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A USER'S GUIDE TO THE SNF & INEL EIS

**U.S. Department of Energy Programmatic Spent Nuclear Fuel Management and
Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs
Final Environmental Impact Statement*

MASTER

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Introduction

This User's Guide is intended to help you find information in the *SNF & INEL EIS* (that's short for *U.S. Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final Environmental Impact Statement*). The first section of this Guide gives you a brief overview of the *SNF & INEL EIS*. The second section is organized to help you find specific information in the Environmental Impact Statement—whether you're interested in a management alternative, a particular site (such as Hanford), or a discipline (such as land use or water quality).

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User's Guide to the SNF & INEL EIS

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Section 1: Overview

Elements of this Environmental Impact Statement

DOE is in the process of making important decisions regarding spent nuclear fuel, environmental restoration, and waste management programs. To address these issues, DOE has prepared an Environmental Impact Statement: *SNF & INEL EIS*.

▼ The *SNF & INEL EIS* is a three-volume document:

Volume 1—Programmatic (DOE-wide) Spent Nuclear Fuel Management: Analyzes the potential environmental consequences over the next 40 years of alternatives related to the transportation, receipt, processing, and storage of DOE's spent nuclear fuel.

Volume 2—INEL Environmental Restoration and Waste Management (ER & WM) Programs: Analyzes the site-specific consequences of INEL actions anticipated over the next 10 years for waste and spent nuclear fuel management and environmental restoration.

User's Guide to the SNF & INEL EIS 1-1

Volume 3—Comment Summaries and Responses: Summarizes public comments on the draft Environmental Impact Statement, and provides DOE responses.

The *SNF & INEL EIS* has a **Summary** for the entire Environmental Impact Statement, and summaries specific to Volume 1 and Volume 2. Volumes 1 and 2 each have a **Purpose and Need for Agency Action** section.

The **Alternatives** section in Volumes 1 and 2 summarizes and briefly compares the features of each alternative being considered. As required by the National Environmental Policy Act, Volumes 1 and 2 each include a "No-Action" alternative.

The **Affected Environment** section in Volumes 1 and 2 describes current conditions that might be affected by the alternatives under consideration: ecology, air, water, geology, cultural resources, land use, aesthetics, noise, health and safety, socioeconomics, transportation, and energy and utilities.

The **Environmental Consequences** section in Volumes 1 and 2 provides an evaluation of potential impacts of the alternatives. These include total (cumulative) impacts,

Summary	
Purpose and Need For Action	
Alternatives	
Affected Environment	
Environmental Consequences	
List of Preparers	
Coordination and Consultation	
Index	
References	
Appendices	

impacts that can't be avoided, short-term use of the environment compared to long-term productivity, resources that would be committed, and means to reduce or avoid (mitigate) adverse environmental impacts.

▼ **Volume 1** (Programmatic Spent Nuclear Fuel Management) contains several site-specific appendices, providing detailed information on the above subjects at each site being considered for spent nuclear fuel management:

Appendix A - Hanford Site

Appendix B - INEL

Appendix C - Savannah River Site

Appendix D - Naval Spent Nuclear Fuel Management

Appendix E - Other Generator/Storage Locations

Appendix F - Nevada Test Site and Oak Ridge Reservation

The remaining Volume 1 appendices contain supplemental information:

Appendix G - Acronyms/ Abbreviations

Appendix H - Glossary

Appendix I - Offsite Transportation of Spent Nuclear Fuel

Appendix J - Spent Nuclear Fuel Management

Appendix K - Environmental Consequences Data

Appendix L - Environmental Justice

Appendix M - FEIS Distribution

▼ **Volume 2** (INEL Environmental Restoration and Waste Management Programs) contains six appendices:

Appendix A - Primer on Radioactivity and Toxicology

Appendix B - Consultation Letters

Appendix C - Information Supporting the Alternatives

Appendix D - Acronyms/ Abbreviations

Appendix E - Glossary

Appendix F - Technical Methodologies and Key Data

▼ **Volume 3** summarizes comments on the Draft Environmental Impact Statement that were received during the public comment period, and provides DOE responses to those comments. The Introduction to Volume 3 also includes discussions of:

- How public comments influenced selection of the preferred alternatives
- The extent to which public comments resulted in changes to the Environmental Impact Statement
- How to find specific comment summaries and responses in Volume 3.

