Los Alamos
NATIONAL LABORATORY
EST.1943

Environmental Programs
P.O. Box 1663, MS M991
Los Alamos, New Mexico 87545
(505) 606-2337/FAX (505) 665-1812

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 606-2132

Date: March 18, 2008
Refer To: EP2008-0150

James P. Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Submittal of Documentation in Response to Denial of 15-Day Extension Request to Respond to the Direction to Modify the Investigation Work Plan for Middle Cañada del Buey Aggregate Area, Revision 1

Dear Mr. Bearzi:

Los Alamos National Security, LLC, and the U.S. Department of Energy (LANS/DOE) have received from your office a denial of our 15-day extension request to respond to the New Mexico Environment Department's (NMED's) direction to submit a work plan for the investigation of Area of Concern (AOC) 54-001(d) with the Middle Cañada del Buey Aggregate Area investigation, dated February 26, 2008. The intent of the extension request was to have an opportunity to meet with your staff to make them aware of all relevant information associated with AOC 54-001(d) prior to submitting the required work plan. In your denial letter, LANS was given an opportunity to submit documentation supporting our statement that the polychlorinated biphenyl (PCB) waste storage area has been managed in accordance with Toxic Substances Control Act (TSCA) requirements since operations began in 1989, and no releases of PCBs to the environment have occurred during the operational history of the unit. On March 6, 2008, representatives from LANS/DOE spoke by telephone with Neelam Dhawan of your staff to ascertain the type of documentation that would be adequate to support the assertion that no releases of PCBs from the storage area have occurred. Ms. Dhawan requested that we provide affidavits from facility staff knowledgeable of the activities and operations of the PCB waste storage area in building 54-39 and familiar with the results of routine inspections conducted at the waste storage area. Accordingly, signed affidavits covering the operational history of the AOC 54-001(d) PCB waste storage area from 1989 to the present are provided as Attachment 1. As described in the LANS/DOE response letter, dated December 21, 2007, AOC 54-001(d) is inclusive of both building 54-39 and the attached outside storage pad. The PCB waste storage area, AOC 54-001(d), is referred to as building 54-39 in the Technical Area (TA) 54 Area L Container Storage Area (aboveground) fenced area inspection reports as well as in the interviews conducted with TA-54 staff.

A detailed review of archived PCB waste management files and interviews with past and present TA-54 waste management employees revealed one release on July 30, 1992 from a single container stored inside building 54-39. A drum containing soap and water from the off-site cleanup of a 2 parts per million (ppm) PCB release was being moved inside building 54-39. The drum tipped over, and the bung lid allowed less than 2 quarts of the water and soap mixture to leak onto the sealed concrete floor inside building 54-39. All liquid was contained within the building. The spilled material was cleaned up immediately; the area was rinsed with water and allowed to dry. Three swipe samples were collected from the floor area and analyzed for PCBs. Results showed PCB concentrations of less than 0.5 micrograms per square centimeter ($\mu g/cm^2$), which meets the TSCA decontamination standard of 10 $\mu g/cm^2$. As documented by personnel affidavits and inspection records, this is the only release from containers stored at AOC 54-001(d) during the operational history of the storage area. The size, location (inside the building), and PCB concentrations associated with this spill did not trigger any reporting requirements. Copies of the spill cleanup documentation are provided as Exhibit 1 to Ms. Tina Sandoval's affidavit (in Attachment 1).

Ms. Dhawan also requested that we provide copies of spill response and cleanup procedures that would be implemented in the event of a release at the PCB waste storage area in building 54-39 and copies of authorization letters from the Environmental Protection Agency (EPA). Operation of the PCB waste storage area in building 54-39 must meet the requirements of Laboratory Implementing Requirement (LIR) 404-00.06.1, which describes regulatory requirements for managing PCB wastes and PCB-spill cleanup. Since building 54-39 is located within the TA-54 Area L Container Storage Unit (aboveground) fenced area, the appropriate procedures and/or plans would be implemented in the event of a release: (1) TA-54 Emergency Action Plan, (2) Resource Conservation and Recovery Act Contingency Plan for Area L, (3) Questionable Integrity of Waste Container, and (4) Liquid Release. Copies of these procedures and plans are provided as Attachment 2.

In 1980, EPA approved operation of the Area G low-level radioactive waste landfill as a chemical landfill for the disposal of mixed non-liquid PCBs. Los Alamos National Laboratory (LANL) subsequently constructed building 54-39 for the storage of PCB wastes and began storing containers of PCB waste in the structure in August 1989. Because LANL is not a commercial PCB facility, no specific authorization was or is required for the storage of PCB waste so long as the waste is stored in compliance with 40 CFR Section 761.65. EPA, however, addressed the PCB waste storage at Area L in the disposal approval letter dated June 25, 1996, and originally scheduled to expire on June 25, 2001. EPA administratively extended the 1996 approval by letter dated September 10, 2001, and the conditions of the 1996 approval are in effect until EPA makes a final determination on the outstanding approval request from DOE. In a letter to EPA dated May 19, 2006, DOE indicated that LANL will continue to store small amounts of PCB waste at the Area L storage area in accordance with the approval conditions specified in the June 25, 1996, EPA authorization letter. Mr. James Bearzi of NMED was copied on the May 2006 letter. Copies of these letters are provided as Attachment 3.

The attached information demonstrates that no releases of PCBs from the waste storage area to the environment occurred during the time that AOC 54-001(d) (building 54-39) has been in operation. Therefore, in a future investigation report, DOE and LANS will request a determination that no further action under the Consent Order is required and that AOC 54-001(d) is complete with controls. In addition, this AOC, which is included in LANL's Draft Hazardous Waste Facility Permit, will be closed as a permitted hazardous waste storage unit.

If you have any questions, please contact Dave McInroy at (505) 667-0819 (mcinroy@lanl.gov) or Cheryl Rodriguez at (505) 665-5330 (crodriguez2@doeal.gov).

Sincerely,

for Susan G. Stiger, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

for David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

SS/DG/JM/DH:sm

Enclosures: Two hard copies with electronic files:
(1) Attachment 1—Personnel Affidavits
(2) Attachment 2—Spill Response Procedures
(3) Attachment 3—PCB Authorization Letters

Cy: (w/enc.)
Paula Bertino, WES-DO, MS M992
RPF, MS M707 (with two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD only)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-OB, White Rock, NM
Cheryl Rodriguez, DOE-LASO, MS A316
Peggy Reneau, WES-DO, MS M992
EP-CAP File, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM
Bonita Eichorst, DOE-LASO (date-stamped letter emailed)
Susan G. Stiger, ADEP, MS M991
Carolyn A. Mangeng, ADEP, MS M991
Alison M. Dorries, WES-DO, MS M992
Dave McInroy, EP-CAP, MS M992
Paul Huber, LWSP, MS M992
IRM-RMMSO, MS A150

Attachment 1

Personnel Affidavits

AFFIDAVIT

1. I, Tina Marie Sandoval, am an employee of Los Alamos National Security, LLC, at Los Alamos National Laboratory (LANL). I have been employed at LANL since January 1986.

2. I am currently the Deputy Group Leader of the Laboratory's Environmental Protection Division's Water Quality and RCRA Group (ENV-RCRA).

3. From 1989 through 1993, as an employee of the Laboratory's environmental compliance program, I was responsible for various aspects of the Laboratory PCB Compliance Management Program including:

- Developed, prepared, and implemented a formal PCB Compliance Management Plan to ensure through documented work process procedures the identification and elimination of PCB-containing equipment in use and in storage at Laboratory facilities.
- Executed corrective actions under the DOE/LANL Five-Year Budget Plan, including preparing job and project bid specifications for PCB transformer retrofit, retrofill, and dechlorination projects;
- Coordinated and managed information systems for tracking PCB in-service inventory and waste disposal activities; and prepared EPA-required annual and semi-annual compliance reports.
- Prepared and maintained EPA-regulated applications and authorizations for storage and disposal of PCB equipment and materials at the Laboratory's TA-54 solid waste storage and disposal sites and TA-50 Controlled Air Incinerator and also maintained PCB compliance program-related records and documentation (correspondence, monitoring data, spill cleanup records).
- Performed field surveillance and monitoring for air emissions/toxics, surface water, storm water, ground water, sediments, septic, and sludge, including planning, collecting, preparing, shipping, analyzing data, controlling quality, and reporting results under the Laboratory's Air Toxics, SDWA, CWA, TSCA, and RCRA Environmental Compliance Programs.
- Operated, maintained, and calibrated instrumentation for monitoring and measuring concentration of chemicals.
- Escorted regulators for field audits, inspections, surveys and investigations.
- Served as an active team member of the Laboratory's Emergency Response Team, investigating air-borne release of contaminants, chemical spills, and uncontrolled discharges.

4. The information in this affidavit reflects my personal knowledge, familiarity, and experience with activities and operations at TA-54 Area L Building 39 during the period described in paragraph 3 above. It also reflects information provided to me, as the individual responsible for PCB compliance program-related records, by employees who undertook waste management and spill cleanup operations at TA-54 Building 39.

5. Building 39 is located in Area L at TA-54. It was constructed in 1989 to store PCB-contaminated waste, and meets the construction requirements of 40 CFR §761.65(b). Prior to construction of the PCB waste storage area, the site was not used for waste storage.

6. During the time period described in paragraph 3 above, Building 39 was inspected at least monthly for leaks from containers, in accordance with the requirements of 40 CFR §761.65(c).

Building 39 was routinely inspected for spills or any release from stored containers as part of the weekly inspection of Area L.

7. I am generally familiar with the operations conducted at Building 39 between August 1989 and 1993. In preparing this affidavit, I refreshed my recollection of PCB management activities at TA-54 Building 39 by reviewing PCB spill reports generated during that period. A PCB release from a single container stored at Building 39 occurred on July 30, 1992. Consistent with the Laboratory PCB recordkeeping procedures in place at the time, post clean up confirmatory sampling was documented by Michael Bailey, JENV, on *HS Form Number 9-4A (3/87), LANL Spill Repor*t, attached hereto as Exhibit 1.

8. Because of my work responsibilities, I was routinely informed about all PCB samples and the purpose for which they were collected. I was informed of the July 1992 spill and clean up at Building 39, and of the swipe samples collected to confirm clean up at the time.

9. Based on my personal knowledge and my familiarity with PCB compliance program records generated between 1989 and 1993, no other release of PCBs occurred at Building 39 during that period.

FURTHER AFFIANT SAYETH NAUGHT

Tina Marie Sandoval

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 18th day of March 2008, by Tina Marie Sandoval.

NOTARY PUBLIC

My Commission Expires:

December 24, 2009

Exhibit 1 of Tina Sandoval's Affidavit

July 30, 1992, Spill Document

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Ref # 227a

SPILL REPORT

Spill Coordinator	Telephone	Mail Stop	Division	Group
Michael Bailey	7-0104	A-199	JCI	JENV

SPILL INFORMATION

Date of Spill	Time of Spill	Location
7/30/92	9:00AM	TA-54 Building 39, The PCB Storage Facility

Amount of Spilled Material	Type of Spilled Material
Approx. 1/2 gallon	PCB-contaminated CAPSUR(R) + water mixture

Basis of Estimate ☐ Inventory ☒ Visual Estimate ☐ Recovered Volume ☐ Other

Cause *(Describe events leading up to the spill, if applicable.)* A drum of CAPSUR(R) + water + PCBs (approx. 2 ppm) was being moved at TA-54 Building 39, on 7/30/92. The drum was tipped over, and the bung lid allowed some material to leak.

Injuries or Exposure? ☐ Yes ☒ No *(If yes, please describe.)*

Did evacuation occur?	☐ Yes	☒ No	**Were facilities or equipment damaged?**	☐ Yes	☒ No
Did fire/explosion occur?	☐ Yes	☒ No	**Was there a potential for fire/explosion?**	☐ Yes	☒ No

Did the spill enter sewer drains, streams, or stream beds? ☐ Yes ☒ No *(If yes, give location and ultimate drainage.)*

Who discovered the spill? Larry Hupke, EM-7, 5-3081

SPILL RESPONSE

Describe the spill response, in chronological order. Include a call-out of response personnel, steps taken to contain the spill, and steps taken to clean it up. Also describe spill control equipment used. At approximately 10:00 AM on 7/30/92, Larry Hupke, EM-7, notified Michael Bailey, JENV, about a release of CAPSUR(R), water, and PCBs (about 2 ppm), that had leaked from a drum at TA-54, Building 39. Michael Bailey reported to the scene at around 10:30AM, and proceeded to clean the spill with rags, using the CAPSUR(r) soap already present from the drum. The area was dried, and then the area was rinsed with water. The cleanup was completed at approximately 11:30am, 7/30/92.

HS Form Number 9-4A (3/87)

Send original to HSE-8, MS K490

****

HSE-9 ANALYTICAL SERVICE AGREEMENT REQUEST-NUMBER: 13303

****

I. PRESAMPLING CONFERENCE: Organic Section

Program code: M101 Task ID #: No. Samples Expected: 0003

Request date: 31-Jul-1992 Completion date: 6-Aug-1992

Chain of Custody: YES Special protocol: NONE

Container Type: GLASS Preservative: NONE Storage Conditions: NONE

(See Memo HSE-9/88-304. Guidelines for Collection and Preservation of Liquid Samples)

Sample Hazards Present:
NONE

Sample Disposal: DISCARD (All hazardous samples or TRU wastes will be returned to the Customer.)

Customer: **Daniel E. Bryant** HSE_9 SECTION LEADER: JH

Customer initials: DEB Customer phone: 7-0814 MS: K490 Date: 31-Jul-1992

==========

II. EMERGENCY SAMPLES: Priority 2 Emergency status REQUIRES the following approvals:

Customer Group Leader _____ HSE-9 Group Leader _____ Date _____

==========

III. SAMPLE RECEIPT

Signature Joyce Hammer Date: 31-Jul-1992 Total No. received: 3

Matrix	Initial SN		Final SN	# Received
FS	00.22928	to	00.22928	1
FS	92.24717	to	92.24720	4

Translation table of HSE-9/Customer numbers will be provided by Sample-Receiving and appear on each final data report

REQ	SAM NUM	CUST NUM	SAMPLE COLLECTION DATE
13303	00.22928	00.22928	7/02/92
13303	92.24717	00.99797	5/08/92
13303	92.24718	92-0204	
13303	92.24719	92-0205	
13303	92.24720	92-0206	

HSE-9 ANALYTICAL CHEMISTRY REQUEST REQUEST-NUMBER: 13303

Program code: M101 Task ID number: Request date: 31-Jul-1992

Customer initials: DEB Customer phone: 7-0814 MS: K490

MATRIX	Initial		Final
FS	00.22928	to	00.22928
FS	92.24717	to	92.24720

Section	Analysis	Technique	Analyst	Due-date
0	1336363	GCEC	JBR	8/15/92

REMARKS:

PRIORITY 2 - FLOOR SWIPE OF PCB CAPSUR/WATER SPILL AT TA-54 BUILDING 39

HSE-9 Sample Priority Authorization Form

Customer Name : DAN E. BRYANT HSE-9 Request#'s: 13303

Group : EM-8 Program Code : M101 Mail Stop : K490

Phone : 7-0814 Sample Matrix : FS Number of Samples: ~~2~~ 3

Requested Analytical Report Due Date : 8-6-92

Comments : FLOOR SWIPE OF PCB CAPSUR/WATER SPILL at T.A.-54 Building 39 Cleaned by JENV

PRIORITY 1 - ***This is the highest priority level that can be assigned to any sample. Samples assigned a priority 1 status will be moved to the top of the assignment que. The analyst will complete the analysis and issue a final report as soon as possible. This priority level gives the analyst pre-approval for overtime if it is required for the timely completion of the requested analysis.***

Group Leader Authorization: _____ Date: _____

HSE-9 Group Leader Authorization: _____ Date: _____

PRIORITY 2 - ***Samples assigned a priority 2 status will be moved to the top of the analysis que but will not supersede any existing or future priority 1 status samples. The analyst will complete the analysis as soon as possible during the analyst's normal working hours. Overtime will not be authorized for samples with a priority 2 status. Samples with a priority 2 status will be scheduled for analysis on a first-come, first-served basis.***

Group Leader Authorization: [signature] Date: 7-30-92

********** EM-9 ANALYTICAL REPORT **********

Prepared by: LAK on 4-Aug-1992

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 13303 MATRIX: FS ANALYST: JEFFREY ROBERTS PROGRAM CODE: M101 NOTEBOOK: NA PAGE: NA

OWNER: Daniel E. Bryant GROUP: EM-7 MAIL-STOP: K490 PHONE: 7-0814 TECHNIQUE: GCEC ANALYTICAL PROCEDURE:

SUMMARY of TOTAL PCB's for customer samples on this report

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
92-0204	92.24718	1336363	< 0.5		UG/SAMPLE	8/03/92		Mixed-Aroclor
92-0205	92.24719	1336363	< 0.5		UG/SAMPLE	8/03/92		Mixed-Aroclor
92-0206	92.24720	1336363	< 0.5		UG/SAMPLE	8/03/92		Mixed-Aroclor

DETAILED PCB DATA for customer samples on this report

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
92-0204	92.24718	1336363	< 0.5		UG/SAMPLE	8/03/92		Mixed-Aroclor
92-0204	92.24718	53469219	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1242
92-0204	92.24718	11097691	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1254
92-0204	92.24718	11096825	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1260
92-0205	92.24719	1336363	< 0.5		UG/SAMPLE	8/03/92		Mixed-Aroclor
92-0205	92.24719	53469219	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1242
92-0205	92.24719	11097691	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1254
92-0205	92.24719	11096825	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1260
92-0206	92.24720	1336363	< 0.5		UG/SAMPLE	8/03/92		Mixed-Aroclor
92-0206	92.24720	53469219	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1242
92-0206	92.24720	11097691	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1254
92-0206	92.24720	11096825	< 0.5		UG/SAMPLE	8/03/92		Aroclor 1260

********** EM-9 QUALITY ASSURANCE REPORT **********

********** EM-9 QUALITY ASSURANCE REPORT **********

SUMMARY OF CONTROL STATUS OF BLIND QA SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUND-NAME
92.24717	1336363	14.	4.2	UG/SAMPLE	11.5	1.	8/03/92	UNDER CONTROL	Mixed-Aroclor
92.24717	53469219	< 0.5		UG/SAMPLE	0.0		8/03/92	UNDER CONTROL	Aroclor 1242
92.24717	11097691	14.	4.2	UG/SAMPLE	11.5	1.	8/03/92	UNDER CONTROL	Aroclor 1254
92.24717	11096825	< 0.5		UG/SAMPLE	0.0		8/03/92	UNDER CONTROL	Aroclor 1260

REPORT NUMBER: 14762

Analyst	Reviewer	Section Leader	QA Officer
8/4/92	8/4/92	8/4/92	8-4-92
Date	Date	Date	Date

No Sample Discrepancies Noted by Sample Management Section

The control status of the preceeding data was evaluated using the standard statistical criteria set forth in 'Quality Assurance for Health and Environmental Chemistry: 1986,' LA-11114-MS, pp. 3-4.

****

AFFIDAVIT

1. I, Paul N. Newberry, am an employee of Los Alamos National Security, LLC, at Los Alamos National Laboratory (LANL). I have been employed at LANL since 1992.

2. I am currently the Operations Manager of the Hazardous and Mixed Waste Operations Group in the Waste Disposition Project.

3. Between August 1992 and June 1994, I was aware of waste management activities at TA-54, Building 39. I was in charge of shipping polychlorinated biphenyl (PCB) waste off site for treatment and disposal, and therefore was very familiar with all PCB waste streams managed in Building 39.

