirements that must be met. Contact FSS-9 site representative to arrange for transport of wastes to appropriate treatment, storage, or disposal facility.

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EQUIPMENT FOR MANAGING ENVIRONMENTAL RESTORATION WASTES

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Waste Containers

- DOT-approved roll-off boxes
- DOT-approved B-25 container (low-specific activity and Type A)
- DOT-approved 55-gal. open-top, plastic-lined steel drums
- DOT-approved 55-gal. bung-type, plastic-lined steel drums
- DOT-approved plastic bulk-liquid tank
- Plastic or metal drip pallets (if appropriate)
- Plastic trash bags
- Lid covers

Equipment/Tools

- Fork lift, if appropriate (specify weight limit)
- Drum-handling equipment
- Bung wrench/crescent wrench/hammer/mallet
- Tape

Marking/Labeling

- Waste information label (e.g., contents, Project Leader, date of generation, date of sample collection)
- "Radiation Hazard" labels
- "Pending Analysis" labels
- Paint pens/spray-paint cans
- Indelible pens
- "Hazardous Waste" labels

Staging

- Pallets (wooden and plastic spill containment pallets)
- Plastic sheeting (roll)
- Booms for secondary containment/or spills
- Railroad ties/4-inch PVC piping (optional)
- Tarp - 20 feet by 30 feet
- Rope - 50-foot lengths
- Stakes
- Barrier tape ("Caution-Do Not Enter", "Caution-Radioactive Material", "Caution-Hazardous Material")
- Spill containment kit
- Weight scales (for weighing containers of solid radioactive wastes)

NOTICE OF INTENT TO DISCHARGE RECORD

Provide the following information for each day of discharge.

Location of the discharge OU: TA: SWMU:
Identification number of the liquid waste container(s):
Date of discharge:
Amount discharged per day (must be less than 100 gallons):
Weather conditions during discharge (e.g. raining):
Other pertinent information (e.g., discharged to bermed area):
Method of characterization (i.e., swipes or direct measurements, chemical and/or radiological laboratory analyses, KOP). Attach any analyses.
Date: **Name and signature** of person completing the report:

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Los Alamos National Laboratory **Environmental Restoration Program** Administrative Procedure	No: LANL-ER-AP- 06.2	Rev: 0

PROCEDURE FOR THE ENVIRONMENTAL RESTORATION PROGRAM SAMPLE MANAGEMENT ORGANIZATION

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	(Print Name)	(Signature)	(Date)
Prepared by	E. Dow Davidson, Jr		8/25/94
Quality Review by	David Bradbury		8/25/94
Functional Review by	Gregory Baynhurst	Gregory Baynhurst	8-25-94
PM Approval	[illegible]	Jorg Jansen	8-25-94
QPPL Approval	Lawrence A. Soura		8/25/94

Effective Date 8/26/94

MANAGEMENT PROCEDURE FOR THE ENVIRONMENTAL RESTORATION PROGRAM SAMPLE MANAGEMENT ORGANIZATION

Table of Contents

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MANAGEMENT PROCEDURE FOR THE ENVIRONMENTAL RESTORATION PROGRAM SAMPLE MANAGEMENT ORGANIZATION

1.0 PURPOSE

The purpose of this administrative procedure is to describe the process by which the Environmental Restoration (ER) Program manages and operates its Sample Management Organization (SMO).

2.0 SCOPE

This procedure is applicable to the organizational structure, facility access, staff training, quality assurance (QA) indoctrination, organizational interfaces, and records management of the SMO.

3.0 DEFINITIONS

3.1 Sample Management Organization

SMO is the organization responsible for the collection, documentation, storage, and control of selected samples, and records collected and distributed for analysis and evaluation. SMO includes the Sample Management Facility (SMF) and Field Operations (FO). SMO staff consists of management and operations personnel who ensure that SMO operations and documentation satisfy applicable regulatory requirements. SMO is operated by the ER Program Subsurface Technologies Technical Team.

3.2 Sample Management Facility

The SMF is the facility (Building TA-3-271) used for the documentation, examination, physical processing, storage, and control of selected samples, remnants, and records collected and distributed for the ER Program. The SMF consists of a physical facility and equipment designed to effectively process and preserve these samples, remnants, and records.

3.3 Sample

A sample is a physical entity, collected in the field, representative of the whole, that is the original source material for all subsequent analyses and testing activities.

3.4 Core

A core is a cylindrical section of rock, or fragment thereof, taken as a sample of the interval penetrated by a core bit and brought to the surface for examination and/or analysis.

3.5 Cuttings

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Cuttings are fragments of rock produced during drilling that are removed from the borehole by circulation of drilling fluids (gas, foam, or liquid).

3.6 Analytical Sample

An analytical sample is a subsection or portion which has been removed from a sample that undergoes testing, analysis, or other technical or scientific evaluation. It is also referred to as a specimen.

3.7 Curatorial Sample Inventory and Tracking System

The Curatorial Sample Inventory and Tracking System (MacCSITS) is the Macintosh based computer data base that has been developed to track in detail all actions taken on ER Program samples over which the SMO has control. The primary objective of MacCSITS is to assist in establishing and maintaining traceable records of each sample collected for the ER Program. The MacCSITS user's manuals and other related documents will be available to Users.

3.8 User

A User is an individual from the ER Program or outside interest who interacts with SMO staff to acquire access to samples and analytical samples under the control of SMO.

4.0 RESPONSIBILITIES

4.1 Sample Management Organization Staff

4.1.1 Curator

The Curator in collaboration with the Subsurface Technologies Technical Team shall assist in the establishment and implementation of the overall system for the SMO to ensure that samples and related records will meet all regulatory requirements. This goal will be achieved through the application of QA criteria and sample management techniques. The Curator shall be responsible for daily management of all aspects of the SMF and FO, guided by policies developed in consultation with the Technical Team Member for Sample Management. The Curator shall supervise SMO staff performing development of procedures, sample handling, data compilation, photo documentation, records management, and analytical sample distribution. The Curator shall interact with ER Program QA Program Project Leader (QPPL) to ensure that applicable QA requirements are achieved through training, audits, and surveillances. The Curator will coordinate with the ER Program Records Processing Facility (RPF) Technical Team Leader to ensure that all records generated by SMO activities are captured by the RPF.

