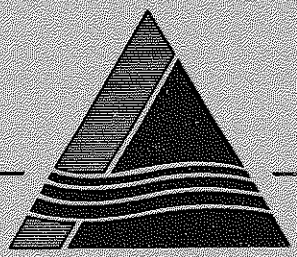
COMMUNITY RELATIONS PLAN FOR THE HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER



Prepared by:

Washington State Department of Ecology

United States Environmental Protection Agency

United States Department of Energy

June 1993

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER COMMUNITY RELATIONS PLAN

Introduction

The purpose of this plan is to provide you -- and all people who are interested in the cleanup and compliance program as part of the Hanford Tri-Party Agreement -- the information you need to participate in the many important decisions being made at Hanford. This plan focuses on how you can become involved in activities associated with the Hanford Federal Facility Agreement and Consent Order, commonly referred to as the Hanford Tri-Party Agreement. The Hanford Tri-Party Agreement sets forth the framework for Hanford's 30-year cleanup and compliance schedule.

Washington State Department of Ecology (Ecology), U.S. Department of Energy (USDOE), and U.S. Environmental Protection Agency (EPA) signed the Hanford Tri-Party Agreement in May 1989.

The agencies are committed to public involvement, and recognize that people from all over the nation are concerned and affected by the Hanford Site because of the potential threat of this hazardous waste site to human health and the environment. The agencies realize the best long-term solutions come from broad public interest and involvement. Some of the primary reasons for public involvement are described as follows.

- The public's involvement enhances credibility in the cleanup process. With the public involved in the decision making at Hanford, people are more responsible for ensuring that cleanup is achieved successfully.
- Better decisions are made if the public is involved early, frequently, and regularly.
- Continued public support in the cleanup process lends to a continued ability to secure resources necessary for cleanup.
- If communities and groups are not informed or involved in the process, they have reasons to cast doubt and criticism about the process. Also, people who are not involved with the decisions could ultimately stop the process.

The main changes to the 1993 revised Community Relations Plan are opportunities for earlier public involvement and informal public outreach.

In the past, the Community Relations Plan has described only activities relating to the decisions made under the Tri-Party Agreement. But, Ecology, USDOE, and EPA found that it is not always clear which decisions are inside or outside the agreement or why that distinction matters. For this reason, the agencies included an appendix in the Community Relations Plan that describes how you can be involved in or informed about other key

Hanford decisions. However, it should be noted, the primary focus of this plan is Tri-Party Agreement activities. Tri-Party Agreement activities involve decisions by all three agencies.

We recognize that people have different levels of interest. Some people may simply want information about what is going on at Hanford. Others are concerned about one particular issue. Others want to take an active role in numerous Hanford decisions. The opportunities exist for you to become involved at your level of interest. This document will tell you how.

The Hanford Tri-Party Agreement agencies want your involvement because it leads to better long-term decisions. The Hanford Tri-Party Agreement Community Relations Plan exceeds the requirements for public involvement mandated by the environmental laws in the Agreement. Public involvement is an integral component toward Hanford cleanup and compliance actions and accomplishments.

Ecology, USDOE, and EPA conduct public information, education, and involvement activities cooperatively; the agencies also conduct Hanford cleanup public information and involvement activities independently.

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Section 1

AGENCIES INVOLVED WITH THE CLEANUP AND COMPLIANCE OF THE HANFORD SITE

The agencies involved in the Hanford Tri-Party Agreement are the Washington State Department of Ecology (Ecology), U.S. Department of Energy (USDOE), and the U.S. Environmental Protection Agency (EPA).

USDOE and its predecessors manufactured nuclear materials from 1943 to 1990 at the Hanford Site in southeastern Washington for the nation's defense programs.

The production of nuclear materials required operating nuclear reactors and chemical processing plants that generate waste products. Past and present wastes are currently treated, stored, or disposed in a variety of ways at Hanford. Some of the wastes contain radioactive materials, some contain hazardous materials, and others, known as mixed waste, contain a mixture of both radioactive and hazardous materials.

To implement its cleanup and compliance program, USDOE must obtain approval and permits from either or both regulatory agencies--EPA and Ecology. However, other agencies may be involved to a lesser degree. The authority of these agencies comes from many laws, but the three major laws having the greatest impact on the Hanford cleanup are the Resource Conservation and Recovery Act (RCRA), the Washington State Hazardous Waste Management Act, and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "Superfund").

ENVIRONMENTAL LAWS FOR HANFORD CLEANUP

Resource Conservation and Recovery Act (RCRA)

RCRA was enacted by Congress in 1976. It requires "cradle to grave" (from the first point of waste generation until final disposal) management of hazardous wastes by all generators, transporters, and owners/operators of treatment, storage, and disposal facilities handling hazardous waste. A major goal of RCRA is to reduce the generation of hazardous waste.

Ecology has delegated authority from the EPA to carry out the base RCRA program (ongoing waste management) in Washington through its own dangerous waste program, the Washington State Hazardous Waste Management Act. Washington state regulations for dangerous waste management are substantially similar to, but more restrictive in some cases than, the RCRA regulations.

Ecology has not yet received authority from EPA to carry out the 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA. Until such authorization, EPA is responsible for implementing the provisions of HSWA. HSWA provides for corrective action at all waste management units, irrespective of the date wastes were placed in the units.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

In 1980, Congress enacted CERCLA, also referred to as "Superfund." Its purpose is to provide funding and enforcement authority for clean up of contaminated waste sites created before 1980. The funding portion of CERCLA does not apply to federal facilities such as Hanford. EPA has authority for overseeing the provisions of CERCLA.

At the Hanford Site, USDOE must fund all the investigation and cleanup activities from its own budget. EPA receives its oversight funding directly from Congress.

RCRA and CERCLA contain requirements for public involvement. The public involvement program in this plan is designed not only to comply with all those requirements, but provides additional opportunities for the public to participate in the decision-making process at Hanford.

Section 2

DECISIONS MADE AT HANFORD AND OPPORTUNITIES FOR PUBLIC PARTICIPATION

The agencies' objective in public information and involvement is to assist in establishing two-way communication between the three agencies and the affected and interested public and to provide opportunities for the public to become involved in the decision-making processes for cleanup and compliance of the Hanford Site. While updating this plan, the agencies conducted meetings to assess how people felt about the Tri-Party Agreement public involvement process during the past few years. The agencies found that many people felt the public should be involved earlier in the process, before the agencies become committed to a proposal. People also felt that there should be a clearer link between public involvement activities and the decision making processes. The agencies accept these criticisms as valid. The Community Relations Plan describes the opportunities to be involved earlier in the process and should provide a clearer link between public involvement and decision making.

Many different kinds of decisions are made at Hanford. The following section addresses Hanford decisions made within the scope of the Tri-Party Agreement. Those decisions include Tri-Party Agreement decisions, RCRA decisions, and CERCLA decisions. However, it should be noted that other decisions are made at Hanford *outside* the scope of the Tri-Party Agreement. Examples of these decisions are outlined in Appendix A.

HANFORD TRI-PARTY AGREEMENT DECISIONS

As stated earlier in this plan, the Tri-Party Agreement was signed in 1989 providing the legal framework for Hanford's 30-year cleanup and compliance schedule. Tri-Party Agreement decisions cover a wide range of issues. It should be noted, RCRA and CERCLA decisions are made under the umbrella of the Tri-Party Agreement.

Since 1989, new information has been obtained about the Hanford Site and new technologies are being developed to address site contamination problems. Therefore, from time-to-time the decisions made as part of the 1989 Agreement must be revisited in light of new information.

For this reason the three agencies developed a system called the change request process, which allows changes to be made to the cleanup and compliance schedule by mutual agreement of the three agencies. Any of the three agencies can initiate a proposed change, although as implementor of cleanup, USDOE initiates most changes. This process provides a formal mechanism for reaching concurrence between all the agencies. If agreement cannot be reached, a formal dispute is invoked as outlined in the Tri-Party Agreement.

Clearly, some of the changes/decisions should include public involvement and public comment while others should be made by the regulators in a routine manner, without the need of public involvement. It should also be noted that all changes to schedules must be based on good cause and all changes are documented in the Tri-Party Agreement work schedule.

CHANGES IN THE TRI-PARTY AGREEMENT

Change Request Process

Proposed wording or milestone changes in the Tri-Party Agreement can be very modest or they can be significant changes in strategy. The process for making a change gives the agencies some discretion in what kind of public involvement process will take place. A flow diagram of the change request process is on page 10.

Twice in the process, the agencies determine whether the proposed change is significant. Each time, if they conclude the change is significant, then they will initiate a process for consulting with the public.

The criteria reviewed by the agencies to determine whether a change is significant include the following items:

- The draft change could have substantial adverse impact on the environment.
- The draft change involves a major milestone.
- The draft change could have a significant impact on maintaining and fulfilling important Hanford cleanup objectives and Tri-Party Agreement milestones.
- The draft change could have an impact on interested parties, including Native Americans, labor unions, Tri-Cities community, and Hanford public interest groups.
- The draft change is proposed under a law or regulation that stipulates public involvement.

Each of the criteria is evaluated to determine if the change receives public comment.

The first opportunity for public involvement will allow the interested public to help clarify the issue with USDOE and regulators and offer suggestions for alternatives to be considered. The second public involvement opportunity will focus on the preferred change to the Tri-Party Agreement.

Following a public comment period for a significant Tri-Party Agreement change, the agencies consider all public comments before finalizing the change. The agencies also summarize the public comments and respond to those comments. A copy of the final Tri-Party Agreement change and a Summary of Comments and Responses are sent to all individuals who commented on the draft change. Also, the milestone change and Summary of Comments and Responses are distributed to the administrative records and Hanford Public Information Repositories (see pages 16 and 18).

The agencies may also schedule public meetings to discuss the proposed change.

RCRA-Related Decisions

RCRA covers the treatment, storage, and disposal of hazardous waste, such as tank waste. In general, Ecology is the regulator for current waste management operations under RCRA. The decision outline for this process is shown on page 11 of the Community Relations Plan. There are several informal points of communication with the public during the RCRA permitting process. There is a 45-day public comment period for issuing RCRA permits. As described in the RCRA decision outline, the public is asked to comment on the draft permit. All comments are considered before issuing the final permit. Also, all of the individuals who comment on the draft permit receive a copy of the final permit (without attachments) and the Response Summary, which is a summary of the public's comments, EPA and Ecology's responses, and changes to the permit as a result of public comment.

According to Washington State Dangerous Waste Regulations, you may also request a public hearing, in writing, to the director of the Department of Ecology, P.O. Box 47600, Olympia, Washington 98504-7600. Your request must state the nature of the issue to be raised at the hearing. Decisions on the need for public hearings will be made on an individual basis, at the discretion of EPA and Ecology. If a hearing is held, it will be in the community where the interest in the issue is greatest.

