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Idaho National Engineering and Environmental Laboratory Sitewide Five-Year Review Plan for CERCLA Response Actions



Idaho National Engineering and Environmental Laboratory

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Idaho National Engineering and Environmental Laboratory Sitewide Five-Year Review Plan for CERCLA Response Actions

September 2004

**Prepared for the
U.S. Department of Energy
Idaho Operations Office**

ABSTRACT

This plan establishes the process for the completion and presentation of a Sitewide five-year review at the Idaho National Environmental and Engineering Laboratory (INEEL) as part of the Idaho Completion Project. The review will be conducted to meet the statutory mandate under the Comprehensive Environmental Response, Compensation, and Liability Act § 121 or as a matter of U.S. Environmental Protection Agency policy. The basis for these instructions is derived from the U.S. Environmental Protection Agency's *Comprehensive Five-Year Review Guidance* document.

Five-year reviews are conducted to evaluate the protectiveness of the selected remedy or remedies required by the individual records of decision. The five-year review provides a summary history of site background, contamination, and remediation. A review of each remedy's requirements and all applicable or relevant and appropriate requirements also is completed to determine the protectiveness of the selected remedy.

Performing the five-year review on an INEEL-wide basis will reduce repetitive documentation and paperwork, facilitate the integration of the reviews with other long-term stewardship requirements, reduce the possibility of overlooking issues that may be missed in segregated reviews, improve consistency across multiple waste area groups, and improve communication with stakeholders by providing a single report.

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ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
DOE-ID	U.S. Department of Energy Idaho Operations Office
EPA	U.S. Environmental Protection Agency
ESD	explanation of significant differences
FFA/CO	Federal Facility Agreement and Consent Order
INEEL	Idaho National Engineering and Environmental Laboratory
LTS	long-term stewardship
MCP	management control procedure
NA	not applicable
NPL	National Priorities List
OCVZ	organic contamination in the vadose zone
OU	operable unit
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RWMC	Radioactive Waste Management Complex
SARA	Superfund Amendments and Reauthorization Act
USC	<i>United States Code</i>
WAG	waste area group

NOMENCLATURE

CERCLA decision document. Refers to action memorandums, RODs, ROD amendments, and ESDs.

CERCLA explanation of significant differences (ESD). A document explaining a significant change to a remedial action selected in a CERCLA ROD.

CERCLA record of decision (ROD). Official document presenting the selected decision for a remedial action. A ROD also documents a federal agency decision made on an environmental impact statement.

CERCLA ROD amendment. Documents a fundamental change to a remedial action in a previously issued ROD.

Institutional control (IC). Nonengineered instruments designed to protect human health by preventing exposure to contaminants or hazardous substances and to protect the environment by preventing migration of contaminants and hazardous substances that are left in place following remedial actions.

National Priorities List (NPL). A list, maintained by the U.S. Environmental Protection Agency, of uncontrolled hazardous waste sites that have releases of, or could release, hazardous substances to the environment and are subject to CERCLA.

Operable unit (OU). A waste area group (WAG) subset that is a potential source area to be investigated and/or remediated.

Policy Five-Year Review. A pre- or post-Superfund Amendments and Reauthorization Act (SARA) remedial action that, upon completion, will not leave hazardous substances, pollutants, or contaminants onsite above levels that allow for unlimited use and unrestricted exposure, but requires 5 years or more to complete. A pre-SARA remedial action that leaves hazardous substances, pollutants, or contaminants onsite above levels that allow for unlimited use and unrestricted exposure or a removal only site on the NPL where a removal action leaves hazardous substances, pollutants, or contaminants onsite above levels that allow for unlimited use and unrestricted exposure and where no remedial action has or will take place.

Statutory Five-Year Review. A CERCLA-required five-year review of a post-SARA remedial action that, upon completion, will leave hazardous substances, pollutants, or contaminants onsite above levels that allow for unlimited use and unrestricted exposure.

Waste area group (WAG). The INEEL NPL site is divided into operational facility (geographic) areas (WAGs) to facilitate environmental remediation with the exception of WAG 10; WAG 10 includes areas not in the other WAGs plus the Snake River Plain Aquifer.

