

Quality Procedure (QP) Interim Change Notice (ICN)

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Section 8.1.2 delete "and deviations from procedural requirements"

Delete Section 8.1.3

Delete Section 8.1.4

Add the following text after Section 8.1.2: "Note: Deviations from SOPs are made in accordance with QP-4.2, Standard Operating Procedure Development and documented in accordance with QP-5.7, Notebook Documentation for Environmental Restoration Technical Activities."

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The process for deviating from a procedure needed to be clarified, especially in regard to nuclear environmental sites.

8. Requester: Phillip Noll [Signature on file] 10/13/05
(Print name, then sign.) (Date)**Section 2: Evaluation and Approval** (PTL, Technical Reviewer, and QPPL complete)

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10. Team Leader: Phil Noll [Signature on file] 10/13/05
(Print name, then sign.) (Date)11. Technical Reviewer: Scott Miller [Signature on file] 10/13/05
(Print name, then sign.) (Date)12. QPPL: Phil Noll [Signature on file] 10/13/05
(Print name, then sign.) (Date)**QP-4.1, R5****Los Alamos National Laboratory
RRES-Remediation Services**

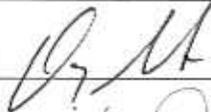
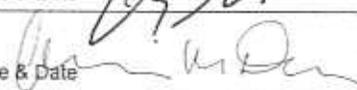
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**Environmental Stewardship — Remediation Services
Environmental Characterization and Remediation**

Standard Operating Procedure

for **General Instructions for Field Investigations**

NES Approved

Responsible Division Leader: Doug Stavert	Signature & Date  12/14/05
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SOP-01.01, General Instructions for Field Investigations

Revision Log

Revision No.	Effective Date	Prepared By	Description of Revisions	Affected Pages
R0	3/16/92	Sandra Wagner	New Procedure	All
R1	12/13/01	John Tymkowych	Extensive revision to text and format	All
R2	02/16/05	Andrew E. Gallegos	Revised to comply with current procedure format requirements and process changes and to address ICN-1 and 2.	All
R2, ICN1	10/6/05	Phil Noll	The process for deviating from a procedure needed to be clarified, especially in regard to nuclear environmental sites.	7-8

General Instructions for Field Investigations

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List of Acronyms and Abbreviations

CRZ	contamination reduction zone
DOT	Department of Transportation
ECR	Environmental Characterization and Remediation
EDS	employee development system
ENV	Environmental Services
HSR	health safety and radiation
LANL	Los Alamos National Laboratory
QII	Quality Improvement and Integration
QP	quality procedure
RCRA	Resource Conservation and Recovery Act
RPF	Records Processing Facility
RS	Remediation Services
SMO	Sample Management Office
SOP	standard operating procedure
SSO	site safety officer
WMC	waste management coordinator

General Instructions for Field Investigations

1.0 PURPOSE

This standard operating procedure states the responsibilities and describes the instructions regarding activities conducted before, during, and after field investigations

2.0 SCOPE

All **participants** shall implement this mandatory procedure when preparing for, during, and after conducting field investigations for the Los Alamos National Laboratory (LANL or the Laboratory) Environmental Stewardship (ENV) Division Remediation Services (RS) Environmental Characterization and Remediation (ECR) Group.

3.0 TRAINING

- 3.1 **Participants** shall train to (e.g., by reading and/or classroom training) and use the current version of this procedure; contact the author of this procedure if the text is unclear.
- 3.2 **Participants** shall document training to this procedure in accordance with QP-2.2, "Personnel Training Management Process," using the training documentation link below, if possess a CRYPTOCARD and administrative authority to the Laboratory, employee development system (EDS), or using hardcopy forms located at http://erinternal.lanl.gov/home_links/Library_proc.shtml.
- 3.3 The responsible **project leader** shall monitor the proper implementation of this procedure.
- 3.4 The responsible **team leader** shall ensure that the appropriate personnel complete all applicable training assignments.
- 3.5 **Participants** shall request any needed assistance with implementation of this procedure from the ECR Quality Integration and Improvement (QII) team.

4.0 DEFINITIONS

- 4.1 *Contamination Reduction Zone* — The Contamination Reduction Zone (CRZ) designed to eliminate the spread of contaminated materials between the exclusion and support zones on-site. A CRZ is established around each exclusion zone so that it is completely isolated from the

support zone, and where contamination monitoring of field personnel takes place.