CERCLA Decisions

There are approximately 1,500 waste sites at the Hanford Site. Waste sites are grouped together into four geographic areas known as the 100, 200, 300, and 1100 areas. These waste sites are grouped by common contaminant and/or geographic location into 78 operable units. Under CERCLA, RCRA, and the State Hazardous Waste Management Act, a plan is developed for remediation of each operable unit. The best technology is selected after a thorough study of the characteristics of that unit.

In general, EPA is the regulator for decisions about past practices, and on these decisions, the process is defined under CERCLA. The decision outline for this process is shown on page 12. In the CERCLA process, the public is invited to comment on the remedial

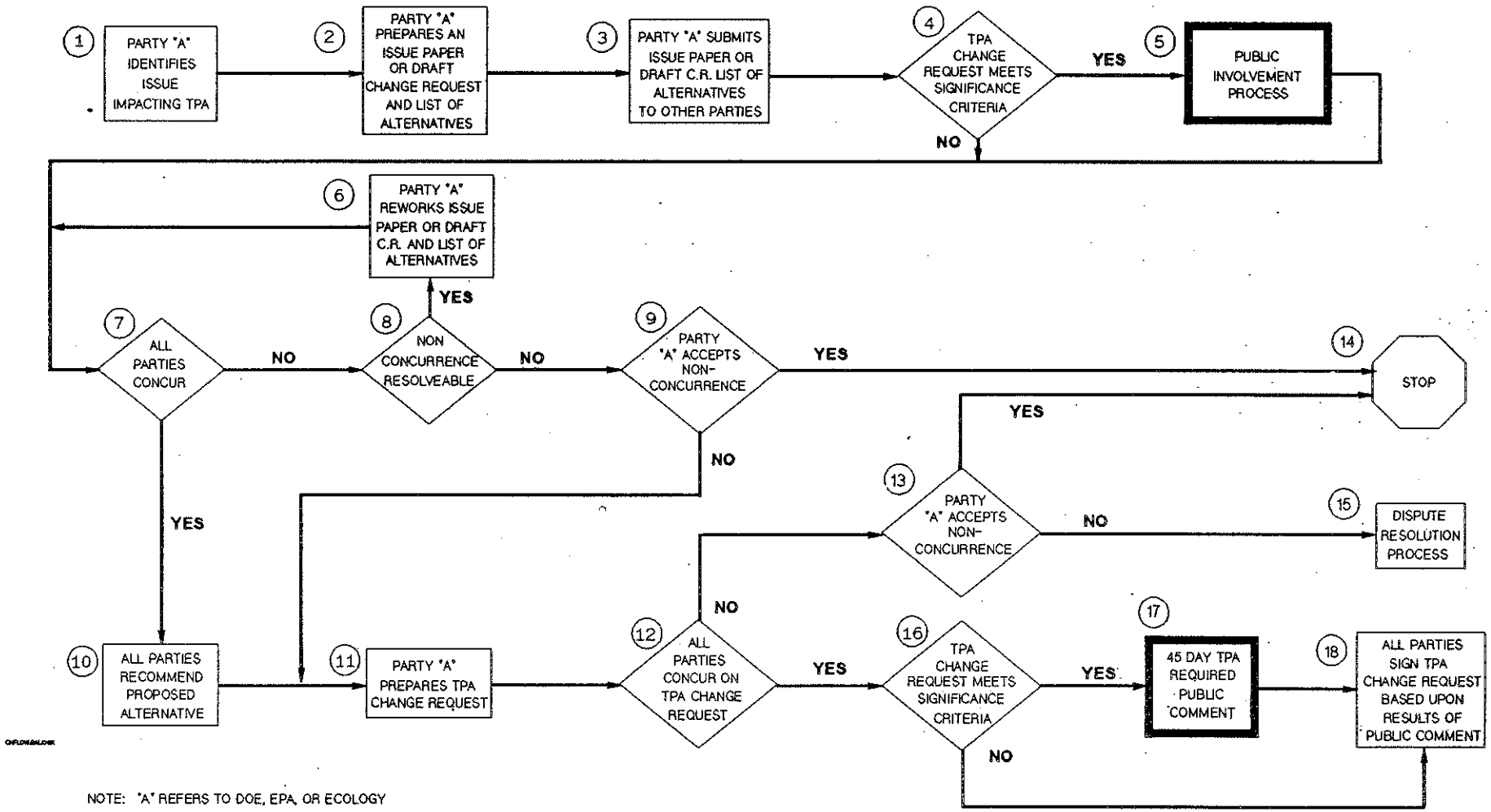
investigation work plan (this step is not required under CERCLA, but required under the Tri-Party Agreement), and then is invited to comment on the proposed cleanup plan.

Expedited Response Actions

In those cases where the waste could pose a threat to human health or the environment, the agencies may use an Expedited Response Action process, also known as interim removal actions, to reach a quicker decision. Also, at Hanford Expedited Response Actions are being used where timely action has resulted in overall cost effectiveness for cleanup of historical waste sites. Section 104 of CERCLA outlines the Expedited Response Action guidelines.

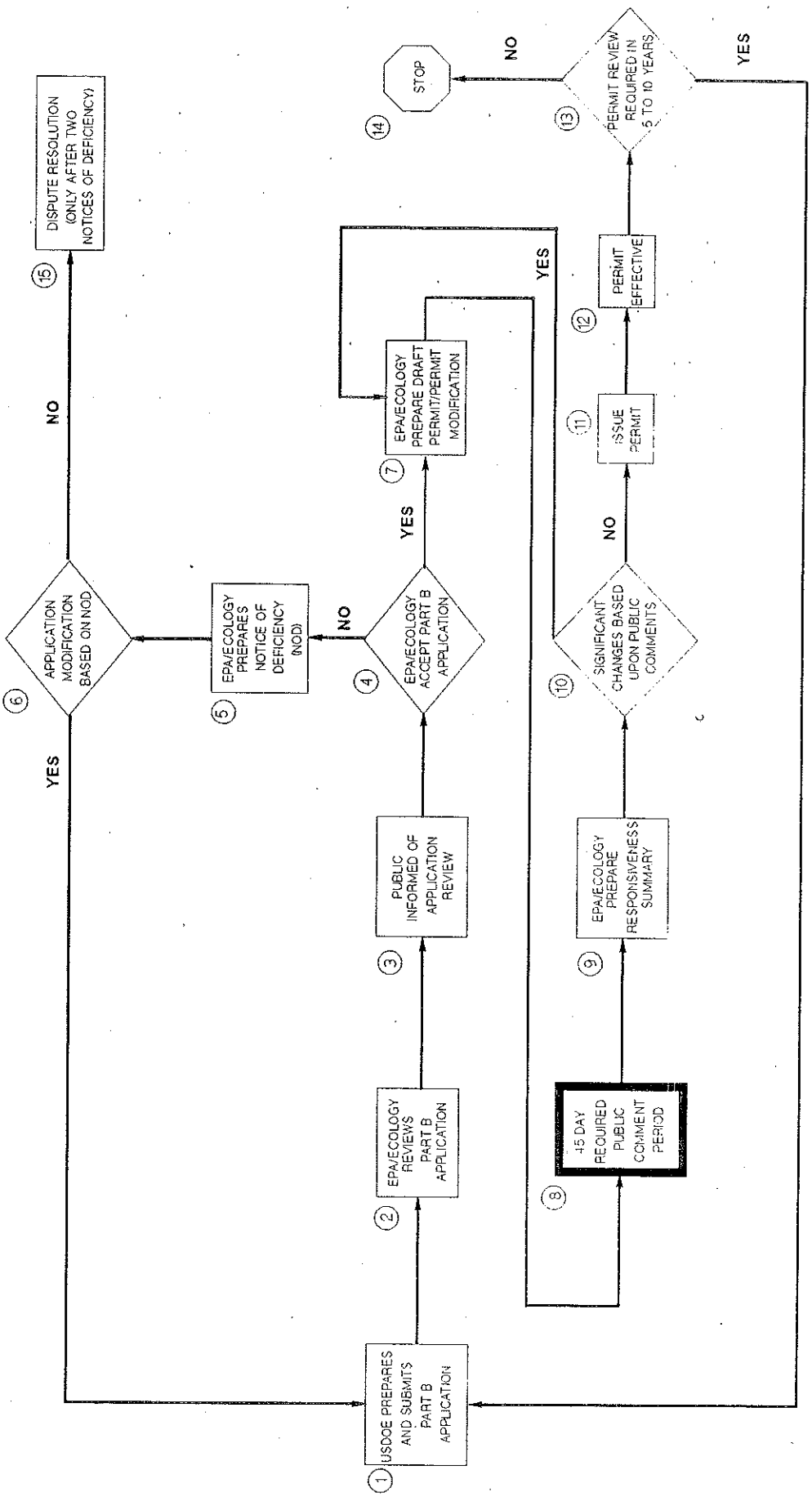
The decision process for an Expedited Response Action is shown on page 13. Step 9 is the one point at which there is a 30-day public comment period on an Expedited Response Action, if the action is not time-critical. In the event of a time-critical Expedited Response Action, no public comment period is provided before an action is taken. There are two reasons for this: 1) concerns about health and safety push toward an expedited action, and 2) time-critical Expedited Response Actions are only stop-gap measures taken to protect health and safety, and provide time to make a longer-term decision in which the public will be consulted more extensively. In some situations, if time is not urgent, the agencies may offer opportunities for involvement beyond those steps shown on page 13.