Idaho National Engineering and Environmental Laboratory Sitewide Five-Year Review Plan for CERCLA Response Actions

1. INTRODUCTION/PURPOSE

The purpose of this plan is to establish the process for completing and presenting a Sitewide five-year review at the Idaho National Environmental and Engineering Laboratory (INEEL) as part of the Idaho Completion Project. The *Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory* (DOE-ID 1991) states that “. . . U.S. EPA may review response action(s) for Operable Units (OUs) that allow hazardous substances to remain on-site, no less often than every five (5) years after the initiation of the final response action for such OU to assure that human health and the environment are being protected by the response action being implemented.” The five-year reviews at the INEEL Site are based on guidance in the *Comprehensive Five-Year Review Guidance* (EPA 2001) and the *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Five-Year Review Guide* (DOE 2002) from the Office of Environmental Management, U.S. Department of Energy (DOE), March 2002 (DOE 2002). The guidance from Environmental Management states:

...as the lead agency, the DOE is responsible for conducting five-year reviews and documenting the findings in a report. Consequently, DOE personnel should identify, collect, and complete the necessary information and data to determine whether the engineered or institutional controls in place to prevent exposure continue to be fully protective of human health and the environment. The EPA, Idaho Department of Environmental Quality, and Tribes, and other interested parties will be involved at the beginning of review process, and will participate and comment throughout the review process as appropriate. The Agencies will review DOE's findings and will either concur with the protectiveness determinations, or may provide independent findings. Should a five-year review identify protectiveness concerns, the Agencies will assist in evaluating appropriate corrective measures.

Five-year reviews also are mandated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601 et seq.). On November 9, 2002, the U.S. Environmental Protection Agency (EPA) and the Idaho Department of Environmental Quality approved and issued the *Record of Decision Experimental Breeder Reactor-1/Boiling Water Reactor Experiment Area and Miscellaneous Sites* (DOE-ID 2002) at the INEEL. This Record of Decision (ROD) requires a Sitewide approach to conducting the five-year reviews. The U.S. Department of Energy Idaho Operations Office (DOE-ID) prepared this plan to include those CERCLA waste area groups (WAGs) and operable units (OUs) under the direct control of DOE; therefore, this plan excludes WAG 8. The DOE-ID may revise this plan at a later date to include WAG 8. Guidance in the Federal Facility Agreement and Consent Order (FFA/CO) (DOE-ID 1991) does not require the five-year review report to be either a primary or secondary document.

Protecting the Snake River Plain Aquifer is of paramount importance and a focal point of all RODs at the INEEL. The groundwater underlies every WAG and a single review will better reflect groundwater issues. Performing the five-year review on an INEEL-wide basis also will provide the following advantages over separate reviews:

- Reduce repetitive documentation and paperwork

- Facilitate the integration of the reviews with other long-term stewardship (LTS) requirements
- Be cost effective for the tax payer
- Reduce the possibility of overlooking issues that might be missed in segregated reviews
- Improve consistency across multiple WAGs
- Improve communication with stakeholders by providing a single report
- Make it easier for the public to keep abreast of progress at the INEEL.

While a five-year interval is suggested for reviews, a shorter interval is acceptable and in some cases will be necessary to synchronize the review process across the INEEL.

The INEEL Site was listed by the EPA on the National Priorities List (NPL) on November 21, 1989. Since that time, numerous RODs have been signed, implemented, and in some cases, incorporated into comprehensive RODs. The INEEL Site is divided into WAGs by function and geography. Refer to Figure 1 for the map showing the WAGs at the INEEL Site. Operable units within the WAGs have further divided remedial actions within the WAGs. As remedial actions have progressed, comprehensive RODs have replaced previous RODs. Eventually, as response actions identified within the individual RODs are completed, all remaining CERCLA activities across the INEEL Site will be addressed within the OU 10-08 ROD. As new response actions become necessary, they will be identified and addressed in the OU 10-08 ROD. This plan provides guidance to evaluate the protectiveness of the selected remedies established in the CERCLA RODs listed below. This list includes the currently enforceable RODs for each of the WAGs at the INEEL:

