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EG&G Idaho Environmental Protection Implementation Plan (1991)

James F. Graham

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Idaho National Engineering Laboratory

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EG&G IDAHO ENVIRONMENTAL PROTECTION IMPLEMENTATION PLAN (1991)

James F. Graham

Published November 1991

**EG&G Idaho, Inc.
Idaho Falls, Idaho 83415**

**Prepared for the
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Under DOE Field Office, Idaho
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ABSTRACT

This report describes the EG&G Idaho, Inc. strategy for implementation of the Department of Energy (DOE) Order 5400.1 (a DOE–Headquarters directive establishing environmental protection program requirements, authorities, and responsibilities). Preparation of this Environmental Protection Implementation Plan is a requirement of DOE Order 5400.1. Additionally, this report is intended to supplement the Department of Energy – Field Office Idaho (DOE–ID) Environmental Protection Implementation Plan by detailing EG&G Idaho Environmental Protection Program activities. This report describes the current status of the EG&G Idaho Program, and the strategies for enhancing, as necessary, the current program to meet the requirements of DOE Order 5400.1. Aspects of the Environmental Protection Program included in this report are the assignment of responsibilities to specific EG&G Idaho organizations, a schedule for completion of enhancements, if necessary, and requirements for documentation and reporting.

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ACRONYMS

AM	Assistance Manager	NRC	Nuclear Regulatory Commission
ATR	Advanced Test Reactor	NRF/ECF	Naval Reactors Facility/Expended Core Facility
CEO	Contractor Environmental Organization	ODIS	Onsite Discharge Information System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	OMB	Office of Management and Budget
CFA	Central Facilities Area	OR	Occurrence Report
CLP	Contract Laboratory Program	PBF	Power Burst Facility
COCA	Consent Order and Compliance Agreement	PM	Program/Project Manager
CTF	Contained Test Facility	PREPP	Process Experimental Pilot Plant
CWSF	Combined Waste Storage Facility	PROFS	Professional Office System
DOE	Department of Energy	QA	Quality Assurance
DOE-HQ	Department of Energy – Headquarters	QAP	Quality Assurance Program
DOE-ID	Department of Energy – Field Office, Idaho	QPP	Quality Program Plan
EG&G	EG&G Idaho	RAS	Routine Analytical Services
EH-1	Assistant Secretary, Environment, Safety, and Health	RCRA	Resource Conservation and Recovery Act
EM	Environmental Monitoring	RESL	Radiological and Environmental Sciences Laboratory
EOC	Emergency Operations Center	RML	Radiation Measurement Laboratory
EOT	Environmental Oversight Team	RWMC	Radioactive Waste Management Complex
EP	Environmental Programs	RWMIS	Radioactive Waste Management Information System
EPA	Environmental Protection Agency	SARA	Superfund Amendments and Reauthorization Act
EPIP	Environmental Protection Implementation Plan	SAS	Special Analytical Services
ER&WM	Environmental Restoration and Waste Management	SDA	Subsurface Disposal Area
ES&H	Environmental, Safety, and Health	SE&S	Site Engineering and Support
ES&HO	Environment, Safety, and Health Oversight	SOP	Standard Operating Procedure
ES&Q	Environment, Safety, and Quality	SPERT	Special Power Excursion Reactor Tests
ETS	Environmental Technical Support	SWEPP	Stored Waste Examination Pilot Plant
INEL	Idaho National Engineering Laboratory	TAN	Test Area North
INWMIS	INEL Nonradiological Waste Management Information System	TIPS	Timely Incident Post System
IRC	INEL Research Center	TRA	Test Reactor Area
IWMIS	Industrial Waste Management Information System	TSA	Transuranic Storage Area
MAR	Monitoring Activities Review	TSF	Technical Support Facility
MWSF	Mixed Waste Storage Facility	USGS	United States Geological Survey
NEPA	National Environmental Policy Act	USPCI	United States Pollution Control Inc.
NHC	North Holmes Complex	VOC	Volatile Organic Compounds
		WAC	Woodruff Avenue Complex
		WEDF	Waste Engineering Development Facility
		WERF	Waste Experimental Reduction Facility
		WMO	Waste Management Operations
		WROC	Waste Reduction Operations Complex
		WRRTF	Water Reactor Research Test Facility

EG&G Idaho Environmental Protection Implementation Plan (1991)

1. GENERAL DESCRIPTION OF THE EG&G ENVIRONMENTAL PROTECTION PROGRAM

EG&G Idaho, Inc. is the prime operating contractor for the Department of Energy (DOE) Field Office, Idaho (DOE-ID), operating several government-owned facilities for DOE-ID at the Idaho National Engineering Laboratory (INEL) in Southeastern Idaho. Its mission is to conduct nuclear reactor development testing, scientific and engineering research, and waste management activities, and to provide general support services for DOE-ID at the INEL. Major facilities and programs operated at the INEL by EG&G Idaho include:

- Test Area North (TAN):
 - Technical Support Facility (TSF)
 - Process Experimental Pilot Plant (PREPP)
 - Water Reactor Research Test Facility (WRRTF)
 - Contained Test Facility (CTF)
- Test Reactor Area (TRA):
 - Advanced Test Reactor (ATR)
- Power Burst Facility (PBF):
 - PBF reactor
 - Waste Engineering Development Facility (WEDF)
 - Waste Experimental Reduction Facility (WERF)
 - Mixed Waste Storage Facility (MWSF)
- Central Facilities Area (CFA)
- Radioactive Waste Management Complex (RWMC):
 - Subsurface Disposal Area (SDA)
 - Transuranic Storage Area (TSA)
 - Stored Waste Examination Pilot Plant (SWEPP)
- Idaho Falls Facilities:
 - INEL Research Center (IRC)
 - Willow Creek Building (WCB)
 - Woodruff Avenue Complex (WAC)
 - INEL Supercomputing Center (ISC)
 - Lindsay Blvd. Complex (LBC)
 - North Holmes Complex (NHC)
 - Teton Village Complex (TVC)
 - Technical Support Building/Technical Support Annex (TSB/TSA).

1.1 Goals and Objectives

All DOE contractors share the DOE commitment to excellent environmental management. This policy is implemented to ensure that the INEL is operated and managed in a manner that complies with environmental regulations and DOE policies, and will protect, maintain, and, where necessary, restore environmental quality and minimize potential threats to the environment and public health.

The responsibilities and authorities of DOE-ID contractors in support of this policy are delineated in DOE-ID Supplemental Directive 5400.1. The objective of this policy is to ensure compliance with all applicable environmental laws, regulations, Executive Orders, and DOE policies through delegation of authority and delineation of environmental protection responsibilities to line management.