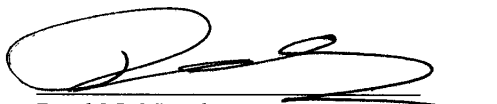
4. The information in this affidavit reflects my personal knowledge of and familiarity with activities and operations at TA-54 Area L Building 39 between August 1992 and June 1994, and also reflects information provided to me by the employees who undertook waste management operations at TA-54 Building 39 at my direction.

5. Building 39 is located in Area L at Ta-54. It was constructed to store PCB-contaminated waste, and meets the construction requirements of 40 CFR §761.65(b).

6. Between August 1992 and June 1994, Building 39 was inspected at least monthly for leaks from containers, in accordance with the requirements of 40 CFR §761.65(c).

7. I am familiar with the results of inspections conducted at Building 39 between August 1992 and June 1994. No release from any container stored at Building 39 was identified during that period of time.

FURTHER AFFIANT SAYETH NAUGHT



Paul N. Newberry

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 17th day of March 2008, by Paul N. Newberry.

Lola L. Sandoval
NOTARY PUBLIC

My Commission Expires:

December 24, 2009

AFFIDAVIT

1. I, Sean B. French, am an employee of Los Alamos National Security, LLC, at Los Alamos National Laboratory (LANL). I have been employed at LANL since June 1994.

2. I am currently the Group Leader for the Low-Level Waste Disposition Group in the Waste Disposition Project at TA-54.

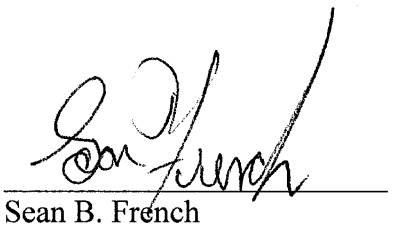
3. From June 1994 to the present, I have been responsible for or involved in oversight of, waste management activities at TA-54, Building 39. During this period of time, Building 39 has stored only polychlorinated biphenyl (PCB) waste for disposal.

4. The information in this affidavit reflects my personal knowledge of and familiarity with activities and operations at TA-54 Area L Building 39 between June 1994 and the present time. It also reflects information provided to me by the employees who undertook waste management operations at TA-54 Building 39 at my direction.

5. From June 1994 to the present, Building 39 has been inspected at least monthly for leaks from containers, in accordance with the requirements of 40 CFR §761.65(c). Building 39 is routinely inspected for spills or any release from stored containers as part of the weekly inspection of Area L.

6. I am familiar with the results of inspections conducted at Building 39 between June 1994 and the present. No release from any container stored at Building 39 has been identified during that period.

FURTHER AFFIANT SAYETH NAUGHT



Sean B. French

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 17th day of March 2008, by Sean B. French.

Lola R. Sandoval
NOTARY PUBLIC

My Commission Expires:

December 24 2009

Attachment 2

Spill Response Procedures

LOS ALAMOS National Security LLC

Blue Sheet
Los Alamos National Security, LLC
Los Alamos National Laboratory

DCN: 000288

Effective Date: 06/01/06
Page 1 of 2

This Blue Sheet applies to:

- ☐ All LANL Controlled Policies and Procedures (see Continuation Sheet)
- ☐ Entire Manual (see Continuation Sheet)
- ☒ Individual Policy/Procedure Listed Below

Change Type: ☒ Minor ☐ Major ☐ Cancel
☒ Complete revision (if checked, specify projected completion date.)

Manual Title:
LANL Controlled Manuals, Procedures, and Documents

Policy/Procedure No./Title	Rev. No.	Date:
LIR 404-00-06.1 Managing Polychlorinated Biphenyls	Rev. No. **6.1**	Date: **09/26/00**
Policy/Procedure No./Title	Rev. No.	Date:
Policy/Procedure No./Title	Rev. No.	Date:

Reason for Revision (If complete revision is checked above):

- **Implement coordinated set of environmental requirements, tiered from a new IP 400 (Environmental Protection Institutional Policy).**

Date Revision Required: **09/29/06**

Description of Change: ☐ See Page 2 for Organizations or Procedures Impacted by this Change

- **Update other organization names listed throughout document with the new LANS organization name.**
- **Make the necessary changes to reflect mapping of responsibilities between Environmental Protection Division/ESH&Q Directorate and Environmental Protection Directorate.**

Prepared by: _____ Date: _____
LANS Transition Team Member

Reviewed by: _____ 4/26/06 Date: 4/29/06
LANS Transition Section Lead

Recommended by: _____ Date: 5/8/06
LANS Transition Administrative Section Lead

Approved by: _____ Date: 16 May 06
LANS Transition General Area Manager

LANS Transition Business Area Manager please forward original Blue Sheet to Procedures Coordinator upon approval.

GLOBAL CHANGES:

☒ Wherever University of California appears, replace with Los Alamos National Security, LLC.

☒ Wherever UC appears, replace with LANS.

☒ Wherever University appears, replace with LANL.

TITLE CHANGES

From Title Currently Used	To Replacement Title
☐	☐ Business Management and CFO
☒ WMPPC	☒ Environment, Safety, Health & Quality
☐	☐ Nuclear & High Hazard Operations
☐	☐ Infrastructure and Site Services
☐	☐ Science & Technology and Chief Science Officer
☐	☐ Threat Reduction
☐ and	☒ Environmental Programs
☐	☐ Weapons Programs
☐	☐ Project Management
☐	☐ Safeguards and Security
☐	☐ Weapons Programs
	☐
	☐
	☐

IMPACTED BY CHANGE

Organization(s)	Policy/Procedure(s)

Managing Polychlorinated Biphenyls

Los Alamos National Laboratory
Laboratory Implementation Requirement LIR404-00-06.1
Original Issue Date: January 7, 1999 (Revised 9/26/2000)
Mandatory Document

1.0 INTRODUCTION

Lessons Learned Note: *Click here* for Lessons Learned *that may apply* to the requirements contained in this LIR.

1.1 Overview

This document contains the requirements for processing, distributing, using, storing, disposing, and marking materials contaminated with polychlorinated biphenyls (PCBs). PCBs are a family of variously chlorinated biphenyl molecules. Objects contaminated with one or more species of PCB are known as PCB Items. The U.S. Environmental Protection Agency regulates the management of PCBs under the Code of Federal Regulations Title 40 Part 761, "Polychlorinated Biphenyls." Implementation of the applicable federal regulatory requirements and Laboratory policy shall be mandatory for all operations involving PCBs.

This document shall be effective on the date of issue. See Attachment A for recommended major implementation criteria for self-assessment.

This revision cancels Notice 0033, PCB Management Regulation Changes.

1.2 Table of Contents

Section	Title	Page
1.0	Introduction	1
1.1	Overview	1
1.2	Table of Contents	1
2.0	Purpose	3
3.0	Scope	3
4.0	Acronyms	3
5.0	Definitions	4
6.0	Precautions and Limitations	5
7.0	Responsibilities	6
7.1	Overall Responsibility	6
7.2	Waste Management Coordinator	6
7.3	FWO-SWO (or the FWO-SWO Contractor)	7
7.4	Water Quality and Hydrology Group	7
7.5	Hazardous and Solid Waste Group	7
7.6	Materials Management Group, Transportation Team (P&T)	7
8.0	General Requirements	7

9.0	Operational Requirements	8
9.1	Marking	8
9.2	Procurement and Use	8
9.3	Combustible Materials	8
9.4	On-site Transfers	8
9.5	Off-site Transfer	9
9.6	Air Compressors	9
9.7	Transformers	9
9.8	Voltage Regulators	9
9.9	PCB Spills	9
10.0	Waste Requirements	10
11.0	Storage Requirements	11
11.1	Storage of PCB Articles for Reuse	11
11.2	Storage Limitations for Disposal	11
12.0	Records	13
13.0	References	13
13.1	Documents	13
13.2	Document Ownership	14
	Appendix A. Referrals	15
	Attachment A. Recommended Major Implementation Criteria for Self-Assessment	16
	Attachment B. Hierarchy of PCB Items	17
	Attachment C. PCB Mark M_L	18

2.0 PURPOSE

Laboratory facilities that use PCB Items and/or generate and/or manage PCB wastes shall meet the requirements in this document to comply with federal, state, and Laboratory requirements.

3.0 SCOPE AND APPLICABILITY

This document lists regulatory requirements, provides definitions for terms commonly used when managing PCB waste and performing PCB related operations, and defines roles and responsibilities. Solid waste containing non-regulated concentrations of PCBs shall comply with LIR 404-00-04, "Managing Solid Waste."

4.0 ACRONYMS

BUS-4	Materials Management Group
CFR	Code of Federal Regulations
DOT	U.S. Department of Transportation
EM&R	Emergency Management and Response Office
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ESH	Environment, Safety, and Health Division
ESH-5	Industrial Hygiene and Safety Group
ESH-18	Water Quality and Hydrology Group
ESH-19	Hazardous and Solid Waste Group
FM	Facility Manager
FWO-SWO	Facility & Waste Operations–Solid Waste Operations
JCNNM	Johnson Controls Northern New Mexico
LIR	Laboratory Implementation Requirement
NMAC	New Mexico Administrative Code
PCBs	polychlorinated biphenyls
PRS	potential release site
SPCC	Spill Prevention, Control and Countermeasure
SOP	standard operating procedure
TSCA	Toxic Substances Control Act
WAC	Waste Acceptance Criteria

5.0 DEFINITIONS

Capacitor: A device for accumulating and holding an electric charge and consisting of conducting surfaces separated by a dielectric.

Small capacitor: a capacitor that contains less than 1.36 kg (3 lb) of dielectric fluid.

Large, high voltage capacitor: a capacitor that contains 1.36 kg (3 lb) or more of dielectric fluid and which operates at 2,000 volts (ac or dc) or higher.

Large, low voltage capacitor: a capacitor that contains 1.36 kg (3 lb) or more of dielectric fluid and which operates below 2,000 volts (ac or dc).

Fluorescent light ballast: A device that electrically controls fluorescent light fixtures and includes a capacitor containing 0.1 kg or less of dielectric fluid.

General Storage Area: A PCB storage area that meets specific record-keeping and construction requirements, including secondary containment, for up to 90-day, on-site storage of PCB waste.

Leak or leaking: Any instance in which PCB Articles, Containers, or equipment have any PCBs on any portion of their external surfaces.

Non-PCB Transformer: Any transformer that contains less than 50 ppm PCBs. Any transformer that has been converted from a PCB transformer or a PCB-contaminated transformer **cannot** be categorized as a non-PCB transformer until it has been formally reclassified in accordance with the requirements of 40 CFR § 761.30.

PCB Articles: Any manufactured articles (other than *PCB containers*) that may contain or have been in direct contact with PCBs, e.g., capacitors, transformers, electric motors, pumps, and pipes.

PCB article container: Any package, can, bottle, bag, barrel, drum, tank, or other device used to contain PCB articles or equipment, the internal and external surfaces of which has not been in direct contact with PCBs.

PCB Containers: Any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB articles, the surface of which has been in direct contact with regulated PCBs.

PCB-contaminated electrical equipment: Any electrical equipment that contains equal to or greater than 50 ppm but less than 500 ppm PCBs including but not limited to: transformers, capacitors, circuit breakers, reclosers, voltage regulators, switches, electromagnets, and cables.

NOTE: Oil-filled electrical equipment other than circuit breakers, reclosers, and cable whose PCB concentration is unknown must be assumed to be PCB-contaminated electrical equipment.

PCB-contaminated transformer: A transformer that contains equal to or greater than 50 ppm but less than 500 ppm PCBs.

PCB equipment: Any manufactured item (other than a *PCB container* or a *PCB article container*), which contains a PCB article or other PCB equipment.

Examples: Microwave ovens, electronic equipment, and fluorescent light ballasts and fixtures.

PCB item: Any PCB article, article container, container, or equipment, any part of which deliberately or unintentionally contains or is contaminated with PCBs.

PCB bulk remediation waste: Bulk remediation waste is any non-liquid waste or debris generated as a result of any "historical" PCB spill cleaned up under 40 CFR § 761.61, including soil, sediments, dredged materials, sewage sludge, and industrial sludge.

PCB transformer: Any transformer that contains 500 ppm PCBs or greater.

Temporary Storage Area: A PCB storage area subject to an approved SPCC plan, designated for up to 30-day, on-site storage of PCB waste.

6.0 PRECAUTIONS AND LIMITATIONS

1. Failure to comply with this requirement could cause the Laboratory to incur penalties and fines due to noncompliance with 40 CFR Part 761 standards.
2. The 40 CFR Part 761 standards specify time requirements for reporting and cleaning up of PCB spills above certain quantities and concentrations. In some cases, spills may have to be reported to the National Response Center in 24 hours or less. Clean-up procedures may have to be initiated in 24 hours and completed within 48 hours {40 CFR § 761.125}. Therefore, if a spill or release of PCBs has occurred, Emergency Management and Response (EM&R) shall be contacted immediately for notification and proper procedure in accordance with LIR201-00-04 "LANL Incident Reporting Process".
3. The Hazardous and Solid Waste Group shall be notified prior to conducting research and development activities involving the use of PCBs.
4. Only personnel authorized in Safe Work Practices shall:
   - Conduct PCB cleanups
   - Manage PCB waste
   - Repair PCB Items

5. Waste liquids with PCBs equal to or in excess of 50 ppm may be stored at the site of generation only if they are stored in a temporary PCB storage area (30-day maximum) or within a general PCB storage area (90-day maximum).
6. Where disposal or cleanup is required, neither disposal nor cleanup may be avoided though dilution {40 CFR § 761.1(b)}.

7.0 RESPONSIBILITIES

Unless otherwise stated in this document, the responsible division director shall ensure that the federal, state, and Laboratory requirements specified in this document are met. Management of programmatic PCB Items and waste shall be the responsibility of the Operating Group Leader and facility PCB items and waste shall be the responsibility of the Facility Manager.

Guidance Note: Additional general waste management responsibilities are found in the LIR404-00-02, "General Waste Management Requirements."

WHO	SHALL
7.1 Operating Groups/Facility Managers and Generators of PCB Waste	• Determine ownership of all PCB Items and waste within the facility. • Package, label, mark, and store all PCB Items and waste to meet the requirements of this document. • Consult the guidance documents that pertain to management of PCBs. • Identify and characterize all PCB items and waste. • Perform sampling or seek assistance if the presence of PCBs is unknown but suspected. • Contact the Hazardous and Solid Waste Group (ESH-19) with information on newly identified PCB Items or when previously identified items are moved, modified, or taken out of service. • Ensure that the use, storage and/or transportation of PCBs does not result in PCB contamination of watercourses. • Arrange for storage, transportation, and disposition of radioactive PCB waste.
7.2 Waste Management Coordinator (WMC)	• Assist operating groups, facility managers (FMs), and generators in identifying, packaging, marking, labeling, and characterizing PCB waste. • Coordinate transportation of PCB waste with Facility & Waste Operations–Solid Waste Operations (FWO-SWO).

7.3 FWO-SWO (or the FWO-SWO Contractor)	• Arrange for storage, transportation, and disposition of non-radioactive PCB waste. • Arrange for the disposal of radioactive PCB waste.
7.4 Water Quality and Hydrology Group	• At the request of the Hazardous and Solid Waste Group, provide assistance by reviewing plans and reports pertaining to PCB cleanups in a watercourse and development of a SPCC plan.
7.5 Hazardous and Solid Waste Group	• Act as the point of contact for Laboratory personnel regarding PCB operational and regulatory waste issues. • Maintain the PCB inventory, database, and spill reports. • Assign PCB identification numbers. • Assist with efforts to identify and assess the environmental impact of PCB usage, spills, and discharges. • Coordinate removal and reduction of PCB Items and operations. • Assist with coordinating appropriate training for Laboratory personnel required to manage PCB Items or waste.
7.6 Materials Management Group, Transportation Team (BUS-4)	• Prepare, process, and approve shipping documentation for PCB Items and waste or authorize others to perform these responsibilities.

8.0 GENERAL REQUIREMENTS

To verify the presence of PCBs, any PCB item or waste suspected to be contaminated with PCBs shall be treated as contaminated until the absence of PCBs is verified by analysis or by contacting the manufacturer.

Oil in capacitors or transformers, notably mineral oil transformers, shall be considered PCB-contaminated unless analyzed or certified PCB-free by the manufacturer.

The operating group or generator shall provide for characterization of all PCB items or waste.

9.0 OPERATIONAL REQUIREMENTS

The following are operational issues before the PCB Items become waste.

9.1 Marking

PCB Items containing PCBs with concentrations equal to or greater than 50 ppm, and transport vehicles loaded with PCB Containers that contain more than 45 kg of liquid PCBs in concentrations equal to or greater than 50 ppm shall be conspicuously marked with the words "Caution: Contains PCBs" {40 CFR § 761.40} and shall have a PCB ID number.

Exceptions to this marking requirement include:

- Electrical ballasts for fluorescent lamps
- Capacitors on small electric motors
- Small capacitors (less than 3 lb of dielectric fluid) that contain only PCB-soaked insulation

9.2 Procurement and Use

The procurement of PCB Items shall be limited to uses authorized under 40 CFR Part 761, including PCB Items to be acquired for use as chemical analytical standards or for research and development (R&D). Authorized R&D activities do not include research, development or analysis for the development of any PCB product. The Hazardous and Solid Waste Group shall be contacted prior to procuring any PCB item for approval, assignment of a PCB Identification Number, and updating of the PCB inventory database.

Guidance Note: The use of PCBs in open tanks and containers or in containers that are opened frequently for adjustment or repair is in violation of federal regulations and can subject the facility to fines and penalties.

9.3 Combustible Materials

Combustible materials shall not be stored within a PCB transformer enclosure or within 17 ft of a PCB transformer {40 CFR § 761.30(a)}.

Examples: Paint, solvents, plastics, paper, and wood.

Guidance Note: Combustible materials can never be stored within any transformer enclosure. See the National Electrical Code for restrictions on the proximity of combustible materials to other types of transformers.

9.4 On-Site Transfers

PCB Items shall be transferred in accordance with LIR405-10-01, “Packaging and Transportation.” The Hazardous and Solid Waste Group shall be notified when PCB Items are relocated.

9.5 Off-Site Transfer

PCBs and PCB Items shall not be transferred off Laboratory property for use at other facilities.

PCBs and PCB Items shall not be offered for redistribution.

Equipment potentially contaminated with PCBs may be transferred off-site for repair. The Hazardous and Solid Waste Group shall verify the equipment contains less than 50 ppm PCBs and is marked accordingly.

No equipment shall be moved off Laboratory property if the PCB concentration is equal to or greater than 50 ppm.

9.6 Air Compressors

Air compressors containing PCBs must have their PCB concentration reduced to less than 50 ppm {40 CFR § 761.30(s)}.

9.7 Transformers

A visual inspection of each PCB transformer in use or stored for reuse shall be performed at least once every 3 months by the owner or the owner's designee {40 CFR § 761.30(a)}.

If a transformer is found to be leaking it shall be repaired or replaced to eliminate the source of the leak. In all cases any leaking material shall be cleaned up and properly disposed of {40 CFR § 761.30(a)}.

9.8 Voltage Regulators

Voltage regulators with equal to or greater than 3 lb of equal to or greater than 500 ppm PCBs shall be subject to the same use conditions as PCB Transformers {40 CFR § 761.30(h)}.