WAG 1

- *Record of Decision Declaration for the Technical Support Facility Injection Well (TSF-05) and Surrounding Groundwater Contamination (TSF-23) and Miscellaneous No Action Sites, Final Remedial Action (DOE-ID 1995a)*
- *Explanation of Significant Differences from the Record of Decision for the Technical Support Facility Injection Well (TSF-05) and Surrounding Groundwater Contamination (TSF-23) and Miscellaneous No Action Sites, Final Remedial Action (INEEL 1997)*
- *Final Record of Decision for Test Area North, Operable Unit 1-10 (DOE-ID 1999a)*
- *Record of Decision Amendment Technical Support Facility Injection Well (TSF-05) and Surrounding Groundwater Contamination (TSF-23) and Miscellaneous No Action Sites, Final Remedial Action (DOE-ID 2001)*
- *Explanation of Significant Differences for the Record of Decision for the Test Area North Operable Unit 1-10 (DOE-ID 2003a)*
- *Record of Decision Amendment for the V-Tanks (TSF-09 and TSF-18) and Explanation of Significant Differences for the PM-2A Tanks (TSF-26) and TSF-06, Area 10, at Test Area North, Operable Unit 1-10 (DOE-ID 2004a).*

WAG 2

- *Final Record of Decision Test Reactor Area, Operable Unit 2-13 (DOE-ID 1997a)*
- *Explanation of Significant Differences to the Record of Decision for Test Reactor Area Operable Unit 2-13 (DOE-ID 2000a).*

WAG 3

- *Final Record of Decision Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13 (DOE-ID 1999b)*
- *Explanation of Significant Differences for the Final Record of Decision for the Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13 (DOE-ID 2004b).*

WAG 4

- *Record of Decision Declaration for Central Facilities Area Landfills I, II, and III (Operable Unit 4-12), and No Action Sites (Operable Unit 4-03) (DOE-ID 1995b)*
- *Final Comprehensive Record of Decision for Central Facilities Area Operable Unit 4-13 (DOE-ID 2000b)*
- *Explanation of Significant Differences for the Record of Decision for the Central Facilities Area Operable Unit 4-13 (DOE-ID 2003b).*

WAG 5

- *Record of Decision Stationary Low-Power Reactor-1 and Boiling Water Reactor Experiment-1 Burial Grounds (Operable Units 5-05 and 6-01), and 10 No Action Sites (Operable Units 5-01, 5-03, 5-04, and 5-11) (DOE-ID 1996)*
- *Record of Decision Power Burst Facility and Auxiliary Reactor Area, Operable Unit 5-12 (DOE-ID 2000c)*
- “Explanation of Significant Differences for the Record of Decision for the Power Burst Facility and Auxiliary Reactor Area Operable Unit 5-12 (Draft Final)” (DOE-ID 2003c).

WAG 6/10

- *Record of Decision Experimental Breeder Reactor-1/Boiling Water Reactor Experiment Area and Miscellaneous Sites (DOE-ID 2002a).*

WAG 7

- *Record of Decision Declaration for Pit 9 at the Radioactive Waste Management Complex Subsurface Disposal Area (DOE-ID 1993)*
- *Record of Decision Declaration for Pad A at the Radioactive Waste Management Complex Subsurface Disposal Area (DOE-ID 1994a)*

- *Record of Decision Declaration for Organic Contamination in the Vadose Zone, Operable Unit 7-08* (DOE-ID 1994b).

WAG 8 (Currently funded through the Naval Reactors Program)

- *Record of Decision Naval Reactors Facility Industrial Waste Ditch and Landfill Areas, Operable Units 8-07, 8-06, and 8-05* (DOE-ID 1994c)
- *Final Record of Decision Naval Reactors Facility, Operable Unit 8-08* (DOE-ID 1998a)
- *Explanation of Significant Differences from the Final Record of Decision for the Naval Reactors Facility—Operable Unit 8-08 Idaho National Engineering and Environmental Laboratory* (DOE-ID 2002b).

WAG 9

- *Final Record of Decision Argonne National Laboratory-West, Operable Unit 9-04* (DOE-ID 1998b)
- *Explanation of Significant Difference for Argonne National Laboratory-West, Operable Unit 9-04* (DOE-ID 2004c).

WAG 9 (In 2005, WAG 9 will be under DOE-ID direction.)

- *Final Record of Decision Argonne National Laboratory-West, Operable Unit 9-04* (DOE-ID 1998b).