It is the goal of EG&G Idaho to perform its environmental protection activities in an exemplary fashion and to conduct its operations in an environ-

mentally sound manner. DOE-ID will oversee all EG&G Idaho environmental protection support activities to ensure compliance with DOE goals and objectives. Within EG&G Idaho, each manager is responsible for environmental protection within his area of managerial responsibility. This document outlines EG&G Idaho's program for compliance with these stated goals, objectives, and requirements. This EG&G Idaho environmental protection program has been updated to ensure compliance with DOE Order 5400.1 and to ensure that DOE Order 5400.1 requirements were incorporated into all EG&G Idaho organizations' plans. The requirements of DOE Order 5400.1 were established to ensure that environmental protection procedures comply with all regulations and are consistent across all operations, while maintaining the decentralization and flexibility of existing environmental protection programs.

1.1.1 Summary of Environmental Protection Implementation Plan. The purpose of this Environmental Protection Implementation Plan (EPIP) is to describe: first, the present EG&G Idaho environmental protection program at the INEL; and second, the methods planned to expand the program, where necessary, to meet the requirements stated in DOE Order 5400.1. This document supports the DOE-ID EPIP by detailing the elements of the overall DOE-ID Environmental Protection Program for which EG&G Idaho has been delegated authority. Preparation of this EPIP, along with the annual review and updating, is the responsibility of the Environmental Technical Support (ETS) Unit, under the Environment, Safety, and Quality (ES&Q) Department Manager. It is the responsibility of the operating programs to implement the environmental protection program. The EPIP will be submitted to DOE-ID Environment, Safety, and Health Oversight (ES&HO) in November 1991. Annual review and updating requires a budget of approximately \$12,000.

1.2 EG&G Organization

Figure 1 illustrates the overall organization of EG&G Idaho. It consists of 12 departments, each with authority vested in a designated manager who, in turn, has straight-line reporting responsibility to the EG&G General Manager. In keeping with the diversity of EG&G Idaho's services at the INEL, each department has a defined mission and clearly delineated responsibilities for environmental protection. The departments have joint responsibility to provide support to the overall EG&G Idaho organization in their areas of technical or operational concentration. The net result is

delegation of authority to the unit manager level, while maintaining centralized oversight to ensure compliance with environmental protection goals and objectives.

Figure 2 shows the EG&G Idaho departments' responsibilities for the environmental protection program. Although each of the departments has defined responsibilities in terms of environmental protection, the overall function of dissemination of environmental guidance and information, and compliance review are within the province of the Environmental Programs (EP) Group, under the ES&Q Department Manager. EP is the designated Contractor Environmental Organization (CEO). ETS, of EP, is the overall clearinghouse for environmental protection and compliance information at EG&G Idaho. ETS provides environmental oversight and, with the support of the DOE-ID Program/Project Managers, makes recommendations concerning compliance needs. ETS, in turn, coordinates all regulatory agency contacts through DOE-ID ES&HO and the Site Engineering and Support (SE&S) Technical Support Division. Each EG&G Idaho department/program has designated an environmental coordinator/representative who serves as liaison with ETS.

Figure 3 shows the DOE-ID organizational overview and environmental responsibilities. Although the overall organization consists of 5 major departments plus ES&H Oversight, EG&G Idaho interface on environmental issues is primarily directed toward the Technical Support Division (TSD) under the SE&S Department and the ER&WM Department.

1.2.1 Management and Oversight Mechanisms for EG&G Activities. The purpose of the EG&G environmental protection program (which includes reporting, recordkeeping, and oversight) is to fulfill the requirements set forth in DOE and DOE-ID Orders; applicable federal, state, and local laws and regulations; and EG&G procedures. The EG&G Idaho *Resource Manual* specifies that line management responsibility for environmental protection activities is delineated in the *Environmental Compliance Planning Manual at the Idaho National Engineering Laboratory (DOE/ID 10166)*, (Compliance Manual). The Compliance Manual is the top tier document for environmental protection activities at the INEL. It describes the methods to be employed by all DOE-ID contractors to ensure environmental compliance. In addition, EG&G Idaho is preparing an EG&G Environmental Manual that will incorporate specific details of EG&G policy with the environmental requirements.

Figure 1. Organizational overview of EG&G Idaho, Inc.

Figure 3. DOE-ID Organizational Environmental Responsibilities.

In addition to the DOE Compliance Manual and the EG&G Idaho Environmental Manual, several EG&G documents exist specifically detailing environmental protection and compliance requirements. Section 8 of the EG&G Idaho *Company Procedures Manual* details specific environmental program procedural requirements for EG&G activities. ETS also has an internal procedures manual that details operating procedures and describes the ETS function in support of the EG&G environmental protection and compliance program.

1.2.1.1 Environmental Information Reporting and Recordkeeping. Several avenues currently exist for reporting environmental information to DOE-ID including:

- INEL Nonradiological Waste Management Information System (INWMIS) and Radioactive Waste Management Information System (RWMIS) Quarterly Reports and Annual Summary Reports
- Superfund Amendments and Reauthorization Act (SARA) Title III, Tier Two Annual Report
- National Environmental Policy Act (NEPA) monthly reports
- Biennial Hazardous Waste Generation and Management Report
- Mixed Waste Implementation Program Monthly Status Report
- Environmental Monitoring at EG&G Facilities at the INEL Annual Environmental Report.

Additionally, special request reports are periodically generated by EG&G for submittal to DOE-ID. Any additional reporting requirements mandated in DOE Order 5400.1 are submitted per the schedules indicated in this EPIP.

EG&G environmental information, including compliance data, monitoring results, sampling and analyses information, audit/appraisal information, and Resource Conservation and Recovery Act (RCRA) reports are maintained within the EP Group.

1.2.1.2 Environmental Protection Program Oversight. The purpose of the environmental protection program is to assist each EG&G department in

identifying and interpreting relevant environmental regulations, orders, and policies. In addition, the purpose is to assist management in educating personnel and implementing procedures that will enable EG&G to successfully prepare for regulatory agency inspections, reduce company liability, prevent environmental degradation, and protect public and employee health.