9.9 PCB Spills

WARNING: PCBs shall be considered harmful. Once released into the environment, PCBs do not degrade into less harmful compounds. The EPA has concluded that PCBs are toxic and persistent. PCBs cause chloracne, a painful, disfiguring skin illness. Based on animal data, the EPA has also found that reproductive effects, developmental toxicity and oncogenicity are areas of concern to humans exposed to PCBs. If a spill occurs the following shall be implemented:

- Contact the EM&R office on all PCB spills.
- Do not conduct any cleanup operations involving PCBs before contacting EM&R.
- Only personnel authorized under Safe Work Practices shall conduct spill cleanup activities.
- Owners of spilled PCB materials shall be responsible for disposal of clean-up wastes.

10.0 WASTE REQUIREMENTS

The LANL Waste Acceptance Criteria (WAC) shall be consulted for instructions regarding the packaging and storing of capacitors.

PCB waste shall be packaged, stored, recycled, transported and disposed of in accordance with this LIR and LIR404-00-02, "General Waste Management Requirements."

Waste containing PCBs combined with any other waste type shall also be managed in accordance with this LIR and the appropriate LIR for that waste type.

PCB capacitors shall be shorted out prior to disposal.

PCB Transformers shall be drained and flushed with a solvent, such as kerosene, prior to disposal {40 CFR § 761.60(b)} and managed in accordance with this LIR.

PCB Articles, PCB Containers, and PCB article containers stored for disposal must be marked with the date of removal from service and inspected for leaks at least once every 30 days {40 CFR § 761.65(c)}.

Waste PCB Liquids in PCB Containers at concentrations equal to or greater than 50 ppm shall be authorized for storage for up to 30 days at a temporary storage area if there is a site-specific SPCC established for that location {40 CFR § 761.65(c)} and in accordance with this LIR.

Fluorescent light fixtures with any of the following conditions, shall be assumed to contain PCBs:

- Ballasts labeled "High Power Factor"
- Ballasts labeled "Power Factor Corrected"
- No ballast label
- Illegible ballast label

Ballasts shall be placed in drums and shall not be stored for more than 90 days.

11.0 STORAGE REQUIREMENTS

11.1 Storage of PCB Articles for reuse

PCB Articles may be stored for reuse in an area that is not designed, constructed, and operated as an approved PCB storage facility {40 CFR § 761.35}.

PCB Articles for reuse shall be authorized for storage for no more than 5 years after the date the article was originally removed from use (for example, disconnected electrical equipment) or 5 years after August 28, 1998, whichever is later, if the owner:

1. Follows all use and marking requirements that apply to the PCB article.
2. Maintains records starting on August 28, 1998 or starting at the time the PCB article is removed from use. The records must indicate:
   - The date the PCB article was removed from use or, if the removal date is not known, must designate the starting date as August 28, 1998.
   - The projected location and future use of the PCB article.
   - If applicable, the date the PCB article is scheduled for repair or servicing.

Contact the Hazardous and Solid Waste Group if PCB Articles are to be stored for over 5 years. The Hazardous and Solid Waste Group shall then request an extension of time from EPA. Such requests to EPA must be made at least 6 months before the expiration of the 5-year period {40 CFR § 761.35(b)}.

11.2 Storage Limitations for Disposal

PCBs and PCB Items shall be authorized for storage in a temporary storage area prior to transfer to TA-54 for storage or disposal if:

1. Temporary storage does not exceed 30 days.
2. PCB Containers containing waste liquids with PCBs equal to or in excess of 50 ppm are stored in accordance with a current, site-specific SPCC plan.

Guidance Note: Contact the Environment, Safety, and Health Division (ESH), Water Quality and Hydrology Group (ESH-18) for assistance in developing a SPCC.

3. Item- specific storage requirements are met.

   Guidance Note: Contact Hazardous Waste Group (ESH-19) for guidance.

4. Containers are marked with the date of removal from service
5. The storage area is posted with the PCB Large Mark [M_L]

   See Attachment C.

PCBs and PCB Items shall be authorized for storage in a general storage area prior to transfer to TA-54 for storage or disposal if:

1. Storage does not exceed 90 days.
2. The storage area has an adequate roof and walls to prevent rain from entering and must be on a site at or above the 100-year flood plain.
3. The storage location includes a floor area with a minimum 6-in.-high continuous concrete curb capable of containing twice the internal volume of the largest PCB article or PCB container or 25% of the total internal volume of all PCB Articles or PCB Containers stored, which ever is greater.
4. The storage area floor and curbing are constructed of a continuous, smooth, non-porous material, which prevents the penetration of PCBs.
5. Written records are kept at the storage site on the dates of storage and these include the amounts of PCB stored.
6. Items are marked with date of removal from service.
7. The storage area is posted with the PCB M_L Mark

   See Attachment C.

8. The Hazardous and Solid Waste Group (ESH-19) has approved the establishment of the on-site general storage area.

PCB bulk remediation waste shall be authorized for placement in temporary storage for longer than 30 days {40 CFR § 761.65(c)} if:

1. Storage does not exceed 180 days.
2. Wind dispersal of piled waste is controlled by means other than wetting.
3. No leachate is generated through decomposition or other reactions.
4. The storage site is equipped with an acceptable liner, cover and run-on control system.

Any PCB waste shall be disposed of within 1 year from the date it was determined to be PCB waste or when it was removed from service {40 CFR § 761.65(a)}.

Radioactive PCB waste removed from service for disposal shall be exempt from the 1 year time limit {40 CFR § 761.65(a)} provided that:

1. FWO-SWO maintains a written record documenting all continuing attempts to secure disposal until the waste is disposed of.
2. The written record is made available to inspectors and is submitted to EPA if so requested.

All PCB Items in storage shall be inspected for leaks at least once every 30 days. Any leaking PCB Items and their contents shall be transferred immediately to properly marked, non-leaking containers. Written records of all inspections must be maintained at the facility.

PCB-contaminated waste and PCB Items must be stored at Technical Area 54 (TA-54), Area L, after 30 days have elapsed since the waste was generated or the items were removed from service or after 90 days of storage within a general storage area.

12.0 RECORDS

FWO-SWO shall complete a shipping document, EPA Form 8700-22, and attach any continuation sheets to the form. The appropriate copies shall be provided to the generator for shipping the waste.

Guidance Note: Guidance for completing Waste Disposal Request records is found in LIG404-00-03, "Waste Profile Form;" and LIG404-00-01, "Waste Generator Guidance for Completing the TRU Waste Storage Record (TWSR)."

13.0 REFERENCES

13.1 Documents

"General Waste Management Requirements," LIR404-00-02. Los Alamos National Laboratory.

"Hazardous and Mixed Waste Requirements for Generators," LIR404-00-03. Los Alamos National Laboratory.

"LANL Waste Acceptance Criteria," PLAN-WASTEMGT-002. Los Alamos National Laboratory.

"Los Alamos National Laboratory, Incident Reporting Process," LIR201-00.04. Los Alamos National Laboratory.

"Test Methods for Evaluating Solid Waste; Chemical/Physical Methods," SW-846. U.S. Environmental Protection Agency.

Title 15 U.S.C. Sec. 2601 et seq., Toxic Substances Control Act, as amended.

Title 20, Chapter 4, Part1 of the New Mexico Administrative Code (20 NMAC 4.1) as amended.

Title 20, Chapter 9, Part 1 of the New Mexico Administrative Code (20 NMAC 9.1) as amended.

Title 40 CFR Part 503, "Standards for the Use or Disposal of Sewage Sludge."

Title 40 CFR Part 61 Subpart M, "National Emission Standards for Asbestos."

Title 40 CFR Part 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce and Use Prohibitions."

Title 49 CFR Parts 171 through 178. (U.S. Department of Transportation regulations)

"Waste Management Coordinator Program," LS105-01. Los Alamos National Laboratory.

"The Evaluation and Cleanup of PCBs in Soil," April 1997. LANL Environmental Restoration Project.

"Guidance Booklet on Storage and Disposal of Polychlorinated Biphenyl (PCB) Waste," DOE EH-413-9914, October 1999. U.S. Department of Energy.

" EPA PCB Home Page, Interpretive Guidance, 1999 Question and Answer Manuals," (www.epa.gov/opptintr/pcb/#Interpretive Guidance). U.S. Environmental Protection Agency.

13.2 Document Ownership

The Office of Institutional Coordination for this document shall be the Waste Management Policy and Procedures Council.

APPENDIX A. REFERRALS

Air Quality Group (ESH-17)	5-0235
Biosafety Committee	7-8229
Dynamic Experimentation (DX) Division	7-5653
Emergency Management and Response (EM&R)	7-6211
Engineering Sciences and Applications (ESA) Division	7-4136
Environment, Safety, and Health Division (ESH-DO)	7-4218
Environmental Restoration Project of the Environmental Management Programs (EM/ER)	7-0808
Environmental Stewardship Office (ESO)	7-6639
ES&H Training Group (ESH-13)	7-0059
Facility Risk Management Group (ESH-3)	7-3363
Facility & Waste Operations, Solid Waste Operations (FWO-SWO)	5-6158
Fire Protection Group (FWO-FIRE)	7-9045
Gas Processing Facility	7-5396
Hazardous and Solid Waste Group (ESH-19)	7-0666
Health Physics Operations Group (ESH-12)	7-7171
Industrial Hygiene and Safety Group (ESH-5)	7-5231
Johnson Controls Northern New Mexico	7-2109
Materials Management Group (BUS-4)	7-4127
Operational Safety Section of the Industrial Hygiene and Safety Group (ESH-5)	7-4644
Packaging and Transportation Section of the Materials Management Group (BUS-4)	7-6122
Standard Operating Procedure (SOP) Office (ESH-5)	7-9949
Spill Prevention, Control and Countermeasure (SPCC) Plan (ESH-18)	5-4752
Water Quality and Hydrology Group (ESH-18)	5-0453

ATTACHMENT A

Guidance

Recommended Major Implementation Criteria for Self-Assessment

LIR Title	LIR Number
Managing Polychlorinated Biphenyls	LIR 404-00-06.1

The major implementation criteria listed below are provided to assist Laboratory organizations in assessing their implementation of this LIR. These criteria provide an objective basis for self-assessing implementation of the major requirements contained in the LIR. The LIR also states requirements in other areas, such as, scope, precautions, and responsibilities that, when applied, complement the successful implementation of these major requirements.

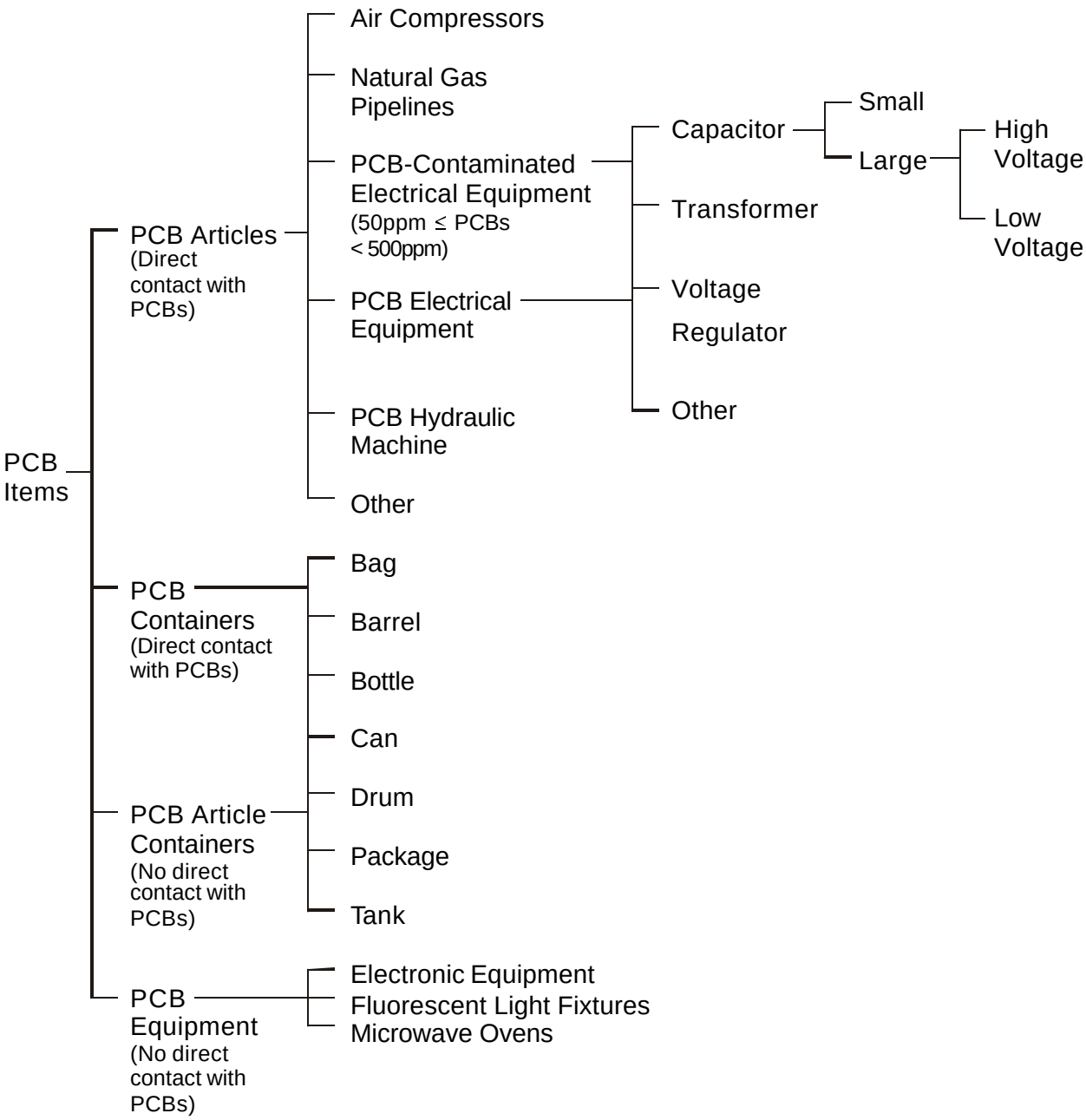
1. The most important criterion for assessing the implementation status of this LIR should be, if applicable: Have the requirements contained in the LIR been communicated to the individual(s) responsible for performing the work?

2. In addition, the recommended major implementation criteria for self-assessment of this LIR are the following:

- Organizations or facilities shall identify/verify the presence of Polychlorinated Biphenyls (PCBs), any PCB item or waste suspected to be contaminated with PCB.
- PCBs and PCB Items shall not be transferred off Laboratory property for use at other facilities.
- Perform self-assessment of waste management activities for compliance with the stated requirements of this document
- Develop action plan for identification and implementation of corrective actions where noncompliance is identified
- Complete and document implementation of corrective actions, including training on new or revised activities

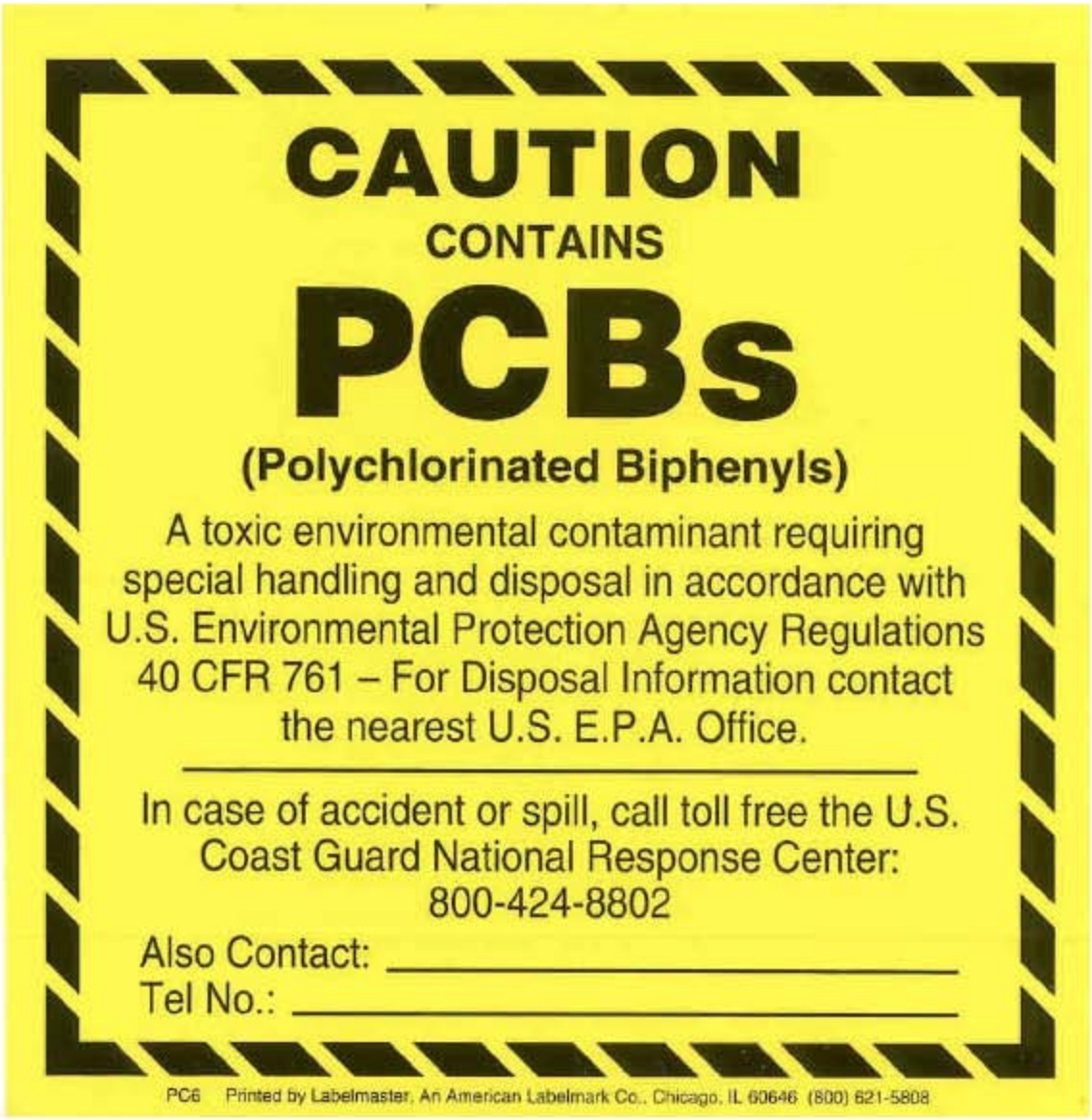
ATTACHMENT B

Hierarchy of PCB Items



ATTACHMENT C

PCB Large Mark (M_L)



Los Alamos
NATIONAL LABORATORY
EST. 1943

Waste Services
Mail Stop J595, Los Alamos, NM 87545

TA-54 Emergency Action Plan

Effective Date: 2.8.08

Next Review Date: 2.8.2010

IMP-300-00-00 COMPLIANCE	
☒ IMP-300-00-00 is not applicable to this document	
Hazard Categorization *(Check one)*	**Action—Official documentation is maintained on the document's traveler** *(Where applicable, check one)*
☐ Low	☐ No IWD is required, proceed with work
☐ Moderate	☐ Document is authorized to serve as Part I of the IWD ☐ A separate Part I—"Activity Specific Hazards Control Table"—must be
☐ High	☐ EWMO Division Leader Memorandum Attached

Process Owner	**Signature**	**Date**
Louis Jalbert	Gail Welsh for Lowis Jalbert	2-7-08

EMWO– TRU Operations Manager

Tom Monk	for TM per telecon w/ Mike Romero	2-7-08

***Authorizing Signature:**
EWMO–AG Operations Manager

Don Allen		2-7-08

* Authorization required: for low hazard, the responsible supervisor; for moderate hazard, the applicable group leader; for high hazard, the Division Leader.