2. SCOPE

In accordance with the *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Five-Year Review Guide* (DOE 2002), the five-year review should be used to:

1. Evaluate whether the remedy is operational and functional
2. Evaluate those assumptions critical to the effectiveness of remedial measures or the protection of human health and the environment made at the time of the remedial decision to determine, given current information, whether these assumptions are still valid
3. Determine what corrective measures are required to address any identified deficiencies
4. Evaluate whether there are opportunities to optimize the long-term performance of the remedy or reduce life-cycle costs.

Each of these primary focus areas is discussed in more detail in the following subsections.

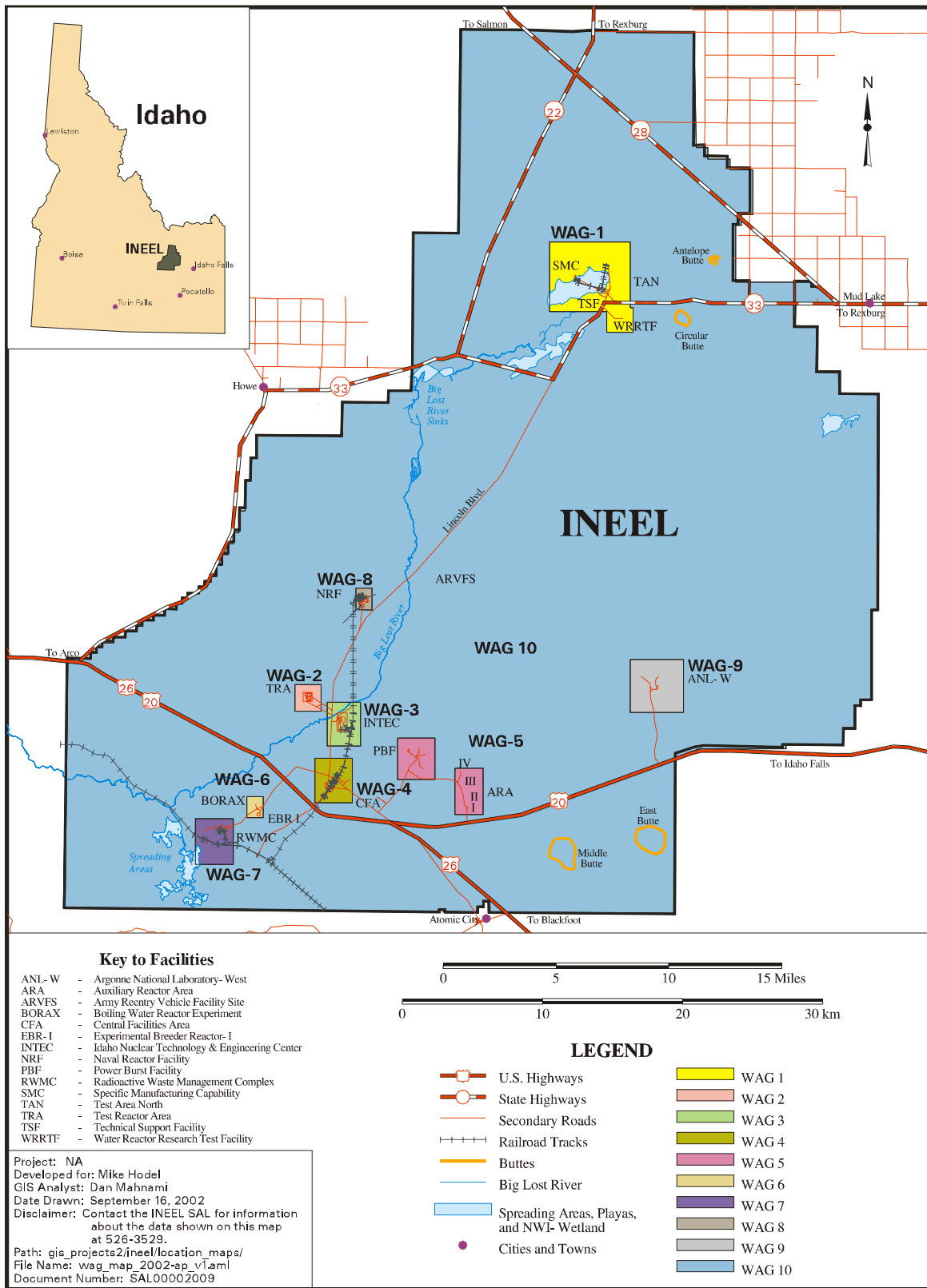


Figure 1. Idaho National Engineering and Environmental Laboratory Site map showing waste area group locations.