HANFORD TRI-PARTY AGREEMENT
CHANGE REQUEST DECISION PROCESS

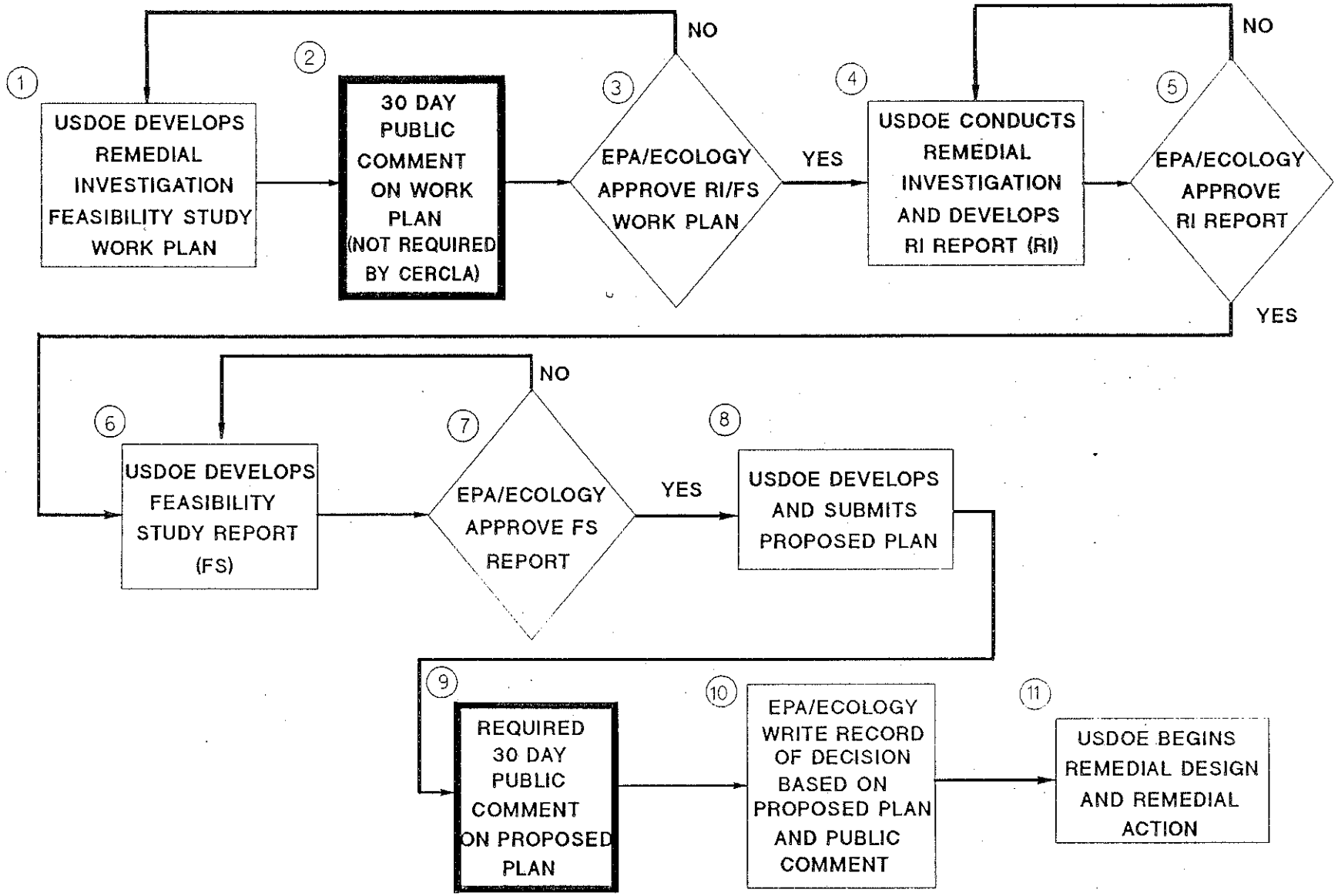


NOTE: "A" REFERS TO DOE, EPA, OR ECOLOGY

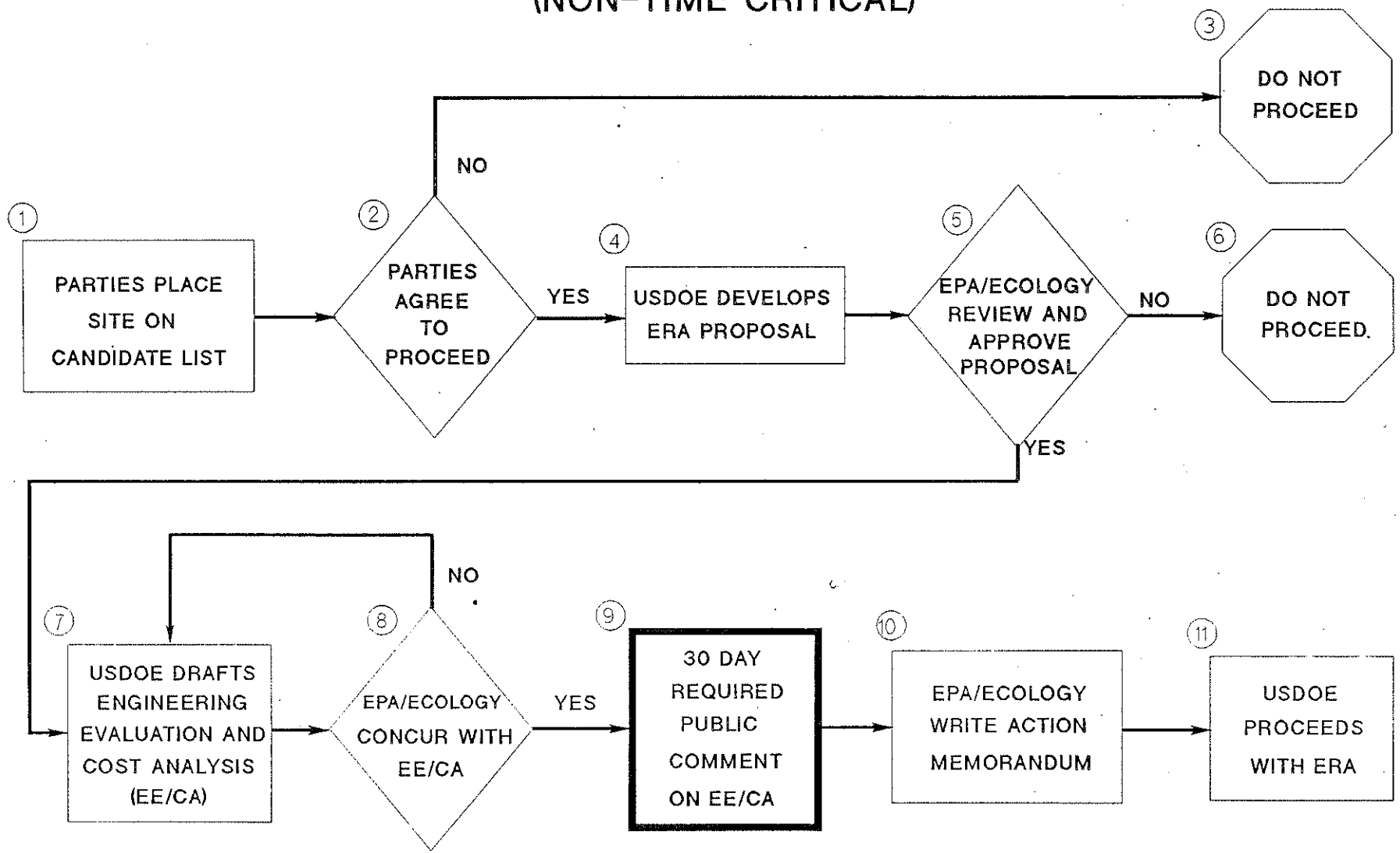
HANFORD TRI-PARTY AGREEMENT
RESOURCE CONSERVATION AND RECOVERY ACT DECISION PROCESS



HANFORD TRI-PARTY AGREEMENT
CERCLA RI/FS DECISION PROCESS



HANFORD TRI-PARTY AGREEMENT
EXPEDITED RESPONSE ACTION
DECISION PROCESS
(NON-TIME CRITICAL)



Section 3

HOW TO GET INFORMATION ABOUT TRI-PARTY AGREEMENT ACTIVITIES AND GET INVOLVED WITH DECISIONS

It is the Tri-Party Agreement agencies' objective to provide complete, understandable, consistent, and accessible information to people. Here are the various ways you can obtain information about Hanford activities. This section addresses ways you can get information from and to Ecology, EPA, and USDOE. This section also presents information about other organizations who closely follow Hanford issues and how the Tri-Party Agreement agencies work with them.

HOW YOU CAN GET INFORMATION TO AND FROM THE TRI-PARTY AGREEMENT AGENCIES

Toll-Free Phone Number

You can call a single, toll-free number to get information about the Tri-Party Agreement cleanup and compliance activities at Hanford.

1-800-321-2008

Ecology staff answer the calls and refer questions and requests for information to the appropriate agency, therefore, you no longer have to search for the agency that has the information you need.

Agency Contacts

Each of the three agencies has designated a contact person if you would like information from that specific agency.

Mary Getchell
WA State Dept.
of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
(206) 459-6862
(After October 1993, call (206) 407-6000
for the new direct number.)

Michelle Pizadeh
US EPA, HW-117
1200 SW 6th Avenue
Seattle, WA 98101
(206) 553-1272

Dennis Faulk
US EPA
712 Swift Blvd, Suite 5
Richland, WA 99352
(509) 376-8631

Jon Yerxa
USDOE
P.O. Box 550 A5-15
Richland, WA 99352
(509) 376-9628

If you have special accommodation needs, please contact Mary Getchell, Ecology, at (206) 459-6862 (Voice) or (206) 438-8722 (TDD).

Mailing Lists

The agencies maintain a Hanford Tri-Party Agreement mailing list. The agencies are developing mailing lists geared to the level of individuals' interests. The separate lists are to distinguish between individuals who would like to be highly involved with cleanup and compliance activities and those who would only like to be informed about those issues.

Hanford Update

The Hanford Update is a newsletter that is published at least quarterly to give you general information about Tri-Party Agreement cleanup and compliance activities. It also contains information on public meetings, workshops, and other opportunities to participate in Hanford cleanup and compliance decisions. If you are not already receiving the Hanford Update, and would like to receive it, call **1-800-321-2008**.

Other Publications

One of the Tri-Party Agreement agencies' continuing goals is to improve the readability of Hanford cleanup publications. These publications include newsletters (the Hanford Update described above), fact and focus sheets, and summary documents. We recognize that providing you with adequate information is fundamental for you to participate in Hanford Tri-Party Agreement decisions.

Fact and Focus Sheets

Fact and focus sheets provide information on Hanford issues, cleanup activities, and opportunities for public involvement. The three agencies send out fact and focus sheets throughout the year. You may also receive copies by calling **1-800-321-2008**.

Summary Documents

Summaries of the quarterly and annual public meetings are available upon request and are located in the Hanford Tri-Party Agreement Information Repositories. (See Information Repository listing below.)

Hanford Tri-Party Agreement Public Information Repositories

The purpose of the Public Information Repositories is to give the public access to certain types of information on Tri-Party Agreement activities and to provide documents that are available for public comment. This information may include remedial investigation work plans, design work plans, transcripts, and summaries from public meetings and workshops, copies of the Tri-Party Agreement, and related documents.

The Information Repositories also contain a copy of the administrative record index. The index is an avenue for access to the administrative record files from USDOE, Ecology, or EPA offices. Table 1 lists the Tri-Party Agreement related documents of interest to the public. When these types of documents are developed they are placed in the four Public Information Repositories.

