ROD was subsequently amended to expand the facility (DOE, EPA, and Ecology 1997) and to delist the leachate collected at the facility (DOE and EPA 1999).

- **Record of Decision, U.S. Department of Energy, Hanford 300 Area, Hanford Site, Benton County, Washington (April 2001)**

  DOE, EPA, and Ecology decided that interim remedial actions for portions of the 300 Area would include removal of contaminated soil, structures, and associated debris; treatment, if needed, to meet waste acceptance criteria at an acceptable disposal facility; disposal of contaminated materials at ERDF, WIPP, and other EPA-approved disposal facilities; recontouring and backfilling excavated areas followed by infiltration control measures; institutional controls to ensure that unanticipated changes in land use that could result in unacceptable exposures to residual concentration do not occur; ongoing groundwater and ecological monitoring to ensure effectiveness of remedial actions; and the regulatory framework for accelerating future remediation decisions (EPA 2001). The cleanup plan and schedules would include specific commitments regarding the decontamination and decommissioning of facilities and aboveground structures needed to complete cleanup of underlying waste sites in the 300 Area Complex and the remediation plans for the 618-10 and 618-11 Burial Grounds.

## 1.6 NEPA Process for the HSW EIS

The formal NEPA process for preparing the HSW EIS is described in the following sections. The typical process begins with DOE issuing a Notice of Intent (NOI) to prepare an EIS, followed by the scoping period, during which public input is sought on the scope of the EIS. The draft EIS is prepared following the scoping period, and the draft is issued for public comment. EPA publishes a Federal Register Notice of Availability (NOA) for the draft EIS at the beginning of the public comment period, which lasts a minimum of 45 days. Following public comment on the draft, the final EIS is prepared, ultimately leading to a Record of Decision on the proposed action. The ROD is published no sooner than 30 days after the EPA Notice of Availability for the final EIS, after which DOE may proceed with the activity under consideration.

### 1.6.1 Scoping for the Draft HSW EIS

The scope of an EIS consists of the range of actions, alternatives, and impacts to be considered (40 CFR 1508.25). Scoping is a public process used by DOE to help identify significant issues related to a proposed action. As part of that process, DOE invited comments and recommendations from interested parties on the scope of this HSW EIS.

DOE decided to prepare the HSW EIS in early 1997, following publication of the draft WM PEIS, but before DOE issued the final WM PEIS in May of 1997. The formal Notice of Intent to prepare the HSW EIS was published in the October 27, 1997 *Federal Register* (62 FR 55615), in accordance with applicable NEPA regulations. The NOI announced the schedule for the public scoping process and summarized the proposed alternatives and environmental consequences to be considered in the EIS.

- **Public Comment Period –** Originally scheduled from October 27, 1997 through December 11, 1997, the comment period was extended to 95 days by DOE through January 30, 1998 in response to a request from the State of Oregon. The Notice of Extension appeared in the December 11, 1997 *Federal Register* (62 FR 65254).

- **Public Scoping Meetings –** Scoping meetings were held in Richland, Washington, on November 12, 1997, followed by a meeting in Pendleton, Oregon, on November 13, 1997. Opportunities were provided at each meeting for informal discussion, as well as formal comments, about the DOE proposed action and the scope and content of the HSW EIS.

- **Scoping Results –** Both oral and written comments were received at the public scoping meetings. Written comments were also accepted by conventional and electronic mail. All written and oral comments were given equal consideration in preparing the draft HSW EIS. Commenters provided comments on several topics: relationship to other NEPA documents and DOE activities, alternatives and activities to analyze, waste types and volumes to analyze, environmental consequences, and public involvement and government agency consultation. During preparation of the draft HSW EIS the nature of the alternatives evolved as a result of the scoping comments and publication of the WM PEIS RODs. A summary of the scoping comments and the DOE responses is included in Appendix A (in Volume II of this HSW EIS).

### 1.6.2 Publication of the First Draft HSW EIS

The first draft HSW EIS was approved by DOE in April 2002 (DOE 2002b), and the EPA Notice of Availability was published on May 24, 2002 (67 FR 36592). The scope of the first draft HSW EIS included storage, treatment, and disposal of LLW and MLLW (including WTP melters) at Hanford, and processing and certification of TRU waste for disposal at WIPP. The scope of transportation analysis included shipment of onsite and offsite generated waste within the Hanford Site boundary, and shipment of some MLLW to offsite facilities for treatment and return to Hanford. Most offsite transportation of LLW, MLLW, and TRU waste to Hanford was evaluated in the WM PEIS and the WIPP SEIS2 (DOE 1997c, 1997d), and the evaluation was referenced in the first draft HSW EIS.