2.1 Operational and Functional Remedy

To evaluate whether a remedy is operational and functional, the decision document must be reviewed. The status of a remedial action must be compared to the ROD commitments in order to measure if human health and the environment are protected as intended. Implicit in any determination that a remedy is operating properly and successfully is the assumption that performance expectations/measures have been established. If no formal basis for assessing performance has been previously agreed to, one should be established and completed as part of the first five-year review.

2.2 Validity of Assumptions

The five-year review is an opportunity to confirm the continuing validity of the critical assumptions made at the time of the remedial decision. As used here, a critical assumption is one that, if invalid, puts the protectiveness of the remedy in question. In general, critical assumptions are:

- Assumptions regarding future land use. These assumptions may require evaluation if areas are opened for less restricted uses, such as grazing or hunting, at some future time.
- Assumptions regarding site conditions. A number of assumptions about site conditions are made in the process of determining a selected remedy. Actual site conditions may vary from the assumed site conditions. Whether an assumption about site conditions is critical will depend on the degree to which the remedy performance is based on that assumption.
- Assumptions regarding contaminant toxicity. Modification to a toxicity value or methodology or changes in regulatory standards may result in the need to revisit previous risk calculations to ensure that no unacceptable risks are posed to human health and the environment.
- Other assumptions, if applicable.

2.3 Corrective Measures to Address Identified Deficiencies

As stated in the FFA/CO (DOE-ID 1991), “If upon such (five-year) review it is the judgment of U.S. EPA, after consultation with IDHW, that additional action or modification of the response action is appropriate . . . U.S. EPA and IDHW may require U.S. DOE to implement such Additional Work pursuant to Part XV.” The EPA and State of Idaho will evaluate the need for additional action or modification of existing response actions based on commitments established in the ROD, such as remedial action objectives or remediation goals. The level of effort required for determining the appropriate corrective measure for an identified deficiency will depend on the significance of the deficiency. In general, a deficiency is insignificant if it does not raise substantive protectiveness concerns and the required fix does not entail changing the nature of the remedy. Examples of insignificant deficiency include a missing warning sign, plant growth on a surface barrier, or cap erosion noted. A significant deficiency exists when there is a substantive concern about the protectiveness of the remedy. Examples of significant deficiencies include, but are not limited to, the following:

- A containment cell is leaking and monitoring shows that containments are leaching to the groundwater
- Actual site conditions, discovered through monitoring for natural attenuation remedy, are different than originally assumed and the groundwater plume is migrating
- Residential homes are under construction on lands designated for recreational use only.

If deficiencies that do not directly impact the protectiveness of the remedy are found during the five-year review, project managers may identify and implement the appropriate action without formal consultation with overseeing agencies and simply report on the action taken.

2.4 Remedy Optimization

Optimizing a remedy may include measures to improve the performance of the remedy or measures to reduce associated monitoring, sampling, or maintenance costs. For example, during the five-year review, it may be determined that institutional controls are no longer needed at some sites. For long-term remedial actions, managers (with agency concurrence) should evaluate whether enhancements to the remedy can be implemented that would expedite the attainment of the remedial objectives and if they are cost effective. In some situations, new technologies may become available that allow environmental contamination to be remediated in a manner not possible at the time the remedy was selected.

As confidence grows that a remedy is performing as expected, the remedy may be optimized by scaling back the frequency, location, or scope of monitoring that may no longer be necessary as uncertainties are reduced. For example, if a “pump and treat” remedy has been implemented to control a groundwater plume, some monitoring wells may become unnecessary, as they no longer register contamination levels above cleanup levels after the plume has contracted. Under these circumstances, the sampling plan should be revised to eliminate these wells from the sampling routine or reduce the frequency of their sampling. It also may be possible to remove specific groundwater extraction wells from service and increase the pumping rate in others to optimize groundwater remediation.