To review information on Hanford Tri-Party Agreement issues and the administrative record index, visit the public information repository near you:

University of Washington
Suzzallo Library
Government Publications Room
Mail Stop FM-25
Seattle, WA 98195
(206) 543-4664
ATTN: Eleanor Chase

Gonzaga University
Foley Center
E. 502 Boone
Spokane, WA 99258
(509) 328-4220 EXT 3125
ATTN: Lewis Miller

Portland State University
Branford Price Millar Library
Science and Engineering Floor
SW Harrison and Park
P.O. Box 1151
Portland, OR 97207
(503) 725-3690
ATTN: Michael Bowman

USDOE Reading Room
Washington State University,
Tri-Cities
100 Sprout Road, Room 130
Richland, WA 99352
(509) 376-8583
ATTN: Terri Traub

You may review documents at the Public Information Repositories, but a check-out service is not available. Each library has its own copying service and procedures.

Table 1
DOCUMENTS TO BE PLACED IN INFORMATION REPOSITORIES

- Hanford Federal Facility Agreement and Consent Order (Hanford Tri-Party Agreement) and amendments and changes
- Action Plan (for implementation of the Hanford Federal Facility Agreement and Consent Order)
- Community Relations Plan
- Tri-Party Agreement Milestone Summary Report
- Hanford Operable Unit Reports
- Remedial Investigation/Feasibility Study and RCRA Facility Investigation/Corrective Measures Study Work Plans
- Feasibility Study and Corrective Measures Study Phase II Reports
- Remedial Investigation and RCRA Facility Investigation Phase II Reports
- Feasibility Study and Corrective Measures Study Phase II Reports
- Remedial Design and Corrective Measures Design Reports
- Remedial Action and Corrective Measures Implementation Work Plans
- Completion Notices
- Operations and Maintenance Plans
- Closure Plans
- RCRA Permits
- RCRA Permit Modifications
- RCRA Facility Assessment Reports
- Records of Decision
- Interim Response Action Proposals
- Meeting Summaries (from Tri-Party Agreement public meetings)
- Hearing Transcripts (from public hearings related to the Tri-Party Agreement)
- Public Comments on Draft Documents and Comment Responses
- Newsletters (Hanford Update and others)
- Fact and Focus Sheets (information on Tri-Party Agreement issues, cleanup activities, and opportunities for public involvement)
- News Releases (information from the media, news releases, news conferences, public service announcements, editorial boards, and Hanford Site tours)
- Response Summaries
- Agency for Toxic Substances and Disease Registry Health Assessments
- Preliminary Natural Resource Survey
- Current Hanford Site Waste Management Unit Reports
- Administrative Record Index
- Public Notices
- Current Five-Year Plan and Activity Data Sheets
- Expedited Response Action Engineering Evaluation/Cost Analysis
- Hanford Ground Water Monitoring Reports (1987 - Present)
- Expedited Response Action - Candidate Waste Sites
- Expedited Response Action - Action Memoranda

Administrative Record

The Administrative Record serves the same purpose in the CERCLA, RCRA, and Washington state dangerous waste programs. The Administrative Record is the body of documents and information that is considered or relied on to arrive at a final decision for remedial action or hazardous waste management.

An administrative record file is established for each operable unit (a group of waste sites with a similar location and waste characteristics) and for each treatment, storage, or disposal unit (a grouping of treatment, storage, or disposal units for the purpose of preparing and submitting a permit application and/or closure plan). It will include all the documents considered or relied on in arriving at a record of decision or in the issuance of a permit or permit modification. When the investigation process begins at each operable unit, or when a permit action for a treatment, storage, or disposal unit begins, the administrative record file for the unit is also established. The Environmental Data Management Center (EDMC) contains the official Administrative Record file. EPA and Ecology have information (unofficial) copies.

Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
(206) 459-6453
(After October 1993, contact (206) 407-6000 for the new direct number.)
Attn: Marilyn Smith

U.S. Environmental Protection Agency
1200 6th Avenue, HW-070
Seattle, WA 98101
(206) 553-1388
Attn: Karen Prater

Westinghouse Hanford Company
Environmental Data Management Center
740 Stevens Center, H6-08
Richland, WA 99352
(509) 376-2530
Attn: Lee Michael

NOTE: Microfilm copies of the administrative record files are available at the Ecology and EPA file locations. Paper copies of the administrative record files are at the Westinghouse Hanford Company file location.

Public Comment Periods Related to the Hanford Tri-Party Agreement

If a cleanup or compliance activity is out for public comment, you will be notified of the public comment period by a notice in regional newspapers. If you have identified yourself as "highly interested" on the mailing list, you will be notified through the mail. Documents available for public comment are kept at the public information repositories. You may receive one copy of the document upon request, free of charge, by contacting one of the public involvement representatives listed on pages 14 and 15. However, the agencies do reserve the right to charge a fee if the document is extremely large. You will be notified if a fee will be charged.

Following a public comment period, the agencies consider all public comments before completing the document or decision. A Summary of Comments and Responses is sent to all individuals who provide comments. Also, the final document, final milestone change or final decision, and Summary of Comments and Responses are distributed to the administrative records and Hanford Public Information Repositories.

Public comment periods are more thoroughly discussed in the Hanford Tri-Party Agreement Decisions section of this plan.

It should be noted that Tri-Party Agreement agencies may follow different procedures for documents not undergoing a public comment period. In general, documents are provided through the Westinghouse Hanford Company's EDMC. Depending on the size, the EDMC may charge a fee for reproducing the document. USDOE makes documents publicly available through the USDOE Reading Room and the EDMC.

For documents not undergoing public comment, EPA must follow the requirements set forth in the Freedom of Information Act (FOIA) of 40 CFR part 2. You can get more information about FOIA by contacting the EPA representatives listed on pages 14 and 15.

All requests for public records from Ecology, concerning the cleanup and compliance of Hanford, must be made in accordance to the provisions of RCW 42.17 and WAC 173-03. Ecology may, at its discretion fill requests received by telephone or facsimile (fax). At the time of the viewing of said records, the requester will be asked to sign a "Request For Public Record" form. There is no fee for the viewing of records. Ecology established a copy fee schedule in accordance to RCW 42.17.300. Those fees are as follows: 1-24 copies--no charge, 25 copies or more--20 cents per page, postage charges may be added if the postage exceeds $4.00. State sales tax will be added to the total copy charges. Generally, copies are not released until Ecology has received payment in full.

Annual Update Meetings

In response to public comments on quarterly public meetings, the agencies will conduct annual meetings. Ecology, USDOE, and EPA are responsible for coordinating and conducting the annual Tri-Party Agreement cleanup meetings. The purpose of the public meetings is to review Tri-Party Agreement cleanup progress or changes in schedules in the past year, as well as outline decisions, actions, and issues. These meetings will be conducted at public meeting facilities (when available) in key cities in Washington and Oregon, each spring.

The annual meetings may address the following issues:

- An assessment of Tri-Party Agreement cleanup and compliance progress to date and current issues.
- Expected accomplishments in the upcoming year.
- Funding--what was spent for Hanford cleanup in the previous year and what is projected to be spent for Hanford cleanup in the current year.
- Expedited Response Actions for current and upcoming years.
- Research and development activities for current and upcoming years.

Quarterly Public Meetings

Ecology, USDOE, and EPA conduct public information meetings each quarter in the Tri-Cities. The meetings cover significant cleanup and compliance issues, cleanup accomplishments, and the status of cleanup schedules. The quarterly meetings also provide a forum for discussing the cleanup activities planned for the upcoming quarter. The quarterly meetings are held in public meeting facilities (when available).

Special Public Meetings and Workshops

Another way to be involved with and informed about Tri-Party Agreement issues is by participating in public meetings or workshops on specific Hanford issues and decisions. The purpose of these meetings is not just to inform the public, but to provide an opportunity for participation in Hanford decisions. They are also an excellent source for information. Public meetings or workshops are announced in the Hanford Update or other public notices. In addition, other methods to inform you of the meetings may include:

- Advertisements in the regional newspapers

- Public Service Announcements on radio and television stations
- News releases
- Trade, civic, or environmental newsletters

Public Outreach Activities

The agencies conduct other forms of public outreach in Washington and Oregon. The informal public outreach activities are usually conducted upon request, and include public meetings, workshops, open houses, and meetings with local governments and organizations. The public outreach activities promote public awareness, education, and involvement with Hanford cleanup and compliance decisions.

If you would like to have a presentation made to your group by one of the three agencies, call **1-800-321-2008**, or one of the Hanford cleanup agency contacts listed in this plan. While the agencies will attempt to respond to each request, agency budgets and staff limitations will be evaluated for each request.

Technical Assistance Grants

EPA's Technical Assistance Grant (TAG) program can provide funds to citizen groups affected by Superfund sites so that they can hire a technical advisor to help them interpret and understand the complex technical materials produced as part of the Superfund process. Grants can be up to $50,000 for the life of the project and require a local share contribution of 20 percent of the total program cost. The former requirement of 35 percent ended December 1, 1989. The local share can be cash or in the form of in-kind services. Since Hanford has four Superfund sites, four TAGs could be made available. The EPA has a Citizen's Guidance Manual and videos that explain the program and illustrate the ways in which such a grant can help the community participate in the Superfund process. For more information, please contact:

Dwight Davis
SEE/TAG Coordinator
U.S. Environmental Protection Agency
1200 6th Ave. HW-117 (CR)
Seattle, WA 98101
(206) 553-0603

Washington State Public Participation Grants

The primary purpose of Washington State grants is to facilitate active participation by persons and citizen groups in the investigation and remedial action required due to releases or threatened releases of a hazardous substance. Grant amounts are limited to $50,000, but may be renewed annually. You can get more information by contacting:

Dolores Mitchell, Public Participation Grant Coordinator
Solid and Hazardous Waste Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
(206) 438-7562
(After October 1993, call (206) 407-6000 for the new direct number.)

To date, Heart of America Northwest, Columbia River United, Hanford Education Action League, and Hanford Family are among organizations which have received public participation grants regarding Hanford cleanup.

Heart of America Northwest has a grant to promote public involvement and education on Hanford cleanup issues. Specifically, Heart of America has a grant to conduct workshops and meetings prior to TPA or other public meetings on Hanford.

Columbia River United has a grant to conduct public forums or "open houses", to discuss progress on Hanford cleanup. In addition, Columbia River United has a grant to publish a newsletter and brochure regarding issues affecting mid-Columbia residents.

Hanford Education Action League has a grant to conduct a statewide media campaign using radio stations, to inform Washington residents about Hanford issues. The group also has a grant to publish and distribute a report about Hanford hazardous waste.