HISTORY OF REVISIONS

Document Number	Issue Date	Action	Description
PLAN-WFM-012, R.0	March 2002	New Document	This document supersedes "TA-54 Emergency Action Plan," PLAN-FMU64-012, R.1. Document was re-titled so that the scope of the document does not include the RLWTF. Forms added to this procedure from GUIDE-FMU64-002, R.0.2, "Unusual Situation Guide" were added as: FMU64-F170, R.1, "TA-54 Unusual Situation Initial Information" FMU64-F171, R.1, "TA-54 Unusual Situation Personnel Injury/Exposure" FMU64-F172, R.1, "TA-54 Unusual Situation Waste Information" References to DVRS were included in this document. Appendix B was renamed and includes two-way radio instructions for the SWANS Radio. Added as Attachment C: "Abnormal Event Initial Notification Requirements" obtained from the Abnormal Event LIR.
PLAN-WFM-012, R.0.1	August 2002	Quick Change	Updated Appendix D drawings to include DVRS.
PLAN-WFM-012, R.1	May 2004	Annual Review/Revision	Revised to Rev 2: FMU6-F170, –F171, -F172, and added FMU6-F557, R.0.
DIV-PLAN-0401, R.0	September 2006	Annual Review	New document number. Updated document for annual review. Renumbered appendices. Deleted Attachments A–D. Removed AOP & EOP detailed information.
DIV-PLAN-0401, R.1	February 2008	Annual Review	Updated contact telephone numbers

TABLE OF CONTENTS

1.0 INTRODUCTION 5
2.0 EMERGENCY ZONES, MUSTER STATIONS, AND PICKUP POINTS 5
2.1 TA-54 EMERGENCY ACTION PLAN MAP 5
2.2 EMERGENCY ACTION AND RESPONSE ZONES 5
2.3 MUSTER STATIONS 5
2.4 MUSTER STATION CONTENTS 6
2.5 SHELTER IN PLACE 6
2.6 REENTRY, RETURN TO NORMAL OPERATING CONDITIONS 6
2.7 HAZARDOUS MATERIAL INVENTORY 7
3.0 EMERGENCY NOTIFICATION EQUIPMENT 7
3.1 AUDIBLE WARNING SYSTEMS 7
3.1.1 Fire Alarms 7
3.1.2 Evacuation Alarms 8
3.1.3 Local Alarms 8
3.2 VISUAL INDICATORS (WINDSOCKS) 8
3.3 COMMUNICATION SYSTEMS AT TA-54 8
3.3.1 Conventional Telephones 8
3.3.2 Cellular Phones 9
3.3.3 Public Announcement System 9
3.3.4 Two-Way Radios 9
3.3.5 Emergency Pagers 10
4.0 ROLES AND RESPONSIBILITIES 10
4.1 EMERGENCY COMMAND 10
4.2 FACILITY COMMAND LEADER 10
4.3 SHIFT OPERATIONS MANAGER/FACILITY DUTY OFFICER 11
4.4 SHIFT OPERATIONS SUPERVISOR 11
4.5 OPERATIONS CENTER 11
4.5.1 Duties 12
4.5.2 Emergency Response Team Personnel 12
4.6 FIRST PERSON ON THE SCENE 13
4.7 MUSTER STATION LEAD 14

5.0 PROCEDURES 14
5.1 EMERGENCY OPERATING PROCEDURES 14
5.2 ABNORMAL OPERATING PROCEDURES 14
5.3 TRAINING 14
6.0 EMERGENCY ACCESS CONTROL 15
7.0 EVACUATION 15
8.0 SWEEP TAGS (ADMINISTRATIVE AREA ONLY) 15
9.0 MUSTER STATION INSTRUCTIONS 15
10.0 MUSTER STATION OR ENTIRE MESA EVACUATION 16
10.1 PROCEDURE FOR EVACUATION FROM MUSTER STATIONS 16
10.2 PICKUP POINTS 16
11.0 END OF AN EMERGENCY 16
12.0 RECORDS 17
13.0 DEFINITIONS 17
14.0 APPENDICES 20
APPENDIX 1. ZONE BORDERS, PICKUP POINTS, AND MUSTER STATION LOCATIONS ... 21
APPENDIX 2. USING THE SITE WIDE AREA NOTIFICATION SYSTEM (SWANS) RADIO 23
APPENDIX 3. EMERGENCY CONTACT LIST FOR TA-54 25
ATTACHMENT A. OPERATIONS CENTER EVENT NOTIFICATION CHECKLIST 26

1.0 INTRODUCTION

1. The intent of the Emergency Action Plan (EAP) is to protect personnel at Technical Area 54 (TA-54) when an emergency occurs.
2. Other than coordinating initial activities, on-site personnel do not assist in handling the emergency beyond ensuring that:
   - Personnel have been accounted for
   - The necessary communications with appropriate on-site response personnel and off-site response organizations have been made
   - Technical assistance provided, as requested by the Incident Commander (IC)

2.0 EMERGENCY ZONES, MUSTER STATIONS, AND PICKUP POINTS

2.1 TA-54 EMERGENCY ACTION PLAN MAP

Appendix 1 illustrates the emergency action and response zones, the locations of the muster stations, and the evacuation pickup points.

2.2 EMERGENCY ACTION AND RESPONSE ZONES

TA-54 is divided into eight emergency action and response zones. Emergency action and response zones improve communications by helping to identify the locations of personnel during operational emergency situations.

The locations of key TA-54 facilities are as follows:

Area G Controlled Area ..... Zones 1–4

Area G Operations Center ..... Zone 4

Main Administrative Area ..... Zone 5

Area L storage yard ..... Zone 5

Buildings 54-532 and 54-533 ..... Zone 6

Open land between Area J and Building 54-533 ..... Zone 6

Area J and Area H ..... Zone 7

Radioassay and Nondestructive Testing Facility (RANT) ..... Zone 8

2.3 MUSTER STATIONS

1. Muster stations are designated locations where personnel working or visiting TA-54 will gather if an emergency occurs unless shelter-in-place (SIP) is required.
2. Muster station locations are easily identified by a large, yellow metal box attached to a post or chain-link fence accompanied by an orange and white striped windsock.
3. Refer to the maps in Appendix 1 for the locations of the muster stations and zone borders.

2.4 MUSTER STATION CONTENTS

Each muster station contains the following items:

1. Two-way radio. (The radio for Muster Station 1 is located within 54-242; the radio for Muster Station 4 is located in 54-315; the radio for Muster Station 5 is located in 54-245 and the radio for Muster Station 6 is located in 54-533).
2. A copy of the EAP.
3. Grease pens and pencils.
4. Instruction card and "Gone to Muster Station #" card.
5. First aid kit.
6. A fluorescent orange vest.
7. A clipboard with roll-call checklists and the two-way radio instructions shown in Appendix 2.
8. A building sweep list (Muster Station 5 and 6 only).

2.5 SHELTER IN PLACE

Certain abnormal situations may occur wherein the safety of residents is best assured by sheltering in place (e.g., should there be an airborne release from a neighboring site or a complete power outage during a severe thunderstorm). If there is an airborne release, depending on wind direction, personnel may be directed to remain at there current location until the plume has passed. The FL or IC will make the decision to shelter in place. TA-54 SIP notifications will normally be communicated by public address system or emergency pager. Personnel will remain inside and follow instructions from the FL or IC. Buildings 54, 84 and 196 are equipped with first aid kits, drinking water, two-way radios, and SIP kits that include plastic sheeting, duct tape, cloth or dust masks, and SIP guidelines.

Recommended actions to SIP include:

• stay inside,

• close windows and doors,

• turn off fans, air conditioners, and forced-air heating units that bring air from the outside, if it is safe and you are trained,

• go to the assigned/pre-determined location for sheltering-in-place in the building that you are in, and

• cover vents with plastic sheeting and duct tape.

SIP is a temporary protective action and should last only a few hours (1-3) at the most, until the hazardous situation has passed, and All Clear has been announced.

2.6 Reentry, Return to Normal Operating Conditions

Each incident will be considered independently. Reentry will be at the discretion of the IC or FC. Return to normal operating conditions will be at the discretion of the SOM.

2.7 HAZARDOUS MATERIAL INVENTORY

TA-54 maintains a database of all the hazardous constituents contained within the waste. This database is accessible from the waste services offices and the information management offices. Individual hazardous waste containers have labels describing their contents. Building run sheets are also available for the facility.

3.0 EMERGENCY NOTIFICATION EQUIPMENT

3.1 AUDIBLE WARNING SYSTEMS

1. Audible systems alert personnel by sound to the presence of an operational emergency situation.
2. The two main types of audible systems in use at TA-54 include:
    - Fire alarms
    - Evacuation alarms
3. Miscellaneous local alarms such as continuous air monitors (CAMs), oxygen monitors, and tritium monitors are located throughout the facility.

3.1.1 Fire Alarms

WARNING

A fire alarm in one zone might not be heard in other zones. Each zone operates independently.

1. Fire alarms emit a long, whooping tone or a high-pitched single tone.
2. There are five fire zones that operate independently. Area G has three of the zones with Pad 10, 54-412, and the remainder of Area G. Area L/Administrative Area and RANT each have their own zone.
3. Only the zone that is activated needs to evacuate to muster stations.
4. Fire alarm pull handles are distinctive red metal boxes mounted about 4 feet above the ground on walls or poles and inside and outside of buildings throughout TA-54.
5. In the event of fires or explosions, activate the fire alarm or call 911. followed by calling the Operations Center at 5-2735. If outside normal working hours, page the Facility Duty Officer (FDO), 949-2404.
6. When a fire alarm is activated at TA-54 the LAFD is automatically notified of the location.
7. The Operations Center will notify personnel of the situation via the PA System and/or the emergency pager system to watch out for emergency response vehicles entering the area.

3.1.2 Evacuation Alarms

1. Evacuation alarms emit a continuous, medium-pitched, warbling tone. Pushing the large, red buttons mounted on walls, poles, or fences activates the evacuation alarms.
2. Evacuation alarm buttons are located throughout TA-54.
3. The evacuation alarm should be activated only for emergencies that could affect a large area or group of people (e.g. airborne release, large chemical spill).
4. Evacuation alarms **are not** connected to LAFD and **will not** automatically notify emergency response organizations.
5. Personnel activating the evacuation alarm should call 911 from a safe location followed by calling the Operations Center at 5-2735. If outside normal working hours, page the FDO (949-2404).

3.1.3 Local Alarms

1. Each local alarm provides early detection to personnel in the immediate vicinity of an individual air-monitoring device (CAM, Tritium, O_2, low flow) when action level exceeds a preset level.
2. If a local alarm sounds, evacuate the area and call the Operations Center at 5-2735. If outside normal working hours, page the FDO (949-2404).

3.2 VISUAL INDICATORS (WINDSOCKS)

Windsocks are visual indicators of wind direction that supplement audible alarms at TA-54.

1. Windsocks help personnel determine the safest direction to evacuate.
2. During an evacuation, personnel should evacuate to muster stations upwind to avoid exposures to airborne hazardous materials.
3. Windsocks are installed approximately 15–20 feet above the ground on utility poles and fence poles throughout TA-54.
4. Orange and white-striped windsocks are located only at muster stations.

3.3 COMMUNICATION SYSTEMS AT TA-54

3.3.1 Conventional Telephones

1. Conventional telephones are used to alert the Operations Center/FDO and emergency response personnel of an emergency situation at TA-54. Emergency contact information is contained in Appendix 3.
2. Telephones are found throughout the site in boxes mounted to outside walls and utility poles, and are marked with signs.

3. When communicating with the SOM/FDO or the 911 operator, remember these basic tips:
    - Remain calm
    - State your name
    - State the nature of the incident, providing as much factual information as you can
    - State the precise location of the incident, including the technical area and building number. If confused, use the locator card inside the door of each phone box to remind you where you are calling from
    - Do not hang up until you are instructed to do so

3.3.2 Cellular Phones

1. When dialing 911 from a cellular telephone, because there is no guarantee of what jurisdiction may receive the call, clearly state the location of the incident. For a direct emergency number for Los Alamos, dial 667-7080.
2. EM&R can be contacted at 667-6211. After hours these calls automatically roll over to the LANS Central Alarm Station (CAS).

3.3.3 Public Announcement System

The PA system is used to briefly communicate the location and nature of the operational emergency situation to personnel in the Administrative area, Area L and Area G. The PA system is to be used for emergency communications only. All PA announcements will be controlled through the Operations Center.

3.3.4 Two-Way Radios

During an evacuation, two-way radios are used to communicate between muster stations and with the SOM. A two-way radio is available near each of the muster stations:

1. The two-way radio for Muster Station 1 is located inside Building 242.
2. Two-way radios are located in the muster station boxes at Muster Stations 2 and 3.
3. A two-way radio is brought to Muster Station 4 from the Operations Center, Building 54-315.
4. Muster Station 5 may obtain a radio from Building 54-245.
5. Muster Station 6 may obtain a radio from Building 54-533.
6. Muster Station 7 may obtain a radio from Building 54-38.
    A. Channel 1 is the designated emergency frequency for TA-54.
    B. Channel 16 is the LANL wide emergency channel monitored by CAS and EM&R.

C. Instructions for using the two-way radio are inside the muster station boxes and in Appendix 2 of this Plan.

NOTE: A repeat-back consists of the receiving station repeating back the information so that the sender will know that the information has been correctly passed along.

D. When using two-way radios to pass along important information during emergencies, repeat-backs are required.

E. During an emergency, the Operations Center may direct personnel to switch radio channels to keep the emergency channel clear for priority communications.

3.3.5 Emergency Pagers

Personnel working within TA-54 may be assigned emergency alpha-numeric pagers for notification of emergency situations. These pagers are for emergency paging only and not for personal use.

4.0 ROLES AND RESPONSIBILITIES

4.1 FACILITY COMMAND

1. The SOM/FDO shall assume the Facility Leader (FL) position until the OM, or OM Designee is briefed and ready to assume that role.
2. The OM may elect to have the SOM/FDO retain the FL role.
3. Upon arrival, IC is passed to EM&R.
    - EM&R may assume command after being briefed; however, EM&R may choose to remain in an advisory role
    - The IC may be from EM&R, LAFD, Los Alamos Police Department (LAPD), Protection Technology Los Alamos (PTLA), or from other federal authority having jurisdiction depending on circumstances
4. The IC has overall authority and control at the emergency scene.

4.2 FACILITY LEADER

The FL is the TA-54 Operations person in charge of emergency operations until relieved by the incoming Incident Commander and has the following responsibilities:

1. Call 911 or 7-6211 to alert EM&R, if necessary.
2. Obtain a two-way radio and tune it to Channel 1.
3. Coordinate with the TA-54 Operations Center (5-2735) to determine the locations, attendance, and condition of personnel.
4. Evaluate the potential hazards and determine if an evacuation from the mesa is necessary.
5. Monitor and direct emergency communications until relieved by the IC.
6. Brief the IC and OM, as necessary.

7. The FL has authority to end an emergency if an IC is not present.
8. If EM&R has been called, brief EM&R upon arrival.
9. Assist the IC in determining the appropriate protective action or response procedures.
10. If evacuation to the pickup points is necessary, coordinate the transport of personnel from the pickup points to a safe location.

NOTE: Medical treatment takes precedence over radiological concerns.

11. All personnel evacuated from a radiologically controlled area must be monitored for radiological contamination before they can leave the pickup point unless they are injured.

4.3 SHIFT OPERATIONS MANAGER/FACILITY DUTY OFFICER

1. A SOM shall be on duty during normal working hours and at all times when waste handling activities are in progress. The FDO is "on-call" outside normal working hours including nights, weekends and holidays.

NOTE: During extended shift operations SOM responsibilities may be delegated to the Shift Operations Supervisor (SOS).

2. If an operational emergency situation occurs, the SOM/FDO should:
    - Call 911 or 7-6211
    - Assume FL responsibilities until relieved

NOTE: The SOM/FDO shall have been trained and be familiar with DIV-POLICY-0202, "TA-54 Facility Duty Officer."

3. During localized events, assists the OM or designee to determine appropriate actions for mitigation and notifications.
4. During emergency events, serves as a resource for the OM or designee and off-site responders.
5. Ensures that appropriate actions are taken to protect the safety of site workers, programmatic equipment, and records.
6. May elevate a localized event to an emergency event in order to meet these responsibilities.
7. Ensures that employees who may need special assistance during an emergency are identified, and designates other staff to assist them.
8. Identifies an individual and alternates to assist in accountability at the muster area.

4.4 SHIFT OPERATIONS SUPERVISOR

The Shift Operations Supervisor performs the following:

- Ensures a weekly radio check is performed on the Site Wide Alert Notification System (SWANS) radio that is available for use at the WCRRF Operations Center.
- During abnormal events, assists the SOM to determine appropriate actions for mitigation and notifications.
- During emergency events, serves as a resource for the SOM and off-site responders.
- Ensures that actions are taken to protect the safety of site workers, programmatic equipment, and records.
- Ensures that employees who may need special assistance during an emergency are identified, and designates personnel to assist them.
- Performs as the Shift Operations Manager designee when the SOM is unavailable.

4.5 OPERATIONS CENTER

4.5.1 Duties

1. The Operation Center will provide Command and Control functions until turned over to the IC.
2.
3. If possible, request the caller to stay in contact and record pertinent event information on Attachment A.
4. Maintain adequate staff at the Operations Center during an operational emergency situation unless the situation warrants vacating the building.
5. Use the computer to print out the list of all personnel logged into the areas. Print two copies in alphabetical order.
6. Ensure a two-way radio is available for Muster Station 4.
7. Monitor the two-way radio base station.
8. Coordinate accounting of personnel at all muster stations using the two-way radio.
9. Relay information, as necessary.
10. If it is necessary to vacate Building 54-315, take to the nearest safe muster station:
    - The list of on-site personnel
    - The Site Wide Area Notification System (SWANS) radio
    - A TA-54 two-way radio

4.5.2 Emergency Response Team Personnel

The following personnel will report to the Operation Center/OM/SOM during a site-wide emergency:

- OM or designee

- SOM
- Radiological Control (RC) Supervisor
- Industrial Hygienist Supervisor
- Operation Center Operator
- EM&R Representative
- TA-54 Systems Engineer

4.6 FIRST PERSON ON THE SCENE

1. The first person to become aware of an operational emergency situation, or the first person arriving on the scene after a situation has occurred, is the "First Responder at the Awareness Level."
2. Only trained and qualified First Responders should attempt to mitigate an operational emergency situation.

NOTE: Everyone at TA-54, including subcontractors and visitors, has the authority to activate evacuation and fire alarms and/or to call 911 in an emergency.

3. First Responder at the Awareness level shall practice SWIMS:

   Stop

   Warn

   Isolate

   Mitigate

   Secure

   This means:

   - Stop the operation and place equipment in a safe configuration if it is safe to do so
   - If you are in danger, immediately move to a safe area
   - Protect human life as your first priority if you can do this without endangering yourself or others
   - Notify personnel in the immediate vicinity of the operational emergency situation
   - Activate the fire alarm if there is a fire or explosion. (Activating the fire alarm automatically notifies EM&R). Call 911 followed by contacting the SOM/FDO
   - Activate the evacuation alarm if there is an uncontrollable spill or accidental release of an unknown substance or known hazardous substance
   - Notify the Operations Center at 5-2735 of all operational emergency situations and specify if there has been:
     - A spill of an unknown substance

  - A spill of a known hazardous or toxic substance
- Secure the area and prevent non-emergency personnel from entering

4.7 MUSTER STATION LEAD

1. The first person to arrive at the muster station will assume control of the muster station. Control may be turned over to more qualified, knowledgeable or senior individuals during an emergency.
2. See section 5.2 of this procedure.