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The Curator shall prepare long-range projections and recommendations concerning requirements for SMO staff, facilities, equipment, sample storage, and visitor access. The Curator shall administer visitor use of the SMF to assure that policies and procedures are followed.

4.1.2 Curation Staff

The Curation staff shall be responsible for assisting the Curator with line management of the SMF. The Curator will designate staff responsible for coordination of sample traceability and status activities. The Curator shall ensure that all regulatory requirements necessary to complete procedural activities are met in compliance with QA guidelines and shall report any noncompliance to these procedures. The Curator will designate staff responsible for confirmation and verification of all drill site samples, including depth verification, marking, and packaging of borehole samples admitted to the SMF from the field. The Curator shall coordinate all staff training and development. The Curation staff shall also participate in the development of SMF administrative and technical procedures.

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4.1.3 Administrative Secretary

The Administrative Secretary is responsible for administrative support activities at the SMF. This will include acting as the primary SMO records specialist. Other responsibilities include the formal preparation of correspondence and documentation originated by all SMO staff. The Administrative Secretary will be responsible for ordering or processing all SMO purchase requests. The Administrative Secretary is also responsible for entering information into SMF computer systems. The position will maintain the system for documenting physical access into the SMF for sample examination and or regulatory/QA purposes.

4.1.4 SMF Geotechnicians

The SMF Geotechnicians shall perform sample handling and processing in the SMF. The SMF Geotechnicians shall perform verification of all drill site sample collection and documentation activities, including marking and packaging borehole samples. The SMF Geotechnicians shall be responsible for sample processing and specimen removal, preparation, and distribution; preparation of samples and specimens for examination by visitors; and construction of required geologic data logs. The SMF Geotechnicians shall assist in the development of administrative procedures and technical procedures for logging, transport, processing, and storage of samples and for selection, processing, and distribution of specimens.

4.1.5 Programmer/Analyst

The Programmer/Analyst shall implement, improve, and maintain the MacCSITS data base. The Programmer/Analyst shall also develop and maintain all other required SMO data bases and computer systems under the direction of the Curator and according to established Program procedures for software development and control.

4.2 Field Operations Staff

4.2.1 Field Operations Sample Manager

The Field Operations (FO) Sample Manager shall be responsible for assisting the Curator with drill site sample management activities. The FO Sample Manager shall supervise geologic logging and sample handling activities at the drill site. These activities include depth validation, sample marking, packaging, and completion of all required geologic field data logs and daily logs. The FO Sample Manager is responsible for assuring that core and other borehole samples are handled and transferred to the SMF in a manner consistent with quality assurance requirements. The FO Sample Manager is responsible for ensuring that all sample management support equipment and facilities are deployed in a timely manner. The FO Sample Manager shall supervise the activities of the FO Geotechnicians. The FO Sample Manager shall recommend suspension of any drill site activity that jeopardizes sample acquisition, quality, or documentation. The FO Sample Manager shall train the FO Geotechnicians. The FO Sample Manager shall assist in the development of administrative and technical procedures.

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4.2.2 Field Operations Geotechnician(s)

The Field Operations (FO) Geotechnician is responsible for collecting, handling, marking, packaging, and preparing geologic logs at the drill site under the guidance of the FO Geologist. The FO Geotechnician shall also prepare documentation and assist in the development and revision of technical procedures for sample handling and transport.

4.3 User

The User is responsible for obtaining and submitting appropriate request forms, contracts, and other documents to the SMF as required by this procedure.

5.0 PROCEDURE

5.1 Introduction

The SMO has been established to assure that Program samples and related records are traceable and meet the regulatory requirements of the US Environmental Protection Agency and the US Department of Energy.

5.2 Organizational Structure

SMO is the organizational responsibility of the Subsurface Technologies Technical Team of the ER Program. Staff of SMO is shown in Attachment A. The overall organization of the ER Program is structured to ensure that samples collected during the various site activities and data derived from these samples will support the RFI process through the use of effective sample management and stringent quality control.

5.3 Requirements For SMO Staff

Each SMO staff member shall meet minimum job qualifications for his or her position and receive appropriate training. Job descriptions for each position will be kept on file at the SMF. The following information will be maintained and kept current for each SMO employee: education, experience, training, and special skills. All SMO staff shall complete the familiarization program prior to performing activities that affect quality. All SMO staff performing applicable QA requirements tasks shall receive formal training in QA requirements, technical and administrative procedures, and the technical objectives of each activity. All staff will receive specialized training related to the activities they perform. Training sessions will be documented and maintained at the SMF.

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5.4 SMO Policies

It is the responsibility of SMO to ensure that access to samples, documents, and records is strictly controlled. This control will facilitate traceability of samples. SMO will implement access restrictions and security controls.

5.4.1 SMF Access Restrictions

Potential users of the SMF shall apply for and secure authorization prior to visiting the facility. Access to the SMF will be limited to authorized persons who have valid scientific or regulatory needs to enter the facility for examination of samples, documents, and records. The Subsurface Technologies Technical Team Leader and/or the Curator authorizes access to the SMF and examination of samples and specimens. Representatives of the ER Program who need to regularly visit the SMF will be placed on a permanent access list upon authorization. Access to the facility by representatives of commercial services, such as maintenance, repairs or vending, will be authorized by the Curator. Representatives of commercial services will be

escorted as necessary in specific work areas. All visitors entering the facility shall sign the Facility Access Log (Attachment B). In addition to the requirements for access to the facility, all requests for examination of samples and records shall be authorized by the Subsurface Technologies Technical Team Leader or the Leader's designate. A list of SMO staff having authorization to enter specific work areas within the SMF and to gain access to samples, documents, and records shall be updated and submitted to the RPF on a semiannual basis.

