

**OPERATIONS AND REGULATORY AFFAIRS DIVISION (ORAD)**

**Environmental Operations Group (EOG)**

**Title: Preconstruction Site Evaluation**

ORAD CONTROL NO

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**PREPARATION**

Original signed by Dennis Peifer \_\_\_\_\_  
EOG Responsible Person: Dennis Peifer

7/10/03  
Date

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**REVIEW**

Original signed by Barbara Danielson \_\_\_\_\_  
EOG QA Implementation Coordinator: Barbara Danielson

7/10/03  
DATE

Original signed by Joy Hirabayashi-Dethier \_\_\_\_\_  
EOG Group Leader: Joy Hirabayashi-Dethier

7/14/03  
DATE

Original signed by Lucinda M. Clark \_\_\_\_\_  
ORAD QA Coordinator: Cindy Clark

7/14/03  
DATE

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**APPROVAL**

Original signed by Charlene Grandfield for csj \_\_\_\_\_  
ORAD Leader: C. Susi Jackson

7/16/03  
Date

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## 1.0 Purpose

This procedure establishes the criteria for developing and implementing the preconstruction site evaluation including initiation and review of soil, asphalt, and concrete sampling and surveying activities.

## 2.0 Scope

The Environmental Operations Group (EOG) Environmental Analysts (EAs)/Analyst Associates must evaluate all engineering and construction project sites for possible hazardous and/or radioactive contamination before excavation activities begin. This procedure applies to EOG EAs/Analyst Associates who evaluate construction sites for possible contamination and develop preconstruction sampling and surveying plans with assistance from the EOG Technologist(s). Analytical data derived from sampling and surveying activities, as well as any previous analytical results, are used by the EOG EA/Analyst Associate for determining disposal and reuse options for excavated materials at the Lawrence Livermore National Laboratory (LLNL) Mainsite and Site 300.

## 3.0 References

- 3.1 California Code of Regulations, Title 22, Section 66261.24 and Appendix II.
- 3.2 CERCLA Remedial Investigations Report for the LLNL Livermore Site, R. K. Thorpe, et. al. (1990), Environmental Restoration Division, Lawrence Livermore National Laboratory, Livermore, California, (UCAR-10299).
- 3.3 Code of Federal Regulations, Title 40, Part 261.24 and Appendix II.
- 3.4 DOE Order 5820.2A, Radioactive Waste Management, Radioactive Waste Determination and Management, U. S. Department of Energy, Washington, D.C.
- 3.5 EOG Standard Operating Procedure (SOP) No. EO-03, Collecting Samples.
- 3.6 EOG SOP No. EO-07, Review Checklist for Asphalt and/or Concrete.
- 3.7 Environmental Protection Department (EPD), Quality Assurance Management Plan (QAMP).
- 3.8 Final Sitewide Remedial Investigation Report, Lawrence Livermore National Laboratory Site 300, C.P. Webster-Scholten (1994), Environmental Restoration Division, Lawrence Livermore National Laboratory, Livermore, California, (UCRL-AR-108131).

3.9 Letter regarding volatile organic compound contamination of project soils to the California Regional Water Quality Control Board, November 18, 1994, "Using Soils Containing Trace Levels of Contaminants as Fill," EMS94-443:WFI:ST:WH:gm.

3.10 ORAD-QA-NCR, Nonconformance Reporting and Tracking.

#### 4.0 Definitions

- 4.1 Chemistry & Materials Science Environmental Services (CES) Laboratory: An LLNL analytical sciences laboratory within the Analytical Sciences Division of the Chemistry & Materials Science Directorate responsible for providing certified chemical and radiological analyses for environmental and waste samples.
- 4.2 Designated Waste: Nonhazardous waste including soil, asphalt, and concrete that consists of, or contains pollutants that, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality objectives or could cause degradation of waters of the state.
- 4.3 Dig Permits: Various Plant Engineering (PE) permits obtained prior to the collection of soil, asphalt, and concrete samples from project sampling locations. This process includes verification of underground line locations and sample hole clearance.
- 4.4 Environmental Operations Group (EOG): A group within the Operations and Regulatory Affairs Division of the Environmental Protection Department that assists LLNL programs/departments in meeting environmental compliance requirements.
- 4.5 Environmental Protection Department (EPD): A department within LLNL that is responsible for Laboratory-wide environmental restoration, environmental monitoring, hazardous and radioactive waste management, and compliance with environmental regulations.
- 4.6 Environmental Restoration Division (ERD): A division within EPD that is responsible for the characterization and cleanup of soil and ground water contamination resulting from past activities at the Livermore and Site 300 facilities.
- 4.7 ERD/EOG Working Documents: Information resources that include: 1) a six-map set titled "Guidelines for Soil Usage at LLNL Main Site," 2) an ERD working document titled "Source Investigation Summary Table," and 3) the EOG Incident Log.
- 4.8 ERD-Published Documents: Documents related to ERD Source Investigation Studies and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial actions (see References 3.2 and 3.8).