5.0 PROCEDURES

5.1 EMERGENCY OPERATING PROCEDURES

Emergency Operating Procedures (EOPs) are performed for emergency events at TA-54. An emergency event is an event that would result in operating **outside** the safety envelope. These are more severe than Abnormal Operating Procedures (AOPs).

List of EOPs includes:

- Fire
- Spill-Release – Hazmat-Rad
- Terrorist – Workplace Violence

5.2 ABNORMAL OPERATING PROCEDURES

AOPs are performed for abnormal events at TA-54. An abnormal event affects several plant systems, **threatens** the facility envelope, or requires operator action to mitigate facility damage. AOPs are less severe than the events covered by EOPs.

List of AOPs includes:

- Crash Gate Open
- Bomb Threat – Suspicious Package
- Bulging Container
- Injured Person
- Leaking or Dropped Container
- Loss of Support Systems
- Sabotage
- Severe Weather
- Shelter In Place
- Site Loss of Power
- Vehicle Accident

5.3 TRAINING

1. TA-54 EAP Training is required for TA-54 employees who enter Areas G, L, J, H, or RANT.

2. No training is required for escorted visitors; however, visitors shall receive a briefing of what to expect if an emergency were to occur.

6.0 EMERGENCY ACCESS CONTROL

1. During an emergency, saving life and property takes precedence.
2. Emergency personnel shall be allowed to enter the emergency area without delay.
3. Personnel shall not leave the area unless directed to do so by the IC.

7.0 EVACUATION

1. In the event an Evacuation Alarm sounds, place all equipment in a safe configuration and evacuate to the nearest muster station.
2. If you are between two muster stations, choose the one that is upwind by observing the nearest windsock.
3. If you are in Area G (Muster Stations 1-4) and have been involved in any Radiological Work, or in a Radiological Buffer Area, or Hot Job Exclusion Area; individuals will doff their Personal Protective Equipment, self frisk, and in a controlled fashion relocate to the nearest muster station.

8.0 SWEEP TAGS (ADMINISTRATIVE AREA ONLY)

1. The last person to leave a structure will perform a sweep of the structure and insure there are no more personnel present.
2. This person will remove the sweep tag from the building (usually located on a wall in the hallway near an exit) and present the tag at either Muster Station 5 or Muster Station 6.
3. The Muster Station Lead will report the sweep tags received to the Operations Center.
4. If the structure is unoccupied or no sweep tag is received at Muster Station 5 or Muster Station 6, the FCL or IC will determine if a sweep of the building is necessary.

9.0 MUSTER STATION INSTRUCTIONS

1. The first person to arrive at the muster station assumes control of the muster station and is designated the Muster Station Lead (MSL).
2. At any muster station, upon arrival, a supervisor may assume the MSL.
3. If you are the first person to arrive:
    - Don the fluorescent orange vest
    - Account for personnel at the muster station using the roll call checklist on the clipboard
    - Turn the two-way radio on, switch to Channel 1, and provide the following information to the FCL:

- Your name
- Your location (muster station number)
- Personnel present
- Condition of personnel

4. Minimize unnecessary talking and listen for instructions from the person in charge of the muster station, and for information passed over the PA system or from the emergency pagers.
5. **Do not** leave the muster station until directed to do so, **unless**:
   - You are unable to contact the FCL or IC, **and**
   - You feel you would be in danger if you remained at the muster station
6. If a decision is made to leave the muster station, all personnel must leave together.
7. Do not leave the muster station and return to work unless instructed to do so by the FCL or IC.

10.0 MUSTER STATION OR ENTIRE MESA EVACUATION

10.1 PROCEDURE FOR EVACUATION FROM MUSTER STATIONS

1. If the evacuation is not part of a general facility evacuation, notify FCL/IC using the muster station radio.
2. If evacuating a muster station, use the operator aid provided in the muster station to determine how and where to evacuate.

10.2 PICKUP POINTS

1. The MSL maintains a roll of personnel at the pickup points.
2. The MSL uses the two-way radio to communicate with the Operations Center during evacuation.
3. Personnel evacuated from a radiologically controlled area must be monitored for radiological contamination, by an RCT, before leaving the pickup point unless a medical emergency requires their immediate evacuation.
4. Do not leave the pickup point with anyone other than designated personnel.

11.0 END OF AN EMERGENCY

When an emergency is over, the FCL or IC will declare that the emergency has ended and direct that the "All Clear" be announced.

- Only the FCL or IC (if present) may declare an emergency is over. Even if the alarm is silenced, the emergency is not over until the FCL or IC has declared it to be over **(The FCL has this authority only if an IC is not present)**.
- Each muster station may be released individually. Some muster stations may be released prior to others if the hazards are localized. Muster stations shall be released only if the release will not endanger personnel or present problems for mitigating the situation

12.0 RECORDS

1. Records of training and qualification are quality assurance documents and shall be maintained.
2. Records of drills and post-emergency critiques shall be maintained for the life of the Facility.

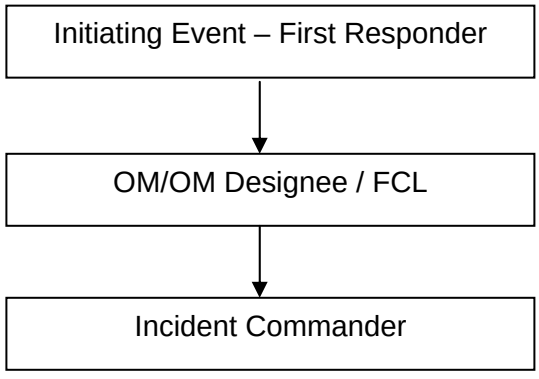
13.0 DEFINITIONS

Abnormal Event: An abnormal event is an event that affects several plant systems, threatens the facility safety envelope, or requires operator action to mitigate facility damage. An abnormal event is less severe than an emergency event.

These events include:

- Crash gate open
- Bomb Threat – Suspicious Package
- Bulging container
- Injured person
- Leaking or dropped container
- Loss of support systems
- Sabotage
- Severe weather
- Shelter in place
- Site loss of power
- Vehicle accident

Chain of Command: The Chain of Command is the formal process of escalating authority to manage an emergency, which follows the Laboratory Emergency Management Process:



Controlled Area: Any area to which access is controlled in order to limit access of the general public to radiation and radioactive materials. A Controlled Area is an

area in which elevated radiation and/or contamination levels may exist as a consequence of routine or non-routine site operations.

Crash Gate: Gates placed at various points on the perimeter fence of TA-54 to allow personnel to exit the area in case of emergency. Crash gates have push bars that open in the direction of travel.

Drill: A controlled training scenario used for training purposes to reinforce concepts and theories taught in the classroom. Drills are generally small in scale and typically involve no other site organization.

Emergency: An emergency event results in operations outside the safety envelope. These are more severe than a abnormal event. It significantly impacts facility safety, worker safety, public safety, or potentially may cause an environmental impact through a release of radioactive or hazardous material. It may necessitate a response from outside resources, such as the fire department, the hazardous materials response group, the EM&R Group (i.e., the hazardous materials response group) or medical assistance.

These events include:

- Fires or explosions
- Seismic events
- Large spills are those that meet any of the following criteria:
    - Spills that cannot be stopped
    - Spills that may be life threatening
    - Spills that may cause serious injury
    - Spill cleanup exceeds the capability of the facility
- Major failures of building systems
- Major injuries or illnesses which require medical attention
- Civil disturbances
- Terrorist or workplace violence

Emergency Management & Response: A Laboratory organization tasked with directing and coordinating response actions to emergencies throughout the Laboratory.

Emergency Response: A response effort by employees from outside the immediate release area or by other designated responders (i.e., a Hazardous Materials Response Team) to an operational emergency situation.

Facility Command Leader: The FCL is the TA-54 Facility person in charge of emergency operations until relieved by the incoming IC.

Facility Duty Officer: The FDO assists in the coordination of response actions to operational emergency situations. The FDO, SOM, or OM notifies the appropriate authorities when an operational emergency situation occurs.

First Responder at the Awareness Level: The first person to become aware of an operational emergency situation should assess whether the situation is a non-emergency, local emergency, or emergency situation, and take appropriate action in accordance with the Emergency Action Plan.

Incident Commander: A trained emergency professional from EM&R, PTLA, LAFD, LAPD, or other federal authority having jurisdiction that takes command and control of the incident.

Local Emergency: A local emergency does not have the potential for a release of radioactive or toxic material offsite and does not significantly impact facility or worker safety. Local Emergencies are covered by individual Abnormal Operating Procedure (AOP). On-site personnel are qualified to respond with no support or response needed from outside resources. Localized events include:

- Minor radioactive material releases within radiological areas
- Minor contamination incidents
- CAM alarms
- Minor injuries that can be treated with first aid
- Spills that do not meet the criteria for a spill constituting an emergency event (see definition below)
- Suspicious odors
- Activation of localized alarms
- Minor equipment failures
- Loss of local exhaust ventilation

NOTE: The OM or designee may escalate local emergency to emergency.

Muster Station: A designated rallying point away from the work area equipped with communication equipment and first aid supplies. Personnel may evacuate to the muster stations in response to operational emergency situations.

Non-Emergency: Operational emergency situations that do not immediately threaten or endanger human health, the environment, or Laboratory property and are usually gradual localized occurrences that can be handled with normal maintenance, on-site resources, and properly trained personnel using best management practices.

Remain Indoors: In the event of severe weather or a Workplace Violence situation remaining indoors may be required. This is not the same Shelter in Place.

NOTE: The OM or designee may escalate a Remain Indoors into a Shelter in Place.

Shelter In Place: In the event of a hazardous material release or other operational emergency situation a Shelter in Place may be required. This is not the same as taking shelter for a storm. Designated structures at TA-54 have shelter in place kits which include SWANS radios, first aid kits, and a set of instructions to assist the evacuees.

Spill: An intentional or unintentional release of oil, PCBs, liquid hazardous substances, or liquid radioactive substances to the environment that is not permitted under Laboratory, state, or federal permits.

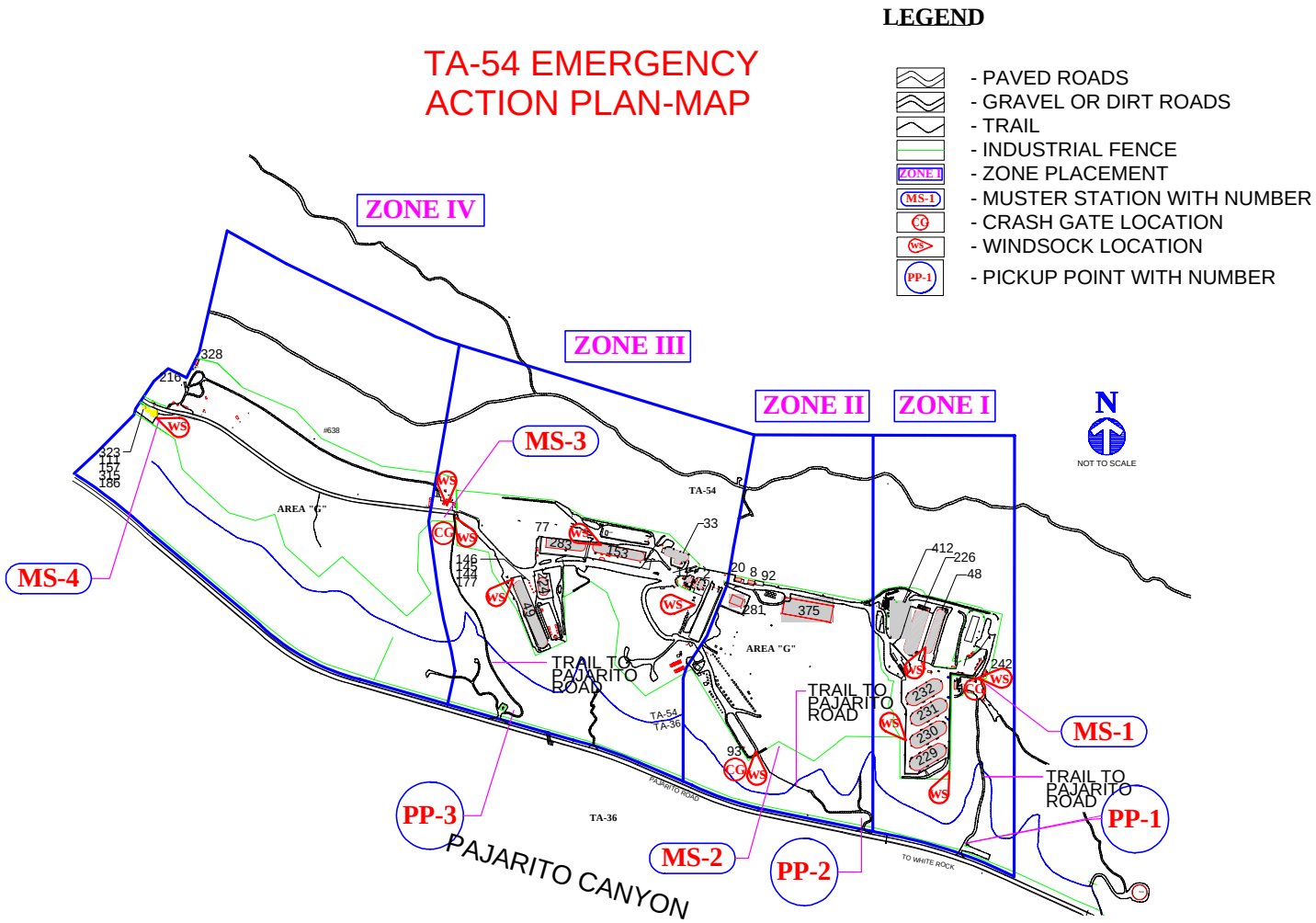
Operational emergency situation: Any abnormal situation that poses a threat to human health, the environment, or Laboratory property. Operational emergency situations are further categorized as emergencies, local emergencies, or non-emergencies, which vary in the degree of hazard and response action. This term is used to describe incidents, events, and occurrences addressed by the TA-54 Emergency Action Plan.

Visitor: Any individual, including Laboratory employees or subcontractors, who requires access to TA-54 but does not have authorized access to the specific area he/she wishes to enter.

14.0 APPENDICES

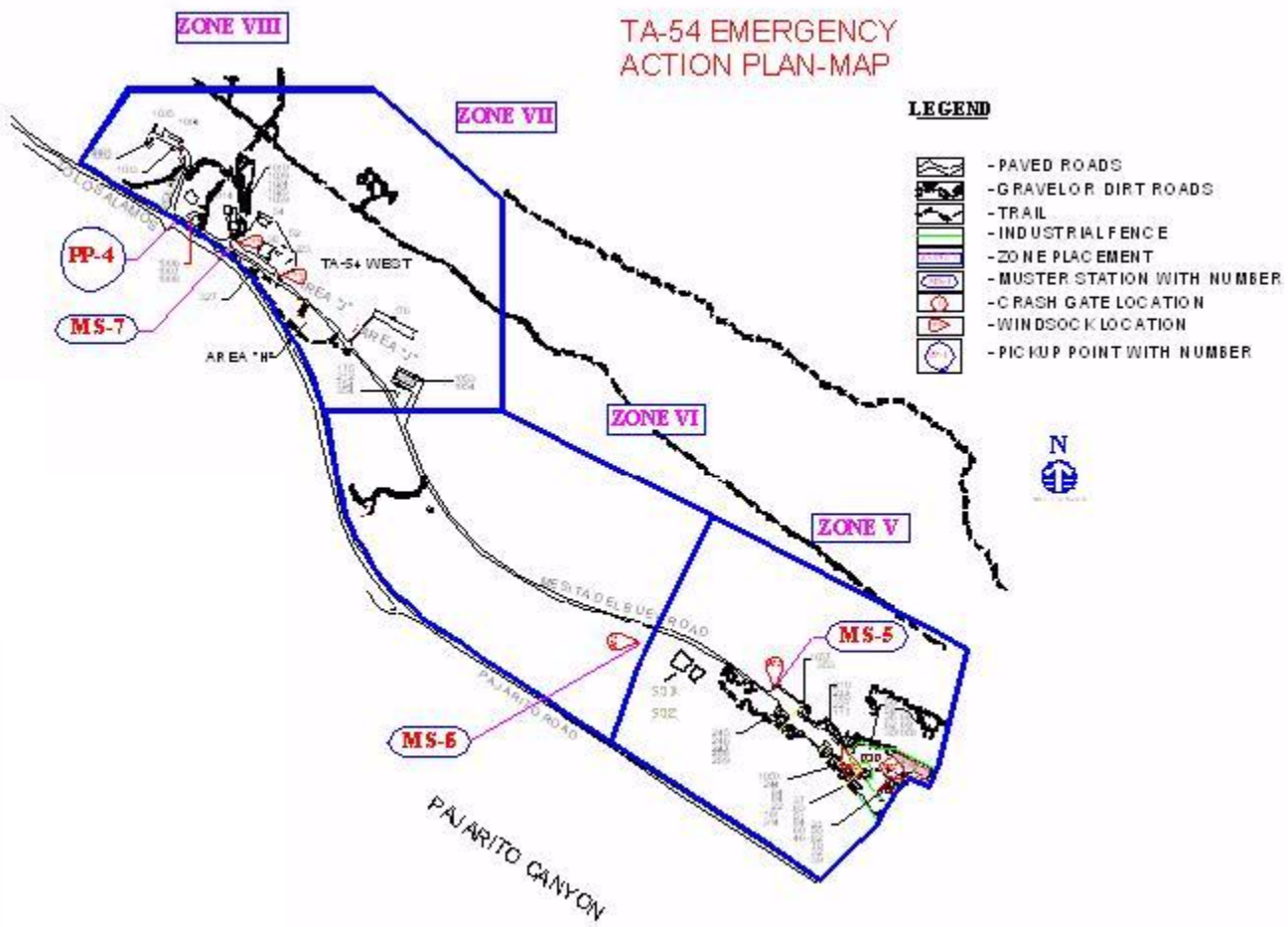
Appendix 1.	Zone Borders, Pickup Points, and Muster Station Locations
Appendix 2.	Using the Site Wide Area Notification System (SWANS) Radio
Appendix 3.	Emergency Contact List for TA-54
Attachment A.	Operations Center Event Notification Checklist

APPENDIX 1. ZONE BORDERS, PICKUP POINTS, AND MUSTER STATION LOCATIONS



Muster Stations 1, 2, 3, and 4 in Zones I through IV, Pickup Points 1, 2, and 3

APPENDIX 1. ZONE BORDERS, PICKUP POINTS, AND MUSTER STATION LOCATIONS (CONTINUED)



Muster Stations 5 and 7 in Zones V through VII, Pickup Point 4

APPENDIX 2. USING THE SITE WIDE AREA NOTIFICATION SYSTEM (SWANS) RADIO

The Site Wide Area Notification System (SWANS) Radio is a LANS wide emergency radio system for the purpose of back-up communications, in the event normal communications protocols are diminished or not available. Emergency Management and Response (EM&R) monitors the SWANS frequency during normal working hours. The Central Alarm Station (CAS) monitors the frequency continuously.

Do Not Use the SWANS Radio Instead of Calling 911.

Always call 911 first if needed.

To Contact EM&R

1. Turn up the volume.
2. Depress the Push-To-Talk button.
3. Speak after the solid tone ends.
4. Say, "EM&R, EM&R, this is [*your name*] at TA-54, Building____."
5. Let go of the Push-To-Talk button to hear response.