In Volume 3, individual public comments are summarized, grouped with others that are similar, and organized into nine topical sections, called response sections. The response sections are:

1. Preference for Alternatives
2. NEPA-Related Comments
3. Policy
4. Proposed Action and Alternatives
5. Technical Issues
6. Spent Nuclear Fuel Management Specific
7. INEL ER&WM Programs Specific
8. Naval Program Specific
9. Miscellaneous

Also in Volume 3 are three appendices to help the reader locate specific comment summaries and responses. If you made a comment, you can find DOE's response in Volume 3 with the help of these appendices.

How do I find a response to my comment on the Draft EIS?

1. Turn to Appendix A in Volume 3 and find your name (or organization or agency), and note the comment document number assigned to your comment.
2. In the same entry, find the response section number where the response to the comment is located.
3. Turn to the Table of Contents in Volume 3 under the heading Comment Summaries and Responses, where response section numbers are listed in numerical order; to find the page on which the response section number that applies to the comment appears.
4. Turn to the appropriate page to find a response to a summary of the comment.

Example:

1. The first alphabetical entrant, Dinah Abbott, has been assigned comment document number 615.
2. Ms. Abbott's first entry is for response number 01.01.01.01-(005); four other response numbers are applicable to her comments.
3. That first entry is in Section 1.1.1.1, entitled "Action alternatives" under Specific Preferences for SNF Management Alternatives.
4. Section 1.1.1.1 begins on page 1-1. The selected entry for Ms. Abbott is Response 005 in that section and is located on page 1-2.

Information

A complete copy of the *SNF & INEL EIS* and a list of reference documents are available in public reading room and information locations. Their addresses are included in the Summary. For further information on the *SNF & INEL EIS* or to request additional copies, call or contact:

Office of Communications
Bradley P. Bugger
DOE Idaho Operations Office
850 Energy Drive, MS 1214
Idaho Falls, ID 83403-3189
(208) 526-0833

Section 2: Finding Answers to Your Questions

The *SNF & INEL EIS* has various tools that are intended to make the reader's job easier. Volumes 1 and 2 of the *SNF & INEL EIS* each have a table of contents, an index to topics (section 8 of each volume), and a glossary that defines terms (Appendix H in Volume 1, and Appendix E in Volume 2). The *SNF & INEL EIS* also has a separate Summary for the entire Environmental Impact Statement, and summaries specific to Volume 1 and Volume 2. Volume 3 has a table of contents and an introduction.

The following pages provide information on major topics (such as sites evaluated, health and safety, and jobs), including directions for finding these topics in the *SNF & INEL EIS*.

How is the *SNF & INEL EIS* structured for detail?

DOE has structured the *SNF & INEL EIS* in a way that enables readers to study the results in varying levels of detail. Readers interested in the broad picture will probably have their needs met by the Summary. Readers interested in the details of how analyses were performed will find that information in the various appendices. The main sections of Volumes 1 and 2 contain an intermediate level of detail.

Level of
detail
increases

Summary for EIS

Summary for Volume 1 of EIS
Summary for Volume 2 of EIS

Volume 1 of EIS (5 major sections)
Volume 2 of EIS (5 major sections)
Volume 3 of EIS

Volume 1 Appendices (10 key)
Volume 2 Appendices (4 key)

References for EIS
(Data, Technical Resource Documents, etc.)

Most
general

Most
specific

Where do I find more information on how spent nuclear fuel is currently managed?

DOE is currently responsible for spent nuclear fuel at various sites across the country. Most of this fuel is currently stored at three locations: Hanford Site, the INEL, and the Savannah River Site. The sites are discussed in Volume 1 and its appendices. Five sites are considered for management of naval spent nuclear fuel only (as detailed in Appendix D of Volume 1).

DOE manages over 100 different types of spent nuclear fuel. The *SNF & INEL EIS* examines ways to safely manage spent nuclear fuel, given certain "programmatic considerations" such as current facilities, technologies, transportation modes, safety and security measures, and state and Federal agreements.

The following table indicates where information on spent nuclear fuel management is found in Volume 1 of the *SNF & INEL EIS*. Volume 2 discusses spent nuclear fuel management in sections 2.2.5 and 3.1.1.

Programmatic Spent Nuclear Fuel Management – Volume 1

For Information About...

See...