- 4.9 Final Disposition Memo: A memo written by the EOG EA/Analyst Associate to the PE Project Manager or Program Representative which states that the material, upon characterization, can be disposed offsite at a municipal landfill, reused onsite, or must be handled as hazardous, mixed, or radioactive waste.
- 4.10 Operations and Regulatory Affairs Division (ORAD): A division within EPD that is responsible for assisting LLNL to maintain compliance with environmental regulations.
- 4.11 Plant Engineering (PE) Project Manager: An individual assigned through PE to administer a construction project for the responsible LLNL program or department.
- 4.12 Program Representative: A person assigned to represent the LLNL program responsible for the construction project who has knowledge of program activities in the project area, and who can provide information regarding potential contamination of asphalt/concrete that has been identified for demolition and disposal.
- 4.13 Radioactive and Hazardous Waste Management (RHWM): A division within EPD that is responsible for the storage, treatment, recycling, and/or shipment of all LLNL-generated hazardous, radioactive, and mixed wastes.
- 4.14 Review Checklist for Asphalt and/or Concrete: A checklist utilized by the EOG EA/Analyst Associate and EOG Tech to evaluate the need for sampling and analysis of asphalt and/or concrete identified for demolition and disposal, and which includes conducting an asphalt/concrete radiation meter survey.
- 4.15 Sampling Plan: A sampling plan outlines the process for obtaining samples prior to excavation activities. A sampling plan is comprised of:
- A Sampling/Rad Surveying Request Form providing the required number of soil, asphalt and/or concrete samples to be collected, their location and depths, and analyses requested.
  - A Site Plot Map showing sample locations.
- 4.16 Sampling/Rad Surveying Request Form: A form completed by the EOG EA/Analyst Associate to request sampling of soil, asphalt and/or concrete, or surveying of asphalt and/or concrete for a project. The completed form identifies the number, location, and depth of samples to be taken, and/or the area to be surveyed.
- 4.17 Site Evaluation Request Form: A form completed by the PE Project Manager or Program Representative to request the site evaluation of a project. A cost estimate, account number, and signature authority are provided.

- 4.18 Site Evaluation Tracking Log: A log used by the EOG Tech to track the status of preconstruction site evaluation projects.
- 4.19 Soluble Threshold Limit Concentration (STLC): An analytical method that measures the concentration of a solubilized and extractable bioaccumulative or persistent toxic substance.
- 4.20 Surveying Plan: A surveying plan outlines the process for conducting an asphalt/concrete radiation meter survey (refer to SOP No. EO-07, Reference 3.6). A surveying plan is comprised of:
- A Sampling/Rad Surveying Request Form providing the location of the asphalt and/or concrete to be surveyed.
  - A Site Plot Map showing survey locations.
- 4.21 Total Threshold Limit Concentration (TTLC): An analytical method that measures the concentration of a solubilized, extractable, and non-extractable bioaccumulative or persistent toxic substance.
- 4.22 Toxicity Characteristic Leaching Procedure (TCLP): The leaching procedure designed to determine the mobility of both organic and inorganic constituents present in liquid, solid, and multiphase wastes.
- 4.23 Volatile Organic Compound (VOC): An organic compound that evaporates readily at normal pressures and temperatures according to U.S. Environmental Protection Agency Test Method 8021 for Evaluating Solid Waste, or any equivalent, alternative method acceptable to the Department of Toxic Substances Control (DTSC).

## 5.0 Responsibilities

### 5.1 ORAD Leader

Reviews this procedure and approves it for use.

### 5.2 ORAD Quality Assurance Coordinator (QAC)

5.2.1 Reviews this procedure to ensure that it meets all applicable ORAD and EPD QA requirements.

5.2.2 Works with EOG personnel to assess operations and ensure that the requirements of this procedure are followed.

5.2.3 Maintains original hard copy and electronic versions of this procedure.

5.2.4 Ensures that the Document Change History Form (Attachment A) is updated anytime changes are made to this procedure.

### 5.3 EO Group Leader

- 5.3.1 Ensures that this procedure complies with pertinent regulations and LLNL policies and procedures.
- 5.3.2 Ensures that the work described in this procedure is performed by qualified individuals.
- 5.3.3 Ensures that operations defined in this procedure are properly controlled and completed.
- 5.3.4 Assists EPD's Training Group to maintain a current training plan.
- 5.3.5 Assists EPD's Training Group to maintain a current database of completed courses.

### 5.4 EOG QA Implementation Coordinator (QAIC).

- 5.4.1 Maintains a file of current procedures and documents including all revisions to procedures.

The following responsibilities have been delegated to the QAIC by the EOG Leader.