- 4.2 *CRYPTOCARD*—A CRYPTOCARD is a credit-card-sized computer that generates "one-time" passwords or "passcodes." Like a desktop computer, it has a keypad for input, a display window for output, memory, and a microprocessor.
- 4.3 *Department of Transportation Screening (DOT)* — Sample screening consisting of radiological screening results collect on-site, screening results from the radiological screening laboratory or documentation of historical process knowledge provided on a radiological screening data release form.
- 4.4 *Employee development system (EDS)*—The Laboratory's official training records database that maintains and archives vital training records. EDS attributes include, but are not limited to, a training program catalog, registration, and enrollment functions, class lists, course cost information, historical information of LANL worker training records, transcripts of completed training for LANL workers, individual training plans, and training reports.
- 4.5 *Exclusion Zone* — The area on-site that is considered to have the highest potential for exposure to contamination, and into which access is restricted to authorized personnel who meet all training and entry requirements.
- 4.6 *Hazard categorization* — A set of simple field analytical procedures whose results help identify the safe handling and legal transportation of unknown materials. It does not take the place of a full laboratory analysis but can be used to characterize unknowns into generic waste streams for proper management and disposal. The use of HAZCAT results helps determine the correct Department of Transportation (DOT) shipping category for a sample.
- 4.7 *Participant* — An inclusive term for any University of California/staff augmentation employee, deployed worker, or subcontractor, inclusive of project leaders, team leaders, and project personnel, who participates in activities conducted by or on behalf of the ECR Group.
- 4.8 *Project leader* — A University of California employee or deployed worker directly responsible for the management of one or more projects
- 4.9 *Quality specialist* — Member of the ECR QII team who provides assistance with implementation of the quality management system.
- 4.10 *Radiological screening* — A set of radiological measurements to be made prior to shipping materials off-site.

- 4.11 *Record* — Per Title 44, Chapter 33, Section 3301 of the US Code, All books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities or because of the informational value of data in them.”
- 4.12 *Site-specific health and safety plan (SSHASP)* — A health and safety plan that is specific to a site or ENV-RS/ECR related field activity that has been approved by an ENV-ECR health and safety representative. This document contains information specific to the project including scope of work, relevant history, descriptions of hazards by activity associated with the project site(s), and techniques for exposure mitigation (e.g., personal protective equipment [PPE]) and hazard mitigation.
- 4.13 *Site worker* — Summary term for all individuals performing general field investigation work. Formerly known as a field team worker.
- 4.14 *Standard operating procedure (SOP)* — A document within ENV-ECR that describes work processes governed by the “Quality Management Plan.”
- 4.15 *Subcontractor* — A person employed by an external company tasked to perform work under a contract or task order.
- 4.16 *Support zone* — On-site areas that are outside the exclusion and contamination reduction zones that are considered areas of minimal potential risk of exposure to hazardous materials.
- 4.17 *Team leader* — Any University of California employee who manages one or more functions of the ECR Group and who directly supervises project leaders.
- 4.18 *Technical activity* — Any activity related to observing, identifying, describing, studying, analyzing, explaining, or obtaining information and/or data for technical purposes (e.g., site investigation, characterization, or remediation).

5.0 RESPONSIBLE PERSONNEL

The following identifies the personnel responsible for actions in this procedure:

- HSR-1 representative
- HSR-2 representative
- HSR-5 representative
- participants

- project leader
- SMO team leader
- team leader

6.0 BACKGROUND AND PRECAUTIONS

- 6.1 Use this procedure in conjunction with an approved Site-Specific Health and Safety Plan.
- 6.2 An Integrated Work Document (IWD) shall be prepared, approved and implemented in accordance with LANL IMP 300-00-00, Integrated Work Management for Work Activities.
- 6.3 Issues affecting safety or quality requirements shall be addressed in accordance with QP-3.4, Corrective Action Process.

7.0 EQUIPMENT

The responsible **project leader** shall ensure participants use the equipment listed, as necessary, in the appropriate SOP for the type of sampling equipment to be conducted.

8.0 PROCEDURE

- 8.1 Perform Pre-mobilization Activities

The responsible **team leader** shall ensure implementation of the following:

- 8.1.1 Prior to conducting field activities, a readiness review is conducted, documented, and completed in accordance with QP-5.3, Readiness Planning and Reviews.
- 8.1.2 All participants are aware they are to implement QP-5.7, “Notebook Documentation for Environmental Restoration Technical Activities” to document all work activities.

Note: Deviations from SOPs are made in accordance with QP4.2, Standard Operating Procedure Development and documented in accordance with QP5.7, Notebook Documentation of Environmental Restoration Technical Activities.

- 8.1.3 The participant notifies the appropriate level of management of the SOP, work-process improvement.
- 8.1.4 One copy of each document identified on the readiness planning and review checklist is maintained on-site and is available to all participants.

- 8.1.5 Conduct daily tailgate briefings during which the SSHASP and IWD are reviewed and the activities for that day are discussed with all applicable participants.
- 8.1.6 All applicable participants attend the daily tailgate briefings, and the attendance is documented.
- 8.1.7 All measuring and testing equipment (M&TE) are calibrated, maintained, and tracked in accordance with QP-5.2, Control of Measuring and Test Equipment, the site specific installation work plan (formerly known as a sample analysis plan), SOPs or the M&TE instruction manual.
- 8.1.8 Participants using M&TE document all M&TE usage and calibrations in their field notebooks.
- 8.1.9 All activities related to the progress of a Resource Conservation and Recovery Act (RCRA) Facility Investigation are documented in accordance with SOP-1.04, Sample Control, Field Documentation.
- 8.1.10 Field documentation is submitted in accordance with QP-5.7, Notebook Documentation for Environmental Restoration Technical Activities and SOP-1.04, Sample Control and Field Documentation.
- 8.1.11 Waste generated during the field effort is managed in accordance with the Waste Characterization Strategy Form and SOP-1.06, Management of Environmental Restoration Project Wastes.