Hanford Family has a grant to conduct technical research on Hanford issues to better inform Washington residents living near Hanford. The organization has a grant to present information at Tri-Party Agreement public meetings and news conferences.

NATIVE AMERICAN INVOLVEMENT

The Hanford Site is located entirely on land ceded to the United States under separate treaties with the Confederated Tribes and Bands of the Yakima Indian Nation and the Confederated Tribes of the Umatilla Indian Reservation. The Nez Perce tribe also has treaty-protected rights affecting Hanford. These treaties reserved certain rights to the tribes and established the trust responsibility of the United States for tribal natural resources. In keeping with the trust relationship, the USDOE has committed to consult with the affected Tribal governments to assure that Tribal rights and concerns are considered before USDOE takes actions, makes decisions, or implements programs that may affect tribes.

The policy of the United States is to deal with tribal governments on a government-to-government basis. Ecology, USDOE, and EPA increased communication with tribes about hazardous waste management and cleanup activities. Specifically, the following activities will be conducted for those tribes that indicate a desire for increased involvement:

Periodic briefings for the individual tribes. The format of each briefing will be determined when briefings are scheduled.

Copies of USDOE documents are reviewed concurrently by the regulators and the Indian Nations. In some cases, tribes may wish to receive selected documents or documents on specific topics.

Tribes wishing to participate in this expanded communications program should contact one of the agency representatives specified previously. A representative of that agency will contact the tribe to discuss how to best meet the tribe's needs for information.

ORGANIZATIONS INVOLVED WITH HANFORD CLEANUP

Washington State Nuclear Waste Advisory Council

The Washington State Legislature created the 19-member Nuclear Waste Advisory Council (NWAC). Advisory Council membership consists of 11 Governor-appointed citizen representatives and eight appointed legislators. A representative of the Yakima Indian Nation serves on the Council.

The NWAC advises Ecology on nuclear waste issues, specifically in the areas of policy and public involvement. The Council's goal is to ensure widespread public awareness and involvement in the cleanup and compliance of Hanford. The Washington State Legislature has given the NWAC a sunset date of June 1994.

For more information, call Max Power, Ecology, (206) 459-6670.

Advisory Committee for the Tri-Party Agreement

Based on recommendations from the Federal Facilities Environmental Restoration Advisory Committee, the agencies have begun the initial steps to gauge public interest in forming an advisory group which would advise all three agencies on Tri-Party Agreement issues. The proposed committee would be made up of representatives from local governments, interested citizens, public interest groups, and Indian tribes, as well as representatives from federal and state agencies.

*For more information, call Hanford Cleanup toll free **1-800-321-2008.***

Washington State Department of Health

The state Department of Health's Division of Radiation Protection regulates Hanford radioactive air emissions. The Division conducts environmental radiation monitoring to fulfill its public health responsibilities and verifies the results of monitoring performed by USDOE and its contractors. The Division also conducts joint investigations into practices at Hanford with Ecology.

For more information, call Joseph Jimenez, Department of Health, (206) 753-3934, or in Washington 1-800-525-0127.

Oregon Department of Energy

The Oregon Department of Energy (ODOE) is the lead Oregon agency on Hanford issues. The ODOE monitors cleanup and other activities at the Hanford Site and the downstream Columbia River environment. The ODOE participates in the Hanford Environmental Dose Reconstruction Project (see appendix A for more information). The ODOE works with USDOE and local governments on safe transport of Hanford nuclear wastes in Oregon. The ODOE also provides staff support to the Oregon Hanford Waste Board. This group recommends policy and gives advice on Hanford issues.

For more information, call Oregon Department of Energy, (503) 378-4040 or in Oregon 1-800-221-8035.

HANFORD PUBLIC INTEREST GROUPS

Several Hanford public interest groups closely follow Hanford issues. These groups may request USDOE, EPA, or Ecology to conduct regular briefings or special topic briefings. Many of these organizations conduct Hanford public information and involvement activities.

Hanford Public Interest Groups and the news media are welcome to visit the Hanford site by requesting a tour from the USDOE Communications Office, EPA, or Ecology. Although the Hanford Site is changing their security requirements, it is not possible for the Public Interest Groups and the news media to visit the facilities at any time without an escort, nor is it possible that such groups can conduct tours of the facilities at the Hanford Site. There are safety and security requirements which must be followed when going into areas at Hanford, and employees who conduct these tours are aware of these areas.

BRIEFINGS FOR ELECTED AND APPOINTED OFFICIALS AND AGENCY REPRESENTATIVES

Many people get their information about Hanford from elected or appointed officials, or from agencies other than Ecology, USDOE, or EPA. The Tri-Party Agreement agencies strive to keep these individuals informed through publications, mailings, and periodic briefings. These officials are also on the "interested parties" mailing list for timely notification of significant findings or decisions. The agencies strive to respond to questions from officials and other agency representatives in a timely matter. Ecology, USDOE, and EPA also welcome requests for information or comments from officials or agency representatives about how the agencies can do a better job of keeping them informed.

NEWS MEDIA ACTIVITIES

Much of the public receives its information about Hanford from the news media. The agencies organize and conduct a variety of activities to ensure that the media has timely and complete information about Hanford cleanup and compliance activities. Methods to inform the media may include news releases, news conferences, public service announcements, background sessions, editorial boards, Hanford Site tours, public meeting notices, and individual contact with reporters.

For more information and contacts for organizations involved in Hanford cleanup, see "Who to Talk to About Hanford", published by the Washington Nuclear Waste Advisory Council. You can obtain a copy by calling Hanford Cleanup toll free 1-800-321-2008.

Appendix A

DESCRIPTION OF KEY HANFORD ACTIVITIES AND DECISIONS

There are many other decisions or programs concerning Hanford activities that may be of interest to you. Although many of these programs are related to or could impact the Tri-Party Agreement, the programs are not jointly administered by the signatories to the Tri-Party Agreement. To help you differentiate between the various programs, following is a brief synopsis of these programs and who you can contact for more information.

There are two major studies going on nationally that could affect the Hanford Site.

Programmatic Environmental Impact Statement (PEIS) for the U.S. Department of Energy's Proposed Integrated Environmental Restoration and Waste Management Program: USDOE Headquarters' Office of Environmental Restoration and Waste Management is preparing a PEIS to assess the potential environmental impacts, nationwide, of USDOE's Environmental Restoration and Waste Management program. This PEIS analyzes the many existing cleanup efforts and evaluates alternatives for an integrated Environmental Restoration and Waste Management program. Former USDOE Secretary Watkins committed to prepare this PEIS in January 1990.

Scoping hearings were held in key cities near USDOE waste sites, from December 1990 through February 1991. Hearings were held in Portland; Seattle, Richland, and Spokane in December 1990. USDOE issued a draft Implementation Plan for the Environmental Restoration and Waste Management PEIS on February 4, 1992. Comments received in the Northwest centered on lack of funding for restoration. Other concerns included USDOE managing restoration work, support for stabilizing waste on-site, opposition to transporting transuranic wastes to the Waste Isolation Pilot Plant, and the need for future land-use planning at the Hanford Site.

This Environmental Restoration and Waste Management PEIS could centralize waste disposal facilities at selected USDOE sites. Different sites could lose or gain waste inventory and/or waste disposal responsibilities depending on decisions reached in the PEIS. The next opportunity for direct public participation in the development of the PEIS is after USDOE issues the draft PEIS sometime late in 1993.

A special Federal Advisory Committee, the Environmental Restoration and Waste Management Advisory Committee (EMAC), was established by USDOE-Headquarters to advise the Assistant Secretary for Environmental Restoration and Waste Management on both the substance and the process of the PEIS and other Environmental Restoration and Waste Management projects from the perspectives of the affected groups and state and local governments. The EMAC can provide input at any time to USDOE, and the public is

encouraged to contact either Glen Sjoblom, Special Assistant to the Assistant Secretary for Environmental Restoration and Waste Management, at 202-586-7710, or the EMAC Chair, Dr. Glenn Paulson, Illinois Institute of Technology, Chicago, Illinois. Local EMAC representatives are Russell Jim, Yakima Indian Nation, Toppenish, Washington, and Jeff Breckel, Washington State Department of Ecology, Olympia, Washington.

For more information, call Sue Weissberg, USDOE, at 509-372-0188.

Nuclear Weapons Complex Reconfiguration Study Programmatic Environmental Impact Statement (also known as Reconfiguration PEIS): USDOE-Headquarters' Office of Defense Programs Programmatic EIS is to assess the potential impacts of the overall restructuring of USDOE's defense program and its facilities. USDOE proposes to reconfigure the nuclear weapons complex to be smaller, less diverse, and less expensive to operate than that of today. This PEIS evaluates alternatives for consolidating two or more nuclear activities at a single site and for constructing a new tritium production capability. The PEIS also evaluates alternatives for consolidating research, development, and testing activities through the creation of Centers of Excellence. This PEIS ensures that USDOE's long-range planning and decision making are fully consistent with the President's goals. The PEIS scoping period began on February 11, 1991, and ended on September 30, 1991.

Ancillary to this PEIS, on January 27, 1992, the Secretary of Energy announced a plan to complete an Environmental Assessment of the impact of consolidating the non-nuclear facilities of the Complex. If the Environmental Assessment determines that there are no significant environmental impacts, then USDOE will proceed with consolidation of non-nuclear functions at the Kansas City Plant, or a combination of plants, and the phaseout of non-nuclear functions at Mound, Pinellas, and Rocky Flats by late 1995.

USDOE-Headquarters held public scoping meetings (15 total) in Washington, D.C., and near each of the 13 major sites of the weapons complex from March through August 1991. The meeting near the Hanford Site was held in Richland on July 31, 1991.

The PEIS is currently based on three areas of analysis, the nuclear element, the non-nuclear element, and the research development and technology element. The draft PEIS is expected in 1993. The Environmental Assessment for impacts of consolidating the non-nuclear facilities of the Complex, should be completed by early 1993. The Reconfiguration PEIS could bring new weapons production facilities to the Hanford Site. The facilities, support facilities, security, and waste disposal requirements that are associated with weapons production facilities would require a commitment of land area.

For more information, call John Kovacs, USDOE, at 509-376-1291.

Five-Year Plan: First published in August 1989 and updated annually, the Environmental Restoration and Waste Management Five-Year Plan outlines specific actions USDOE intends to undertake during the next five years to achieve compliance with national environmental laws and to clean up and restore sites contaminated during the past 40 years. The Hanford Site-Specific Plan is a defined and integrated program for environmental restoration and waste management at the Hanford Site. A State and Tribal, Government Working Group, at both the national and local levels, advises USDOE on the Five-Year Plan. USDOE conducts public meetings on the Five-Year Plan.