Environmental oversight activities consist of the following:

1. Scheduled environmental appraisals are conducted by a dedicated Environmental Oversight Team (EOT). The EOT conducts scheduled environmental compliance appraisals of each facility. The appraisals consist of a comprehensive review of activities at each EG&G facility that impacts the environment or is affected by environmental regulations, orders, and policies.
2. Monthly assistance walk-throughs of each facility or applicable program are conducted by ETS staff in cooperation with department environmental coordinators.
3. ETS staff assistance for department environmental coordinator(s) in determining the specific environmental compliance requirements for each unit and developing standard operating procedures for the unit that result in environmental compliance.
4. EOT and ETS staff assist department environmental representatives in facility inspections before a scheduled regulatory inspection. They also assist ES&Q Department representatives in performing follow-up activities in order to reduce the probability of a noncompliant situation.
5. At least one EOT and/or ETS member accompanies regulatory agency personnel on environmental compliance inspections to help answer questions and provide requested information. The EOT/ETS representative(s) interprets regulatory agency findings and concerns and assists in implementing corrective actions.
6. ETS conducts environmental compliance evaluations and risk assessments of off-site facilities that transport, treat, store, or dispose of waste, or recycle material produced at the INEL.

The environmental oversight appraisal schedule for CY-92 includes TRA, PBF (and surrounding area), RWMC, CFA, TAN, and Idaho Falls facilities.

1.2.2 DOE Order 5400.1 Responsibilities and Authorities. The responsibilities and authorities of Heads of Field Organizations, delineated in DOE Order 5400.1, are implemented through DOE-ID Supplemental Directive 5400.1, by assigning the following responsibilities and authorities to the DOE-ID contractors. EG&G shall:

- A. Develop and implement environmental protection compliance programs and policies, to ensure compliance with all applicable laws, regulations, and directives.
- B. Ensure that all required environmental permits are prepared and submitted for approval in a timely fashion and that all activities are conducted in accordance with permit requirements and conditions.
- C. Provide for DOE-ID approval, biannual pollution abatement plans and data as required by Office of Management and Budget (OMB) Circular A-106.
- D. Notify the responsible DOE-ID Program Manager and the Assistant Manager (AM) SE&S immediately of any significant nonroutine release of any pollutant or hazardous substance.
- E. Maintain documentation of responses to environmental occurrences and make available to DOE-ID.
- F. Report unplanned releases on Form DOE F 5821.1 to the Radioactive Effluent/On-site Discharge Information System Database Coordinator. Correct any data errors through the use of amended F 5821.1 forms. (This is in addition to the Occurrence Reporting Requirements in DOE Order 5000.3A.)
- G. Provide input to the Radiological and Environmental Sciences Laboratory (RESL) for the Annual Site Environmental Report.
- H. Submit Radioactive Effluent and On-site Discharge Data to the Radioactive Effluent/On-site Discharge Information

System Database Coordinator with a copy to the AM/SE&S. Radioactive Effluent/On-site Discharge Information System Database Coordinator prepares final Radioactive Effluent and On-site Discharge Data Report and submits them to the AM/SE&S for concurrence.

- I. Conduct an Environmental Study before the actual startup of a new site, facility, or process that has the potential for adverse environmental impact, or which will process, release, or dispose of pollutants.
- J. Prepare a written environmental monitoring plan for EG&G-operated facilities that use, generate, release, or manage significant pollutants or hazardous materials, which will describe the monitoring program for that facility.
- K. Conduct effluent and air emission monitoring at all EG&G-operated facilities in accordance with DOE Order 5400.1, Chapter IV.
- L. Maintain a Groundwater Protection Management Program Plan, Waste Minimization Program Plan, and Pollution Prevention Awareness Program, reviewed annually and updated every 3 years.
- M. Maintain a quality assurance program consistent with DOE Order 5700.6B to cover each element of the environmental monitoring and surveillance program commensurate with its nature and complexity.
- N. Determine the need for and apply for any needed certification for contractor laboratories and ensure that any outside contractor laboratories given DOE-ID work are appropriately certified.
- O. Support EH-1 independent data verification program, when implemented, as a part of the environmental monitoring programs at EG&G-operated facilities.
- P. Perform assessments (in accordance with requirements of DOE Orders in the 5400 series) of the potential radiation dose to members of the public that could

result from EG&G operations for all facilities required to conduct radiological monitoring.

The *functional* organization of EG&G, in terms of environmental protection and compliance, is briefly summarized as follows:

1. Dissemination of Information:

- a. DOE promulgates requirements as DOE Orders
- b. DOE-ID provides guidance on, and interpretation of, the DOE Orders through corresponding DOE-ID documents and disseminates them to EG&G Idaho
- c. EP issues guidance and requirements to EG&G managers on environmental protection and compliance
- d. Managers disseminate this guidance to their project and program managers and prepare schedules and budgets to support the required activities.

2. Compliance:

- a. Based on guidance from EP, EG&G Program/Project Managers (PMs) initiate the compliance process, assessing program/project activities in relation to requirements, checklists, and procedures provided by EP, and route the specified documentation to EP

- b. EP reviews the documentation from the PMs for adequacy and compliance, makes recommendations to the PMs for revision or addition, and returns the specified documentation to the PMs. The PMs, in turn, transmit the documentation to the cognizant DOE-ID PMs

- c. The DOE-ID PMs review the documentation, make recommendations for revisions or additions, concur, and transmit the documentation and recommendations to DOE-ID SE&S for approval by the Assistant Manager of Environment, Safety, and Health Oversight (AM/ES&HO) Programs.

Through this functional organization, project- or program-specific information is generated by the responsible managers and is transmitted for compliance review to EP.

A summary of the environmental protection activities performed by EG&G Idaho include: monitoring of air, liquid effluents, surface water, and solid waste at EG&G Idaho-operated areas; monitoring of groundwater beneath EG&G facilities; maintenance and reporting of databases tracking industrial and radioactive waste streams for the INEL, and environmental baseline data within EG&G Idaho-operated facilities; landlord responsibilities for EG&G Idaho-operated areas at the INEL and the Idaho Falls facilities; and, evaluation and cleanup of hazardous waste- or hazardous constituent-contaminated areas to support the DOE-ID Consent Order and Compliance Agreement (COCA). Table 1 shows the primary DOE Order 5400.1 requirements and the EG&G Idaho organizations responsible.