If evacuation to an assembly area is necessary, the Operations Center will take the SWANS radio.

Daily Monitoring with the SWANS Radio (Operations Center)

1. Leave radio turned on and sitting in charger and on Channel 1.
2. Make sure volume is turned up enough to hear radio traffic.
3. IF YOU RECEIVE AN ALERT TONE (4 beeps, pause, 4 beeps, continuously):
   A. Press the Push-To-Talk button to stop the alert tone.
   B. Turn the volume up.
   C. Follow the directions that are given on the radio.
   D. Relay message as applicable.
   E. If your building or organization is addressed directly, respond immediately.
4. IF YOU RETURN TO THE OFFICE AND HEAR AN ALERT TONE:
   A. Press the Push-To-Talk button to stop the alert tone.
   B. Contact EM&R by radio or phone (7-6211).
   C. Tell EM&R the alert tone was sounding on your radio, and they will relay the alert tone message.

APPENDIX 2. USING THE SITE WIDE AREA NOTIFICATION SYSTEM (SWANS) RADIO (CONTINUED)

Use of the Orange Panic Button

If the orange panic button located on the top of the radio is pushed, EM&R will try to call you on the radio. If there is no response, EM&R will try to call you on the phone. If there is still no response, the duty Emergency Manager will respond to your location.

> Use the orange panic button for extreme emergency only.

Two-Way Radio Instructions

1. Turn the radio on.
2. Switch the radio to Channel 1.
3. Press the button on the side of the radio to transmit.
4. Establish contact with the FM/OM or FDO/SOM. Speak slowly and clearly.

Say this: "OM this is [*your name*] . Over."

> **If you do not receive an immediate response, remain calm and repeat steps 3 and 4**.

5. Once contact is established, transmit only your name and location, then wait for the OM or FDO to ask for additional information.

Say this: "This is [*your name*]. I am at Muster Station [*number*]. Over."

6. Upon request from the OM or FDO, transmit the names and condition of personnel at your location.

Say this: "This is [*your name*] at Muster Station [*number*]. Personnel at this location include [*state names of personnel present.*] The condition of personnel at this location is [*state their condition. If other than good, be specific*]. Over."

7. Answer all questions asked by the OM or FDO. Be brief, but communicate any relevant and essential information.

Testing and Maintenance

- Perform a radio check once a week by calling EM&R and asking, "How do you copy"
- Call EM&R at 7-6211 if you have any problems with the radio. (A warbling tone may indicate the battery is failing)
- If you are getting excessive static or poor reception, notify EM&R so a test can be run

APPENDIX 3. EMERGENCY CONTACT LIST FOR TA-54

Position	Name	Office	Pager	Cellular
Fire / Ambulance		911		
EM&R & HAZMAT Response		667-6211		
Facility Duty Officer Pager			949-2404	
TA-54 Operations Center		665-2735		
Deputy Facility Operations Director	Raeanna Sharp-Geiger	665-0136	664-4450	660-2722
Deputy Operations Manager	Gilbert Montoya	665-5396		699-3328
Shift Operations Manager		665-2735		231-8289
Facility Support Staff Member	Tim Ferris	665 2179	664 6188	699 7594
Facility Support Staff Member	Kyle Carr	667 3641	664 7074	670 6979
Facility Engineer	Jason Apperson	606-2353		
ESH&Q Manager	Steve Henry	606-2394	996-3073	690-6092
RCT	John Guy	606-1555	664 2436	231 7145
Health Physics	Joe Bianconi	667-4301	664 7480	231 0842
Occupational Medicine Nurse's Station		667-7839 667-7890		

ATTACHMENT A. OPERATIONS CENTER EVENT NOTIFICATION CHECKLIST

This form may be obtained from the electronic folder adjacent to this electronic file.

NOTE: During an emergency, saving life and property takes precedence.

OPERATIONS CENTER EVENT NOTIFICATION		
Name:	Date:	Time:
Location:		
Personnel Injured: ☐ YES ☐ NO		
Brief Description of Event:		
Type of Event (Check Applicable Item):		
☐ Local/Abnormal Event	☐ Local Emergency	☐ Emergency
(circle applicable items)		
Crash gate open	Minor radioactive material release within radiological area	Fire
Bomb Threat-Suspicious package	Minor contamination of personnel	Explosion
Bulging Container	CAM alarm	Seismic event
Injured Person	Minor injury that can be treated with first aid	Large Spills
Leaking or dropped container		Major failure of building systems
Loss of support systems		Major injuries or illnesses that require medical attention
Sabotage		Civil disturbances
Severe weather		Terrorist or workplace violence
Shelter in place		
Site loss of power		
Vehicle Accident		

FORM A: DIV-PLAN-0401, R.0

Page 1 of 2
Printed on 9/7/2006

ATTACHMENT A. OPERATIONS CENTER EVENT NOTIFICATION CHECKLIST (CONTINUED)

OPERATIONS CENTER EVENT NOTIFICATION			
NOTE: The following items may be completed if time allows, in the event of a situation where evacuation is necessary or a life threatening injury is involved, this information may be gathered at a later time:			
Describe any adverse conditions:			
Weather Conditions:			
Wind Speed:			
Wind Direction:			
NOTE: The following items may be completed by the operations center personnel. The person reporting the event is not required to stay on the line.			
Notifications:	Time:		
IH notification time:			
IH response time:			
RCT notification time:			
RCT response time:			
Operations Manager:			
FOD:			
EM&R:			
Fire Department:			
Fire Protection:			
PTLA:			

SAVE PRINT

DOCUMENT ACTION REQUEST (DAR) FORM

Section #1 – Type of Request

Document Number:	Revision:	Title:			
EP-DIV-PLAN-01	0	TA-54 EMERGENCY ACTION PLAN			
Requestor Signature:	**Print Name:**	**Phone:**	**Z Number:**	**Date:**	
Gail M. Welsh	Gail M. Welsh	5-8682	114849	2-7-08	

Section #2 – Procedure Owner Approval for Processing

☐ New Document ☐ Major Revision ☒ Minor Revision ☐ Deactivation ☐ Cancellation

If new document, describe document type: _____

Provide a detailed description of the requested change. (Attach additional sheets if needed. Number all additional sheets.): Changes made to update contact information and phone numbers. Document was updated, but document number reflects new numbering system.

☒ Approved ☐ Disapproved (Return to originator) Priority: High

Procedure Owner Signature:	**Print Name:**	**Date:**
Gail Welsh for Lou Talbert	Lou Talbert	2-7-08

Section #3 – Review and Concurrence

Review and Concurrence: Obtain concurrence from all review organizations. (Enter N/A for not applicable.) Document all additional review organizations, if needed, on a continuation sheet. Cognizant System Engineer Program (CSE) approval is required for all technical procedures except minor revisions, and non-authorization-basis-related cancellations/deactivations. CSE approval is always required for changes affecting safety-basis steps.

Reviewer	Print Name	Signature	Date
Subject Matter Expert (SME)	Gail Welsh	Gail M. Welsh	2-7-08
QA Specialist	Doris Quintana	Doris M. Quintana	2/7/08
Responsible Line Manager	Gilbert Montoya	Gilbert Montoya	2-7-08
Other			

CSE USQ Number (as applicable): USQD-EWMO-08.0175-MAN.R.0

Authorized Derivative Classifier: ☒ Unclassified ☐ OUO ☐ UCNI ☐ Classified

Signature: Peter Lindall /ES-SE Date: 2/7/2008

Section #4 – Training Review

Training Required: ☒ Yes ☐ No	☐ Classroom/ Briefing	☐ Just-in Time	☐ On the Job	☒ Required Reading
Training Representative Signature:		**Print Name:** Gary Babbee		**Course #:** TBD

Section #5 – Final Approval by Procedure Owner

Validation Required: ☐ Yes ☒ No	Hazard Category: ☒ Low ☐ Med ☐ High	Is the document authorized to serve as Part I of the Integrated Work Document? ☐ Yes ☒ No		
Approval Signature:	**Print Name:**	**Phone:**	**Z Number**	**Date:**
Gail Welsh for Lou Talbert	Lou Talbert	7-1458	121997	2-7-08

Note: Analysis & Official training determination is required and will be conducted as soon as possible GB

ATTACHMENT E

CONTINGENCY PLAN

TABLE OF CONTENTS

LIST OF TABLES ii
LIST OF FIGURES iii

CONTINGENCY PLAN E-1

LIST OF TABLES

TABLE NO.	TITLE
E-1	Emergency Equipment at Technical Area (TA) 54, Area L
E-2	Emergency Equipment at Technical Area (TA) 54, Area G
E-3	Emergency Equipment at Technical Area (TA) 54 West

LIST OF FIGURES

FIGURE NO.	TITLE
E-1	Evacuation Roads, Trails, and Zones; Emergency Exit Gates; Muster Stations; and Pickup Points at Technical Area (TA) 54
E-2	Evacuation Routes at Technical Area (TA) 54 West

ATTACHMENT E
CONTINGENCY PLAN

In accordance with the New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20.4.1 NMAC), Subpart V, Part 264, Subpart D, and 20.4.1 NMAC § 270.14(b)(7), revised June 14, 2000, contingency measures applicable to the hazardous and mixed waste management units at Technical Area (TA) 54 are provided in Appendix E of the most recent version of the "Los Alamos National Laboratory General Part B Permit Application."

Listings of emergency equipment currently available for use at Area L, Area G, and TA-54 West are presented in Tables E-1 through E-3. Figures E-1 and E-2 show evacuation routes and muster areas that may be used at TA-54 in the event of an emergency. Emergency equipment, evacuation routes, and muster area locations are subject to change.

Table E-1

Emergency Equipment at Technical Area (TA) 54, Area L[a]

FIRE CONTROL EQUIPMENT:

Halon, water, dry chemical, and/or carbon dioxide fire extinguishers are available at TA-54-37, TA-54-60, TA-54-51, TA-54-32, TA-54-39, the southeast end of Area L, TA-54-31, 30 feet from the southeast side of TA-54-32, TA-54-117, TA-54-62, on the forklift and Bobcat operating in Area L, TA-54-68, TA-54-69, TA-54-70, TA-54-185, TA-54-215, and TA-54-221.

A dry-pipe sprinkler system is located at TA-54-215.

Dry chemical fire-suppression systems are located in the storage sheds.

Description of General Capabilities:
Fire extinguishers may be used by any qualified employee in the event of a small fire. The automatic dry-pipe sprinkler system is heat activated. Protection Technology Los Alamos (PTLA) and the Los Alamos County Fire Department (LACFD) are alerted when this system has been activated.

Fire alarm pull boxes are located inside TA-54-37, TA-54-39, TA-54-51, TA-54-60, TA-54-117, TA-54-210, and TA-54-221.

Description of General Capabilities:
Fire alarms may be activated by any employee in the event of a fire to notify the LACFD and PTLA.

There are fire hydrants located near TA-54-37 and the southeast corner of TA-54-62. These fire hydrants supply water at an adequate volume and pressure to satisfy the requirements of the New Mexico Administrative Code, Title 20, Chapter 4, Part 1, Subpart V, 264.32, revised January 1, 1997.

A freeze-proof faucet is located approximately 25 feet east of TA-54-31.

SPILL CONTROL EQUIPMENT:

Shovels (located in TA-54-46)
Oversized drums (various locations on site)
Absorbent (various locations on site)

Spill kits are located throughout Area L. Each kit includes bags of Zorball, caustic neutralizer, acid neutralizer, and an inventory of tools and supplies.

Refer to footnotes at end of table.

Table E-1 (Continued)

Emergency Equipment at Technical Area (TA) 54, Area L[a]

COMMUNICATION EQUIPMENT:

Telephones are located in TA-54-32, TA-54-37, TA-54-51, TA-54-60, TA-54-62, TA-54-117, TA-54-185, TA-54-210, TA-54-211, and TA-54-221.

Paging phones and evacuation alarms are located at the northeast end of TA-54-32, the exterior west end of TA-54-215, at TA-54-37, and at TA-54-62.

Additional equipment includes two-way radios and portable telephones.

Description of General Capabilities:
The evacuation alarm is a pulsating sound that can be heard throughout Area L. The fire alarm is a double slow-whoop sound.

DECONTAMINATION EQUIPMENT:

Emergency shower and eyewash stations are located immediately east of TA-54-31, at TA-54-215, at TA-54-35, and at TA-54-39.

Material Safety Data Sheets (MSDS) are available in TA-54-46.

Description of General Capabilities:
Emergency shower and eyewash stations are used by personnel who receive a chemical splash to the skin or eyes. Specific MSDSs for the chemical(s) should be obtained prior to working with hazardous or mixed waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT:

Personnel at Area L are required to use appropriate personal protective equipment (PPE) to protect themselves from the hazards found in the workplace under normal conditions. This PPE may include gloves, steel-toed shoes, and safety glasses. Additional PPE may be required during an unusual hazardous situation or during sampling and can be found in the spill kits or at TA-54-50.

Self-contained breathing apparatus are located in TA-54-50.

Gloves, goggles, safety glasses, coveralls, and face shields are found in the spill kits located throughout Area L.

---

[a]Equipment types and locations are subject to change.

Table E-2

Emergency Equipment at Technical Area (TA) 54, Area G[a]

FIRE CONTROL EQUIPMENT:

Halon, water, and/or carbon dioxide fire extinguishers are available at TA-54-2, TA-54-8, TA-54-11, TA-54-20, TA-54-33, TA-54-48, TA-54-49, TA-54-92, TA-54-153, TA-54-224, TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, TA-54-283, TA-54-375, and TA-54-412.

Description of General Capabilities:
Fire extinguishers may be used by any qualified employee in the event of a small fire. For larger fires, Protection Technology Los Alamos (PTLA) and the Los Alamos County Fire Department (LACFD) are alerted.

Dry-chemical fire suppression systems are available at TA-54-1027, TA-54-1028, TA-54-1030, and TA-54-1041.

A dry-pipe fire suppression system is available at TA-54-412.

Fire alarm pull stations are available at TA-54-2, TA-54-11, TA-54-33, TA-54-48, TA-54-49, TA-54-153, TA-54-224, TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, TA-54-273, TA-54-283, TA-54-375, and TA-54-412.

Description of General Capabilities:
Fire alarms may be activated by any employee in the event of a fire to notify the LACFD and PTLA.

Several fire hydrants are located in Area G. These fire hydrants will supply water at an adequate volume and pressure to satisfy the requirements of the New Mexico Administrative Code, Title 20, Chapter 4, Part 1, § 264.32, revised June 14, 2000.

SPILL CONTROL EQUIPMENT:

Spill control stations and/or portable spill kits are located at TA-54-8, TA-54-11, TA-54-20, TA-54-33, TA-54-48, TA-54-49, TA-54-92, TA-54-153, TA-54-224, TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, TA-54-283, TA-54-375, and TA-54-412.

Each spill kit generally includes bags of Zorball and an inventory of tools and supplies.

Refer to footnotes at end of table.

Table E-2 (Continued)

Emergency Equipment at Technical Area (TA) 54, Area G[a]

COMMUNICATION EQUIPMENT:

Pole-mounted paging telephones are located near TA-54-33, TA-54-48, TA-54-49, TA-54-153, TA-54-224, TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and TA-54-283, inside TA-54-2, and at TA-54-11, and TA-54-412.

Evacuation alarm buttons are located at or near TA-54-2, TA-54-11, TA-54-33, TA-54-48, TA-54-49, TA-54-153, TA-54-224, TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, TA-54-283, TA-54-375, TA-54-412, and at various muster stations.

Additional equipment includes portable two-way radios located at muster stations.

Description of General Capabilities:
Telephones and alarms are located throughout Area G. Paging telephones are equipped with public address capabilities. Evacuation alarms have horns mounted on telephone poles throughout Area G. The evacuation alarm is a high-pitched wailing sound that can be heard throughout Area G.

DECONTAMINATION EQUIPMENT:

Portable eyewash stations equipped with first aid kits are located in TA-54-33, TA-54-224, and TA-54-412.

One permanent, hard-plumbed eyewash station and a safety shower are located in TA-54-33.

Material Safety Data Sheets (MSDS) and waste characterization documentation are available in the event of an exposure.

Description of General Capabilities:
Emergency shower and eyewash stations are used by personnel who receive a chemical splash to the skin or eyes. Specific MSDSs for the chemical(s) should be obtained prior to working with hazardous or mixed waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT:

Personnel at Area G are required to use appropriate personal protective equipment (PPE) to protect themselves from the hazards found in the workplace under normal conditions. This PPE may include gloves, steel-toed shoes, and safety glasses. Additional PPE may be required during an unusual hazardous situation and can be found in the spill kits or at various locations listed below.

Gloves and goggles or safety glasses are available in the spill kits located at TA-54-8, TA-54-11, TA-54-20, TA-54-33, TA-54-48, TA-54-49, TA-54-92, TA-54-153, TA-54-224, TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, TA-54-283, TA-54-375, and TA-54-412.

Refer to footnotes at end of table.

Table E-2 (Continued)

Emergency Equipment at Technical Area (TA) 54, Area G[a]

OTHER:

Continuous air monitors and giraffe monitors (or other appropriate air monitoring equipment***)*** are located in TA-54-33, TA-54-48, TA-54-49, TA-54-153, TA-54-224, TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, TA-54-283, TA-54-375, TA-54-412, TA-54-1027, and TA-54-1028 for detection of airborne radioactive constituents.

Heavy equipment available on site includes:

- Scraper
- Bulldozer
- Front-end loader

Portable emergency generators

Vehicles available to evacuate personnel from Area G include:

- All-terrain vehicles
- Pickup truck
- Flat-bed truck
- Daihatsu vehicles
- Vans

[a]Equipment types and locations are subject to change.

Table E-3

Emergency Equipment at Technical Area (TA) 54 West[a]

FIRE CONTROL EQUIPMENT:

Halon fire extinguishers are available at TA-54-38 in the high and low bays and at the outdoor container storage unit.

Description of General Capabilities:
Fire extinguishers may be used by any employee in the event of a small fire. Protection Technology Los Alamos (PTLA) and the Los Alamos County Fire Department (LACFD) are alerted when the automatic dry-pipe sprinkler system has been activated.

A dry-pipe sprinkler system is available throughout TA-54-38, including the loading dock area. The dry-pipe sprinkler system is heat activated in the high bay and at the loading dock. It is smoke activated in the low bay.

Fire alarm pull boxes are available inside TA-54-38 at the main entrance, in the high bay, and in the low bay.

Description of General Capabilities:
Fire alarms may be activated by any employee in the event of a fire to notify the LACFD and PTLA.

A fire hydrant is located approximately 220 feet west of TA-54-38 near the entrance to TA-54 West. This fire hydrant supplies water at adequate volume and pressure to satisfy the requirements of the New Mexico Administrative Code, Title 20, Chapter 4, Part 1, § 264.32, revised June 14, 2000.

A wall hydrant is located on the northwest side of TA-54-38.

Freeze-proof faucets are located on the northwest, southwest, and southeast sides of TA-54-38.

SPILL CONTROL EQUIPMENT:

A mobile response kit is located at TA-54-38. The kit includes sorbent socks, pillows, and sheets; goggles; and large plastic bags.

COMMUNICATION EQUIPMENT:

Telephones with public address (PA) capabilities are located in TA-54-38 in the high bay, in the low bay, and outside the main entrance. An emergency telephone is also located outside the main entrance.

Description of General Capabilities:
Telephones with PA capabilities for internal and external communication are available for use by any employee. The evacuation alarm is a high-pitched wailing sound that can be heard throughout TA-54-38 and TA-54-34. The fire alarm is a double slow-whoop sound. Fire and evacuation alarms are activated in the event of a fire or evacuation.