8.2 Identify Operation and Analytical Needs

The responsible **team leader** shall ensure implementation of the following:

- 8.2.1 Prior to mobilizing equipment and participants to the work site the participants may obtain assistance from Health, Safety and Radiological (HSR) -1, HSR-2, and HSR-5 representatives to identify and designate work zones. These areas may include, but are not limited to:
 - contamination reduction zone, and screening area;
 - exclusion zone, and;
 - support zone.
- 8.2.2 Request assistance from the appropriate Health, Safety and Radiological representative, if necessary, to reevaluate the work site when site conditions change.

8.3 Set up Operation Management Areas

The responsible **team leader** shall ensure implementation of the following:

- 8.3.1 An area within the support zone shall be used to store all sampling equipment (e.g., spare sample containers, identification labels, coolers, field screening equipment, etc.), and samples until they are sent to the SMO.
- 8.3.2 Chain-of-custody integrity of all samples maintained in the sample management area by implementing SOP-01.04, Sample Control and Field Documentation.
- 8.3.3 The screening area is within a contamination reduction zone and is sheltered from the weather and is used for the purpose of:
 - screening sample material for radiological and/or chemical contamination;
 - holding equipment and materials until they are screened and screening results are available, and
 - holding excess media (e.g., soil, cores, sediment, biota etc.) until screening results are available and the media can be transferred to the support zone or managed and disposed of as waste.

8.4 Perform Sample Media Evaluation

The responsible **team leader** shall ensure implementation of the following:

- 8.4.1 A representative portion of the media collected is used for DOT and/or hazard *categorization* screening and is collected in accordance with SOP-01.02, Sample Containers and Preservation.
- 8.4.2 Perform on-site radiological screening and chemical screening, if applicable, prior to transporting representative sample portions to the radiological screening laboratory, if necessary and the samples to the SMO.
- 8.4.3 All samples are handled, packaged and transported in accordance with SOP-01.03, Handling, Packaging, and Transporting Field Samples.
- 8.4.4 Excess sampling material is managed on-site in accordance with SOP-01.06, Management of Environmental Restoration Project Wastes, until analytical results are obtained to afford appropriate disposal.
- 8.4.5 Samples are not shipped from the SMO until DOT screening results are received.

8.5 Perform Sample Location Surveying

The responsible **project leader** shall ensure implementation of the following:

8.5.1 All sampling locations are surveyed in accordance with SOP-03.11, Geodetic Surveys.

8.5.2 All surveys results are submitted within 30 days of final survey.

8.6 Perform Work Activity Closure

The **project leader** shall ensure the implementation of the following:

8.6.1 Field site closeout is implemented in accordance with SOP-01.12, Field Site Closeout Checklist.

8.6.2 All design requirements (e.g., configuration management), if applicable, are completed in accordance with QP-6.8, Design Field Change.

9.0 LESSONS LEARNED

9.1 Before performing work prescribed in this QP, **participants** should access the Department of Energy Lessons Learned Information Services Web site, <http://www.tis.eh.doe.gov/II/II.html>, and Laboratory Lessons Learned Resources Web site, http://www.lanl.gov/projects/lessons_learned/, and search for applicable lessons.

9.2 **Participants** should submit any lesson learned related to work prescribed in this procedure to the Laboratory Lessons Learned Resources Web site, http://www.lanl.gov/projects/lessons_learned/.

10.0 RECORDS

As a result of implementing documents identified in Section 8.0 the **team leader or designee** shall submit records generated to the Records Processing Facility, in accordance with QP-4.4, "Record Transmittal to the Records Processing Facility".

11.0 REFERENCES

To implement properly this procedure, **participants** should become familiar with the contents of the following documents, available at http://erinternal.lanl.gov/home_links/Library_proc.shtml:

- "Quality Management Plan"
- QP-2.1, "Documenting Personnel Qualification and Selection Process"
- QP-2.2, "Personnel Training Management Process"

- QP-3.4, "Corrective Action Process"
- QP-4.4, "Record Transmittal to the Records Processing Facility"
- QP-5.2, Control of Measuring and Test Equipment
- QP-5.3, Readiness Planning and Reviews
- QP-5.7, "Notebook Documentation for Environmental Restoration Technical Activities"
- SOP-01.02, "Sample Containers and Preservation
- SOP-1.03, Handling, Packaging, and Transporting Field Samples
- SOP-1.04, Sample Control and Field Documentation
- SOP-1.06, Management of Environmental Restoration Project Wastes
- SOP-1.10, Waste Characterization
- SOP-03.11, Geodetic Surveys
- LANL IMP 300-00-00, Integrated Work Management for Work Activities.
- Resource Conservation and Recovery Act

12.0 ATTACHMENTS

None

[Using a token card, click here to record "self-study" training to this procedure.](#)

If you do not possess a token card or encounter problems, contact the ENV-ECR training specialist.