Table 1. Plan and reporting responsibilities

Report/Plan	Due Date or completed	Submitted By	Submitted To
Environmental Protection Implementation Plan	11/9 Annually	ES&Q/Environmental Technical Support	DOE-ID SE&S
Environmental Restoration and Waste Management Five-Year Plan	Updated Annually	WMO ^a /Program Planning and Development	DOE-ID ER&WM
OMB Circular A-106	5/15 and 12/15 Annually	Administration/ WMO	DOE-ID ER&WM
Annual Report: Environmental Monitoring for EG&G Idaho Facilities at the INEL (Parallel to Annual Site Environmental Report)	8/31 Annually	ES&Q/Environmental Monitoring	DOE-ID ER&WM
Groundwater Protection Management Program and Plan	5/9/90 Reviewed Annually Updated Every 3 yrs.	EP	DOE-ID SE&S
Waste Minimization Program Plan	May 1991 Reviewed Annually Updated Every 3 yrs.	WMO/Pollution Prevention and Special Projects	DOE-ID ER&WM
Pollution Prevention Awareness Program Plan (Integrated Into the Waste Minimization Program)	May 1991 Reviewed Annually Updated Every 3 yrs.	WMO/Pollution Prevention and Special Projects	DOE-ID ER&WM
Environmental Monitoring Program Management Plan (Parallel to the Environmental Monitoring Program and Plan)	11/9/91	ES&Q/Environmental Monitoring	DOE-ID ER&WM
Notification of Environmental Occurrences	Within 24 hours	ES&Q/Environmental Technical Support	DOE-ID Programs and DOE-ID SE&S
Occurrence Report/ Critique Report	Varies/DOE Order 5000.3A	Responsible Programs	DOE-ID Programs

a. WMO = Waste Management Operations.

1.3 Compliance with DOE Orders 5400.5 and DOE Guidance DOE/EH-0173T

EG&G has evaluated the implications of DOE Order 5400.5, *Radiation Protection of the Public and Environment*, and DOE Guidance DOE/EH-0173T, *Radiological Effluent Monitoring and Environmental Surveillance*, and recent revisions to Subpart H of the *National Emission Standards for Hazardous Air Pollutants* (40 CFR 61). Direct and quantitative

measurements of radionuclide emissions is required to prove compliance with these standards. Certain EG&G Idaho facilities may require upgrades to current air emissions monitoring capabilities to comply with these final and proposed standards. Monitoring and surveillance results may dictate upgrades to current emission control equipment.

EG&G Idaho has already incorporated DOE Order 5400.5 and the recent revisions of 40 CFR 61 into its environmental protection program. When DOE Order 5400.6 is finalized, the program will be further upgraded.

2. NOTIFICATION OF ENVIRONMENTAL OCCURRENCES

DOE Order 5400.1 defines an environmental occurrence as “any sudden or sustained deviation from a regulated or planned performance at a DOE operation that has environmental protection and compliance significance.” DOE Order 5400.2, *Environmental Compliance Issue Coordination*, defines significant environmental compliance issues and gives examples. Further, DOE 5000.3A establishes a system for categorizing and reporting environmental occurrences. Report categories include emergencies, which are the most serious occurrences and require an increased alert status for onsite personnel and possibly off-site authorities; unusual occurrences, which are nonemergency situations with significant impact; and off-normal occurrences, which are abnormal or unplanned events that adversely or potentially affect the environment. All environmental occurrences must be evaluated for their environmental consequences.

The EG&G Idaho requirements and procedures for reporting environmental occurrences are contained in several documents, including DOE-ID Supplemental Directives 5400.1, and 5000.3A, the Compliance Manual, and the EG&G Idaho *Safety Manual*. It is the responsibility of EG&G Idaho managers to ensure that their personnel involved with everyday operations are trained in the recognition, detection, and proper response to environmental occurrences. EG&G Idaho managers are responsible for ensuring that a timely, appropriate, and documented response is made relative to the containment, control, and cleanup of any environmental release. Managers must also coordinate the preparation of written follow-up reports and ensure that such reports are submitted to DOE-ID. ETS is responsible for preparing an Annual Summary Report on Environmental Occurrences and submitting it to DOE-ID Technical Support Division. ETS submits a summary report of all environmental occurrences and actions each calendar quarter, no later than the 20th of the month following the calendar quarter.

As outlined in DOE Order 5400.1, the DOE field organization notifies the DOE-Headquarters Office (HQ) Emergency Operations Center (EOC) of any significant nonroutine release of a pollutant or hazardous substance at any INEL facility. DOE-ID Supplemental Directive 5400.1 assigns the following responsibilities:

EG&G Idaho PMs simultaneously notify ETS and the appropriate DOE-ID PM of any significant nonroutine release; ETS, in turn, notifies the DOE-ID Assistant Manager of SE&S; EG&G Idaho PMs maintain documentation of responses to environmental occurrences and have them available to regulatory agency inspectors, DOE auditors, and the general public (as detailed in the Compliance Manual). Unplanned releases are reported to the Radioactive Effluent/On-site Discharge Information System (EIS/ODIS) database coordinator on Form DOE F-5821.1 by the EG&G Idaho PMs. Significant nonroutine releases of radioactive material are either reported as a result of a non-compliance effluent discharge detected by radiological monitoring, or as a result of an unusual trend in routine radiological surveillance monitoring. EG&G Idaho PMs are also responsible for preparing Occurrence Reports (ORs).

The Compliance Manual (Volume II, Section 4.1) *details* the procedures for reporting a release of (a) a reportable quantity of a hazardous substance as defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(14), and (b) a reportable quantity of an extremely hazardous substance as defined under 29 CFR 19.10.1200(c). A *brief summary* of the necessary steps is shown in Figure 4. EG&G Idaho Managers provide immediate notification of a release to ETS and DOE-ID PMs. Managers, utilizing the notification flowsheet, complete the Release/Spill Reporting Checklist and the Substance Release Report Form (ID F 5480.1I). These procedures ensure that ETS provides all relevant information to DOE-ID. A written follow-up notification is required.

The EG&G Idaho *Safety Manual* assigns responsibility to managers and provides instructions for reporting occurrences. The EG&G Idaho *Safety Manual* states that notification of unusual or unplanned occurrences is accomplished by means of the Timely Incident Post System (TIPS), a method developed on the OfficeVision System to alert the other INEL contractors and DOE management. TIPS notices are reviewed by ETS, as necessary, for determination of the environmental consequence of the event.

Figure 4. Simplified CERCLA and SARA flowsheet.

3. GENERAL PLANNING AND REPORTING

This section describes programs, plans, and reports mandated by DOE Order 5400.1, identifies personnel responsible for their preparation and implementation, specifies due dates, and identifies budgetary resources associated with implementation.

The three programs and associated plans mandated by the Order, detailed in this section, include the Long-Range Environmental Protection Program, the Annual Site Environmental Report, and the Office of Management and Budget (OMB) Circular A-106 Report (A-106 Report). These are current activities and discussion will include actions necessary to enhance these efforts to meet the expanded requirements. The special programs and plans required for DOE Order 5400.1 are discussed in Section 4 of this EPIP.

Table 1 summarizes EG&G Idaho line management responsibilities in support of the DOE-ID environmental protection program and lists reports and plans required by DOE Order 5400.1. Included are responsible organization, due date, and corresponding DOE-ID counterpart.