5.4.2 FO Access Restrictions

All samples, documents, and records under control of FO staff in the field will be supervised or locked up to prohibit any unauthorized access.

5.4.3 Security

The SMF will contain samples, records, and documents that represent significant information to be used as a basis for decisions regarding the dispositions of RFI PRSs. Therefore, the SMF shall be operated as a secured, controlled-access area. Physical barriers, personal identification requirements, and electronic access devices will be used to preclude entry of unauthorized personnel into sample handling and records storage areas.

5.5 Organizational Interfaces

The SMF is responsible for providing assistance in various sample acquisition and curatorial activities. The SMF staff will coordinate activities of users who interact with the SMF, including administrative services, analytical sample acquisition, access to records, and sample examination services.

5.5.1 SMF Activities

Activities conducted at the SMF may include visits to the SMF for examination of samples; selection of analytical samples; submission of samples, documents, and records for curation; access to records and documentation; and deliveries by commercial vendors.

5.5.2 FO Activities

The FO staff will collect samples, perform geologic logging at various Program field sites, and interact with ER Program management staff, subcontractor organizations, and Laboratory support contractors.

5.5.3 Stop Work Authority

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The Curator shall have stop work authority for SMO activities not being conducted in compliance with applicable Program, or QA program requirements, plans, or procedures related to sample collection, control, or quality. The FO Geologist shall recommend suspension of any drill site activity that jeopardizes sample acquisition, quality, or documentation.

5.6 Records Management

Much of the information relative to Program samples is in the form of reports, logs, contracts, requests, records, and other documents completed in the field, at the facility, or by Users. Some of these documents and records provide evidence that the required QA requirements have been achieved for the overall operations of SMO. Other documents and records supply evidence of the identity and validity of the samples or of SMO's management of these samples. All signatures and initials of each SMO staff member that may appear on any form that may support traceability of a sample or record shall be updated and submitted to the RPF on a semiannual basis.

5.6.1 SMF Documents File

The SMF Documents File contains related documents and records of samples under control of SMO. Additionally, documents and records of selected samples under control of Users are maintained by SM.

5.6.2 ER Program Records Processing Facility

The ER Program Records Processing Facility (RPF) receives, inspects, and prepares for processing all ER program records and handles requests for Program records. All unique records generated or gathered by SMO will be turned over to the RPF in a timely manner.

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5.7 Identification and Resolution of Discrepancies

A discrepancy exists when there is incorrect information that significantly affects documentation or notation that is beyond the scope of the immediate activity or form being completed. Any discrepancies shall be resolved upon discovery by crossing through the error, correcting it on the original document, and initialing and dating the correction. If the correction is not self-explanatory, the individual shall assign a number to the correction and attach a sheet to the original that fully describes the correction performed.

5.8 Deficiency Reporting

A deficiency exists when there is a nonconformance in characteristic, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate. The intent of deficiency reporting is to assure the resolution of the conditions not meeting the requirements or to assure that undefined conditions are defined. If there are any deficiencies to this

procedure noted during or after associated activities, SMO staff members shall report them to the Quality Program Leader (QPPL) or another individual in the ER Program Office QA organization for implementation of LANL-ER-QP-01.3Q, Deficiency Reporting.

6.0 REFERENCES

Installation Work Plan for Environmental Restoration, 1993, Los Alamos National Laboratory, Report LA-UR-93-3987.

Quality Program Plan for Environmental Restoration (LANL-ER-QPP, R0), xxx, xx, 1992, Sec. No. 6 and Sec. No. 7, Los Alamos National Laboratory.

LANL-ER-QP-1.03Q, Deficiency Reporting

7.0 RECORDS

The SMF Administrative Secretary shall ensure that the following QA records resulting from implementation of this procedure are turned over to the RPF in a timely manner not to exceed 30 working days. Copies of these QA records will be retained by the SMF and stored at the SMF Documents File.

- SMF Access Log
- Corrected Copies of Original Records
- SMF Staff Authorization List
- SMF Staff Signature List

8.0 ATTACHMENTS

Attachment A - Sample Management Organization
Attachment B - Sample Management Facility Access Log