DOE	Spent Fuel Management Program (inventory, types, storage)	Section 1.1.2; Section 2.3 of Appendices A, B, C, and F; Section 2 of Appendices E & J
	Technologies for Management of Spent Fuel	Section 1.1.3; Sections 3 and 4 of Appendix J
	Traffic and Transportation	Appendix I; Sections 4.11 and 5.11 of Appendices A, B, C, and F
Naval Nuclear Propulsion Program	Spent Fuel Management	Section 2.4 of Appendix D; Attachment D of Appendix D
	Traffic and Transportation	Section 4 of Appendix D; Attachment A of Appendix D

Where do I find more information on applicable laws and regulations?

Laws and regulations applicable to the *SNF & INEL EIS* include Federal laws, Executive Orders, and DOE regulations, as well as the state and local laws applying to each site. These laws address a range of issues, from radioactive and hazardous waste management to endangered species, transportation, and health and safety.

Programmatic Spent Nuclear Fuel Management – Volume 1

For Information About...	See...
Federal Laws and Regulations	Sections 3.3.7 and 7.1.1
Executive Orders	Section 7.1.2
DOE Regulations and Orders	Sections 7.1.3
Transportation Regulations	Section 7.1.4; Section 2 of Appendix I
Hanford Site	Section 2.2 of Appendix A
INEL	Section 2.2 of Appendix B
Savannah River Site	Section 2.2 of Appendix G
Nevada Test Site	Section 2.2 of Appendix F
Oak Ridge Reservation	Section 2.2 of Appendix F
Naval Sites	Section 2.3 of Appendix D

INEL ER & WM Programs – Volume 2

For Information About...	See Section...
ER & WM Regulatory Framework	2.2.11
Federal Laws and Regulations	7.2.1
Executive Orders	7.2.2
DOE Orders and Regulations	7.2.3
Idaho Laws and Regulations	7.2.4
INEL Compliance/Permits	7.2.5 and 7.3

Where do I find more information on the major issues addressed in the EIS?

See sections 1 and 2 of Volumes 1 and 2 of the *SNF & INEL EIS*.

Programmatic Spent Nuclear Fuel Management – Volume 1

For Information About...	See Section...
Overview of DOE Spent Nuclear Fuel Management	1.1
Related National Environmental Policy Act Documents	1.2
Scope of Volume 1	1.3
Purpose and Need for Agency Action	2

INEL ER & WM – Volume 2

For Information About...	See Section...
Content and Scope of Volume 2	2.1.1 and 2.1.2
Related National Environmental Policy Act Documents	2.1.3
INEL	2.2.1 and 2.2.2
History and Current Mission	2.2.3
Major Facility Areas	2.2.4
Spent Nuclear Fuel	2.2.5
Environmental Restoration	2.2.6
Waste Management	2.2.7
Technology Development	2.2.9

Where do I find information on the sites being considered for spent nuclear fuel management?

The *SNF & INEL EIS* considers ten potential sites for management of spent nuclear fuel: five DOE sites and (for management of naval spent nuclear fuel only) five naval sites. There are about 50 other sites where spent nuclear fuel is generated or stored (for example, university research reactors).

The following tables show you where to find information on proposed alternatives; site conditions; potential impacts of the proposed alternatives, including potential accidents and natural hazards; and proposed methods for reducing the impacts.

Where do I find information on Volume 1 alternatives?

Programmatic Spent Nuclear Fuel Management—Volume 1

Five alternatives are considered for spent nuclear fuel management:

- 1. No Action**
- 2. Decentralization**
- 3. 1992/93 Planning Basis**
- 4. Regionalization**
- 5. Centralization**

The following five tables show where to locate information in Volume 1 about each of these alternatives. Each table shows where you can find information about the effects of an alternative on sites being considered for spent fuel management.

For a discussion of alternatives that were eliminated from further evaluation, see Section 3.2 and Appendix D-Section 3.6.

No Action—Under this alternative, DOE would take minimum actions required for safe and secure management of spent nuclear fuel at, or close to, the generation site or current storage location.