- 5.4.2 Works with personnel involved in preparing this procedure and the ORAD QAC to ensure that it meets all applicable ORAD and EPD QA requirements.
- 5.4.3 Ensures that this procedure is prepared, reviewed, revised, and distributed as required.
- 5.4.4 Ensures that original hard copy and electronic versions of this procedure are delivered to the ORAD QAC when they have been completed and approved.
- 5.4.5 Ensures that Nonconformance Reports (NCRs) are completed and resolved when the requirements of this procedure are not met (Reference 3.10).

### 5.5 EOG EA/Analyst Associate

- 5.5.1 Evaluates the construction or engineering project upon receipt of a Site Evaluation Request Form from the PE Project Manager or Program Representative. The evaluation includes reviewing the ERD and EOG working documents and historical analytical data, current and past

operations, and performing a site characterization which includes a visual inspection to evaluate the project site for possible contamination, and possible subsequent surveying or sampling and analyses.

- 5.5.2 Provides a verbal estimate of the costs for surveying or sampling and analyses to the PE Project Manager or Program Representative.
  - 5.5.3 Prepares the appropriate sampling and/or surveying plan with the assistance of the EOG Tech.
  - 5.5.4 Coordinates the asphalt/concrete radiation meter survey (refer to EOG SOP No. EO-07, Reference 3.6) or collection of samples (refer to EOG SOP No. EO-03, Reference 3.5) with the EOG Tech.
  - 5.5.5 Reviews the analytical data, determines if the soil, asphalt, or concrete is contaminated, and identifies disposal and reuse options for the excavated soil, asphalt, or concrete to be removed from the construction site.
  - 5.5.6 Notifies the EOG Group Leader, ERD, and the PE Project Manager or Program Representative if contamination is found. Identifies the appropriate management and disposal options and assists in the preparation of necessary reports.
- 5.6 EOG Tech
- 5.6.1 Works with the EOG EA/Analyst Associate to prepare the appropriate sampling and/or surveying plan.
  - 5.6.2 Verifies that the dig permit number and sample hole clearance have been obtained prior to collecting samples.
  - 5.6.3 Collects soil, asphalt, and/or concrete samples or conducts an asphalt/concrete radiation meter survey (refer to EOG SOP No. EO-07, Reference 3.6) as prescribed in the sampling and/or surveying plan.
  - 5.6.4 Notifies the EOG EA/Analyst Associate of any unusual findings observed during sampling and/or surveying or deviations taken from the sampling and/or surveying plan.
  - 5.6.5 After sampling, submits the samples to the analytical laboratory, and tracks them to ensure timely turnaround.
  - 5.6.6 Completes the bottom portion of the Site Evaluation Request Form and returns a copy of the form to the originator.
  - 5.6.7 Maintains a complete folder for each project, including data, in the EOG site evaluation files.

5.6.8 Updates and maintains the Site Evaluation Tracking Log.

## 6.0 Preconstruction Site Evaluation

A minimum of 120 days lead time is required to allow for preparation of a sampling plan, sample collection, sample analyses, and the identification of disposal and reuse options. Maximum lead time is required to avoid potential project delays and additional costs if sampling and analysis beyond the original sampling plan scope are required.

### 6.1 Site Evaluation

6.1.1 PE Project Manager or Program Representative notifies the EOG EA/Analyst Associate that soil, asphalt, or concrete will be excavated at a project site.

6.1.2 PE Plant Manager or Program Representative gives the EOG EA/Analyst Associate a Site Evaluation Request Form (Attachment B) which provides the following information:

- Project title and location
- Project file number (PFN)
- Dig Permit number
- Identification of excess material to be evaluated for reuse onsite or disposal offsite
- Account number to cover costs of sampling and analysis with signature authority information
- Cost estimate
- Detailed description of project including project location, area to be excavated, and depths of excavation as appropriate.

The EOG EA/Analyst Associate verifies the form is properly completed.

6.1.3 EOG EA/Analyst Associate initiates an evaluation of the proposed site, and uses the ERD/EOG published and working documents to provide baseline guidance on locations of known and suspected hazardous and/or radioactive releases.

6.1.4 EOG EA/Analyst Associate visually inspects the site, then completes the Review Checklist for Asphalt and/or Concrete if asphalt and/or concrete are identified for demolition (Attachment C).

- The EA reviews the information recorded on the checklists and determines whether asphalt and/or concrete must be sampled and analyzed prior to offsite disposal.

- The Review Checklist for Asphalt and/or Concrete includes an asphalt/concrete radiation meter survey. The EA prepares a surveying plan for performing a radiation meter survey with the EOG Tech (refer to EOG SOP No. EO-07, Reference 3.6).

6.1.5 EOG EA/Analyst Associate reviews the EOG site evaluation files and contacts ERD to determine if any historical site characterization data exists.