### 1.6.3 Public Comments on the First Draft HSW EIS

The public comment period for the first draft HSW EIS extended for 90 days from publication of the NOA on May 24, 2002 through August 22, 2002. Comments received after the close of the official comment period were considered to the extent practicable. Approximately 3800 comments were received from 700 individuals, organizations, or agencies via mail, electronic mail, and at public meetings. A total of six public meetings were held in Richland and Seattle, Washington, on August 6 and 7, respectively; and in LaGrande and Hood River, Oregon on July 23, and August 14, 2002, respectively. Two meetings were held in Portland, Oregon on July 30 and August 21, 2002. The public meetings provided opportunity for informal discussion before the meeting, a brief DOE presentation on the draft HSW EIS, presentations by regulatory agencies and local interest groups, and a question-and-answer session, in addition to the formal public comments. Forms for submitting written comments were also available at

each meeting. Each comment was considered in preparing this revised draft HSW EIS, and many comments resulted in changes to the document.

Comments on the first draft HSW EIS generally were related to the following major issues:

- DOE's role in Hanford cleanup
- NEPA process: a number of comments indicated that the EIS questioned whether the HSW EIS complied with all NEPA requirements
- integration with other DOE programs and NEPA decisions: comments expressed concern that the HSW EIS be consistent with recent DOE proposals to accelerate cleanup at DOE sites and with recent NEPA decisions
- public involvement process: comments questioned the procedures used to notify members of the public about hearings on the draft HSW EIS, as well as the meeting process itself
- scope of transportation analysis: comments questioned the appropriateness of the WM PEIS transportation analysis and the decision not to repeat that nationwide analysis in the HSW EIS
- technical content and scope of the HSW EIS: comments 1) pointed out perceived omissions or inaccuracies in the HSW EIS technical analyses alternatives and scope of the EIS, and 2) requested evaluation of additional alternatives for waste treatment and disposal
- disposal facility design and long-term performance: there were numerous concerns regarding use of unlined trenches for disposal of LLW, as well as concerns about contamination of groundwater and the Columbia River
- importation of offsite waste to Hanford: comments expressed concern regarding the impact of additional offsite waste on the Hanford Site environment, as well as on other cleanup activities at Hanford.

An overview of the way in which DOE addressed each major issue, and the responses to specific comments received on the first draft HSW EIS, are included in the comment response volume (Volume III) of this revised draft HSW EIS.

### 1.6.4 Scoping for the ILAW Disposal SEIS

DOE prepared the TWRS EIS (DOE and Ecology 1996) to evaluate disposition of Hanford's high-level tank waste, as noted in the previous section. As part of the TWRS EIS ROD (62 FR 8693), DOE planned to place ILAW into concrete vaults in the 200 East Area. DOE subsequently began to examine alternative plans for disposing of ILAW in onsite near-surface facilities. Following a supplement analysis of disposal options for ILAW (DOE 2001h), DOE decided additional NEPA review was required, and a

Notice of Intent to prepare a SEIS was issued on July 8, 2002 (67 FR 45104). Alternatives under consideration included the following:

- Change ILAW form from vitrified cullet (granular glass particles similar to coarse sand) to a monolithic (single large) vitrified waste form in canisters.

- Change interim retrievable storage of ILAW in vaults to disposal in near-surface regulatory-compliant trenches of various configurations.

- Consider ILAW disposal at other potential sites within the 200 East and 200 West Areas.

The proposed changes were intended to be more cost effective and efficient with respect to land and other resource use. Worker safety and compatibility of the ILAW form with the engineered facility were also considerations.

Following the Notice of Intent to prepare the ILAW disposal SEIS, DOE held a scoping meeting in Richland, Washington, on August 20, 2002, and received oral and written comments during the 49-day scoping period. During scoping and preparation of a working draft SEIS, meetings were held in Seattle, Washington and Portland, Oregon. In addition, meetings were held with the Yakama Nation, Hanford Communities, Hanford Natural Resource Trustee Council, Oregon Office of Energy, and the Hanford Advisory Board. The scoping comments and questions centered on the following major themes:

- requests for technical information and clarification
- ILAW disposal alternatives
- long-term performance, mitigation, and stewardship
- ILAW form and treatment alternatives
- cumulative impacts
- regulatory, legal, and NEPA issues
- waste classification, definition of ILAW and HLW
- other impacts and analyses
- relationship to the HSW EIS and other NEPA documents
- public involvement process
- relationship to current DOE cleanup plans
- Native American treaty issues
- opposition to disposal or storage of ILAW at Hanford.

Appendix A in Volume II of this revised draft HSW EIS contains a summary of comments received on the scope of the ILAW SEIS. After scoping for the ILAW disposal SEIS, DOE decided to address ILAW disposal alternatives in this revised draft HSW EIS, and therefore terminated its preparation of the ILAW SEIS (68 FR 7110). The HSW EIS now provides the NEPA review for ILAW disposal in addition to Solid Waste Program operations evaluated in the first draft HSW EIS (DOE 2002b).