3. METHODOLOGY OF SITEWIDE FIVE-YEAR REVIEW

Management Control Procedure (MCP) -1302, “INEEL—Five-Year Review for CERCLA Response Actions,” provides instructions for conducting a five-year review at the INEEL Site. This MCP guides the process for establishing a review team, notifying the community, establishing schedules, and gathering data through reporting and communicating results. In transitioning from separate reviews to a Sitewide review format, the individual WAGs will be reported in separate sections. The report will summarize the results of the review and discuss issues, both past and emerging. Supporting data and information will be included in appendixes as needed. The WAGs that have not participated previously in a five-year review will act as lead over review activities at that WAG during the first five-year review. Assistance from the LTS Program will be provided if requested. Sitewide five-year reviews will be reported under the direction of DOE-ID by the LTS Program.

The Sitewide review at the INEEL will cover multiple remedies and operable units, both active and inactive. The status and progress of each site in the CERCLA cleanup process will be considered. Generally, the sites can be sorted into four general categories described in Sections 3.1–3.4 according to each site’s progress through the CERCLA cleanup process. The four focus areas discussed in Section 2 are applied to these categories. All sites subject to the five-year reviews at the INEEL will be included in the Sitewide five-year review report on a WAG basis. These sites can be sorted into the following four categories discussed in Sections 3.1–3.4: (1) No Action Sites, (2) Remedy Complete Sites, (3) Remedy In-Progress Sites, and (4) Sites under Investigation.

3.1 No Action Sites

Sites that have progressed through the CERCLA investigation phase and are closed without implementing any remedial action are categorized as No Action sites. Because these No Action sites are closed, they will not require evaluation in the five-year review.

3.2 Remedy Complete Sites

Remedy complete sites are sites for which remedial actions are completed and the remedial action report has been signed and approved. Remedy complete sites can be separated into the two categories identified below.

3.2.1 Clean Remedy Complete Sites

Clean remedy complete sites include sites that have been cleaned, closed, can be released for unlimited use and unrestricted exposure, and require no additional monitoring. Because clean remedy complete sites do not require additional monitoring, they do not require evaluation in the five-year review.

3.2.2 Restricted Remedy Complete Sites

Restricted remedy complete sites include sites with completed remedial actions that could not be cleaned to a point that would allow for unlimited use or unrestricted exposure. Restricted remedy complete sites include sites where institutional controls remain in place or where long-term surveillance or monitoring is required following completion of remedial actions. Although remedial actions are completed, these sites require evaluation under the five-year review process to ensure that the remedy is functioning as intended and that contaminant levels are acceptable. Examples of restricted remedy complete sites with institutional controls include the French Drains at Central Facilities Area (WAG 4), Sewage Leach Pond Cap at the Test Reactor Area (WAG 2), and the Initial Engine Test stack rubble site at Test Area North (WAG 1). Sites designated as No Further Action may be considered in this category if hazards remain and institutional controls are in place. Typically, these sites require no remedial activity, but are controlled pending the natural decay of radioactive contaminants.

3.3 Remedy In-Progress Sites

Sites that have progressed through one or more of the CERCLA investigation phases, a remedial decision was made, a remedial action was approved, and the remedial action is either awaiting implementation or is currently underway are classified as remedy in-progress sites. These sites do not have a completed/approved remedial action report. These sites remain active and will not be closed until the remedial actions are complete and the remedial action report is approved. Examples of remedy in-progress sites include groundwater contamination at Test Area North (WAG 1), soil under buildings at the Idaho Nuclear Technology and Engineering Center (WAG 3), soil and vadose contamination at WAG 7, and unexploded ordnance at WAG 10.

Remedy in-progress sites will be evaluated to determine if the remedy is functioning as intended (Section 2.1) and if there are any changes in exposure assumptions, toxicity data, cleanup levels, or remedial action objectives (Section 2.2); and if any other information has come to light that could call into question the protectiveness of the remedy (Section 2.3). These sites also should be evaluated in terms of remedy optimization (Section 2.4). The five-year review is the appropriate time to revise a site designation from No Further Action to No Action and remove institutional controls.

3.4 Sites under Investigation

A review of new sites that are currently in one of the investigation phases of the CERCLA process can be deferred until investigations are complete and a remedial decision is made. Details regarding these sites will be reported in the next five-year review.