For more information, contact Jim Peterson, USDOE, at 509-376-6731.

The following is a list of major program decision processes for 1993 and 1994.

Hanford Remedial Action Environmental Impact Statement (HRA-EIS): The HRA-EIS will evaluate a range of approaches for environmental restoration and remediation of approximately 1500 past practice sites at Hanford. This EIS will consider future site uses and provide an analysis of the overall effect of cleanup on Hanford and the surrounding region. A draft implementation plan will be completed in March 1993; draft EIS - March 1994; final EIS - March 1995; and Record of Decision - June 1995.

The Future Site Uses Working Group was composed of 49 people from a broad range of stakeholders interested in Hanford cleanup. Working Group members represented federal, tribal, state, and local governments; agriculture and business interests; academia; and environmental and special interest groups. The Working Group identified a range of cleanup scenarios and future site use options that will be evaluated in the HRA-EIS. Recommendations made by the Working Group will be used in other USDOE programs as well as by EPA and Ecology. The Working Group report was completed in December 1992.

For more information, call Sue Weissberg, USDOE, at 509-372-0188.

Tank Waste Environmental Impact Statement: The tank waste EIS will address the management of wastes stored in single-shell and double-shell tanks. The single-shell tanks were originally addressed in the Hanford Defense Waste EIS, but in the Record of Decision, USDOE deferred the decision of how to handle wastes in the single-shell tanks until more technical analyses were completed. A Notice of Intent (the formal initiation of the National Environmental Policy Act process) is being prepared.

For more information, call Don Alexander, USDOE, at 509-372-2453.

Irradiated Fuel Environmental Impact Statement: The irradiated fuel EIS would result in a decision on the future care and disposition of the irradiated fuel stored at the Hanford Site. Originally, the plan was to reprocess all of the fuel in the Plutonium Uranium Extraction (PUREX) Plant to recover the uranium and plutonium. Now that the PUREX Plant is shut down, other alternatives must be considered. A Notice of Intent is being prepared.

For more information, call Leo Guillen, USDOE, at 509-376-4762.

Hanford Reach EIS: There is another decision making process--the Hanford Reach EIS--that could affect strategic choices at Hanford. This is a comprehensive conservation study of the Hanford Reach of the Columbia River authorized under Public Law 100-605. The National Park Service is the lead agency. The study considers fish and wildlife, and geologic, scenic, agricultural, recreation, natural, historical, and cultural values, and will develop management alternatives for the protection of the Hanford Reach. The study area encompasses a quarter of a mile on each side of the river bank, beginning just north of the 300 Area on the Hanford Site and ending downstream of the Priest Rapids Dam. The draft EIS was released for public review in 1992.

For more information, call Bob Karotko, National Park Service, at 206-553-4720.

Superconducting Magnetic Energy Storage - Engineering Test Model (SMES-ETM) Program: The U.S. Department of Defense, in cooperation with the USDOE, is engaged in a program that may lead to a decision to construct, test, and operate a Superconducting Magnetic Energy Storage - Engineering Test Model (SMES-ETM). A SMES-ETM would store electric energy (nominally 20 MWh) in the form of a direct current magnetic field in an approximate 430-foot diameter superconducting coil. Large SMES systems may offer the potential to store electric energy during low demand periods, and then deliver that energy in higher demand periods. They also may offer higher repetition rates and increased efficiencies than are currently possible with batteries, capacitors, pumped hydrostorage, or compressed air storage. More precisely defining the merits of large SMES systems requires construction and operation of a SMES-ETM. Alternatives evaluated include no action, locating a SMES-ETM at one of five candidate sites, and other technological options. The five candidate sites are Monahans, near Odessa, Texas; White Sands Missile Range, New Mexico; Orogrande, New Mexico; the USDOE Hanford Site, and Badger Army Ammunition Plan near Baraboo, Wisconsin.

For more information, call Michael Eubanks, U.S. Army Corps of Engineers, at 1-800-421-SMES.

Hanford Environmental Dose Reconstruction Project: The purpose of the Hanford Environmental Dose Reconstruction Project is to develop radiation dose estimates for people who may have been exposed to releases of radioactive materials form the Hanford Site. The Technical Steering Panel (TSP) of the Project conducts public meetings, issues a quarterly newsletter, and publishes numerous fact sheets on past practices at the Hanford Site.

For more information, call TSP toll-free number is 1-800-545-5581.

Air and Water Permits: Ecology and Washington State Department of Health are responsible for reviewing and issuing air and wastewater permits at the Hanford Site. The State Department of Health's Division of Radiation Protection regulates Hanford radioactive air emissions and conducts environmental radiation monitoring. Along with these permitting programs, Ecology will conduct public involvement activities similar to those in the RCRA permit process.

For more information, call Toby Michelena, Ecology, at 206-438-7016.

State Environmental Policy Act: Ecology is reviewing the permitting of several projects at the Hanford Site under the State Environmental Policy Act (SEPA). The purpose of SEPA is to ensure that environmental values are considered by state and local government officials when making decisions. Before taking actions (issuing permits, etc.), agencies must follow specific procedures to ensure that appropriate consideration is given to the environment. The severity of the potential environmental impacts associated with a proposed project will determine whether an environmental impact statement is required.

For more information, call Geoff Tallent, Ecology, at 206-459-6228.

Model Toxics Control Act: The Model Toxics Control Act is Washington State's version of CERCLA. Ecology implements the Model Toxics Control Act's public involvement activities, which are similar to CERCLA public involvement requirements.

For more information, call Larry Goldstein, Ecology, 206-438-7018.

Appendix B

DESCRIPTION OF THE HANFORD SITE AND THE ACTIVITIES CARRIED OUT ON THE SITE

This appendix describes the physical characteristics, history, and past and present activities at the Hanford Site. It is intended to acquaint the public with Hanford, its activities, and its past practices in a general way. It is not a complete listing of all that is known about the Site, its operations, or its waste management history. A more complete summary of operations and environmental status may be found in Energy Research and Development Administration-1538, the Environmental Impact Statement on waste management operations, issued in 1975. More recent data on environmental contamination and groundwater plumes may be found in the annual Battelle Pacific Northwest Laboratory environmental monitoring reports, the latest of which is PNL-8148, dated June 1992. A brief description of the contamination problems of the four Superfund sites at Hanford may be found in Appendix C.

SITE DESCRIPTION

Hanford consists of 560 square miles of land along the Columbia River in southeastern Washington, situated north and west of the cities of Richland, Kennewick, and Pasco, an area commonly known as the Tri-Cities. Hanford is approximately 140 miles southwest of Spokane, Washington; 200 miles southeast of Seattle, Washington; and 200 miles northeast of Portland, Oregon. (Page 33 presents a Hanford Site map.) The Columbia River runs through the northern portions of the site, then turns south to form part of the eastern boundary. Hanford's southeastern boundary forms the northern border of the City of Richland.

The geologic structure beneath Hanford consists of three distinct formations. The deepest level is a thick series of basalt flows that have been warped and folded, resulting in extensions that crop out as rock ridges in some places. Layers of silt, gravel, and sand form the middle level. The uppermost level is known as the Hanford formation and consists of gravel and sands deposited by catastrophic floods during glacial retreat. Both confined and unconfined aquifers can be found beneath Hanford. Confined aquifers consist of water-saturated, porous material confined by impermeable layers of basalt, while unconfined aquifers consist of water-saturated, porous material located above the first confining basalt layer. The depth of the water table varies greatly beneath Hanford.

Semi-arid land with a sparse covering of cold desert shrubs and drought-resistant grasses dominates the Hanford landscape. Forty percent of the area's annual six and one quarter inches of rain occurs between November and January. The land surrounding Hanford is used primarily for agriculture and livestock grazing. The major population center near Hanford is

the Tri-Cities, with a combined population of over 100,000. The southwestern area of Hanford, covering 120 square miles, is designated as the Arid Lands Ecology Reserve and is used by USDOE for ecological research. The Washington State Department of Wildlife Wahluke Wildlife Recreation Area and the Saddle Mountain National Wildlife Refuge also are located on the Site. Non-USDOE facilities within Hanford boundaries include three Washington Public Power Supply System (WPPSS) Nuclear Plants (the operating WNP-2 and the partially complete WNP-1 and WNP-4) in addition to the Hanford Generating Facility that used N Reactor steam to create power. Also, US Ecology, a private firm that is licensed by the State of Washington, operates a low-level radioactive waste disposal facility.