- Previous analytical results for soil, asphalt, or concrete in the area may preclude additional sampling or may reduce the number of required samples (refer to EOG SOP No. EO-03, Reference 3.5 and EOG SOP No. EO-07, Reference 3.6).
- If sampling of soil, asphalt, or concrete is necessary, the EOG EA/Analyst Associate will prepare a sampling plan and coordinate the collection of samples with the EOG Tech.

6.1.6 EOG EA/Analyst Associate prepares a sampling plan. This may be delegated, with oversight, to the EOG Tech. The sampling plan must include the following:

- Sampling/Rad Surveying Request Form (Attachment D)
- Site Plot Map (Attachment E).

6.1.7 EOG EA/Analyst Associate forwards the sampling plan to the EOG Tech who will collect the samples (refer to EOG SOP No. EO-03, Reference 3.5).

6.1.8 EOG Tech receives the sampling plan, collects the samples, and submits the samples for analysis. Any deviation from the sampling plan must be documented and approved by the EOG EA/Analyst Associate before any changes are made.

6.1.9 EOG EA/Analyst Associate ensures the EOG Tech completes and returns a copy of the bottom half of the Site Evaluation Request Form to the requester.

6.1.10 EOG Tech files the completed Site Evaluation Request Form in the EOG site evaluation files.

## 6.2 Soil, Asphalt, and Concrete Analysis and Review

6.2.1 CES Laboratory or contract analytical laboratory analyzes the samples and sends the analytical results to the EOG EA/Analyst Associate for evaluation.

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- 6.2.2 CES Laboratory evaluates the analytical data to determine if radioactivity has been added to the project soil, asphalt, or concrete from LLNL activities, and issues a "Review of Radiochemical Data" as part of the analytical data report.
- 6.2.3 EOG EA/Analyst Associate evaluates the analytical data and reviews the "Review of Radiochemical Data," provided by the CES Laboratory, and the Review Checklist for Asphalt and/or Concrete to determine whether the soil, asphalt, or concrete may be reused onsite for PE-identified projects; whether it must be managed as hazardous, radioactive, mixed, or designated waste; or whether it meets the disposal criteria of a local municipal landfill. The EOG EA/Analyst Associate compares the analytical data to established environmental regulatory limits, DOE orders, and LLNL policies in making the determination. Soil, asphalt, and/or concrete determined to be designated waste must be disposed at a permitted Class I or Class II landfill (see References 3.1, 3.3, 3.4, and 3.9).
- 6.2.4 The EOG EA/Analyst Associate determines if the results of the initial analyses indicate that supplemental sampling and analyses are required.
- 6.2.5 The EOG EA/Analyst Associate prepares a Final Disposition Memo (Attachment F), which describes the soil, asphalt, or concrete characterization and recommended management options. The memo is distributed to the PE Project Manager or Program Representative and a copy is maintained in the EOG site evaluation files.

### 6.3 Soil, Asphalt, and Concrete Management Options

- 6.3.1 Excavated soil, asphalt, or concrete that has been determined by the EOG EA/Analyst Associate to be nonhazardous, nondesignated, and nonradioactive can be sent offsite for disposal or reuse as cover in a local municipal landfill.

For reuse onsite, soil, asphalt, and concrete must meet reuse criteria based on the Regional Water Quality Control Board criteria and LLNL policy (see Reference 3.9).

- 6.3.2 Excavated soil, asphalt, or concrete that has been determined by the EOG EA/Analyst Associate to be designated waste must be disposed at an appropriate Class I or Class II landfill.

Soil, asphalt, or concrete determined to be hazardous waste must be managed by RHWM for disposal at a permitted Class I landfill. Soil, asphalt, or concrete determined to be radioactive or mixed waste must be sent to RHWM for management.

## 6.4 Flow Charts

6.4.1 The Site Evaluation Flow Chart for Soil (Attachment G) describes the overall soil review process used by the EOG EA/Analyst Associate to conduct a preconstruction site evaluation.

6.4.2 The Site Evaluation Flow Chart for Asphalt/Concrete (Attachment H) describes the overall asphalt and/or concrete review process used by the EOG EA/Analyst Associate to conduct a preconstruction site evaluation.

## 7.0 Quality Assurance Records

### 7.1 Record Retention

Completed quality assurance records required by the implementation of this procedure include the following:

- Site Evaluation Request Form
- Review Checklist for Asphalt and/or Concrete
- Sampling/Rad Surveying Request Form
- Site Plot Map
- Analytical data report
- Pre-existing analytical data
- Final disposition memo.

These records are collected, stored, and maintained in the EOG site evaluation files indefinitely.

### 7.2 Document Control and Distribution

This document and any subsequent revisions shall be distributed as controlled documents in accordance with the EPD Quality Assurance Management Plan (QAMP) (see Reference 3.7).