	Hanford Site	INEL	Savannah River Site	Naval Program	Nevada Test Site	Oak Ridge Reservation	Other Sites
Description of Alternative	3.1.1.1 Fig. 3-1 Table 3-1 App. A-3.1.1	3.1.1.2 Fig. 3-1 Table 3-1 App. B-3.1.1	3.1.1.3 Fig. 3-1 Table 3-1 App. C-3.2.2	3.1.1.6 Fig. 3-1 Table 3-1 App. D-3.1	3.1.1.5 Fig. 3-1 Table 3-1 App. F-3.1.1	3.1.1.4 Fig. 3-1 Table 3-1 App. F-3.1.1	3.1.1.7 Fig. 3-1 Table 3-1 App. E-2.2.1
Comparison of Alternatives	3.3 App. A-3.2, Table 3-1	3.3 App. B-3.2, Table 3-1	3.3 App. C-3.3, Tables 3-1, 3-2, 3-3	3.3 App. D-3.7	3.3 App. F-3.2	3.3 App. F-3.2	3.3
Impacts	5.1.2 5.3.2 Fig. 5-1 App. A-5	5.1.2 5.3.2 Fig. 5-1 App. B-5	5.1.2 5.3.2 Fig. 5-1 App. C-5	5.1.2 5.3.2 Fig. 5-1 App. D-5	5.1.2 5.3.2 Fig. 5-1	5.1.2 5.3.2 Fig. 5-1	5.1.2 5.3.2 Fig. 5-1 App. E-4.1

Note: Indexed according to sections, figures, tables, and appendices.

Decentralization—Under this alternative, DOE would store most spent nuclear fuel at, or close to, generation site or current storage location, with limited shipments to DOE facilities.

	Hanford Site	INEL	Savannah River Site	Naval Program	Nevada Test Site	Oak Ridge Reservation	Other Sites
Description of Alternative	3.1.2.1 Fig. 3-2 Table 3-2 App. A-3.1.2	3.1.2.2 Fig. 3-2 Table 3-2 App. B-3.1.2	3.1.2.3 Fig. 3-2 Table 3-2 App. C-3.2.3	3.1.2.6 Fig. 3-2 Table 3-2 App. D-3.2	3.1.2.5 Fig. 3-2 Table 3-2 App. F-3.1.2	3.1.2.4 Fig. 3-2 Table 3-2 App. F-3.1.2	3.1.2.7 Fig. 3-2 Table 3-2 App. E-2.2.2
Comparison of Alternatives	3.3 App. A-3.2, Table 3-1	3.3 App. B-3.2, Table 3-1	3.3 App. C-3.3, Tables 3-1, 3-2, 3-3	3.3 App. D-3.7	3.3 App. F-3.2	3.3 App. F-3.2	3.3
Impacts	5.1.3 5.3.2 Fig. 5-2 App. A-5	5.1.3 5.3.2 Fig. 5-2 App. B-5	5.1.3 5.3.2 Fig. 5-2 App. C-5	5.1.3 5.3.2 Fig. 5-2 App. D-5	5.1.3 5.3.2 Fig. 5-2 App. D-5	5.1.3 5.3.2 Fig. 5-2	5.1.3 5.3.2 Fig. 5-2 App. E-4.2

Note: Indexed according to sections, figures, tables, and appendices.

1992/93 Planning Basis—Under this alternative, DOE would transport and store newly generated spent nuclear fuel at INEL or Savannah River Site. DOE would consolidate some existing fuels at INEL.

	Hanford Site	INEL	Savannah River Site	Naval Program	Nevada Test Site	Oak Ridge Reservation	Other Sites
Description of Alternative	3.1.3.1 Fig. 3-3 Table 3-3 App. A-3.1.3	3.1.3.2 Fig. 3-3 Table 3-3 App. B-3.1.3	3.1.3.3 Fig. 3-3 Table 3-3 App. C-3.2.4	3.1.3.6 Fig. 3-3 Table 3-3 App. D-3.3	3.1.3.5 Fig. 3-3 Table 3-3 App. F-3.1.3	3.1.3.4 Fig. 3-3 Table 3-3 App. F-3.1.3	3.1.3.7 Fig. 3-3 Table 3-3 App. E-2.2.3
Comparison of Alternatives	3.3 App. A-3.2, Table 3-1	3.3 App. B-3.2, Table 3-1	3.3 App. C-3.3, Tables 3-1, 3-2, 3-3	3.3 App. D-3.7	3.3 App. F-3.2	3.3 App. F-3.2	3.3
Impacts	5.1.4 5.3.2 Fig. 5-3 App. A-5	5.1.4 5.3.2 Fig. 5-3 App. B-5	5.1.4 5.3.2 Fig. 5-3 App. C-5	5.1.4 5.3.2 Fig. 5-3 App. D-5	5.1.4 5.3.2 Fig. 5-3	5.1.4 5.3.2 Fig. 5-3	5.1.4 5.3.2 Fig. 5-3 App. E-4.3

Note: Indexed according to sections, figures, tables, and appendices.