Refer to footnotes at end of table.

Table E-3 (Continued)

Emergency Equipment at Technical Area (TA) 54 West[a]

DECONTAMINATION EQUIPMENT:

Safety showers and eyewash stations are located in TA-54-38 in the high bay and on the loading dock.

Material Safety Data Sheets (MSDS) are located at the TA-54-38 muster area (approximately 120 feet northwest of TA-54-38) and in the TA-54-38 main entry area.

Description of General Capabilities:
Safety showers and eyewashes are used by personnel who receive a chemical splash to the skin or to the eyes. Specific MSDSs for the chemical(s) being managed should be obtained prior to working with mixed waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT:

Personnel at TA-54 West are required to use appropriate personal protective equipment (PPE) to protect themselves from the hazards found in the workplace under normal conditions. This PPE includes gloves, steel-toed shoes, and safety glasses. Additional PPE may be required during an unusual hazardous situation and can be found in the spill kits.

Gloves, goggles, safety glasses, coveralls, and face shields are found in the spill kits located at TA-54-38.

All workers located within the operating limits of a crane (fixed or mobile) wear hard hats.

[a]Equipment types and locations are subject to change.

EP-AREAG-RM-AOP-0412, R.0

Questionable Integrity of Waste Container

DRAFT A (01/30/08)

Effective Date: _____

Next Review Date: _____

Procedure Owner:	**Signature:**	**Date:**
Don Allen	Pending Signature	

1.0 ENTRY CONDITIONS

- Visual observation of a fallen waste container.
- Visual inspection of waste container indicates an unanticipated loss of the waste container's integrity (e.g., missing or broken filter, puncture, corrosion, or missing drum locking ring).
- Other indications, such as external contamination, that demonstrate a loss of confinement, or physical deformation that compromises structural capabilities.

2.0 ACTIONS

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
2.1 Immediate Actions	
Operator	
☐ 1. Place operations in a safe condition, if safe to do so.	
☐ 2. Suspend all operations in the area.	
☐ 3. If safe to do so obtain the container identification number.	
☐ 4. Exit the area around the suspect container.	
☐ 5. Notify the TA-54 Operations Center (665-2735) of the suspect waste container's condition.	5. Notify the TA-54 Shift Operations Manager (231-8289) of the suspect waste container's condition.
☐ 6. Isolate and control access to the area around the suspect drum to prevent personnel from entering the area.	
Operations Center Operator	
☐ 7. Notify the TA-54 Shift Operations Manager (231-8289) of the suspect waste container's condition.	7. Notify the TA-54 Operations Manager of the suspect waste container's condition.
☐ 8. Request RCT and Industrial Hygiene (IH) support.	
TA-54 SOM/SOS	
☐ 9. The container is located inside of a structure. • All personnel exit the structure and remain in the vicinity for a radiological survey upwind of the structure.	9. The container is located outside a structure • Personnel evacuate upwind and remain in the vicinity for a radiological survey

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
2.1 Immediate Actions (continued)	
☐ 10. Establish a boundary (barrier or building) around the immediate area of the potential contamination and control access.	
☐ 11. **IF** the questionable integrity involves a fallen container, **THEN** contact EM&R (667-6211) and request assistance as needed.	
☐ 12. Notify the TA-54 Operations Manager of the waste container in question.	13. Notify the EWMO FOD or Deputy FOD of the Loss of Power
2.2 Subsequent Actions	
☐ 1. Evaluate drum contents for specific hazards associated with the drum.	
☐ 2. Develop an action plan to correct the situation.	
☐ 3. Notify personnel to resume operations only when conditions permit.	

EP-AREAG-RM-EOP-0204, R.0

Liquid Release

DRAFT B (01/30/08)

Effective Date: _____

Next Review Date: _____

Procedure Owner:	**Signature:**	**Date:**
Don Allen	Pending Final Signature	

1.0 ENTRY CONDITIONS

- Visual observation or report of a liquid hazardous material release
- Visual observation or report of an unknown liquid substance release

2.0 OPERATOR ACTIONS

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
2.1 Immediate Actions	
Operator	
☐ 1. Evacuate Upwind of the Spill.	
☐ 2. Notify the TA-54 Operations Center (665-2735) of the release of liquid.	2. Notify the TA-54 Shift Operations Manager (231-8289) of the release of liquid.
Operations Center Operator	
☐ 3. Notify the TA-54 Shift Operations Manager (231-8289) of the release of liquid.	3. Notify the TA-54 Operations Manager of the release of liquid.
TA-54 SOM/SOS	
☐ 4. Notify the TA-54 Operations Manager of the release of liquid.	4. Notify the EWMO FOD or Deputy FOD of the release of liquid
☐ 5. Liquid substance <u>identified</u> and released <u>within</u> a structure. A. Go to step 7.	5. Liquid substance <u>unknown</u> and released <u>within</u> a structure: A. <u>Exit</u> the area to a location upwind of the release. B. Notify EM&R (667-6211) to report the liquid release. C. Exit this document.
☐ 6. Liquid substance <u>identified</u> and released <u>outside</u>. ☐ ☐ ☐	6. Liquid substance <u>unknown</u> and released <u>outside</u>: A. Remain sheltered indoors. B. Comply with the instructions from emergency response personnel and DIV-PLAN-0401, TA-54 Emergency Action Plan. C. Exit this document.
☐ 7. Request RCT/IH assistance, as applicable.	

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

2.1 Immediate Actions (continued)

NOTE *Only appropriately trained and prepared personnel with the appropriate personal protective equipment should attempt to stop a release.*

☐ 8. Initiate actions to mitigate or stop the release, if possible.

☐ 9. Warn others in the vicinity of the release to stay away and to remain upwind of the release.

9. Exit the area to a location upwind of the release.

☐ 10. Isolate (e.g., barriers) the area around the source of the release.

☐ 11. Minimize exposure and contamination, and remain upwind of the release.

☐ 12. Redirect any local supply ventilation (e.g., fans or blowers) away from the release area.

☐ 13. Exit the structure, as necessary.

☐ 14. Segregate potentially contaminated personnel.

2.2 Subsequent Actions

☐ 1. Relay all applicable information about the situation to the responding personnel.

☐ 2. Comply with the instructions from the emergency response organization.

Attachment 3

PCB Authorization Letters

6/5/80

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

Mr. Kenneth R. Braziel, Area Manager
Department of Energy
Albuquerque Operations
Los Alamos Area Office
Los Alamos, New Mexico 87544

Dear Mr. Braziel:

On May 31, 1979, the United States Environmental Protection Agency published final regulations in the Federal Register (43 FR 7150 - 7164) on Polychlorinated Biphenyls (PCBs), Disposal and Marking. These regulations prohibit the disposal of PCBs at any site not approved by EPA after July 2, 1979. The regulations also require that the owner and/or operator of a chemical waste landfill used for the disposal of PCBs submit information in accordance with Section 761.41, "Chemical Waste Landfills," to the Regional Administrator for review.

On January 25, 1979, we received your formal application for a PCB landfill at the Los Alamos Scientific Laboratory (LASL). The application was for disposal of DOE/LASL generated PCB solid waste and would not be a commercial operation. The application was distributed to Regional, Headquarters, and State personnel for comment. A March 26, 1979, news release concerning EPA's receipt of the application generated several local news stories and three written responses to the Regional Office. One letter was in favor of the site, one opposed, and one brought attention to the nearness of the LASL site to Indian lands and requested the careful review of the facility plan. The New Mexico Environmental Improvement Division and the U. S. Fish and Wildlife Service reviewed the application and indicated to EPA in writing that they had no objection to the application.

After a review of all the information, I made a tentative decision to approve your facility as an Annex II chemical landfill for PCB articles. This tentative decision was sent to you in my letter of April 14, 1980, and we solicited public comment by placing an announcement in the April 19, 1980, issue of the Albuquerque Journal. No letters were received commenting on the tentative approval.

The proposed PCB disposal site is located on top of the Misita del Buey, which is on LASL property and is the present location of the ongoing, low-level radioactive disposal site. The proposed site meets all the technical requirements for a chemical waste landfill as required in Section 761.41 (b), except "Groundwater Monitor Wells" and "Leachate

Collection Systems." These systems are not considered feasible due to arid climate conditions, and soil characteristics and conditions. The Groundwater Monitor Wells and Leachate Collection System requirements are hereby waived as provided in Section 761.41, and the attached conditions are required as substitutes. These waivers will not present an unreasonable risk of injury to health or environment from PCBs.

The DOE/LASL chemical waste landfill for disposal of PCB articles is hereby approved. Conditions for the operation of your PCB chemical waste landfill are listed in Enclosure 1 of this letter.

Approval for the DOE/LASL landfill may be revoked, modified, or otherwise altered at any time evidence indicates a violation of the conditions of this approval letter, 40 CFR Part 761, or other applicable rules and regulations. Also this approval is for disposal of PCBs in a chemical waste landfill and is not to be construed to be approval for PCB incineration or for PCB liquids. The approval applies only to the Department of Energy, Los Alamos Scientific Laboratory Landfill, Los Alamos, New Mexico. This designation is non-transferrable.

Sincerely,

Francis E. Phillips, Jr.

Adlene Harrison
Regional Administrator

Enclosures

cc: Thomas E. Baca, M.P.H. Director
Environmental Improvement Division
New Mexico Health Environment
Department

ENCLOSURE 1

Conditions for Disposal of PCBs at the Department of Energy/Los Alamos Scientific Laboratory Chemical Waste Landfill, Los Alamos, New Mexico

1. Maintain records as specified in 40 CFR 761.45 (b), "Records and Monitoring."

2. Advise EPA immediately of any changes, alternations, or divergencies in the operational managerial policies and procedures as outlined in the documents submitted in support of the application.

3. Report immediately to the Regional Administrator, EPA Region 6, any detection of PCBs in stormwater runoff or in groundwater samples.

4. Monitor the two springs currently monitored for the Safe Drinking Water Act at least once each year (during and after site operation) for PCBs, pH, specific conductance, and chlorinated organics.

5. Install onsite cumulative samplers for rainfall runoff collection. Water samples collected in the cumulative samplers after rainfall of sufficient volume for analysis must be analyzed for PCBs, pH, specific conductance, and chlorinated organics.

6. Report to the EPA Regional Administrator, attention Chief, Solid Waste Branch, every six months the following information:

    a. Types and quantities of PCB articles disposed.

    b. A summary of analytical data which must be developed under 40 CFR 761.41 (b) (6) (iii) "Water Analysis," and for conditions 4 and 5 listed above.

    c. A summary of shaft or trench construction activities for PCB articles disposal and corrective maintenance work required for PCB shaft or trench stormwater diversion structures.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

June 25, 1996

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Joseph C. Vozella
Acting Asst. Area Manager
Office of Environment and Projects
Department of Energy
Los Alamos Area Office
Los Alamos, NM 87544

Dear Mr. Vozella:

Your current approval to landfill polychlorinated biphenyls (PCBs) issued on June 5, 1980, has been reviewed by our office and is being reissued by this letter pursuant to Section (6)(e) of the Toxic Substances Control Act (TSCA). The approval, dated June 5, 1980, was granted after Los Alamos National Laboratory (LANL) demonstrated through design, geologic, and climatic information, that it could safely landfill PCBs.

After reviewing additional geologic and analytical information submitted by LANL on December 22, 1994, EPA has concluded that the continued disposal of PCBs at the Technical Area 54, Area G, landfill will not pose an unreasonable risk to human health or the environment from PCBs. This approval adds certain conditions that were not a part of the original approval that are designed to ensure improved oversight of LANL's PCB disposal operations.

Enclosed are the Conditions of Approval. This approval shall expire at midnight, on the same day and month as the date of this approval letter, five years after issuance.

Sincerely yours,

Robert Hannesschlager, P.E.
Acting Director
Multimedia Planning
and Permitting Division

Enclosure

cc: Mark Weidler
New Mexico Environment Department

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

June 25, 1996

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Joseph C. Vozella
Acting Asst. Area Manager
Office of Environment and Projects
Department of Energy
Los Alamos Area Office
Los Alamos, NM 87544

Dear Mr. Vozella:

Enclosed is your reissued approval to land dispose of polychlorinated biphenyls (PCBs) at the Los Alamos National Laboratory (LANL) located at Los Alamos, New Mexico. No comments were received on the proposed approval during the 45-day comment period other than your letter dated May 23, 1996. We have incorporated your comments into the final approval.

If you have questions or comments, please contact Mr. William J. Gallagher of my staff at (214) 665-6775.

Sincerely yours,

Robert Hannesschlager, P.E.
Acting Director
Multimedia Planning and
Permitting Division

Enclosure

cc: Mark Weidler
New Mexico Environment Department

LOS ALAMOS NATIONAL LABORATORY

PCB LANDFILL APPROVAL CONDITIONS

I. LOCATION OF FACILITY

The PCB disposal area is located in Technical Area 54 (TA-54), Area G, of the Department of Energy's (DOE) Los Alamos National Laboratory, Los Alamos, New Mexico.

II. PCB DISPOSAL FACILITIES AUTHORIZED

A. PCB Pits and Shafts Authorized:

1. Pits located in TA-54, Area G; and,

2. The PCB Shaft Field located in TA-54, Area G.

B. Authorization to Operate Additional Pits or Shafts:

LANL shall not commence disposal in a new PCB disposal area other than Area G until it has notified the EPA Region 6, OK/TX RCRA Permits Section, in writing and received written approval from EPA. For new pits or shafts within Area G, LANL shall submit to the EPA Region 6, OK/TX RCRA Permits Section, a Notification of PCB Activity (EPA form 707101-53) 30 days before beginning to use the new pit or shaft.

C. Expansion of Existing Authorized Pits or Shafts:

Any pit or shaft authorized under condition II.A. of this section which LANL intends to expand shall require notification to the EPA Region 6, OK/TX RCRA Permits Section, before any new PCBs may be disposed in the expanded facility.

D. New PCB Storage Areas:

PCBs shall not be stored in a new storage area, other than those authorized in condition II. B. above, without first notifying the EPA Region 6, OK/TX RCRA Permits Section, before PCBs may be stored in the new storage facility. LANL shall submit to the EPA Region 6, OK/TX RCRA Permits Section, a Notification of PCB Activity (EPA form 707101-53) 30 days before beginning to use the new PCB storage area.

III. FACILITY DESIGN, CONSTRUCTION, AND OPERATION

A. General Design and Construction Requirements:

1. The PCB pits shall comply with 40 CFR 761.75 except

for the following provisions:

a. 761.75 (b)(1): Soils of relatively impermeable formations;

b. 761.75 (b)(3): Hydrologic conditions requiring monitoring wells and leachate collection;

c. 761.75 (b)(5): Topography of low to moderate relief;

d. 761.75(b)(6)(ii): Ground water monitoring wells installed around the site; and,

e. 761.75 (b)(7): Leachate collection system installed.

A waiver to these conditions is granted based upon EPA's review of the design of the pits and shafts and geology reports on the area. The volcanic tuff, the arid conditions, the non-liquid waste materials, and the 800-foot depth to ground water provides an effective barrier between the bottom of the pits and shafts and the ground water table. Since no pumpable ground water exists, a leachate collection system would serve no useful purpose.

2. The PCB shafts shall comply with 40 CFR 761.75 except for the provisions listed in III.A.1. above for the reasons stated in that section.

3. No PCB liquids or items containing PCB liquids shall be placed in a disposal pit or shaft after the effective date of this approval.

B. General Operating Requirements:

1. PCB wastes to be disposed in pits or shafts located in TA-54, Area G, shall be logged on the Waste Profile Request Form ES&H 10-3B, or its equivalent.

2. Disposal of PCB wastes shall comply with Administrative Requirements, or their equivalent, (AR) 10-2,10-3, and 10-4 as they apply to PCB wastes.

C. PCB Pit Operating Requirements:

1. PCB wastes to be disposed in a pit shall be logged in LANL's waste tracking system which shall include date of disposal, and type and quantity of waste

disposed.

2. Large quantities of PCB contaminated soil and debris which are not containerized shall be transported in lined trucks with a covering sufficient to prevent spillage or wind dispersion of the PCB contaminated material. Transport shall not occur after sunset or before sunrise.

D. PCB Shaft Operating Requirements:

1. PCB wastes disposed in a shaft shall have the date of disposal, type and quantity of waste disposed recorded in a log. This information shall be made available to EPA upon request.

2. Open shafts shall be covered to prevent accidental injury or the entrance of precipitation.

3. No PCB liquids or items containing PCB liquids shall be placed in a disposal shaft.

E. Storage Facility Area Requirements:

1. The PCB storage facility, located in Area L, shall comply with PCB storage requirements in 40 CFR 761.65.

2. PCBs shall be properly marked in accordance with 40 CFR 761.45.

3. All PCB items shall be logged showing date removed from service for disposal and the date the PCB item was sent from storage for disposal. This information shall be provided to EPA upon request.

F. Surface and Ground Water Monitoring Requirements:

1. Samples collected for compliance with this approval shall be analyzed for the parameters listed in 40 CFR 761.75(b)(6)(iii).

2. Samples analyzed for PCBs shall follow EPA approved procedures and methods. The procedures and methods used shall be recorded along with the data.

3. Stormwater runoff sampling and inspections around pits and shafts shall be in accordance with the Stormwater Pollution Prevention Plan for TA-54, Area G, and shall include those parameters specified in III.F.1. above.

4. Once annually, a sample shall be collected from the springs located on the west bank of the Rio Grande. These springs are designated Spring #3 and Spring #4 and are located at 35°49′ north latitude, 106°11′ west longitude; and 35°47′ north latitude, 106°12′ west longitude respectively. The samples shall be analyzed according to conditions III.F.1. and III.F.2. above.

IV. CLOSURE AND POST CLOSURE

A. Records required under 40 CFR 761.180 (d) and (f) shall be maintained for the times specified after the pits or shafts have been closed.

B. LANL shall notify the EPA Region 6, OK/TX RCRA Permits Section, in writing within 30-days of facility closure that an authorized pit or shaft under this approval is being closed.

V. STANDARD APPROVAL CONDITIONS

A. Severability:

The conditions of this authorization are severable, and if any provision of this authorization, or any application of any provision, is held invalid, the remainder of this authorization shall not be affected thereby.

B. Duty to Comply:

LANL shall comply with all Federal, State, and local regulations, approvals, and permits.

C. Personnel Safety:

LANL's personnel safety requirements and procedures for PCB handling, storage, transport, and disposal shall comply with Occupational Safety and Health Administration requirements.

D. Duty to Mitigate:

LANL shall correct any adverse impact on the environment resulting from noncompliance with this approval.

E. Proper Operation and Maintenance:

LANL shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed and used to achieve compliance with the conditions of this approval. Proper

operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate Area G quality assurance procedures.

All transport vehicles owned by LANL used for the transport of PCBs shall be properly maintained, inspected, and certified in writing by a responsible official of the company as meeting applicable safety standards under the Department of Transportation regulations before PCBs are transported on public highways. Copies of all certifications shall be kept at the facility and shall be available for inspection on request.

F. Duty to Provide Information:

LANL shall furnish any relevant information which EPA may request to determine whether cause exists for modifying, revoking, reissuing, or terminating this approval, or to determine compliance with this approval. LANL shall also furnish, upon request, copies of records required to be kept under the TSCA PCB regulations.

G. Inspection and Entry:

LANL shall allow an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter the LANL facility where PCBs are being handled, stored, treated, or disposed;

2. Have access to and copy, at reasonable times, any records that must be kept under the TSCA PCB regulations;

3. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations required under this approval or the TSCA PCB regulations; or,

4. Sample or monitor for the purpose of assuring that the LANL facility is operating in compliance with the conditions of the approval or the TSCA PCB regulations.