### 7.3 Document Maintenance and Revision

The EOG QAIC shall maintain, periodically review, and revise (not less than once every three years), this document as necessary. Revisions shall be prepared, reviewed, approved, and distributed in accordance with the EPD QAMP.

## 8.0 Attachments

Attachment A: Document Change Form

Attachment B: Site Evaluation Request Form

Attachment C: Review Checklist for Asphalt and/or Concrete

Attachment D: Sampling/Rad Surveying Request Form

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Attachment E: Site Plot Map

Attachment F: Final Disposition Memo

Attachment G: Site Evaluation Flowchart for Soil

Attachment H: Site Evaluation Flowchart for Asphalt/Concrete



**SITE EVALUATION REQUEST FORM  
(Soil/Asphalt/Concrete)**

DATE: \_\_\_\_\_  
 TO: \_\_\_\_\_ DIG PERMIT NUMBER: \_\_\_\_\_  
 FROM: \_\_\_\_\_ PHONE: \_\_\_\_\_ L-CODE: \_\_\_\_\_  
 PROJECT TITLE & LOCATION: \_\_\_\_\_  
 PFN: \_\_\_\_\_ DISPOSAL SITE: \_\_\_\_\_  
 SIGNATURE AUTHORITY FOR ACCOUNT NUMBER: \_\_\_\_\_  
 ACCOUNT NO: \_\_\_\_\_ EMPLOYEE NUMBER: \_\_\_\_\_

Please evaluate this project for (circle one or more) soil/asphalt/concrete sampling/surveying needs. A description of the project is attached including project location, excavation foot print, and depths of excavations. The material (circle one or both) will/will not be reused onsite. The planned excavation start date is \_\_\_\_\_

The Environmental Protection Department is authorized to use the account number above to pay for the costs associated with sampling and analyzing the material to be excavated from the project area. Account charges are not to exceed \$ \_\_\_\_\_ based on your cost estimate, without prior approval.

When sampling/rad surveying is complete, the EOG Tech will complete the bottom portion of this form and return a copy of the entire form to the originator.

DATE: \_\_\_\_\_  
 FROM: \_\_\_\_\_ PHONE: \_\_\_\_\_ L-CODE: \_\_\_\_\_  
 Date rad survey requested: \_\_\_\_\_ Date rad survey completed: \_\_\_\_\_  
 Number of samples taken: \_\_\_\_\_

Date Samples Submitted for Analyses	Type of Analyses Requested	Lab Performing Analyses	Est. Date Analytical Data Due Back from Lab

Estimated date determination memo provided to Project Manager: \_\_\_\_\_

cc: \_\_\_\_\_

**Attachment B: Site Evaluation Request Form**

**Review Checklist for Asphalt and/or Concrete**

Project Title \_\_\_\_\_

1. Reviewed *Radioactive Substance Map* from the set of maps entitled "Guidelines for Soil Usage at LLNL, Main Site."  
Date \_\_\_\_\_ Comments \_\_\_\_\_
2. Reviewed *Remedial Investigations Report for the LLNL Livermore Site, Figure 3.1-15, "Areas Identified for Evaluation of Potential Hazardous Materials Releases."*  
Date \_\_\_\_\_ Comments \_\_\_\_\_
3. Reviewed current list of Radioactive Materials Management Areas (RMIMAs) at LLNL:  
Date \_\_\_\_\_ Comments \_\_\_\_\_
4. Reviewed EOG Incident Log for spills in project area:  
Date \_\_\_\_\_ Comments \_\_\_\_\_
5. Conducted a visual site inspection of the project area for indications of hazardous contamination (e.g., operations involving hazardous materials, storage of or hazardous materials, suspicious spills and stains, etc.)  
Date \_\_\_\_\_ Comments \_\_\_\_\_
6. Conducted a radiation meter survey according to training provided in the Health and Safety Course HS6621, Low Level Gamma Survey Instrumentation.  
Date \_\_\_\_\_ EOG Tech Name \_\_\_\_\_  
Survey Instrument # \_\_\_\_\_ Date Instrument Last Calibrated \_\_\_\_\_  
Results/Comments: \_\_\_\_\_
7. Contacted HRD for information regarding known and suspected hazardous and/or radioactive contamination in the project area:  
Date \_\_\_\_\_ Contact Name \_\_\_\_\_ Title \_\_\_\_\_  
Comments: \_\_\_\_\_
8. Contacted the ES&H Team for information regarding known and suspected hazardous and/or radioactive contamination in the project area:  
Date \_\_\_\_\_ Contact Name \_\_\_\_\_ Title \_\_\_\_\_  
Comments: \_\_\_\_\_
9. Contacted the Program Representative for information regarding known and suspected hazardous and/or radioactive contamination in the project area:  
Date \_\_\_\_\_ Contact Name \_\_\_\_\_ Title \_\_\_\_\_  
Comments: \_\_\_\_\_
10. Recommendation:  
\_\_\_\_\_ The project area is not located in a known or suspected hazardous and/or radioactive contaminated area. Analyses for radioactive constituents are not required prior to offsite disposal.  
\_\_\_\_\_ The project area is located in a known or suspected hazardous and/or radioactive contaminated area. Asphalt/concrete must be sampled and analyzed for radioactive constituents prior to offsite disposal.