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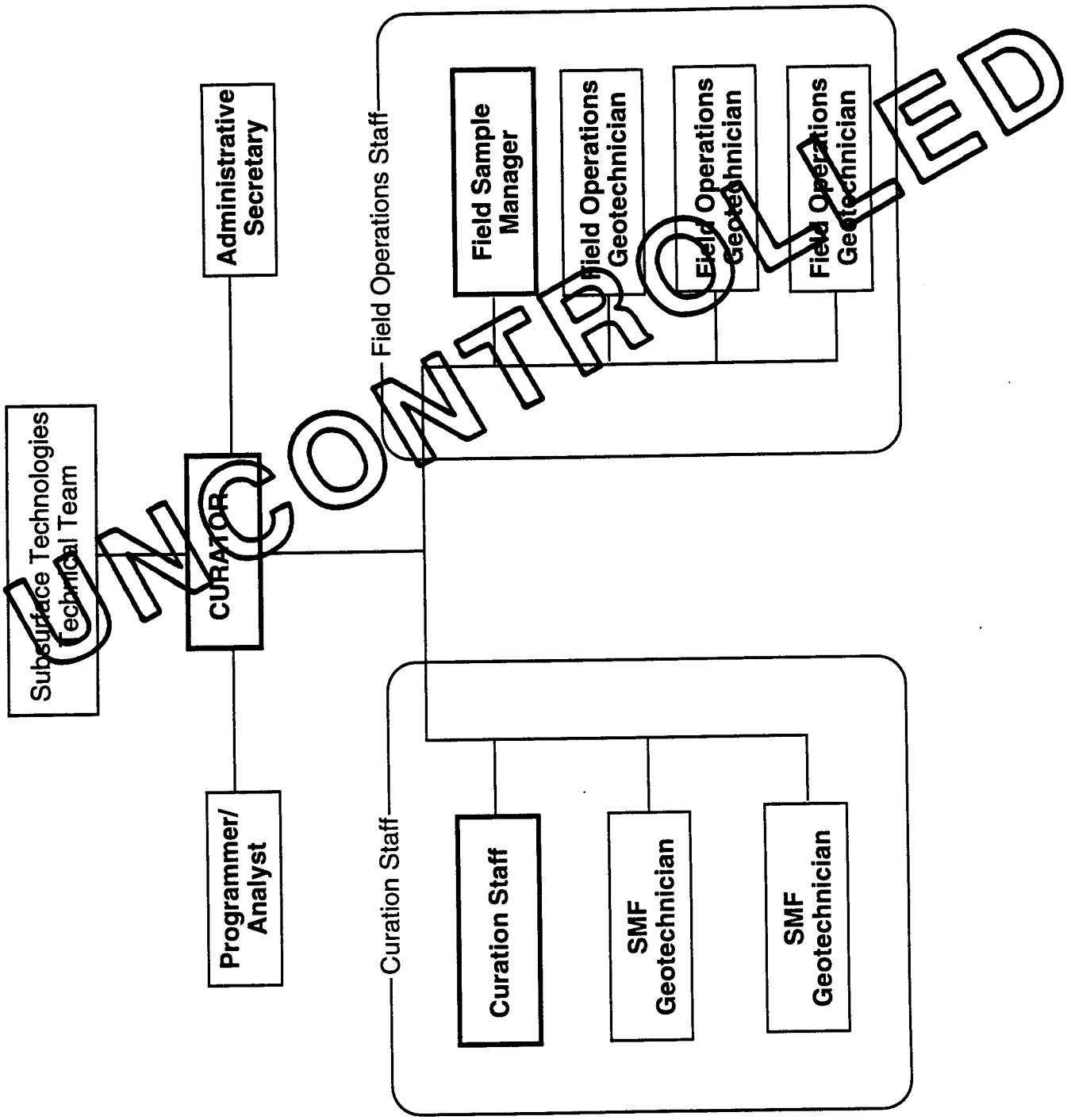
ENVIRONMENTAL RESTORATION PROGRAM
SAMPLE MANAGEMENT ORGANIZATION



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LOS ALAMOS NATIONAL LABORATORY ENVIRONMENTAL RESTORATION PROGRAM

SAMPLE MANAGEMENT FACILITY

FACILITY ACCESS LOG

NAME	TIME	ORGANIZATION	PURPOSE OF ACCESS	*SMF ONLY*
Print Sign	In Out			Initial Date
Print Sign	In Out			Initial Date
Print Sign	In Out			Initial Date
Print Sign	In Out			Initial Date
Print Sign	In Out			Initial Date
Print Sign	In Out			Initial Date
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AUDITS

1.0 PURPOSE

This procedure describes the process for conducting audits of activities performed as part of the Los Alamos National Laboratory (LANL) Environmental Restoration (ER) Program. It implements Section 18 of the LANL ER Quality Program Plan.

2.0 SCOPE

This procedure applies to internal and external audits of activities directed by the LANL ER Quality Program Project Leader (QPPL).

3.0 DEFINITIONS

3.1 Audit

A planned and documented activity performed to determine by investigation, examination, or evaluation of objective evidence the adequacy of and compliance with established procedures, codes, standards, instructions, drawings, and other applicable requirements and the effectiveness of their implementation.

3.2 External Audit

An audit of an organization that conducts work for the ER Program under its own QA program.

3.3 Finding

A condition identified as a quality problem or a direct violation of a specified requirement.

3.4 Internal Audit

An audit of an organization conducting work for the ER Program under the ER Program's Quality Program Plan.

3.5 Objective Evidence

A document or object that can be examined to prove that appropriate procedures were followed in regard to a specific item or activity.

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3.6 Observation

An observation identifies a condition that does not directly violate a specified requirement, but in the auditor's opinion if left unchanged could potentially lead to a condition adverse to quality. Observations noted during the audit are reported to the audited organization, but do not require a written response.

4.0 RESPONSIBILITIES

4.1 Program Manager

The ER Program Manager ensures that this procedure is prepared, implemented, and maintained.

4.2 Quality Program Project Leader

The QPPL

- ensures that an audit schedule is prepared and approves it,
- arranges and coordinates audits,
- appoints the audit team leader and audit team members,
- approves Audit Reports and ensures that copies are forwarded to the management of the audited organization, and
- concurs with proposed remedies to audit findings.

4.3 Audit Team Leader

The audit team leader

- supervises the performance of the audit,
- assigns each audit team member to a specific area or areas to be audited,
- conducts entrance and exit meetings with the representatives of the audited organizations,
- initiates Deficiency Reports as required, and,
- prepares and distributes the Audit Report.

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4.4 Audit Team Members

Audit team members perform audits as assigned by the audit team leader.

5.0 PROCEDURE

5.1 Audit Scheduling

During the first month of each calendar year, an annual audit schedule shall be prepared that includes internal and external audits of activities under the LANL ER Program's direct control. The annual audit schedule identifies the month and year of each audit, the organization and activities to be audited, and the requirements to be audited. The audit schedule will be revised as necessary and approved by the QPPL. In addition to regularly scheduled audits, supplemental audits may be initiated if deemed necessary by the QPPL or PM.

Audits will be initiated as early as practical in the life of an activity to ensure effective quality requirements have been specified and implemented.

Each activity will be audited at least every 12 months or at least once during the life of the activity, whichever is shorter. More frequent audits may be conducted at the request of technical or quality program management.

5.2 Audit Team Selection

Prior to each audit, the QPPL assigns a lead auditor as the audit team leader, and one or more team members as follows:

- at least one individual with technical expertise in the activity to be audited if it is to be a scientific investigation activity,
- individuals who are independent of any direct responsibility for performance of activities they are to audit, and
- individuals who have sufficient authority and organizational freedom to make the audit process meaningful and effective.

Auditors and lead auditors shall have demonstrated audit experience. When a technical expert with prior audit experience is not available, it is permissible to use someone without prior audit experience under the direction of the lead auditor. Auditors-in-training may also participate under the direction of the lead auditor.