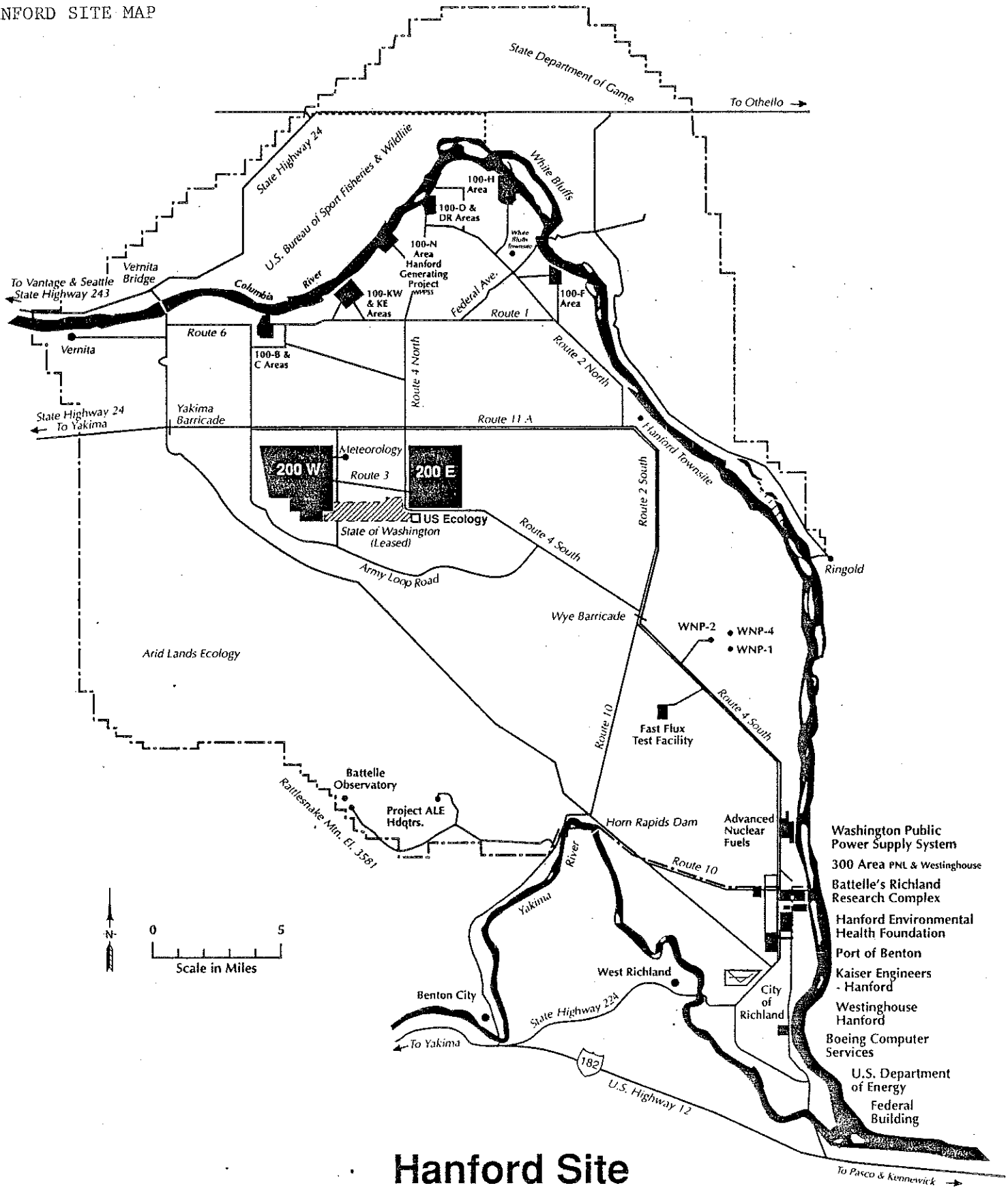
USDOE facilities are located throughout the Site and the City of Richland. Hanford is divided into six administrative areas, known as the 100, 200, 300, 400, 600, and 1100 areas. The first four areas contain most of the operations at Hanford. The 100 Area includes the N Reactor and eight other deactivated production reactors along the northern stretch of the Columbia River. The 200 East and West Areas, located in the central part of Hanford, contain the principal chemical processing and waste management facilities. The 300 Area, approximately three miles north of the City of Richland, contains research and development laboratories and former reactor fuel manufacturing facilities. The Fast Flux Test Facility (FFTF) is located in the 400 Area, which lies northwest of the 300 Area. The 600 Area covers Site lands that are not part of any other administrative area. The 1100 Area, located adjacent to the Richland city limits, contains vehicle maintenance and storage facilities.

SITE HISTORY

Hanford Site land was originally inhabited by Native Americans, primarily the Yakima and Umatilla Tribes; it was also used by the Nez Perce, Walla Walla, and Cayuse Tribes. In 1855, these Tribes signed treaties with the United States under which the majority of their Territory was ceded to the federal government. The Tribes reserved certain rights in the ceded lands: to take fish from all streams within or adjacent to the Territory and at all usual and accustomed places; to erect temporary buildings for curing fish; to hunt; to gather roots and berries; and to graze their horses and cattle on the Territory. Parts of the Site were settled and used for irrigated orchards, farms, and ranches before World War II. Approximately 6,000 acres were used to grow peaches, pears, grapes, asparagus, and other agricultural products.

Hanford operations began in January 1943; after the Manhattan District of the Army Corps of Engineers chose it as the site for the highly secret Manhattan Project, which was to produce plutonium for the world's first nuclear weapons. Hanford was considered to be the ideal site for the Manhattan Project for several reasons: 1) its remote location; 2) access to railroad systems; 3) the abundance of water from the Columbia River for cooling the reactors; and 4) the abundance of hydroelectric power from dams on the Columbia River. About 1,500 people who were living within the Site boundaries were relocated and their property was condemned.

FIGURE B-1
HANFORD SITE MAP

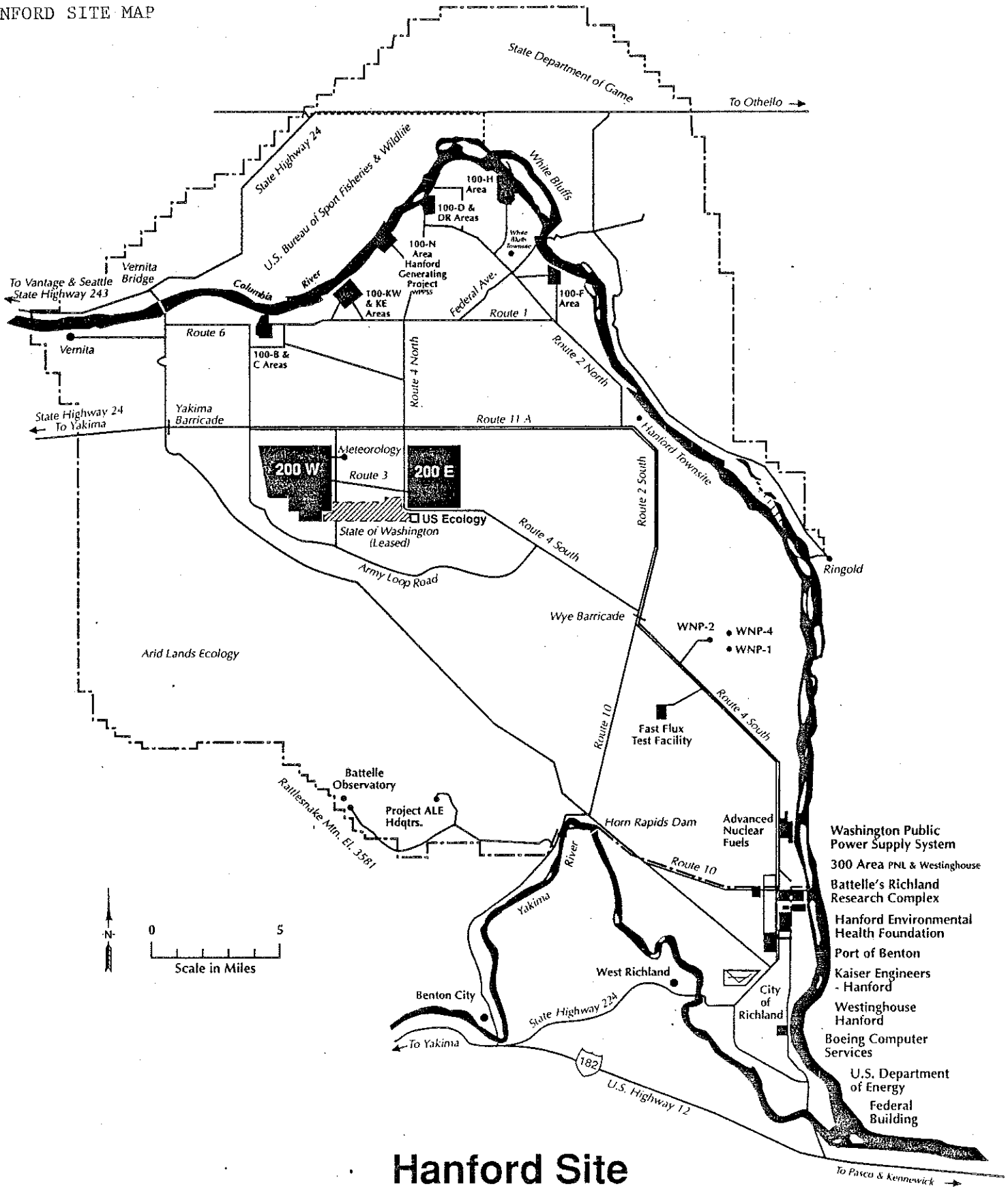


Hanford Site

Department of Energy

Office of Communications
U.S. Department of Energy
Richland, Washington 99352
(509) 376-7501

FIGURE B-1
HANFORD SITE MAP



Hanford Site

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In September 1944, with the operation of B Reactor in the 100 Area, the Department of Defense (at that time it was known as the War Department) began producing materials to be used in nuclear weapons. Within a few months, B Reactor startup was followed by the startup of the D and F Reactors. These three reactors produced the initial plutonium essential for the creation of nuclear weapons.

Between 1959 and 1963, N Reactor was constructed. By 1964, a total of nine reactors were producing plutonium at Hanford. In 1966, WPPSS built a power generating facility next to the N Reactor. In addition to the reactors, operations at Hanford included other elements of the nuclear fuel cycle: fuel fabrication, chemical processing, waste management, and research and development facilities.

The development of Hanford's plutonium production capacity resulted in the growth of the area surrounding the Site. In the months following initial construction on the Site in 1943, more than 50,000 construction workers moved to the Hanford area. Many of these workers later settled in the Tri-Cities, which became not only the fourth largest metropolitan area in the state of Washington, but also a new economic hub for the region. Large amounts of radioactive substances were released to the air and water during the early operations of Hanford. The possible consequences of these releases are being studied in programs unrelated to the Hanford Federal Facility Agreement and Consent Order.

Eight of the nine plutonium production reactors were closed between 1964 and 1971 when the nation's plutonium needs diminished due to a shift in national defense policy. The Site gradually changed to emphasize peaceful uses of nuclear power and research, and investigation of the future uses of such energy sources as nuclear, solar, geothermal, fossil fuels, wind, and organic wastes. Hanford was chosen as the site for the Fast Flux Test Facility advanced reactor in 1967. In the early 1980s, Hanford activities shifted again to re-emphasize defense production, with about 60 percent of Site funding used for national defense and 40 percent for energy research and related programs. USDOE placed N Reactor in shutdown status, which means closed and not maintained in an operable condition. USDOE's mission at Hanford has shifted from production to cleanup.

PAST AND PRESENT OPERATIONS AT HANFORD

USDOE activities at Hanford now center around waste management and environmental restoration. Other activities include the following: support for defense programs, management of defense-generated radioactive and hazardous waste, development of advanced reactors, environmental research, research and development, and assistance to state and local energy programs. The activities that have been or are presently conducted at Hanford are described in the following sections, and are broken into Hanford's main operating areas.

100 Area

The 100 Area contains eight deactivated plutonium production reactors, and the N Reactor, which has been used to produce both plutonium and steam. The steam was converted into electrical power at the adjacent Hanford Generating Plant, which is owned and operated by WPPSS. The N Reactor went into operation in 1963. It is now in shut down and preparing for decommissioning and decontamination.

All nine reactors were operating at one time in the 1950s and 1960s, but only N Reactor has operated since 1971. The other eight reactors and their periods of operation are as follows: B Reactor, 1944-1968; D Reactor, 1944-1967; F Reactor, 1945-1965; DR Reactor, 1950-1964; H Reactor, 1949-1965; C Reactor, 1952-1969; KW Reactor, 1955-1970; and KE Reactor, 1955-1971. Wastes and cooling water from the reactors were disposed in more than 100 trenches, cribs[1], ponds, and burial grounds in the 100 Area. The decontamination and decommissioning of these eight reactors is the subject of an environmental impact statement.