4. DOCUMENTATION OF FINDINGS

Histories of the WAGs and associated data are contained in the Administrative Record, in postdecision document files, or LTS files; therefore, this information will not be duplicated in five-year review reports. Only a brief chronological history of each WAG (problems discovered, remedial action objectives, and remedies implemented) shall be prepared. Primarily, the five-year reports shall serve to summarize any substantive findings and conclusions reached from monitoring and maintenance activities compiled over the previous 5 years and any corrective measures taken or being recommended to address identified deficiencies.

In addition to remedial actions performed under CERCLA (42 USC § 9601 et seq.), closures under the Resource Conservation and Recovery Act (RCRA) (42 USC § 6901 et seq.) are being implemented at the INEEL Site. Status of these activities will be included in the Sitewide five-year review. Although a five-year review of RCRA actions is not required, these actions could result in hazards being left in place at some sites, which will require institutional controls. Including an overview of RCRA activities in the five-year review will allow for the identification of trends that can be used for decision making, provide a truly comprehensive review, and better reflect the scope of activities in LTS.

The report of the five-year review is not designated as a primary or secondary document in the FFA/CO (DOE-ID 1991). The report shall be compiled on a Sitewide basis with subdivisions on each WAG.

5. TIMING OF REVIEWS

In accordance with the FFA/CO and EPA guidance, the date a remedial action is initiated in the field becomes the trigger for the five-year review clock. Refer to Table 1 for a listing of INEEL RODs, explanations of significant differences (ESDs), approximate date of remedial actions, and dates of five-year reviews that have been performed. In 2000, the EPA performed a comprehensive review at the INEEL (EPA 2000).

The first Sitewide five-year review report at the INEEL will be conducted in Fiscal Year 2005. Data compilation and evaluation will begin in October 2004, with a draft report scheduled to be submitted for Agency review by June 30, 2005. The WAGs that have not participated previously in a five-year review will act as lead over review activities at that WAG during the first five-year review. Assistance from the LTS Program will be provided if requested. The 2005 review will be reported under the leadership of the LTS Program with sections reporting from each WAG. The Fiscal Year 2005 report will constitute the first five-year review for WAG 1, WAG 3, and WAG 6/10, and the first five-year review under a comprehensive ROD for WAGs 4 and 5.

6. RELATIONSHIP TO OTHER REPORTING REQUIREMENTS/REVIEWS

The FFA/CO does not identify the Five-Year Review Report as a primary or secondary document; consequently, it does not establish an Agency review/comment period. However, five-year review reports play a significant role in the CERCLA process and provide recommendations for decisions regarding modified or new remedial actions. Therefore, it is vital that the review and comment process move efficiently so that any necessary changes in remedial actions may be implemented. Consequently, Agency review and comment on the draft reports should be subject to the 45-day schedule identified in the FFA/CO for primary documents.

To facilitate the coordination of reviews and reporting requirements, all data and related environmental reports shall be housed electronically in the Electronic Document Management System files at the INEEL. This includes data collected in support of five-year reviews as well as those data collected for other reporting requirements such as RCRA postclosure permit requirements, annual environmental monitoring reports, and annual CERCLA inspection reports. This will promote consistency in the data and reports being released to the public and regulators. It will also optimize the monitoring, data collection, and storage across all programs and minimize duplicative sampling and analysis.

Table 1. Summary of five-year Comprehensive Environmental Response, Compensation, and Liability Act reviews.

WAG	OU	ROD/ESD/ Amendment Date	Initiation of Remedial Action	Five-Year Review Completed	Mandated Date	Planned Date
1	1-07B	1995/1997/2001	1995	—	2006	2005
	1-10	1999/2003/2004	February 2000/ June 2004	—	February 2005	2005
2	2-13	1997	December 1997	August 2003	2008 (second review)	2005
3	3-13	1999/2004/NA	October 2000	—	October 2006	2005
	3-14	Pending	—	—	—	—
4	4-12 (landfills)	1995/NA/NA	1996	November 2002	Rolled into OU 4-13	Rolled into OU 4-13
	4-13 (comprehensive)	2000/2003/NA	May 2001	—	2006	2005
5	5-05 (SL-1 burial ground)	1995	1996	2001	Rolled into OU 5-12	Rolled into OU 5-12
	5-12 (comprehensive)	2000	June 2000	—	June 2005	2005
6/10	6-05 and 10-04	2002	February 2004	—	November 2009	2005
7	7-08 (OCVZ)	1994	1995	2003	2008	2005
	7-10 (Pit 9)	1993	Pending	—	—	—
	7-12 (Pad A)	1994	1994	2003	2008	2005
	7-13/14	Pending	—	—	—	—
8	OU 8-08					