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5.3 Audit Planning

The QPPL provides the audit team leader an audit number, from the Audit Status Log (Attachment 1), of the following format:

ER-XX-YY, where XX is the calendar year during which the audit is conducted, and YY is a sequential number beginning with 01 for the first audit conducted during that year.

The audit team leader prepares an audit plan that identifies the

- audit number,
- organizations to be audited,
- scope of the audit,
- activities to be audited,
- applicable requirements documents,
- audit agenda, and
- the audit personnel.

The audit plan should be delivered to the audited organization as soon as is practical.

Each audit team member shall prepare an audit checklist from any applicable reference or requirements documents. The checklist presents questions or items to be verified during the audit that provide objective evidence that

- the audited elements provide adequate control and are being implemented effectively, or
- corrective actions for deficiencies cited during previous audits have been implemented effectively.

Attachment 2 (or functional equivalent) shall be used for preparation of the audit checklist.

5.4 Audit Performance

The audit team leader conducts an opening meeting with representatives of the audited organization at the commencement of the audit. The scope of the audit shall be reviewed and an agenda shall be set for the audit. Attendees of the meeting shall be documented.

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The audit team members conduct audits of activities as previously assigned by the audit team leader and document the results on the Audit Checklists. The documentation should include reference to the objective evidence examined and personnel contacted.

When the audit has been completed, the audit team leader conducts an exit meeting with the representatives of the audited organization to discuss the results of the audit, including any observations and findings noted. Attendees of the meeting shall be documented.

5.5 Audit Reporting

The lead auditor initiates a Deficiency Report for each finding noted during the audit in accordance with the procedure for Deficiency Reporting (LANL-ER-QP-01.3Q). The lead auditor prepares the audit report, which includes the following:

- audit number,
- audit dates,
- audited organization,
- audit scope,
- auditors' names,
- personnel and organizations contacted,
- observations noted during the audit,
- findings noted and Deficiency Report numbers of each, and
- summary of the audit, including an overall assessment of the adequacy and effectiveness of the program's implementation.

Audit reports shall be approved by the QPPL. The Lead Auditor shall distribute the audit reports to the audited organization's management, the QPPL, the auditors, the ER Program Manager, and the HSE Deputy Division Leader.

The audit team leader prepares an audit records package for submittal to the ER Records Processing Facility. The audit records package contains the

- Audit Report,
- Audit Checklists, and
- audit attendees list.

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NOTE: No other records or actions relative to this procedure are necessary regarding the audit or resultant findings. Audit findings are reported as deficiencies and are tracked and closed out in accordance with the procedure for Deficiency Reporting (LANL-ER-QP-01.3Q).

6.0 REFERENCES

LANL-ER-QP-01.3Q, Deficiency Reporting

7.0 RECORDS

Records resulting from this procedure are the

1. Audit Report
2. Audit Checklists,
3. correspondance related to the above,
4. audit entrance and exit meeting Attendee Lists,
5. audit schedule,
6. Audit Status Log, and
7. Deficiency Reports.

8.0 ATTACHMENTS

Attachment 1 Audit Checklist form
Attachment 2 Audit Status Log form

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LANL Environmental Restoration Program
AUDIT CHECK LIST

AUDIT NO.: _____ DATE: _____

ORGANIZATION AUDITED: _____ Page _____ of _____

AUDITOR(S) _____ _____
Print name Signature

Item No.	Document/Revision in Which Requirement or Instruction is Referenced	Requirement or Instruction	Results (S, U, N/A)	Personnel Contacted and Method of Verification (i.e., Objective Evidence)

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EXAMPLE
CONTACT THE ER PROGRAM OFFICE (665-4557) TO OBTAIN ORIGINAL FOR YOUR USE

LANL Environmental Restoration Program
AUDIT CHECK LIST (continued)

Page _____ of _____

AUDIT NO.: _____ AUDITOR(S) _____

Item No.	Document/Revision in Which Requirement or Instruction is Referenced	Requirement or Instruction	Results (S, U, N/A)	Personnel Contacted and Method of Verification (i.e., Objective Evidence)

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COMPLE
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LANL Environmental Restoration Program
AUDIT STATUS LOG

Page _____ of _____

				Audit Report Issued	
Audit No.	Organization Audited	Date of Audit	Deficiency Reports Issued (List by No.)	By	Date

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Los Alamos National Laboratory **Environmental Restoration Program** **Quality Procedure**	No: LANL-ER-QP-01.2Q	Rev: 0

SURVEYS

UNCONTROLLED

Larry Maassen — 13 March 1991
LARRY MAASSEN (Date)
Quality Program Project Leader

Robert W Vocke — 15 March 1991
ROBERT VOCKE (Date)
Program Manager

Effective Date: March 18, 1991

SURVEYS

1.0 PURPOSE

This procedure states the responsibilities and methods for conducting surveys of activities performed as part of the Los Alamos National Laboratory (LANL) Environmental Restoration (ER) Program.

2.0 SCOPE

This procedure applies to surveys of activities performed under the ER Quality Program Plan (QPP).

3.0 DEFINITIONS

3.1 Finding

A condition identified as a quality problem or a direct violation of a specified requirement.

3.2 Objective Evidence

Any recorded statement of fact, other information, or record pertaining to the quality of an item or activity based on observations, measurement, or tests.

3.3 Observation

An observation is a condition noted during an audit that is not in direct violation of requirements, but in the auditor's opinion if left unchanged could potentially lead to a condition adverse to quality.

3.4 Performance Audit

A performance audit, as defined by the EPA, is equivalent to a survey, as defined within the LANL ER quality program.

3.5 Survey

The act of monitoring or observing whether an item or activity conforms to specified requirements.

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4.0 RESPONSIBILITIES

4.1 Program Manager

The ER Program Manager ensures that this procedure is prepared, implemented, and maintained.