3.1 Environmental Restoration and Waste Management Five-Year Plan

The Environmental Restoration and Waste Management (ER&WM) Five-Year Plan satisfies the DOE Order 5400.1 requirement that DOE-ID develop a long-range environmental protection plan. This plan defines specific environmental objectives, the means and schedules for attaining these objectives, and how programs and projects will be completed. The ER&WM Five-Year Plan (DOE/S-0078P) is issued by DOE Headquarters and is updated on an annual basis.

The ER&WM Five-Year Plan identifies environmental restoration, waste management, and corrective activities at the INEL and funding needs for these activities for EG&G Idaho-operated Waste Management facilities. This plan does not include funding for environmental protection activities at facilities not funded by waste management programs. Therefore, each non-waste management facility at EG&G Idaho is required to supplement the information contained in the Five-Year Plan with tasks and funding necessary to perform environmental protection activities under their jurisdiction.

The Planning and Development Group in the Waste Management Department is responsible for compiling and updating the EG&G Idaho contribution in support of the ER&WM Five-Year Plan.

3.2 Annual Site Environmental Report

DOE Order 5400.1 states that all DOE facilities conducting significant environmental protection programs shall prepare an Annual Site Environmental Report. The reports shall cover the previous calendar year, be completed by June 1, and be updated annually. The purpose of this report is to present summary environmental data that characterize site environmental management performance, confirm compliance with environmental standards and requirements, and highlight significant programs and efforts.

The *Environmental Monitoring Program Report for the INEL Site* (DOE-ID-12082), prepared by DOE-ID/Radiological and Environmental Sciences Laboratory (RESL) fulfills this requirement. A parallel to this report, *Annual Report - Environmental Monitoring for EG&G Idaho Facilities at the INEL* (EGG-2564), is prepared by the Environmental Monitoring Unit under the ES&Q Department Manager. This EG&G Idaho report contains a summary of monitoring methods and results. Activities include radiological monitoring, preliminary facility area surveillance, and compliance monitoring. Results are compared to background levels or standards and requirements to characterize site environmental management performance. The report is submitted for information annually to DOE-ID RESL by August 31 and requires a total resource commitment of approximately \$60,000.

3.3 Office of Management and Budget Circular A-106 Reports

Reporting requirements for funding of pollution abatement projects at federal facilities is set forth in the OMB Circular A-106, *Reporting Requirements in Connection with the Prevention, Control and Abatement of Environmental Pollution of Existing Federal Facilities* (12/31/74). This circular requires that a Five-Year Plan be prepared for all Federal pollution abatement projects. The *Environmental Restoration and Waste Management Five-Year Plan* (see Section 3.1) satisfies this requirement. OMB Circular A-106

reports are summarized and included as input in this Five-Year Plan.

EG&G Idaho operating organizations are responsible for submittal of OMB Circular A-106 Report information to the EG&G Idaho Administration Department, who, in turn, submit the compiled reports to DOE-ID to help identify funding requirements. Estimated cost is approximately \$10,000. The facility- or program-specific A-106 Reports provide the following:

1. Detail how data are gathered and analyzed for preparation of these reports
2. Identify organizational units (including sub-contractors) responsible for preparation and delivery of reports
3. Include a schedule for report delivery
4. Identify required budgetary resources.

Because DOE-ID must submit its reports semiannually to DOE-HQ/EH-1 no later than May 15 and December 15 of each year, the EG&G Idaho information must be prepared in advance of that date. Confirmatory reports are submitted by line organizations when there are no pollution abatement projects planned or underway.

3.4 Reports on Radioactive Effluent/On-Site Discharge

Radioactive Effluent and On-site Discharge Data Reports covering the previous calendar year are submitted to the Radioactive Effluent/On-site Discharge Information system (EIS/ODIS) database coordinator by April 1; a copy of the cover letter is sent to EH-1. The reports, including the data forms, cover sheet, maps, and, if necessary, explanatory information are submitted in accordance with instructions provided in Section II of the Effluent Information System and On-site Discharge Information System user's Manuals. The report consists of:

1. A cover sheet listing the site, facility, report period, contractor(s), and address.
2. A summary providing pertinent descriptive and interpretative information that would serve to explain any facets of the data not adequately described on the sheets.
3. Maps, 8-1/2 x 11 in., showing the locations of effluent streams and on-site discharge points. Maps should be included only when they reflect modifications (e.g., terminations or start-ups) from previous years.
4. Completed DOE F 5821.1, unless submitted by way of the Secure Automatic Communications Network (SACNET).

4. SPECIAL PROGRAMS AND PLANS

This section delineates the special programs and associated plans as required by DOE Order 5400.1 including the Groundwater Protection Management Program, the Waste Minimization Program, and the Pollution Prevention Awareness Program. Several of the required elements of these programs are in place or are currently under development.

4.1 Groundwater Protection Management Program

The Groundwater Protection Management Program has a two-part approach: (a) continued groundwater monitoring and subsurface investigations, and (b) creation and implementation of groundwater protection strategies.

Presently, all routine groundwater monitoring at the INEL is performed by the United States Geological Survey (USGS). This includes all EG&G Idaho-operated facilities. The work is performed under an Inter-agency Agreement.

The USGS interfaces with EG&G Idaho by:

- Performing ongoing subsurface investigations
- Assisting with data collection generated during groundwater monitoring activities
- Performing geophysical logging at EG&G Idaho facilities
- Acting as a consultant to EG&G Idaho and DOE-ID for subsurface investigations.

The groundwater protection strategy is concurrently being coordinated by two EG&G Idaho groups: the Site Characterization Unit of the Environmental Restoration Program of the Waste Management Operations Department—this unit focuses on the INEL sites covered under the COCA, and the ETS Unit of Environmental Programs of ES&Q—this unit focuses on the INEL RCRA treatment, storage, and disposal facilities. This effort is part of the INEL RCRA Technical Support Program.

Currently, EG&G Idaho monitors its facilities' potable water and production wells for the following parameters and associated frequencies: coliform—

monthly; metals, anions, and pesticides—annually; volatile organics—at a minimum quarterly; and, radiological—monthly (with RESL).

The Groundwater Protection Management Program and Plan will be reviewed annually and updated every 3 years. The plan originated as an INEL groundwater protection program plan before the promulgation of DOE Order 5400.1. The plan is tailored to fit the requirements and format stated in DOE Order 5400.1 and requires approximately \$75,000 for development. The funding for this task is the responsibility of EG&G Idaho operations. Waste Management Operations and EP are responsible for development of this program and plan.