Note: A Siterewide review was performed in 2000 and reported in the *Idaho National Engineering and Environmental Laboratory Superfund Site, Idaho Falls, Idaho, Five Year Review Report* (EPA 2000).
 EPA = U.S. Environmental Protection Agency
 ESD = explanation of significant differences
 NA = not applicable
 OCVZ = organic contamination in the vadose zone
 OU = operable unit
 WAG = waste area group

7. PUBLIC INVOLVEMENT

The public must remain fully informed of all ongoing activities at the site, including, but not limited to, the schedule and scope of five-year reviews. Refer to the *Community Relations Plan* (DOE-ID 2004d) for a guide to CERCLA public involvement at the INEEL. Public notice announcements shall be prepared notifying the community that a five-year review will be conducted, notifying the community that a five-year review has been completed, and providing the results of the review to the appropriate information repositories. Figure 2 shows the format of a typical public announcement.

If significant deficiencies are noted during the five-year review, which require corrective measures, the public shall be involved. Should a five-year review identify the potential need to implement a previously identified contingency to correct a remedy failure, and that contingency was discussed in the original decision, it may be adequate to simply notify the public through an ESD that the contingency plan is being implemented. However, if a review finds that the original remedy is failing, and a new remedy is necessary, then those community participation requirements under which the original remedy was selected would be applicable to the selection of the new remedy. If the corrective measures identified in the five-year review address insignificant deficiencies, the actions may be documented in the report and recorded in the files without public notification prior to taking the measures.

The *Idaho National Engineering and Environmental Laboratory Comprehensive Facility and Land Use Plan* (DOE-ID 1997b) shall track (or include by reference) any permitting changes, renovation work on structures, well placement and drilling, construction, or other activities that could occur on institutionally controlled sites at the INEEL. The CERCLA module of the Comprehensive Facility and Land Use Plan is publicly available at <http://cflup.inel.gov> and is an important tool in communicating information within the INEEL and to the public. Data and results from the Sitewide five-year reviews will be incorporated into the Comprehensive Facility and Land Use Plan as needed.

INEEL completes five-year review of Test Reactor Area remediation



The U.S. Department of Energy has announced the availability of a five-year review report for remediation work at the Test Reactor Area facility. The remediation work originally identified for the TRA area was completed several years ago. The status of the completed remediation was evaluated by the agencies in a five-year review as required by the Federal Facility Agreement and Consent Order, an agreement among DOE, the U.S. Environmental Protection Agency, and the state of Idaho.

The primary mission at the Test Reactor Area is operation of the Advanced Test Reactor, the world's premier test reactor. It is used to study the effects of radiation on materials. The reactor can also produce rare and valuable medical and industrial isotopes. The Test Reactor Area is also the site of two other test reactors, the Material Test Reactor and Engineering Test Reactor.

The remediation sites identified in the Operable Unit 2-13 Record of Decision for at the Test Reactor Area underwent a five-year review to verify that cleanup remedies completed in the past are performing as expected and continue to protect people and the environment.

The environmental monitoring responsibilities at the Test Reactor Area will continue to be performed by DOE's Environmental Management organization. Continued operation of the Advanced Test Reactor and most Test Reactor Area facilities will be performed by the Office of Nuclear Energy. Both the five-year review and the closeout report can be found in the Administrative Record. The Administrative Record is located at the DOE Reading Room of the INEEL Technical Library in Idaho Falls. Copies can be found at Albertsons Library on the Boise State University campus. The Administrative Record can be accessed on the Internet at <http://ar.inel.gov/>.

Any members of the public who have questions or comments about the five-year review for the Test Reactor Area are encouraged to contact the Community Relations office at (208) 526-3183 or campjl@inel.gov. More information on the cleanup work at INEEL is available online at: <http://cleanup.inel.gov>.



G1332-01

Figure 2. Example of an Idaho National Engineering and Environmental Laboratory public announcement.

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