4.2 Quality Program Project Leader

The Quality Program Project Leader (QPPL)

- arranges and coordinates surveys,
- appoints a survey team leader and survey team members,
- approves survey reports, and
- concurs with proposed remedies to survey findings.

4.3 Survey Team Leader

The survey team leader

- supervises team members and the performance of the survey,
- initiates Deficiency Reports as required, and,
- prepares and distributes the survey report.

4.4 Survey Team Members

Survey team members perform surveys as assigned by the survey team leader.

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5.0 PROCEDURE

5.1 Survey Scheduling

Surveys are utilized to supplement the audit process. Audits must often rely on objective evidence to verify that an operation was conducted in accordance with approved procedures. Surveys verify an operation by direct observation of the operation as it is being conducted.

Surveys are conducted on an *ad hoc* basis and do not require formal scheduling; however, notification of an impending survey is normally provided to the affected organization. The QPPL arranges to have surveys conducted as necessary to obtain complete coverage of activities at a rate commensurate with the activities' importance and impact on the overall ER program. It will be necessary to coordinate surveys with the personnel responsible for a particular activity (i.e., administrative or standard operating procedure).

5.2 Survey Planning

The QPPL designates a survey team leader and team members. A survey team may consist of one or more persons. The survey team leader shall have had previous audit experience. Individuals assigned to the survey team must be independent of any direct responsibility for performance of activities they are to survey.

Surveys teams should have at least one member with qualifications, experience, training, or expertise applicable to the project or activity being surveyed if it is a scientific investigation activity.

The QPPL provides the survey team leader with

- the name of the organization to be surveyed, and the names of the appropriate individuals within that organization,
- characteristics and methods of the survey (i.e., activities or items to be evaluated and procedures or other documents to be reviewed for compliance with program requirements),
- purpose of the survey, which may simply be "to verify proper implementation of procedures" or "to verify conformance to requirements," and
- a survey number, from the Survey Status Log (Attachment 1), of the following format:

EP-S-XX-YYY, where XX is the calendar year during which the survey is conducted and YYY is a sequential number beginning with 001 for the first survey conducted during that year.

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The survey team leader briefs the survey team members regarding the details of the survey and provides each with a list of requirements and reference documents to be used to perform the survey.

The team members prepare a Survey Checklist (Attachment 2) for their area of responsibility. A highlighted or marked-up copy of the procedure or other requirements document may be used in lieu of a checklist.

5.3 Survey Performance

The survey team members conduct surveys of activities as previously assigned by the survey team leader and document the results. The documentation should include the objective evidence of the results, verification of the status of any measuring and test equipment used, names of personnel contacted during the survey, and any observations or findings that were noted.

Survey team members should keep the affected personnel apprised of any concerns, findings, or observations they have during the conduct of the survey.

5.4 Survey Reporting

The survey team leader, in consultation with the other team members, initiates a Deficiency Report for each finding noted during the survey, in accordance with the LANL-ER-QP-01.3Q. The survey team leader prepares a Survey Report, which includes the following:

- survey number,
- survey date,
- organization surveyed,
- location of survey conduct,
- individuals contacted,
- survey team members,
- activities or items surveyed,
- survey criteria,
- observations noted,
- findings noted and Deficiency Report numbers for each, and
- results (i.e., acceptance statement or effectiveness assessment).

The survey report shall be signed by the survey team leader and approved by the QPPL. The survey team leader will distribute the survey report to the audited organization's management, the QPPL, the survey team members, the ER Program Manager, and the HSE Deputy Division Leader.

The survey team leader prepares survey records package for submittal to the ER Records Processing Facility. The survey records package contains the

- survey report,
- checklists, if applicable, and
- attachments and/or correspondence related to the survey.

NOTE: No other records or actions relative to this procedure are necessary regarding the survey or resultant findings. Survey findings are reported as deficiencies and are tracked and closed out in accordance with LANL-ER-QP-01.3Q.

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6.0 REFERENCES

LANL-ER-QP-01.3Q, Deficiency Reporting

7.0 RECORDS

1. Survey Report
2. Survey Checklists, if applicable
3. correspondence and/or checklists related to the above,
4. Survey Status Log, and
5. Deficiency Reports.

Items one through three above are filed as a records package when the survey report is complete. During the first quarter of each calendar year, a copy of item four is forwarded to the ER Records Processing Facility. Item five is processed in accordance with LANL-ER-QP-01.3Q.

8.0 ATTACHMENTS

Attachment 1 Survey Status Log
Attachment 2 Survey Checklist

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LANL Environmental Restoration Program
SURVEY STATUS LOG

Page _____ of _____

Survey No.	Organization Surveyed	Date of Survey	Deficiency Reports Issued (List by No.)	Survey Report Issued	
				By	Date

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LANL Environmental Restoration Program
SURVEY CHECK LIST

SURVEY NO.: _____ DATE: _____

ORGANIZATION SURVEYED: _____ Page _____ of _____

AUDITOR(S) _____ _____
Print name Signature

Item No.	Document/Revision in Which Requirement or Instruction is Referenced	Requirement or Instruction	Results (S, U, N/A)	Personnel Contacted and Method of Verification (i.e., Objective Evidence)

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LANL Environmental Restoration Program
SURVEY CHECK LIST (continued)

Page _____ of _____

SURVEY NO.: _____ AUDITOR(S) _____

Item No.	Document/Revision in Which Requirement or Instruction is Referenced	Requirement or Instruction	Results (S, U, N/A)	Personnel Contacted and Method of Verification (i.e., Objective Evidence)

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Los Alamos National Laboratory **Environmental Restoration Program** **Quality Procedure**	No: LANL-ER-QP-01.3Q	Rev: 0

DEFICIENCY REPORTING

UNCONTROLLED

Larry Maassen — 13 March 1991
LARRY MAASSEN (Date)
Quality Program Project Leader

Robert W Vocke — 15 March 1991
ROBERT VOCKE (Date)
Program Manager

Effective Date: March 18, 1991

DEFICIENCY REPORTING

1.0 PURPOSE

This procedure describes the methods by which conditions adverse to quality, hereafter referred to as deficiencies, are identified and corrected. This procedure implements the requirements of Section 15, *Nonconformance*, and Section 16, *Corrective Action*, of the Los Alamos National Laboratory (LANL) Environmental Restoration (ER) Quality Program Plan (QPP).