Regionalization—Under Regionalization 4A, the preferred alternative, DOE would distribute spent nuclear fuel among DOE sites primarily on the basis of fuel type. Under Regionalization 4B, DOE would distribute spent nuclear fuel among DOE sites primarily on the basis of location; sites west of the Mississippi River would ship to a western regional site, and sites east of the Mississippi would ship to an eastern regional site. All naval spent nuclear fuel would be examined and stored at either the western or eastern regional site.

	Hanford Site	INEL	Savannah River Site	Naval Program	Nevada Test Site	Oak Ridge Reservation	Other Sites
Description of Alternative	3.1.4.1 Figs. 3-4, 3-5 Table 3-4 App. A-3.1.4	3.1.4.2 Figs. 3-4, 3-5 Table 3-4 App. B-3.1.4	3.1.4.3 Figs. 3-4, 3-5 Table 3-4 App. C-3.2.5	3.1.4.6 Figs. 3-4, 3-5 Table 3-4 App. D-3.4	3.1.4.5 Figs. 3-4, 3-5 Table 3-4 App. F-3.1.4	3.1.4.4 Figs. 3-4, 3-5 Table 3-4 App. F-3.1.4	3.1.4.7 Figs. 3-4, 3-5 Table 3-4 App. E-2.2.4
Comparison of Alternatives	3.3 App. A-3.2, Table 3-1	3.3 App. B-3.2, Table 3-1	3.3 App. C-3.1, Tables 3-1, 3-2, 3-3	3.3 App. D-3.7	3.3 App. F-3.2	3.3 App. F-3.2	3.3
Impacts	5.1.5 5.3.2 Figs. 5-4 to 5-7 App. A-5	5.1.5 5.3.2 Figs. 5-4 to 5-7 App. B-5	5.1.5 5.3.2 Figs. 5-4 to 5-7 App. C-5	5.1.5 5.3.2 Figs. 5-4 to 5-7 App. D-5	5.1.5 5.3.2 Figs. 5-4 to 5-7 App. F-5	5.1.5 5.3.2 Figs. 5-4 to 5-7 App. F-5	5.1.5 5.3.2 Figs. 5-4 to 5-7 App. E-4.4

Note: Indexed according to sections, figures, tables, and appendices.

Centralization— Under this alternative, DOE would manage all existing and projected spent nuclear fuel inventories at one DOE site until ultimate disposition.

	Hanford Site	INEL	Savannah River Site	Naval Program	Nevada Test Site	Oak Ridge Reservation	Other Sites
Description of Alternative	3.1.5.1 Fig. 3-6 Table 3-5 App. A-3.1.5	3.1.5.2 Fig. 3-6 Table 3-5 App. B-3.1.5	3.1.5.3 Fig. 3-6 Table 3-5 App. C-3.2.6	3.1.5.6 Fig. 3-6 Table 3-5 App. D-3.5	3.1.5.5 Fig. 3-6 Table 3-5 App. F-3.1.5	3.1.5.4 Fig. 3-6 Table 3-5 App. F-3.1.5	3.1.5.7 Fig. 3-6 Table 3-5 App. E-2.2.5
Comparison of Alternatives	3.3 App. A-3.2, Table 3-1	3.3 App. B-3.2, Table 3-1	3.3 App. C-3.3, Tables 3-1, 3-2, 3-3	3.3 App. D-3.7	3.3 App. F-3.2	3.3 App. F-3.2	3.3
Impacts	5.1.6 5.3.2 Figs. 5-8, 5-9 App. A-5	5.1.6 5.3.2 Figs. 5-8, 5-9 App. B-5	5.1.6 5.3.2 Figs. 5-8, 5-9 App. C-5	5.1.6 5.3.2 Figs. 5-8, 5-9 App. D-5	5.1.6 5.3.2 Figs. 5-8, 5-9 App. F-5	5.1.6 5.3.2 Figs. 5-8, 5-9 App. F-5	5.1.6 5.3.2 Figs. 5-8, 5-9 App. E-4.5

Note: Indexed according to sections, figures, tables, and appendices.