### 1.6.5 Revised Draft HSW EIS

This revised draft HSW EIS has been distributed for review and comment to the general public, members of Congress, appropriate federal agencies, interested governmental organizations, and affected State, tribal, and local governments. Stakeholders were notified of the upcoming publication of the HSW EIS, and were given the opportunity to request the document in several formats. The entire document was distributed as required or upon request. Other individuals who had requested the first draft HSW EIS or who requested this revised draft were provided a summary of this revised draft EIS with the complete document on compact disk. This revised draft HSW EIS addresses new waste management alternatives that have been developed since the first draft HSW EIS was issued in April 2002 (DOE 2002b). These alternatives were developed after review of the Hanford Site Performance Management Plan prepared in August 2002 (DOE-RL 2002b), recent discussions with regulatory agencies and stakeholders (DOE-RL 2002a), and in response to public comments. It also incorporates alternatives for onsite disposal of ILAW, as discussed in the previous section. In response to requests for additional information regarding offsite transportation risks, this revised draft HSW EIS includes an expanded discussion of transportation consequences based on the analyses in the WM PEIS and the WIPP SEIS2.

Because of the substantial changes relative to the first draft HSW EIS, DOE elected to issue this revised draft for public comment. The public involvement process is expected to be similar the one for the first draft HSW EIS. In addition to soliciting written comments, DOE will schedule public hearings to receive oral and written comments on this revised draft HSW EIS. The schedule for public review and hearings will be announced in the *Federal Register* and local media.

### 1.6.6 Preparation of the Final HSW EIS and Record(s) of Decision

Following the public comment period and after considering the comments received on this revised draft HSW EIS, DOE will revise the document as needed. DOE will consider all comments received during the public comment period on the revised draft HSW EIS. A final EIS or an addendum to this revised draft EIS will be issued depending on the extent and scope of revisions. Comments on the revised draft EIS will be addressed in the final EIS or the addendum.[(a)] The final EIS will receive a distribution similar to this revised draft EIS.

No sooner than 30 days after the EPA Notice of Availability of the final HSW EIS published in the *Federal Register*, DOE may issue one or more RODs for actions described in the final HSW EIS. In addition to the environmental consequences described in the final HSW EIS, DOE may evaluate other issues such as cost, programmatic considerations, and national needs in making its decision(s).

(a) 40 CFR 1502.19 specifies that "Agencies shall circulate the entire draft and final environmental impact statements except for certain appendices as provided in Sec. 1502.18(d) and unchanged statements as provided in Sec. 1503.4(c)." 40 CFR 1503.4(c) states "If changes in response to comments are minor and are confined to the responses described in paragraphs (a) (4) and (5) of this section, agencies may write them on errata sheets and attach them to the statement instead of rewriting the draft statement. In such cases, only the comments, the responses, and the changes and not the final statement need be circulated (Sec 1502.19)."

If mitigation measures, monitoring, or other conditions are adopted as part of a DOE decision, they will be summarized in the ROD(s), if applicable, and a mitigation action plan will be prepared. The ROD(s) and mitigation action plan, if needed, will be placed in the DOE Reading Room in Washington, D.C., and in the DOE Public Reading Room at Washington State University, Tri-Cities Campus. They will also be available to interested parties upon request.

## 1.7 Scope of the Revised Draft HSW EIS

This revised draft HSW EIS addresses proposed actions and alternatives for managing four major waste types: LLW, MLLW, TRU waste, and ILAW. It updates previous Hanford NEPA reviews to incorporate alternatives developed after those reviews were completed, and evaluates or updates evaluations of site-specific impacts associated with the WM PEIS (DOE 1997c). Hanford waste management operations include the three major functions of storage, treatment, and disposal. Alternatives evaluated in this EIS address continued operation and expansion of ongoing waste management operations to accommodate future waste receipts. A range of waste volumes is evaluated for each alternative in order to encompass the quantities of waste that might be received at Hanford for management in the future.

### 1.7.1 Waste Types Evaluated in the Revised Draft HSW EIS

The types of waste evaluated in the revised draft HSW EIS are described in the following sections. Descriptions of the specific waste streams within each waste type and their management alternatives at Hanford are presented in Section 2 and Section 3, respectively.

#### 1.7.1.1 Low-Level Waste

LLW is waste that contains radioactive material and that does not fall under any other DOE classification of radioactive waste. DOE manages LLW and other radioactive waste under the authority of the Atomic Energy Act (AEA) of 1954 (42 USC 2011). At Hanford, LLW may be further divided into Category 1 (Cat 1), Category 3 (Cat 3), or greater than Category 3 (GTC3) LLW, depending on the specific characteristics and quantities of radioactive material that it contains, as defined in the *Hanford Site Solid Waste Acceptance Criteria* (HSSWAC) (FH 2002). LLW streams managed at Hanford are described in Section 2.1.1.

***Contact-Handled (CH) and Remote-Handled (RH) Waste***

Contact-handled waste containers produce radiation dose rates less than or equal to 200 millirem/hour at the container surface. RH waste containers produce dose rates greater than 200 millirem/hour. CH containers can be safely handled by direct contact using appropriate health and safety measures. RH containers require special handling or shielding during waste management operations. These designations can apply to LLW, MLLW, TRU waste, and ILAW.

LLW and other radioactive wastes are also classified as either contact-handled (CH) or remote-handled (RH), depending on radiation dose rates as measured in contact with the container surface.