EOG Analyst/Analyst Associate \_\_\_\_\_

Date \_\_\_\_\_

**Attachment C: Review Checklist for Asphalt and/or Concrete**

SAMPLING/RAD SURVEYING REQUEST FORM

TYPE OF SAMPLE:     Incident Response                       Miscellaneous                       Preconstruction

REQUESTOR/Team #/Phone # \_\_\_\_\_ SAMPLER/Phone # \_\_\_\_\_ TODAY'S DATE \_\_\_\_\_

DUE DATE \_\_\_\_\_ PROJECT TITLE \_\_\_\_\_ BLDG/LOCATION \_\_\_\_\_

PROGRAM CONTACT \_\_\_\_\_ ACCOUNT # \_\_\_\_\_ PHONE/PAGER \_\_\_\_\_

SAMPLES: Number of Samples \_\_\_\_\_ Number of Sample Locations \_\_\_\_\_ Field Log Book Page Number \_\_\_\_\_  
 SURVEY

SOIL                       ASPHALT                       CONCRETE                       OTHER

SAMPLE LOCATION	DEPTH (FT)	ANALYSIS REQUESTED

SAMPLE LOCATION	DEPTH (FT)	ANALYSIS REQUESTED

COMMENTS/SPECIAL INSTRUCTIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SAMPLE ID#	EASTING (X)	NORTHING (Y)	ANALYSIS REQUESTED	DATE/TIME SAMPLED	ONSITE LAB	OFFSITE LAB

(Continue on Page 2 if needed)

1/97/kp

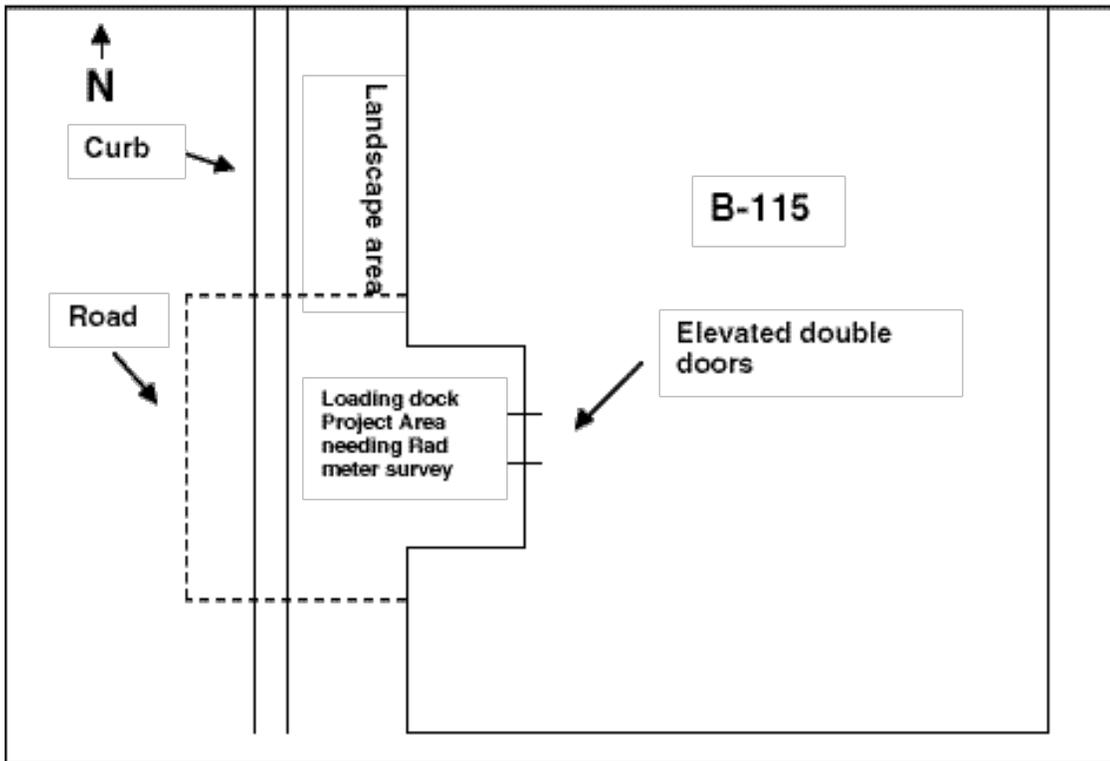
EOG Rev

**Attachment D: Sampling/Rad Surveying Request Form**



SITE PLOT MAP  
(not to scale)