What is the preferred alternative for Volume 1?

In compliance with the National Environmental Policy Act, DOE has identified its preferred alternatives in the Final Environmental Impact Statement. The preferred alternative for Volume 1 is Regionalization 4A. See the beginning of Chapter 3 of Volume 1 for an explanation of how this alternative was chosen.

Where do I find information on Volume 2 alternatives?

INEL ER & WM Programs— *Volume 2*

▼ Four alternatives are evaluated in Volume 2:

1. **No Action**—Complete all near-term actions identified and continue operating most existing facilities.

2. **Ten-Year Plan**—Complete identified projects and initiate new projects to enhance cleanup, manage INEL waste and spent nuclear fuel, prepare waste for disposal, and develop technologies for the ultimate disposition of spent nuclear fuel.
3. **Minimum Treatment, Storage, and Disposal (TSD)**—Minimize TSD activities at the INEL. Conduct minimum cleanup and decontamination and decommissioning prescribed by regulation. Transfer spent nuclear fuel and waste from environmental restoration activities to another site.
4. **Maximum TSD**—Expand TSD activities at the INEL to accommodate waste and spent nuclear fuel from DOE facilities. Conduct maximum cleanup and decontamination and decommissioning.

Appendix C contains information supporting the alternatives, including project summaries. Alternatives eliminated from further evaluation are discussed in Section 3.2.

The following table shows where to find information in Volume 2 about the four alternatives, including their impacts.

Alternatives evaluated in Volume 2

Alternative	Description	Comparison of Impacts	Impacts*		
No Action	2.1.1 3.1	3.3 Table 3.3-1	5.1	5.7	5.13.2
			5.2.2	5.8.2	5.14.3
			5.3.2	5.9.2	5.15
			5.4.2	5.10	5.16
			5.5.2	5.11.2	
			5.6.2	5.12	
Ten-Year Plan	2.1.1 3.1	3.3 Table 3.3-1	5.1	5.7	5.13.3
			5.2.3	5.8.3	5.14.4
			5.3.3	5.9.3	5.15
			5.4.3	5.10	5.16
			5.5.3	5.11.2	
			5.6.2	5.12	
Minimum TSD	2.1.1 3.1	3.3 Table 3.3-1	5.1	5.7	5.13.4
			5.2.4	5.8.4	5.14.5
			5.3.4	5.9.4	5.15
			5.4.4	5.10	5.16
			5.5.4	5.11.2	
			5.6.2	5.12	
Maximum TSD	2.1.1 3.1	3.3 Table 3.3-1	5.1	5.7	5.13.5
			5.2.5	5.8.5	5.14.6
			5.3.5	5.9.5	5.15
			5.4.5	5.10	5.16
			5.5.5	5.11.2	
			5.6.2	5.12	

Note: Indexed according to sections and tables.

* Subjects addressed in this column, for each alternative are: introduction, land use, jobs and housing, cultural resources, scenic resources, geology, air, water, ecology, noise, traffic and transportation, health and safety, services, accidents, cumulative impacts, and unavoidable environmental effects.

What is the preferred alternative for Volume 2?

The preferred alternative for Volume 2 is essentially the same as the Ten-Year Plan alternative, but includes elements of other alternatives for some waste types.

Section 3.4 of Volume 2 discusses this preferred alternative, including how it was chosen, plans, and potential impacts.

Under Preferred Alternative – Volume 2

For Information About...	See Section...
Preferred Alternative Decision Process	3.4.1
Conclusions	3.4.2
Spent Nuclear Fuel Management	3.4.3
Environmental Restoration	3.4.4
Waste Management	3.4.5
Environmental Consequences	3.4.6
Cumulative Impacts from Connected or Similar Actions	3.4.7
Unavoidable Adverse Environmental Effects	3.4.8
Short-Term Use of Environment and Maintenance of	3.4.9
Long-Term Productivity	
Irretrievable Commitments of Resources	3.4.10
Potential Mitigation	3.4.11
Environmental Justice	3.4.12

Where do I find information on the affected environment?