4.2 Waste Minimization Program

Policies and requirements outlined in DOE Orders 5400.1, 5400.3, and 5820.2A require DOE and its contractors to conduct operations in a safe and environmentally sound manner, and to develop and implement a waste minimization program. The objective of the Waste Minimization Program Plan, developed by the Waste Management Pollution Prevention and Special Projects Unit (PP/SP), is to ensure that DOE project offices and contractors develop and implement source reduction (i.e., eliminating or reducing the generation of waste) and recycling activities to relieve the environmental and economic burdens caused by storage, treatment, and disposal of wastes. The policy of the program directs individuals and facilities to utilize source reduction and recycling techniques to enhance resource utilization and reduce the risk to the public and the environment.

The program contains the following components: top management support, a pervasive waste minimization ethic (including pollution prevention awareness), explicit program scope and objectives, waste tracking by waste streams, process waste assessments, cost accounting, technology transfer, program evaluation, and employee education and support.

At EG&G Idaho, each facility and program generating waste (other than routine office waste) is required to develop a waste minimization plan. The plan provides a description of the facility or program, a discussion of processes generating waste, analysis of existing and expected waste streams, a discussion of waste reduction accomplishments in the past year, a forecast of expected waste generation, and a goal and action plan

to reduce the amounts of waste generated. These plans are reviewed for accuracy and completeness. Information from these plans is then compiled by the PP/SP for the annual report required by DOE Order 5400.1.

Pollution prevention concepts and awareness are becoming incorporated into the management culture and job ethic, and are routinely integrated into each phase of employee evaluations, operating procedures, and design considerations. Policies are being developed to allow and encourage employee involvement in all waste minimization planning and implementation. The Pollution Prevention Awareness Program (PPAP), is required by DOE Order 5400.1 and has been incorporated into the waste minimization program. Implementation strategies for waste minimization and pollution prevention include the following:

Meeting or exceeding applicable policies and requirements through:

- Yearly program review and audits
- Rewards for innovative ideas.

Ensuring that waste minimization practices are a prime consideration in daily facility or program operations by:

- Requiring all waste generators to develop Waste Minimization Plans (WMPs).
- Implementing the PPA Training for all employees with specific training for managers, auditors, design engineers, procurement personnel, and trainers
- Training Waste Minimization Coordinators in each program or facility to perform waste minimization audits and require an audit report as part of the WMP
- Providing incentives for the suggestion and implementation of waste minimization ideas
- Ensuring that general facility and program audits evaluate waste management and waste minimization practices
- Including waste minimization parameters in job descriptions and employee evaluations.

Ensuring that waste management/waste minimization issues are evaluated before to approval of new facilities or programs by:

- Incorporating waste minimization requirements into facility and program design reviews
- Requiring each contracting organization to review all new projects and to include waste minimization practices
- Providing special training for design engineers

Obtaining management commitment to waste minimization activities by:

- Requiring special training for managers
- Requiring managers to sign a statement of commitment.
- Requiring waste minimization specific performance elements in management performance evaluations.

Achieving a realistic reduction in each waste stream as approved by DOE-ID by:

- Requiring all waste generators to provide information on their waste streams including process waste assessments, waste stream characterizations, reduction in waste volume and toxicity, recycling, and treatment and disposal costs
- Requiring all waste generators to set waste reduction goals and track progress towards these goals
- Tracking, evaluating, and reporting waste generation and reduction rates
- Rewarding programs, facilities, and individuals for contributions and ideas in the area of waste minimization
- Ensuring waste minimization reporting differentiates between routine (i.e., production waste) and non-routine waste (such as that generated for remedial actions, D&D activities, and spills).

Participating in technology transfer to ensure DOE-ID facilities are implementing the most effective, advanced waste minimization and pollution prevention technologies, policies, and procedures by:

- Attending and hosting seminars and conferences relevant to waste minimization
- Presenting information on DOE-ID waste minimization activities to other DOE facilities, industry, and other local interested organizations.

Top management support is demonstrated by the written statements signed by management after Pollution Prevention training. These statements constitute a written policy articulating upper management support for the waste minimization program and a commitment to implement recommendations identified through assessments and evaluation.

Waste minimization technology is transferred both internally and externally. Internally, quarterly generator meetings and generator assessment reports are used. Quarterly generator meetings serve as a forum and information distribution point for generators who have questions or ideas about waste minimization. Speakers of interest to waste generators are invited to speak and to sit in on round table discussions where generators may discuss ideas and problems in an infor-

mal manner. Generator assessment reports are distributed to all generators. These reports describe waste minimization methods being implemented or developed so that all generators may benefit from the information.

Contacts are regularly made with other DOE organizations and those in industry to access information relative to waste minimization to facilitate external technology transfer. This effort will gradually be expanded. Pollution prevention personnel attend national training sessions to stay current on advanced waste minimization techniques. This information is then shared internally to benefit all applicable EG&G personnel.

4.3 Pollution Prevention Awareness Program

DOE Order 5400.1 requires that a Pollution Prevention Awareness Program be specifically identified in the DOE-ID environmental protection policy statement.

Section 4.2 of this EPIP discusses the integration of the requirements of the Pollution Prevention Awareness Program into the Waste Minimization Program. Estimated total cost for plan development (Waste Minimization and Pollution Prevention Awareness) is approximately \$330,000.

5. ENVIRONMENTAL MONITORING PROGRAMS

5.1 Introduction

As part of DOE-ID's continuing emphasis on protecting human health and the environment, all existing INEL environmental monitoring programs are being assessed to ensure compliance with the requirements set forth in DOE Order 5400.1. Programs must consist of two major activities—effluent monitoring and environmental surveillance. This is accomplished through: (a) the measurement and monitoring of effluents from DOE-ID operations and facilities and (b) surveillance by measurement and monitoring of the environmental media. Additionally, DOE-ID facilities will demonstrate compliance with all applicable federal, state, and local laws and regulations and DOE Orders. In following the DOE-ID mandate, EG&G Idaho has comprehensive radiological and hazardous materials environmental monitoring programs.

EG&G Idaho is also responsible for quality assurance (QA) programs consistent with DOE Order 5700.6C. These QA requirements will be integrated with guidance provided in DOE Order 5400.1 and DOE/EH-0173T. A summary of the EG&G Idaho QA program and data verification can be found in Section 6 of this document.

5.2 Environmental Monitoring Plans and Monitoring and Surveillance Activities

The INEL Environmental Monitoring Plan being prepared by DOE-ID addresses EG&G Idaho-operated facilities or processes that use, generate, release, or manage significant pollutants or hazardous materials. Guidance for preparation of the plan is provided in the Compliance Manual. The Compliance Manual delineates monitoring responsibilities and requirements for ambient air, groundwater, liquid and gaseous effluents; drinking water; RCRA hazardous waste treatment, storage, and disposal facilities; CERCLA sites; and personnel in the workplace. The Compliance Manual details implementation requirements of DOE Order 5400.1 and other applicable DOE-ID Orders, federal laws and regulations, and state and local laws. The Environmental Monitoring Plan is being prepared to satisfy the objectives of DOE Order 5400.1, and will call for monitoring activities to be in place to detect unplanned releases and other environmental occur-

rences before any significant environmental degradation.