2.0 SCOPE

This procedure applies to deficiencies that are identified by LANL ER Program personnel and contractor personnel working under the ER QPP.

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3.0 DEFINITIONS

3.1 Condition Adverse to Quality

A condition that if not corrected could have a serious effect on safety, operation, or data defensibility.

3.2 Corrective Action

A measure taken to rectify and preclude repetition of conditions adverse to quality.

3.3 Nonconformance

A deficiency in characteristic, documentation, or procedure that renders the quality of an item unacceptable or indeterminate.

4.0 RESPONSIBILITIES

4.1 The Quality Program Project Leader

- maintains the Deficiency Report (DR) Log,
- concurs with description of deficiency,
- approves proposed disposition,
- ensures verification of completion of corrective action(s),
- compiles and distributes the completed records package.

4.2 The Originator of a DR

- initiates a DR and describes the deficiency,
- forwards the DR Form to the QPPL, and
- approves proposed disposition.

4.3 Responsible Individual

The responsible individual provides and/or implements the resolution of a deficiency.

5.0 PROCEDURE

5.1 Initiation of a Deficiency Report

Anyone working on the ER program may initiate a Deficiency Report (DR). The originator of the DR completes Part IA of the DR Form (Attachment 1). The originator forwards the DR to the Quality Program Project Leader (QPPL) for review and concurrence.

The QPPL reviews the DR to be certain the deficiency is clearly and properly stated. The QPPL signs Part IB, signifying agreement with the deficiency as stated. The QPPL obtains a DR number from the DR Log (Attachment 2) and assigns it to the DR Form. The QPPL then forwards the DR Form to management of the organization responsible for disposition of the DR.

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5.2 Disposition of Deficiency

Management of the organization responsible for disposition of the DR assigns an individual to be responsible for disposition. This person should be competent in the specific area to be evaluated, understands the requirements pertinent to the disposition, and have access to applicable background information. The responsible individual proposes the disposition of the deficiency by entering the applicable information in Part II of the DR Form. Additional pages may be added as necessary. The DR Form is then forwarded to the Originator and QPPL for approval of the proposed disposition. NOTE: It is recommended that the responsible individual reach an agreement with the Originator and QPPL on the proposed disposition prior to responding formally on the DR Form.

If the deficiency concerns an item, the item may be considered nonconforming. The responsible individual ensures that work on the item is stopped and that further processing, delivery, installation, or use of the item is prohibited until resolution of the DR is complete. The item shall be identified with a completed Hold Tag, or by marking the item in a legible and easily recognizable manner with the DR number. If possible, segregate the item to prevent inadvertent use.

5.3 Approval of Proposed Disposition

The QPPL and Originator sign Part III of the DR Form when they are satisfied with the proposed disposition. The QPPL notifies the responsible party of acceptability of the proposed disposition by sending an information copy of the signed DR Form to the responsible individual. The QPPL retains the original.

5.4 Implementation and Verification of Deficiency Disposition

Upon assurance that the proposed disposition is satisfactory to the QPPL and Originator, the responsible individual implements the corrective action(s).

The responsible individual notifies the QPPL upon completion of the corrective action(s). The QPPL or designee then verifies satisfactory completion of the corrective action(s) and completes Part IV of the DR form.

5.5 Closing the DR

After verification of completion of the corrective action(s) and completion of the DR form, the DR is considered closed. The QPPL

- ensures that all tags or marks on nonconforming items have been removed,
- prepares a records package that includes the DR, its attachments, and related correspondence and forwards one copy to the originator, one copy to the responsible organization, and one copy to the ER Records Processing Facility (RPF), and
- enters the close-out date on the DR Log.

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6.0 REFERENCES

LANL-ER-QRP - Quality Program Plan for Environmental Restoration Activities at Los Alamos National Laboratory.

7.0 RECORDS

Records generated as a result of this procedure are

- the DR,
- attachments to the DR as applicable,
- related correspondence, and
- the DR Log.

The first three documents are compiled into a records package as specified in Section 5.5. The Deficiency Report Log is maintained by the QPPL, who forwards a copy to the RPF during the first quarter of each calendar year.

8.0 ATTACHMENTS

Attachment 1	Deficiency Report Form (2 pages)
Attachment 2	Deficiency Report Log

LOS ALAMOS

ENVIRONMENTAL RESTORATION PROGRAM
DEFICIENCY REPORT FORM
Page 1 of 2

DR No.:_____

PART IA- INITIATION (ORIGINATOR)

REQUIREMENT:

DESCRIPTION OF DEFICIENCY:

IF DR IS A RESULT OF AN AUDIT OR SURVEY FINDING, ENTER NUMBER _____

ORGANIZATION ASSIGNED DISPOSITION _____

ORIGINATOR (PRINT) _____ SIGNATURE _____ DATE _____

PART IB - QPPL CONCURRENCE

QPPL (PRINT) _____ SIGNATURE _____ DATE _____

PART II - DISPOSITION (RESPONSIBLE INDIVIDUAL)

ROOT CAUSE OF DEFICIENCY:

CORRECTIVE ACTION:

CORRECTIVE ACTION TO PREVENT RECURRENCE:

DATE FOR COMPLETION OF CORRECTIVE ACTIONS:_____

RESPONSIBLE PERSON (PRINT) _____ SIGNATURE _____ DATE _____

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LANL Environmental Restoration Program
DEFICIENCY REPORT FORM
Page 2 of 2

DR No.:_____

PART III - APPROVAL OF PROPOSED DISPOSITION (QPPL AND ORIGINATOR)

QPPL (PRINT)	SIGNATURE	DATE
ORIGINATOR (PRINT)	SIGNATURE	DATE

PART IV - VERIFICATION OF COMPLETION AND/OR CLOSE OUT (QPPL)