Programmatic Spent Nuclear Fuel Management (*Volume I*) – Affected Environment

For Information About...	See...
Hanford Site	Section 4.1 and Appendix A
INEL	Section 4.2 and Appendix B
Savannah River Site	Section 4.3 and Appendix C
Nevada Test Site	Section 4.4 and Appendix F
Oak Ridge Reservation	Section 4.5 and Appendix F
Naval Sites	Section 4.6 and Appendix D
Puget Sound Naval Shipyard	Section 4.6.1 and Appendix D
Norfolk Naval Shipyard	Section 4.6.2 and Appendix D
Portsmouth Naval shipyard	Section 4.6.3 and Appendix D
Pearl Harbor Naval shipyard	Section 4.6.4 and Appendix D
Kesselring Site	Section 4.6.5 and Appendix D
Other Generator/Storage Locations	Section 4.7 and Appendix E

Where can I get more information on the potential impacts of the alternatives?

The impacts, or environmental consequences, are examined in several ways in Volumes 1 and 2 of the *SNF & INEL EIS*:

- What are the **direct impacts** under normal, day-to-day conditions?
- What are the total (**cumulative**) impacts, when the impacts of the alternatives are added together with the impacts of other, past and reasonably foreseeable projects?
- Among the identified impacts, which will happen no matter what actions are taken to reduce the impacts (**unavoidable adverse impacts**)?
- What are the impacts of short-term use weighed against long-term gains?
- Are there any resources to be used that will not be replaced (**irreversible and irretrievable commitment of resources**)?

Information regarding impacts is in Appendices A-F of Volume 1 and in the sections of Volume 1 listed in the following table. For Volume 1, results of the analysis of impacts are compiled in Appendix K.

Programmatic Spent Nuclear Fuel Management (*Volume 1*) – Impacts

	No Action	Decentral- ization	1992/93 Planning Basis	Regional- ization	Central- ization
Health and Safety	3.3.2	3.3.2	3.3.2	3.3.2	3.3.2
	5.1.2.4	5.1.3.4	5.1.4.2	5.1.5.4	5.1.6.4
	5.1.2.5	5.1.3.5	5.1.4.4	5.1.5.5	5.1.6.5
	5.3.2.6	5.3.2.6	5.3.2.6	5.3.2.6	5.3.2.6
Transportation	5.1.2.6	5.1.3.6	5.1.4.6	5.1.5.6	5.1.6.6
	5.3.2.7	5.3.2.7	5.3.2.7	5.3.2.7	5.3.2.7
	App. I-4.2.1	App. I-4.2.2	App. I-4.2.3	App. I-4.2.4	App. I-4.2.5
	App. I-5.3.1	App. I-5.3.2	App. I-5.3.3	App. I-5.3.4	App. I-5.3.5
Waste Management	3.3.4	3.3.4	3.3.4	3.3.4	3.3.4
	5.1.2.3	5.1.3.3	5.1.4.3	5.1.5.3	5.1.6.3
	5.3.2.9	5.3.2.9	5.3.2.9	5.3.2.9	5.3.2.9
Energy and Utilities	5.1.2.2	5.1.3.2	5.1.4.2	5.1.5.2	5.1.6.2
	5.3.2.8	5.3.2.8	5.3.2.8	5.3.2.8	5.3.2.8
Jobs and Housing	3.3.3	3.3.3	3.3.3	3.3.3	3.3.3
	5.1.2.1	5.1.3.1	5.1.4.1	5.1.5.1	5.1.6.1
	5.3.2.2	5.3.2.2	5.3.2.2	5.3.2.2	5.3.2.2
Radiological	5.1.2.4	5.1.3.4	5.1.4.4	5.1.5.4	5.1.6.4
Nonradiological (Chemical)	5.1.2.5	5.1.3.5	5.1.4.5	5.1.5.5	5.1.6.5

Note: Indexed according to sections and appendices.

Programmatic Spent Nuclear Fuel Management (Volume 1) – Impacts

For Information About...	See...
Environment	
Water	Sections 5.2.6 and 5.3.2.4 and Appendices A-D, F
Air	Sections 5.2.5 and 5.3.2.3 and Appendices A-D, F
Ecology	Sections 5.2.7 and 5.3.2.5 and Appendices A-D, F
Geology	Section 5.2.4 and Appendices A-D, F
Noise	Section 5.2.8 and Appendices A-D, F
Scenic	Section 5.2.3 and Appendices A-D, F
Cultural Resources	Section 5.2.2 and Appendices A-D, F
Land Use	Sections 5.2.1 and 5.3.2.1 and Appendices A-D, F
Energy and Utilities	Sections 5.1.1.2, 5.2.9, and 5.3.2.8 and Appendices A-D, F
Missions	
DOE	3.3.5.1
Navy	3.3.5.2

What steps could be taken to reduce the impacts?