DOE-ID RESL is responsible for environmental monitoring outside of fencelines and processes of individual contractor facilities, in accordance with DOE-ID SD 5400.1. The EG&G Idaho programs are designed to be compatible with, and complement, the Site-wide environmental monitoring program of RESL.

The Environmental Monitoring Plan, required per DOE Order 5400.1, is due November 1991, but the submittal date has been extended to January 1992. The Monitoring Plan will be reviewed annually for consistency with operational changes, site specific needs, and regulatory compliance, and updated as required at a minimum of every 3 years. The Environmental Monitoring Plan is currently being prepared at the direction of DOE-ID with input from EG&G Idaho. The plan will address the methods and procedures used for data sampling, collection, analysis, record management, and reporting. Estimated cost is \$450,000 for FY-92. DOE-ID will review the overall efforts in this area to ensure coordination between various DOE-ID organizations and consistency with requirements.

Environmental Monitoring (EM) is responsible for collecting data used for regulatory compliance determination. The mission of EM is to provide timely, reliable data about radiological and nonradiological contaminants associated with EG&G Idaho operated-facilities. The monitoring programs ensure the protection of personnel, the public, and the environment, while detecting any trends that may indicate a need for corrective action before damage to the environment occurs.

Qualitative and quantitative data on the environmental levels of contaminants (both radiological and nonradiological) at INEL facilities are provided to DOE-ID RESL. Policy decisions concerning environmental quality at these facilities can then be based on data representative of actual conditions. Specific responsibilities of EM include:

- Aid in establishment of a consistent Site-wide environmental baseline
- Routine environmental monitoring of air, water, soil, biota, and ambient radiation at six waste management facilities

- Liquid effluent monitoring/sampling for non-radiological constituents at EG&G Idaho-operated Site and Idaho Falls facilities
- Drinking water sampling at all EG&G Idaho facilities
- Future implementation and coordination of an air effluent monitoring program that will coordinate stack sampling procedures for radiological and nonradiological constituents
- Maintenance and reporting on the INWMS and the RWMIS databases, which track industrial and radioactive waste streams, respectively.

It is the responsibility of EG&G Idaho programmatic managers to monitor air emissions from their respective operations. In addition to the responsibilities of EM, the Environmental Restoration Program Group, under the Waste Management Operations Department Manager, has the responsibility for investigation of subsurface migration of radionuclides and organic and hazardous constituents at the RWMC.

5.2.1 Air Emissions Monitoring. A radioactive air emissions monitoring program is conducted by EG&G Idaho programs to ensure that all releases are monitored and documented and that releases to the environment remain within allowable regulatory limits. Airborne emissions monitoring responds to DOE Orders 5400.1, 5480.1B, and 5400.5. Monitoring at waste management facilities meets the requirements of DOE Order 5820.2A and the emission standards of 40 CFR 61. Monitoring for nonradioactive airborne emissions is not conducted on a regular basis.

5.2.2 Liquid Effluent Monitoring. Liquid effluents are monitored for radiation to comply with DOE Orders 5400.1 and 5400.5, and will be consistent with the program described in the INEL Environmental Monitoring Plan, State of Idaho Water Quality Standards, and RCRA requirements.

5.2.3 Drinking Water Monitoring. The drinking water monitoring program was formulated by EG&G

Idaho at the request of DOE-ID in 1988. The program is structured to ensure that the EM Unit monitoring plans go beyond the minimum regulatory requirements, which include the Safe Drinking Water Act (40 CFR 141-143) and the State of Idaho Regulations for Public Drinking Water Systems (IDAPA 16.01.8000-8900). The volatile organic compounds (VOCs) monitored and reported include those required by Federal and state regulations, and an extensive list of unregulated VOCs as well. The list of regulated VOCs monitored and maximum contaminant levels can be found in the *Annual Report - 1990, Environmental Monitoring For EG&G Facilities at the INEL (Appendix B) EGG-2612 (90), August, 1991.*

5.2.4 Groundwater Monitoring. The ES&Q is responsible for developing the INEL Groundwater Monitoring Plan and for providing input to the environmental monitoring plans and the Groundwater Protection Management Plans of INEL contractors.

5.2.5 Nonradiological Liquid Effluent Monitoring. Monitoring of the nonradiological liquid effluent at EG&G Idaho-operated facilities for nonradiological constituents began in 1986. In 1990, EM collected samples from 12 effluent streams within those facilities. The nonradiological liquid effluent monitoring plan was developed and implemented under an agreement with DOE and the Environmental Protection Agency (EPA) to ensure that public and employee health and the environment are protected.

5.2.6 Radiological Environmental Monitoring Program. The Radiological Environmental Surveillance Program (RESP) provides routine surveillance data for all EG&G Idaho waste management facilities and non-routine or special request monitoring at all EG&G Idaho areas. The EM unit activities are structured to support Department of Energy Field Office, Idaho (DOE-ID) in maintaining an integrated INEL environmental surveillance program and to comply with DOE Order 5820.2A. Major facilities monitored include the RWMC and WERF. Air, runoff water, soil, penetrating radiation and biotic monitoring is conducted.

6. QUALITY ASSURANCE AND DATA VERIFICATION

6.1 Quality Assurance

DOE-ID Order 5700.6C establishes a basic quality assurance (QA) policy for DOE-ID contractors. This guidance is in the form of six directives, which require EG&G Idaho to:

1. Develop, issue, and maintain a Quality Assurance Program (QAP) implementing specific procedures for activities affecting quality, reliability, and continuity of operations for programs, projects, and activities in accordance with this Order, DOE Order 5700.6C, and DOE-ID guidance.
2. Develop, issue, and maintain Quality Program Plans (QPPs) in accordance with QAPs and DOE-ID Division, Project, or Program directions, as required, to specify applicable QAP and other requirements to be implemented for assigned projects and programs.
3. Ensure that the quality achieving and verifying functions are performed in accordance with the applicable QPPs.
4. Conduct a management audit/appraisal of the QA program and QPPs at least once a year with the results reported to the DOE-ID Manager.
5. Evaluate conditions adverse to quality, or significant conditions posing any undue risk to the environment, safety, health, or property. Develop and implement a trend analysis program to aid in the prevention of recurring quality problems. The program should include root cause identification and corrective actions to be taken.
6. Evaluate subcontractor performance, adequacy, and effectiveness to ensure that requisite quality is achieved.