METHOD OF VERIFICATION, JUSTIFICATION, ETC (AUDIT, SURVEILLANCE)

VERIFIED BY (PRINT)	SIGNATURE	DATE

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LANL Environmental Restoration Program
DEFICIENCY REPORT LOG

DR No.	Date Initiated	Responsible Individual/Group	Corrective Actions Verified (Date)

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Las Alamos National Laboratory Environmental Restoration Project Quality Procedure	No: LANL-ER-QP-1.4Q	Rev: 0

CORRECTIVE ACTION REQUESTS

UNCONTROLLED

L. A. Souza

Lawrence A. Souza
Quality Program Project Leader

1/13/95
(Date)

J. Jansen

Jorg Jansen
Project Manager

1-23-95
(Date)

Effective Date: 2/15/95

CORRECTIVE ACTION REQUESTS

UNCONTROLLED

1.0 PURPOSE

This procedure describes the process for the initiation and processing of Los Alamos Environmental Restoration (ER) Project Corrective Action Requests (CAR).

2.0 SCOPE

This procedure applies to conditions adverse to the implementation of the Los Alamos ER Project identified by Los Alamos ER Project personnel, Los Alamos personnel performing work for the ER Project, or contractor personnel working on ER Project items or for the ER Project.

3.0 DEFINITIONS

3.1 Adverse Condition

A condition that, if not corrected, could adversely affect the implementation of the ER Project.

3.2 Remedial Action

Immediate corrective action taken to address the current condition until the final corrective action is developed and implemented.

3.3 Corrective Action

A measure taken to correct and prevent or reduce the probability of recurrence of an adverse condition.

4.0 RESPONSIBILITIES

4.1 CAR Initiator

Initiates and forwards CARs to the Quality Program Project Leader.

4.2 Quality Program Project Leader (QPPL)

Maintains the status of Corrective Action Requests, identifies the management responsible to resolve, and evaluates the effectiveness of corrective actions taken.

4.3 Responsible Management

Evaluates, implement remedial action, provides resolution, and ensures implementation of corrective action of assigned CARs.

5.0 PROCEDURE

5.1 Initiation

CARs are initiated by personnel performing work for the ER Project to document adverse conditions.

5.1.1 The **initiator** completes Section I of Attachment 1, Corrective Action Request, and performs the following actions.

a) identifies the activity, and describes the adverse condition, including why the condition is considered adverse

b) enters the QA Assessment (audit or survey) number, if applicable

c) prints name, telephone number and mail stop, signs and dates, and transmits the CAR to the QPPL

5.1.2 The **QPPL**, or designee, reviews the CAR and performs the following actions:

a) assigns a unique identifier to the CAR

b) identifies the management responsible for resolution and corrective action.

c) enters the CAR into a tracking system

d) signs and dates Section II of the CAR and forwards a copy to the responsible management.

5.2 Evaluation and Corrective Action

5.2.1 The **responsible management** evaluates the CAR to determine the appropriate action. If the adverse condition described in the CAR in not in the management's area of responsibility or is incorrect, notifies the QPPL; otherwise, the **responsible management** processes the CAR according to Section 5.2.2.

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5.2.2 The **responsible management** ensures that the following actions are completed.

a) cause, remedial action, action taken or required to correct the condition, and action to prevent recurrence, are identified, and documented in Section III of the CAR.

b) a completion date for the corrective action is identified.

c) forwards a copy of the CAR to the QPPL.

5.2.3 The **responsible management** ensures that corrective action, including remedial action is implemented.

5.3 Verification of Corrective Action

5.3.1 When corrective action has been completed, the **responsible management** performs the following.

a) evaluates the completed CAR and verifies the adequacy and completeness of corrective action.

b) ensures that documentation is complete and signs and dates Section IV.

c) forwards the completed CAR and applicable supporting documentation to the QPPL.

5.4 CAR Closure

5.4.1 The **QPPL** reviews the CAR and any attached supporting documentation for completeness and updates the tracking system to indicate closure of the CAR.

5.4.2 The **QPPL** ensures that the CAR, including supporting documentation, is submitted to the records system.

5.5 Evaluation of Corrective Action Implementation

The effectiveness of corrective action is evaluated during subsequent QA Assessments (audits or surveys) of the activity.

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Los Alamos National Laboratory **Environmental Restoration Program** **Quality Procedure**	No: LANL-ER-QP-01.1Q Rev: 0

AUDITS

UNCONTROLLED

Larry Maassen — 13 March 1991
LARRY MAASSEN (Date)
Quality Program Project Leader

Robert W Vocke — 15 March 1991
ROBERT VOCKE (Date)
Program Manager

Effective Date: March 18, 1991

6.0 REFERENCES

LANL-ER-QPP Quality Program Plan for Environmental Restoration Activities at Los Alamos National Laboratory

7.0 RECORDS

The following records are generated as a result of this procedure.

- Corrective Action Request
- attachments to the CAR

8.0 ATTACHMENTS

Attachment 1, Corrective Action Request

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CORRECTIVE ACTION REQUEST (CAR)

SECTION I: INITIATION

ASSESSMENT NUMBER:	CAR NUMBER:

DESCRIPTION OF ADVERSE CONDITION

NAME	SIGNATURE	DATE

SECTION II: MANAGEMENT RESPONSIBLE

ORGANIZATION	RESPONSIBLE MANAGER	
QPPL (Print name)	QPPL SIGNATURE	DATE

SECTION III: EVALUATION AND CORRECTIVE ACTION

CAUSE:

CORRECTIVE ACTION:

REMEDIAL ACTION:

ACTION TO PREVENT RECURRENCE:

ESTIMATED COMPLETION DATE:

RESPONSIBLE MANAGER (Print Name)	SIGNATURE	DATE

SECTION IV: VERIFICATION

OBJECTIVE EVIDENCE EXAMINED:

RESPONSIBLE MANAGER (Print Name)	SIGNATURE	DATE

UNCONTROLLED