PROJECT TITLE AND NUMBER: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ANALYST/ ANALYST \_\_\_\_\_  
ASSOCIATE AND TEAM \_\_\_\_\_  
TECHNICIAN: \_\_\_\_\_



COMMENTS  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Attachment E: Site Plot Map**

*Interdepartmental letterhead*

*Mail Station: L-633*

*Ext: x-xxxx*

*e-mail: yourname@llnl.gov*

ENVIRONMENTAL PROTECTION DEPARTMENT  
OPERATIONS AND REGULATORY AFFAIRS DIVISION

Date

TO: Name, L-XXX  
Project Manager

FROM: Name, Environmental Analyst/Analyst Associate  
Environmental Operations Group

SUBJECT: Disposal of (*Asphalt and/or Concrete*) from the \_\_\_\_\_ Project

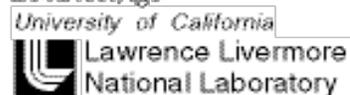
The review of (*asphalt and/or concrete*) analytical results for samples collected from the subject area indicates the material is not radioactive according to current Department of Energy (DOE) and LLNL radioactive waste criteria. Additionally, visual inspection of the material by an Environmental Operations Group Technologist (*me, Analyst*) did not reveal any evidence of spills of hazardous constituents. Therefore, the (*asphalt and/or concrete is/are*) determined to be nonhazardous and nonradioactive and may be disposed at the Altamont Landfill without restriction.

The Altamont Landfill recycles waste (*asphalt and/or concrete*) sent to them by LLNL. Provide a copy of the generic Altamont Landfill Waste Acceptance Form for Clean Concrete/ Asphalt (Profile 55063300) to your driver(s) for each load brought to the landfill. Please instruct the laborers to get a scalehouse ticket upon entry to the landfill for waste (*asphalt and/or concrete*) loads. LLNL tracks all recycled materials and claims this activity as a "waste diversion" under the UC Performance Measures which require LLNL to reduce waste (both hazardous and nonhazardous) disposal.

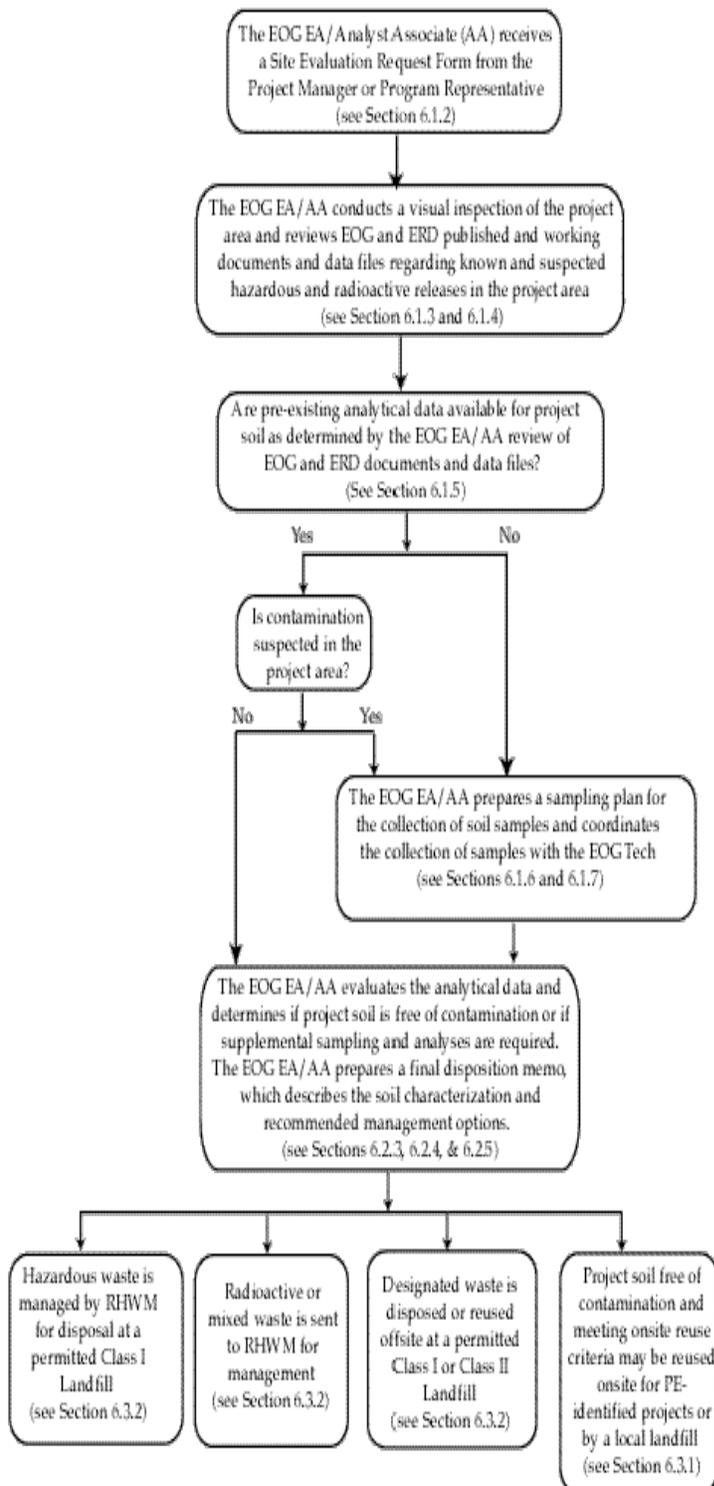
Please notify me of any changes that will affect management of the project's (*asphalt and/or concrete*).