H. Monitoring and Records:

LANL shall comply with all monitoring and record keeping requirements for PCB landfills and storage facilities. All PCB records, documents, and reports shall be maintained at centralized locations at the LANL facility, and shall be made available for inspection by authorized EPA

representatives. All records required by this approval shall be written in ink or typed. Any modification or correction of the records must be initialed and dated by the person performing the change.

I. Notice of Transfer of Ownership:

LANL shall notify EPA at least ninety (90) days before transferring ownership of the facility. LANL shall also submit to EPA at least ninety (90) days before such transfer a notarized affidavit signed by the transferee stating that the transferee shall abide by the terms of this approval.

J. Twenty-four Hour Reporting of Noncompliance:

If at any time LANL becomes aware of a violation of the conditions of this approval, it shall notify the EPA Region 6, OK/TX RCRA Permits Section, by telephone within 24 hours, and shall submit a written report within five (5) days.

K. Other Information:

When LANL officials become aware that LANL has failed to submit any relevant facts in its application, or submitted incorrect information in any report to EPA, LANL shall promptly submit such facts or information to EPA.

L. Operation of the Facility:

LANL shall maintain an adequately trained onsite inspector to direct emergency procedures which could result from fires, explosions or releases of PCB containing wastes at the facility. LANL shall submit the name of this inspector within sixty (60) days of the effective date of this approval. LANL shall maintain in good working order any equipment required to deal with these emergencies.

M. Spills:

PCB spills occurring at the disposal site or from any LANL owned PCB transport vehicle, shall be cleaned up according to the PCB Spill Cleanup Policy, 40 CFR Part 761, Subpart G. PCB spills occurring outside PCB storage areas shall be reported within twenty-four (24) hours of the event to the EPA Region 6, PCB Spill Coordinator, Toxics Enforcement Section. The EPA may order cessation of PCB disposal at LANL if spills are not cleaned up to acceptable levels defined by EPA.

N. Duty to Notify:

LANL shall notify the EPA Region 6, OK/TX RCRA Permits

Section, in writing at least thirty (30) days prior to any planned physical or operational change that may require modification of this approval.

O. Effective Date:

The approval shall become effective on the date of the approval letter, and expire at midnight the same month and day after five years.

END OF APPROVAL CONDITIONS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

SEP 1 0 2001

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Joseph C. Vozella
Acting Asst. Area Manager
Office of Environment and Projects
Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

Dear Mr. Vozella:

We are in receipt of your letter of January 5, 2001, in which you requested re-authorization of the non-liquid polychlorinated biphenyl (PCB) land disposal units at the Los Alamos National Laboratory (LANL) TA-54 Area G, Los Alamos, New Mexico. Your current approval was issued on June 25, 1996, and, although originally scheduled to expire on June 25, 2001, has been administratively extended. The conditions of approval shall remain in effect until a final determination is made on your re-authorization request. Enclosed is a proposed version of the re-authorized approval.

A Public Notice announcing this proposal will be placed in the Sante Fe New Mexican within two weeks of the date of this letter. The Notice will open a 45-day comment period during which requests may be made for a Public Hearing. We will evaluate any comments received after the comment period closes. If a Hearing is to be convened, a 30-day advance notice will be published announcing the Hearing date, time, and place in the Los Alamos area. If no Hearing is convened, a final determination will be made on your request. If you have questions or comments on this proposal, please contact me, or have your staff contact Mr. James Sales, PCB Disposal Facility Coordinator, at (214) 665-6796.

Sincerely yours,

Stephen A. Gilrein, P.E.
Associate Director for RCRA
Multimedia Planning and
Permitting Division

cc: Gary Lewis, New Mexico Environment Department

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Joseph C. Vozella
Acting Asst. Area Manager
Office of Environment and Projects
Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

Dear Mr. Vozella:

We are in receipt of your letter of January 8, 2001 requesting re-authorization of the polychlorinated biphenyl (PCB) land disposal approval at the Los Alamos National Laboratory (LANL), TA-54 Area G. The PCB disposal approval was issued on June 25, 1996, and was scheduled to expire on June 25, 2001. The approval expiration date was administratively extended by EPA until a final determination was made on the re-authorization request. We have reviewed the information submitted in support of the application which included "Performance Assessment and Composite Analysis for Los Alamos National Laboratory Material Disposal Area G", dated March 1998; "Hydrogeologic Workplan, Los Alamos National Laboratory", dated May 22, 1998; "Hazardous and Mixed Waste Facility Inspection Records"; and, the "Annual Document Logs" from 1991-1999. Also, we have noted that LANL has reported that no PCB spills occurred at TA-54 Area G since the issuance of the approval dated June 25, 1996.

After inspecting the facility and reviewing the hydrogeological studies and the storage and record keeping information submitted by LANL, EPA has concluded that the continued disposal of PCBs at the Technical Area 54, Area G, PCB landfill will not pose an unreasonable risk to human health or the environment. Violation of 40 CFR 761, or any condition included as part of this approval, may subject this facility to enforcement action under TSCA and/or other applicable laws and regulations. Such action could result in a termination, revocation, or modification of the approval. Furthermore, receipt of evidence that: (1) a misrepresentation of any material fact has been made in any submittal; (2) all relevant facts have not been disclosed; (3) the nature of the disposal has substantially changed from the effective date of this approval; or (4) the facility is found to be in non-compliance with its approval conditions (or a violation of requirements under 40 CFR Part 761) during PCB storage or disposal shall constitute sufficient cause for revocation or modification of the approval.

This approval shall expire at midnight, on the same day and month as the date of this letter, five years after issuance. If you have questions or comments, please contact Mr. James Sales at (214) 665-6796.

Sincerely yours,

Carl E. Edlund, P.E.
Director
Multimedia Planning
and Permitting Division

Enclosure

cc: Gary Lewis, New Mexico Environment Department

Proposed

LOS ALAMOS NATIONAL LABORATORY

PCB LANDFILL APPROVAL CONDITIONS

I. LOCATION OF FACILITY

The PCB disposal area is located in Technical Area 54 (TA-54), Area G, of the Department of Energy's (DOE) Los Alamos National Laboratory, Los Alamos, New Mexico.

II. PCB DISPOSAL FACILITIES AUTHORIZED

A. PCB Pits and Shafts Authorized:

1. Pits located in TA-54, Area G, Pits 31, 38, and 39; and,

2. The PCB Shaft Field located in TA-54, Area G, shaft numbers C13, C14, and odd numbered shafts C309 through C359 inclusive.

B. Authorization to Operate Additional Pits or Shafts:

LANL shall not commence disposal in a new PCB disposal area other than Area G until it has notified the EPA Region 6, OK/TX RCRA Permits Section, in writing and received written approval from EPA. For new pits or shafts within Area G, LANL shall submit to the EPA Region 6, OK/TX RCRA Permits Section, a Notification of PCB Activity (EPA form 707101-53) 30 days before beginning to use the new pit or shaft.

C. Expansion of Existing Authorized Pits or Shafts:

Any pit or shaft authorized under condition II.A. of this section which LANL intends to expand shall require notification to the EPA Region 6, OK/TX RCRA Permits Section, before any new PCBs may be disposed in the expanded facility.

D. New PCB Storage Areas:

PCBs shall not be stored in a new storage area, other than those authorized in condition II. B. above, without first notifying the EPA Region 6, OK/TX RCRA Permits Section, before PCBs may be stored in the new storage facility. LANL shall submit to the EPA Region 6, OK/TX RCRA Permits Section, a Notification of PCB Activity (EPA form 707101-53) 30 days before beginning to use the new PCB storage area.

III. FACILITY DESIGN, CONSTRUCTION, AND OPERATION

A. General Design and Construction Requirements:

1. The PCB pits shall comply with 40 CFR 761.75 except for the following

provisions:

a. 761.75 (b)(1): Soils of relatively impermeable formations;

b. 761.75 (b)(3): Hydrologic conditions requiring monitoring wells and leachate collection;

c. 761.75 (b)(5): Topography of low to moderate relief;

d. 761.75(b)(6)(ii): Ground water monitoring wells installed around the site; and,

e. 761.75 (b)(7): Leachate collection system installed.

A waiver to these conditions is granted based upon EPA's review of the design of the pits and shafts and geology reports on the area. The volcanic tuff, the arid conditions, the non-liquid waste materials, and the 800-foot depth to ground water provides an effective barrier between the bottom of the pits and shafts and the ground water table. Since no pumpable ground water exists, a leachate collection system would serve no useful purpose.

2. The PCB shafts shall comply with 40 CFR 761.75 except for the provisions listed in III.A.1. above for the reasons stated in that section.

3. No PCB liquids or items containing PCB liquids shall be placed in a disposal pit or shaft after the effective date of this approval.

B. General Operating Requirements:

1. PCB wastes to be disposed in pits or shafts located in TA-54, Area G, shall be logged on the Waste Profile Request Form ES&H 1346, or its equivalent.

2. Disposal of PCB wastes shall comply with Laboratory Implementation Requirements, or their equivalents, (LIR) 404-00-03, 404-00-05, and 404-00-06 as they apply to PCB wastes.

C. PCB Pit Operating Requirements:

1. PCB wastes to be disposed in a pit shall be logged in LANL's waste tracking system which shall include date of disposal, and type and quantity of waste disposed.

2. Large quantities of PCB contaminated soil and debris which are not containerized shall be transported in lined trucks with a covering sufficient to prevent spillage or wind dispersion of the PCB contaminated material. Transport shall not occur after sunset or before sunrise.

D. PCB Shaft Operating Requirements:

1. PCB wastes disposed in a shaft shall have the date of disposal, type and quantity of waste disposed recorded in a log. This information shall be made available to EPA upon request.

2. Open shafts shall be covered to prevent accidental injury or the entrance of precipitation.

3. No PCB liquids or items containing PCB liquids shall be placed in a disposal shaft.

E. Storage Facility Area Requirements:

1. The PCB storage facility, located in Area L, shall comply with PCB storage requirements in 40 CFR 761.65.

2. PCBs shall be properly marked in accordance with 40 CFR 761.45.

3. All PCB items shall be logged showing date removed from service for disposal and the date the PCB item was sent from storage for disposal. This information shall be provided to EPA upon request.

F. Surface and Ground Water Monitoring Requirements:

1. Samples collected for compliance with this approval shall be analyzed for the parameters listed in 40 CFR 761.75(b)(6)(iii).

2. Samples analyzed for PCBs shall follow EPA approved procedures and methods. The procedures and methods used shall be recorded along with the data.

3. Storm water runoff sampling and inspections around pits and shafts shall be in accordance with the Storm Water Pollution Prevention Plan for TA-54, Area G, and shall include those parameters specified in III.F.1. above.

4. Once annually, samples shall be collected from Monitoring Well #R-22 at the five sampling ports at 906 feet, 962, feet, 1273 feet, 1379 feet, and 1449 feet. The samples shall be analyzed in accordance with F.1. and F.2. above.

IV. CLOSURE AND POST CLOSURE

A. Records required under 40 CFR 761.180 (d) and (f) shall be maintained for the times specified after the pits or shafts have been closed.

B. LANL shall notify the EPA Region 6, OK/TX RCRA Permits Section, in writing within 30-days of facility closure that an authorized pit or shaft under this approval is being closed.

V. STANDARD APPROVAL CONDITIONS

A. Severability:

The conditions of this authorization are severable, and if any provision of this authorization, or any application of any provision, is held invalid, the remainder of this authorization shall not be affected thereby.

B. Duty to Comply:

LANL shall comply with all Federal, State, and local regulations, approvals, and permits.

C. Personnel Safety:

LANL's personnel safety requirements and procedures for PCB handling, storage, transport, and disposal shall comply with Occupational Safety and Health Administration requirements.

D. Duty to Mitigate:

LANL shall correct any adverse impact on the environment resulting from noncompliance with this approval.

E. Proper Operation and Maintenance:

LANL shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed and used to achieve compliance with the conditions of this approval. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate Area G quality assurance procedures.

All transport vehicles owned by LANL used for the transport of PCBs shall be properly maintained, inspected, and certified in writing by a responsible official of the company as meeting applicable safety standards under the Department of Transportation regulations before PCBs are transported on public highways. Copies of all certifications shall be kept at the facility and shall be available for inspection on request.

F. Duty to Provide Information:

LANL shall furnish any relevant information which EPA may request to determine whether cause exists for modifying, revoking, reissuing, or terminating this approval, or to determine compliance with this approval. LANL shall also furnish, upon request, copies of records required to be kept under the TSCA PCB regulations.

G. Inspection and Entry:

LANL shall allow an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter the LANL facility where PCBs are being handled, stored, treated, or disposed;

2. Have access to and copy, at reasonable times, any records that must be kept

under the TSCA PCB regulations;

3. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations required under this approval or the TSCA PCB regulations; or,

4. Sample or monitor for the purpose of assuring that the LANL facility is operating in compliance with the conditions of the approval or the TSCA PCB regulations.

H. Monitoring and Records:

LANL shall comply with all monitoring and record keeping requirements for PCB landfills and storage facilities. All PCB records, documents, and reports shall be maintained at centralized locations at the LANL facility, and shall be made available for inspection by authorized EPA representatives. All records required by this approval shall be written in ink or typed. Any modification or correction of the records must be initialed and dated by the person performing the change.

I. Notice of Transfer of Ownership:

LANL shall notify EPA at least ninety (90) days before transferring ownership of the facility. LANL shall also submit to EPA at least ninety (90) days before such transfer a notarized affidavit signed by the transferee stating that the transferee shall abide by the terms of this approval.

J. Twenty-four Hour Reporting of Noncompliance:

If at any time LANL becomes aware of a violation of the conditions of this approval, it shall notify the EPA Region 6, OK/TX RCRA Permits Section, by telephone within 24 hours, and shall submit a written report within five (5) days.

K. Other Information:

When LANL officials become aware that LANL has failed to submit any relevant facts in its application, or submitted incorrect information in any report to EPA, LANL shall promptly submit such facts or information to EPA.

L. Operation of the Facility:

LANL shall maintain an adequately trained onsite inspector to direct emergency procedures which could result from fires, explosions or releases of PCB containing wastes at the facility. LANL shall submit the name of this inspector within sixty (60) days of the effective date of this approval. LANL shall maintain in good working order any equipment required to deal with these emergencies.

M. Spills:

PCB spills occurring at the disposal site or from any LANL owned PCB transport vehicle, shall be cleaned up according to the PCB Spill Cleanup Policy, 40 CFR Part 761, Subpart G. PCB spills occurring outside PCB storage areas shall be reported within twenty-four (24) hours of the event to the EPA Region 6, PCB Spill Coordinator, Toxics Enforcement

Section. The EPA may order cessation of PCB disposal at LANL if spills are not cleaned up to acceptable levels defined by EPA.

N. Duty to Notify:

LANL shall notify the EPA Region 6, OK/TX RCRA Permits Section, in writing at least thirty (30) days prior to any planned physical or operational change that may require modification of this approval.

O. Effective Date:

The approval shall become effective on the date of the approval letter, and expire at midnight the same month and day after five years.

END OF APPROVAL CONDITIONS

National Nuclear Security Administration

DEPARTMENT OF ENERGY
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

MAY 19 2006

Mr. Carl Edlund, 6PD
Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

RE: Withdrawal of the Request for the Reauthorization of Polychlorinated Biphenyl (PCB) Disposal at the Los Alamos National Laboratory

Dear Mr. Edlund:

Los Alamos National Laboratory (LANL) has operated a low level radioactive waste landfill at Technical Area (TA) 54, Area G since 1957. In 1980, the Environmental Protection Agency (EPA) approved operation of the Area G low level radioactive waste landfill as a chemical landfill for the disposal of mixed non-liquid polychlorinated biphenyls (PCBs), in accordance with § 40 CFR 761.75. EPA issued the current PCB disposal approval on June 25, 1996, to expire on June 25, 2001. The Department of Energy (DOE), as owner and co-operator of LANL, requested renewal of the Area G disposal approval in a letter to EPA dated January 5, 2001. EPA administratively extended the 1996 approval by letter dated September 10, 2001, and the conditions of the 1996 approval are in effect until EPA makes a final determination on the outstanding approval request.

PCB waste disposal has continued at LANL in accordance with the terms and conditions of the administratively extended approval. Over time, the amount of radioactive PCB waste generated annually at LANL has diminished greatly. With the availability of offsite disposal facilities, it has become unnecessary to maintain a PCB waste disposal capability at LANL. Therefore, DOE hereby withdraws its request to EPA for a renewed approval to operate the PCB landfill at Area G. LANL will continue to operate the disposal units at Area G as low-level radioactive waste disposal units for a limited period of time.

With the withdrawal of the request to renew the Area G PCB disposal approval, several issues should be addressed:

1.) LANL intends to continue to dispose low-level radioactive waste at Area G until closure activities overtake operations, and requests that closure of the PCB disposal units be delayed until low level radioactive waste disposal activities have been completed. LANL will continue to monitor storm water and groundwater as specified in the current Area G PCB disposal approval until an approved closure plan for the PCB landfill is in place.

2.) Pursuant to the Compliance Order on Consent (Consent Order) dated March 1, 2005, the disposal units at Area G will be closed by 2015. It is requested that EPA closure requirements for the Area G PCB disposal units be coordinated with the Consent Order requirements, and that closure of the PCB landfill be conducted concurrently with closure of the site under the Consent Order. EPA will be provided a copy of the Material Disposal Area G Corrective Measure Evaluation Report, which has a Consent Order due date of August 8, 2007.

3.) The current PCB disposal approval permits storage of PCB waste at Area L. LANL will continue to store small amounts of PCB waste at Area L prior to shipment offsite to EPA-approved disposal facilities. Section 40 CFR 761.65 requires prior EPA approval for PCB waste storage units at facilities that meet the definition of a commercial storer. LANL stores PCB waste generated at this facility and thus does not meet the definition of a commercial storer at 40 CFR §761.3. Therefore, it is our understanding that the continued use of Area L for PCB storage is not affected by the discontinuance of the EPA Area G disposal approval.

4.) DOE previously notified EPA that the University of California will be replaced effective June 1, 2006 as a co-operator of LANL by the Los Alamos National Security, LLC (LANS). DOE, as owner and co-operator of Area G, will be responsible with LANS for the operation and closure of Area G.

If you have any questions or comments regarding PCB disposal at TA-54, Area G, please contact Gene Turner of my staff at (505) 667-5794 or Tony Grieggs, University of California, at (505) 665-0451.

Sincerely,

Edwin L. Wilmot
Manager

ES: 2GT-013

cc:
James P. Bearzi
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Rich Mayer, 6TDF
Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

cc list continued on Page 3

cc:
James Sales, 6PDA
Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

R. Corman, OC, LASO
L. Cummings, OC, LASO
G. Rodriguez, OES, LASO
G. Turner, OES, LASO
C. James, PADNWP, LANL, MS-G751
C. Mangeng, ADTS, LANL, MS-A104
K. Hargis, ENV-DO, LANL, MS-J591
T. Grieggs, ENV-SWRC, LANL, MS-K490
D. Allen, NWIS-TA54E, LANL, MS-J595
S. Clemmons, NWIS-SBI, LANL, MS-J910
R. Lechel, NWIS-OS, LANL, MS-J593
A. Dye, ENV-SWRC, LANL, MS-K490
E. Louderbough, LC, LANL, MS-A187
S. French, ENV-ECR, LANL, MS-992
J. Hopkins, ENV-ECR, LANL, MS-992