The Order requirements apply to *all activities*, nuclear and nonnuclear, that affect the quality of DOE or other government agency-sponsored projects and programs. This applies to projects conducted in facilities, or as a result of contracts, within the purview of the DOE-ID Manager. EG&G Idaho compliance programs regarding this Site-wide aspect of QA are specified in the *EG&G Idaho Quality Manual*. That manual establishes a total QA program that meets the requirements of DOE Order (and ID SD) 5700.6C, *Quality*

Assurance. The programs and structures described in this EPIP are specific to environmental protection activities.

This section of the EPIP focuses on the EM Quality Program Plan (QPP) because of EMs high degree of involvement in environmental matters. However, all EG&G Idaho programs are required to prepare QPPs. The EM QPP integrates environmental monitoring at WM facilities nonradiological liquid effluent monitoring and drinking water monitoring. To accomplish this in a controlled manner, EM personnel follow the requirements defined in the EG&G Idaho *Quality Manual*, various EM program-implementing documents, and the program delineated in the *Quality Program Plan, Environmental Monitoring (QPP-029)*. The EM-QPP, is, in effect, the plan for implementation of the overall *EG&G Idaho Quality Control Plan* for EM activities.

Currently, the Program Plans for EM activities contain the elements from the Environmental Compliance Planning Manual, DOE-ID-10166, Rev. 3 and described in the following section:

1. *Statement of QA Objectives*—Implementation of the QA Program demonstrates compliance with appropriate regulations and specifies precision, accuracy, and completeness requirements for each major parameter to be measured.
2. *Organizational Structure*—The Program plans address EM's organizational structure and the Program's interfaces with other organizations.
3. *Sampling Procedures*—Routine environmental monitoring procedures are upgraded based on the Monitoring Activities Review (MAR), recommendations by independent reviewers, or observations made by EM personnel. Work plans are generated for special studies; these plans address QA concerns. Standard operating procedures for each routine activity are included in the EM handbooks. Quality assurance plans are written for nonroutine hazardous materials or nonradiological sampling, describing QA measures to be taken.
4. *Sample Custody and Preservation*—Sample identification, preservation, storage, and handling procedures are specified in the handbooks and updated as required.

5. *Analytical Procedures*—For each major measurement parameter, approved radioanalytical procedures are used by the laboratory. Each laboratory is responsible for its own QA Program to ensure the accuracy of analytical results. Currently, QA procedure manuals are provided by the Radiation Measurement Laboratory (RML) and the Bioassay Group. In addition, the Radiological Environmental Surveillance Program (RESP) Plan summarizes the radioanalytical requirements of the RESP Lab QA requirements for chemical analyses are set forth in statements of work, program plans, and/or requests for analysis. Data quality levels are determined based on the particular use of the sampling results.
6. *Data Screening and Reporting*—Data screening and reporting guidelines make up a separate section in applicable Standard Operating Procedures (SOPs), standard practices (SPs) or reports.
7. *Document Control*—Procedures are specified.
8. *Records*—The quality records necessary to document EM activities and their retention schedule is continued in QPP-029.
9. *Calibration and Preventive Maintenance Procedures*—All instruments used in field measurements are routinely calibrated or standardized and receive scheduled preventive maintenance per the appropriate handbook. Organizations funded by the Program to perform calibrations use a recall system to flag instruments needing calibration. They also provide completed preventive maintenance work orders that document work performed on program equipment. The Program's handbooks identify personnel and organizations responsible for calibration, standardization, and for preventive maintenance.
10. *Quality Control*—Blanks, replicates, splits, and known standard samples are regularly submitted for analysis. Approximately 10% of program samples submitted to the laboratory are quality control samples. Analytical laboratories also participate in interlaboratory comparison programs.
11. *Audits*—Quality representatives may audit program activities to verify compliance with the Program's QPP. In addition, Program personnel perform self-audits to maintain

compliance with Program documents. Also, Program personnel familiar with, but not responsible for, sample collection periodically observe field sample collection.

As is the case with QA throughout EG&G Idaho, the responsibility to achieve and ensure quality rests with line management. EM provides advice and service to assist line organizations in the performance of this responsibility, as well as to independently assess that the objectives of program plans are carried out in an effective and efficient manner. EG&G Idaho line management may delegate QA activities to other organizations, such as subcontractors, suppliers, or consultants, but shall retain prime responsibility for the adequacy of these activities.

6.1.1 Acceptance of Quality Program Plans.

QPPs require review and approval by DOE-ID in accordance with procedures specified in the EG&G Idaho Quality Manual. Changes to QPPs shall be reviewed and approved in accordance with directions from DOE-ID line management.

6.2 Laboratory Certification

EG&G Idaho operates and uses several INEL laboratories to analyze the samples collected by various monitoring and surveillance activities. These include:

- **Radiation Measurement Laboratory**—Participates in the DOE/Environmental Measurements QA Program, EPA Crosscheck Program, DOE/RESL Intercomparison Program, and has an internal QA Program.
- **The Environmental Chemistry Laboratory**—Conducts analyses and reports data equivalent to EPA Contract Laboratory Program (CLP) and has an internal QA Program.
- **Bioassay Group (WINCO)**—Participates in the EPA crosscheck program, DOE/Environmental Measurement Laboratory QA Program, DOE/RESL Intercomparison Program, and has an internal QA Program.
- **Environmental Hygiene Laboratory**—American Industrial Hygiene Association Certification; Certified by State of Idaho for Bacterial Analyses, has an internal QA Program, and participates in a Round Robin Program for asbestos analysis.

All of the laboratories listed participate in QA inter-comparison programs to ensure that their performance is of consistently high quality. If any laboratory certification is required for a certain analysis, then EM will ensure that appropriate certification is current. The State of Idaho requires a laboratory certification for analysis of drinking water samples. EG&G Idaho also uses several contract laboratories (offsite) for analysis of environmental samples. These laboratories are used because of their acquired expertise or because of the nature of the required analysis (e.g., radiological analysis, drinking water analysis).

Any EG&G Idaho organization utilizing the services of an offsite laboratory is responsible for ensuring that the laboratory is appropriately certified and has a QA Program in place. The QA Program must be

of sufficient quality to ensure that data quality objectives are met.

6.3 Independent Data Verification

DOE-ID RESL has been identified as having the responsibility to participate in the development of an Independent Data Verification Program to be established as part of Environmental Monitoring and Surveillance Programs at DOE facilities. As defined in the Compliance Manual, EG&G Idaho laboratories must maintain an internal quality control process to provide independent data review and evaluation of related QA data. These reviews are to be performed by individuals who do not participate in the sample analyses.

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