cc: EOG Tech, L-633  
ES&H Team Leader, L-xxx  
Joy Hirabayashi-Dethier, L-633  
Kent Wilson, L-627  
DCC, L-633

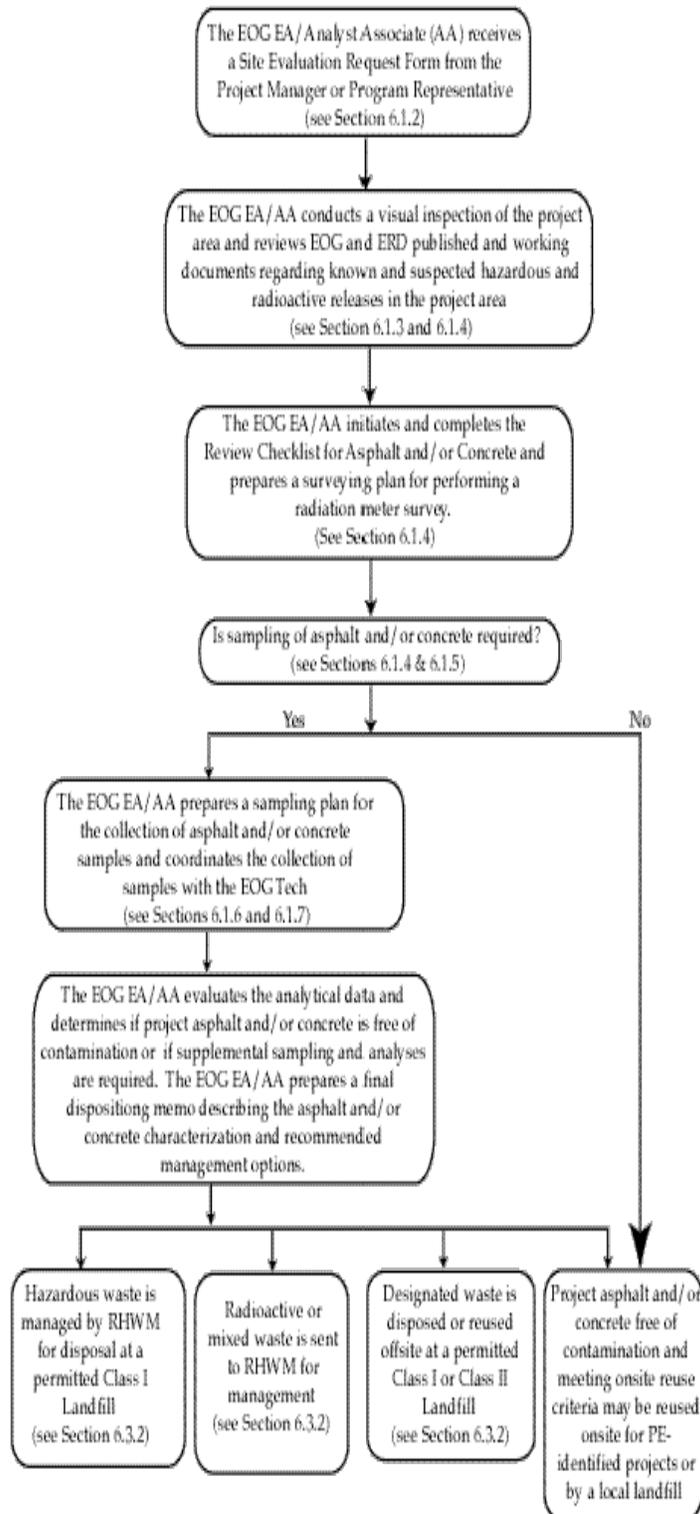
EO02-xxx/lgb



**Attachment F: Final Disposition Memo**



**Attachment G: Site Evaluation Flowchart for Soil**



**Attachment H: Site Evaluation Flowchart for Asphalt and/or Concrete**