Volumes 1 and 2 of the *SNF & INEL EIS* include information on possible methods to reduce, or minimize, the impacts of the alternatives; this information is called **possible mitigation measures**.

Programmatic Spent Nuclear Fuel Management (Volume 1) – Reduction of Impacts

For Information About...	See...
Health and Safety	Section 5.7.10 and Appendices A,C,D
Traffic and Transportation	Section 5.7.9 and Appendices A-C
Cultural Resources	Section 5.7.3 and Appendices A-C
Accidents	Section 5.7.12 and Appendices A-D
Jobs and Housing	Section 5.7.2 and Appendices A,C
Site Utilities/Support Services	Section 5.7.11 and Appendices A-D, F
Environment	
Water	Section 5.7.6 and Appendices A,C
Air	Section 5.7.5 and Appendices A,C
Ecology	Section 5.7.7 and Appendices A,C
Soils/Geology	Section 5.7.4 and Appendices A,C
Pollution Prevention	Section 5.7.1 and Appendices A-D
Noise	Section 5.7.8 and Appendices A-D

What about the affected environment, potential impacts, and mitigation measures at INEL?

The following table shows where (in Volume 2) you can find information on these subjects with regard to INEL's ER & WM Programs.

Technical methodologies and key data used in analyses for Volume 2 are in Appendix F.

INEL ER & WM Programs (Volume 2)

	Affected Environment	Impacts	Reduction of Impacts
Health and Safety	4.12; F-4	3.3.11, 5.12, 5.15.8; F-4	5.19.8
Traffic and Transportation	4.11	3.3.10, 5.11, 5.15.7	5.19.7
Cultural Resources	4.4	3.3.3, 5.4, 5.15.3, 5.16.1	5.19.1
Land Use	4.2	3.3.1, 5.2, 5.15.1	not identified
Jobs and Housing	4.3; F-1	3.3.2, 5.3, 5.15.2; F-1	not identified
Accidents	not identified	3.3.13, 5.14; F-5	5.19.10
Environment			
Water	4.8; F-2	3.3.7, 5.8, 5.15.5, 5.16.4; F-2	5.19.5
Air	4.7; F-3	3.3.6, 5.7, 5.15.4, 5.16.3; F-3	5.19.4
Ecology	4.9	3.3.8, 5.9, 5.15.6, 5.16.5	5.19.6
Geology	4.6; F-2	3.3.5, 5.6; F-2	5.19.3
Noise	4.10	3.3.9, 5.10	not identified
Scenic	4.5	3.3.4, 5.5, 5.16.2	5.19.2
Facilities/Services			
INEL Services	4.13	3.3.12, 5.13	5.19.9
Energy and Utilities	4.13	5.13	5.19.9

Note: Indexed according to sections and appendices.

Where do I find information on environmental justice?

In accordance with Executive Order 12898, DOE assessed the potential for disproportionately high and adverse consequences on minority populations and low-income populations under the alternatives being considered in Volumes 1 and 2 of the *SNF & INEL EIS*. DOE concluded that none of the alternatives being considered in either volume would have such adverse consequences for any segment of the population, minorities or low-income communities included.

Programmatic Spent Nuclear Fuel Management (Volume 1)

For Information About...	See...
Environmental Justice	Section 5.8 and Appendix L
Public Comment	Section L-2 of Appendix L
Community Characteristics	Section L-3 of Appendix L
Assessment	Section L-4 of Appendix L
Conclusions	Section L-5 of Appendix L

INEL ER & WM Programs (Volume 2)

For Information About...	See Section...
Environmental Justice	5.20
Public Comment	5.20.1
Community Characteristics	5.20.2
Assessment	5.20.3
Issues Raised by Shoshone-Bannock Tribes	5.20.4
Conclusion	5.20.5

For further information on the *SNF & INEL EIS* or to request additional copies, call or contact:

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