200 Areas

Hanford's chemical processing and defense waste management activities take place in the 200 East and West Areas. Since 1944, nuclear fuel irradiated in Hanford's 100 Area production reactors were transported to the 200 Areas and chemically treated to remove and refine plutonium and uranium. This process produced radioactive, hazardous, and mixed (radioactive and hazardous) wastes, all of which have been stored or disposed in the 200 Areas. The 200 Areas contain 149 single-shell storage tanks and 28 double-shell tanks with a capacity of up to one million gallons each. These tanks store high-level and miscellaneous other liquid radioactive waste.

Low-level radioactive solid wastes are disposed by burial in trenches, while low-level liquids are disposed in cribs. Another form of radioactive wastes called transuranic wastes[2], primarily plutonium-contaminated solid materials, have been stored underground on asphalt pads and in an indoor storage facility. They will ultimately be shipped to a deep geologic repository in New Mexico for final disposal.

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[1]A crib is an underground drain field used for the discharge of low-level radioactive mixed liquid wastes.

[2]Waste contaminated with long-lived transuranic elements in concentrations above limits established by USDOE, EPA, and the Nuclear Regulatory Commission. Wastes containing concentrations below such limits are considered low-level radioactive waste. Transuranic elements are those shown above uranium on the chemistry periodic table, such as plutonium, americium, and neptunium.

As the science of chemically separating the needed isotopes from irradiated fuel evolved, several large facilities were used at Hanford for these processes:

B Plant and T Plant. Processing of Hanford's reactor fuel from 1944 through 1956 was conducted at B Plant in the 200 East Area and T Plant in the 200 West Area. B Plant was later used to remove high heat-producing isotopes from the liquid waste in storage tanks. Since 1957, T Plant has been used as a decontamination and decommissioning facility for equipment used in the plants.

REDOX and PUREX. In the 1950s, two new processes came into use at Hanford. Chemical processing was conducted at the Reduction Oxidation Plant (REDOX) in 200 West from 1952 through 1967, and at the Plutonium Uranium Extraction Plant (PUREX) in 200 East. PUREX opened in 1956, went into standby status in 1972, was re-started in 1983, is now shut down, and will be prepared for decontamination and decommissioning.

Plutonium Finishing Plant and Uranium Oxide Plant. Once plutonium and uranium were separated from irradiated fuel, they were sent to other Hanford facilities for further processing. Liquid material containing uranium went to the Uranium Oxide Plant (UO^3) in the 200 West Area, where it is converted into a solid and sent off-site for recycling into reactor fuel. Liquid plutonium was either converted to plutonium oxide at PUREX or transferred to the Plutonium Finishing Plant (PFP) in the 200 West Area. There it is converted into plutonium oxide or plutonium metal for shipment to other USDOE facilities. The PFP also recovers plutonium from scrap materials and serves as the storage, handling, and shipping facility for plutonium. Other facilities in the 200 Areas that were or are continuing to generate waste products are laboratories, fabrication shops, coal-powered steam plants. The PFP and the UO^3 are still operating facilities and they are preparing for stabilization runs.

300 Area

Facilities in the 300 Area have been used for the fabrication of reactor fuel, for research and development, and technical and service support functions. USDOE contractors are involved in the research and development of fossil, solar, nuclear fission, and nuclear fusion energy. Research and development also takes place on environmental, biomedical, and materials studies, as well as on the encapsulation of liquid and solid wastes in glass.

The 300 area was developed during World War II and expanded later. Liquid wastes from operations in the 300 Area were at various times disposed in 14 ponds, trenches, and landfills. Among the 190 buildings in the 300 Area, the following are the significant programs and facilities that have housed major process operations and nuclear programs.

Defense fuel fabrication activities were centered in the 313, 314, and 333 Buildings since 1944, involving the preparation of uranium fuel elements for the nine production reactors.

Fuel fabrication and test assembly fabrication activities in support of the Fast Flux Test Facility were conducted in the 300 Area since the 1970s. Primary activities included preparation of mixed-oxide fuels and components in the 308 Building, and nonradioactive FFTF component development in the 306 Building.

Radiological chemistry laboratories and technology development activities performed in the 321, 324, 325, and 327 Buildings include a variety of activities involved in liquid metal reactor technology programs as well as other nuclear and waste management studies and scientific research. This includes analysis of Hanford single and double-shell tank samples today.

The 309 Building features a reactor containment area being modified to house the SP-100 space power testing program in the 1990s. It was the site of the Plutonium Recycle Test Reactor, which operated in the late 1960s and was then decommissioned.

Other notable 300 Area facilities include the 337 Building, which includes a high bay formerly used for FFTF component testing. The 331 Building is the Life Sciences Laboratory, which conducts a range of biological, biomedical, and environmental research programs. The 327 Building houses hot cells (heavily shielded rooms) used for research on highly radioactive materials.

400 Area

The 400 Area is the location of the Fast Flux Text Facility (FFTF), a liquid metal test reactor that began full-power operation in 1982. Initially, FFTF served as a test tool for advanced reactor technology. FFTF has expanded into other areas of research and development, such as fusion research, space power systems, isotope production, and international research programs.

Adjacent to FFTF is the Fuels and Materials Examination Facility (FMEF). The FMEF was constructed in 1984 as a nuclear materials processing facility that is also outfitted with an automated fuel fabrication line. It has not yet been brought on line. The FMEF is being considered for a fabrication and assembly facility for radioisotopic thermoelectric generators for deep space missions, following construction of a chemical separation line in the mid-1990s.

Almost all liquid wastes generated by FFTF have been transported to 200 Area waste management locations. Several spills and nonradioactive liquid waste disposal facilities will be investigated to determine the need for remedial actions.

1100 Area

The 1100 Area is the location of maintenance and storage operations for Hanford. The maintenance facilities service all vehicles and equipment used throughout Hanford. The 1100 Area covers less than one square mile. It has no disposal locations for radioactive or mixed wastes, but does contain several sites at which hazardous wastes were disposed. The area is adjacent to the Richland city limits and one-quarter of a mile from the Richland well field.

Appendix C

DESCRIPTION OF REGULATORY INVOLVEMENT AND THE KINDS AND LOCATIONS OF CONTAMINATION ON THE SITE

This Appendix addresses the application of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to federal facilities and summarizes the primary contaminants identified in those areas to be regulated by CERCLA during the cleanup of Hanford. It also addresses the application of the Resource Conservation and Recovery Act (RCRA) and the State Dangerous Waste Program for facility cleanup, operation, and permitting.

APPLICATION OF CERCLA TO FEDERAL FACILITIES

CERCLA, passed by Congress in 1980, taxes the chemical and petroleum industries to create a trust fund known as Superfund. EPA uses Superfund money to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either: 1) pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work; or 2) take legal action to force the responsible parties to clean up the site or to pay for the cost of the cleanup after it has been conducted by EPA.

Initially, it was unclear how CERCLA requirements applied to federal facilities such as Hanford. In 1986, Congress passed the Superfund Amendments and Reauthorization Act (SARA), which amended CERCLA and included a stipulation that extended CERCLA to cover federal facilities. In addition, SARA stipulates that Superfund monies are not available to clean up federal facilities. Under SARA, EPA and the department or agency in charge of the federal facility must provide the opportunity for relevant State and local officials to participate in the planning and selection of remedial actions to be conducted at the facility. SARA strengthened CERCLA community relations requirements and provided for citizen suits to be brought against EPA if EPA fails to comply with the community relations requirements. Also, the President may issue Executive Orders to cease remedial actions in order to protect national security interests. This exemption may last no longer than one year, although additional Orders may be granted later.

The National Priorities List (NPL) is EPA's list of hazardous waste sites nationwide that have been identified for cleanup under the Superfund program. Sites are placed on the NPL if they score high enough on EPA's Hazard Ranking System (HRS), a scoring system used to evaluate potential risks to public health and the environment from releases or threatened releases of hazardous substances. The HRS score reflects the possibility of hazardous substances reaching populated areas through groundwater, surface water, or air, and allows

EPA to compare the potential risks posed by different sites. It does not determine if cleanup of a site is possible or worthwhile, or the extent to which the site should be cleaned up.

Four Hanford areas are included in the NPL. These areas have been designated as the 100, 200, 300, and 1100 aggregate Areas (Hanford Site map, page 33). The 200 Area includes Hanford's 200 West and 200 East Areas. All disposal sites located at Hanford have been assigned to one of the aggregate areas. Remedial Investigations began in 1989. Because Hanford is a federal facility operated by USDOE, the Superfund cleanup will be conducted by USDOE in cooperation with EPA and Ecology.

Throughout Hanford's history, waste products have been stored and disposed using a variety of disposal practices. In addition, unplanned releases of materials have contributed to contamination on the Site. The remainder of this section describes the primary contaminants identified by EPA in preparation of the HRS scoring packages, and the potential exposure pathways that could present risks to human health and the environment. The Remedial Investigation will determine if other contaminants that have been identified, or may later be identified, are of concern and require cleanup actions.

100 Area Contamination

The contamination in the 100 Area resulted primarily from the disposal of reactor coolant water. The primary contaminants are the radioisotopes Strontium 90, Cobalt 60, Cesium 137 and Tritium; and the heavy metal chromium. Solid waste burial grounds and other facilities not associated with liquid effluents may also contain significant amounts of primary contaminants. These could pose human or environmental threats through exposure to ground and surface water contaminated by these substances. The 100 Area has approximately eleven square miles of waste disposal locations and contaminated groundwater.

Contamination in the 100 Area originated from cribs, trenches, and contaminated reactor cooling water that leaked through retention basins to the groundwater. The contaminants eventually flowed into the Columbia River. Retention basins were used from the 1940s through the early 1970s. During this period, unplanned releases of contaminated water also took place.

The possible pathways for human exposure to strontium-90 and chromium are through the use of water from the Columbia River for recreation, irrigation, manufacturing, or drinking. The Columbia River is a possible route of exposure since both surface and groundwater from the 100 Area flow toward the river, however, no wells within three miles of the 100 Area presently draw drinking water from the contaminated aquifer. Current releases are controlled under a National Pollutant Discharge Elimination System (NPDES) permit and USDOE requirements that are comparable to Nuclear Regulatory Commission rules for releases from commercial reactors to surface waters. Monitoring results show that concentrations of

radionuclides identified in the river are below drinking water standards set by EPA and the state of Washington.

200 Area Contamination

Groundwater samples taken between 1984 and 1991 in the 200 Area revealed that concentrations of tritium, radioactive isotopes of iodine, uranium, cyanide, and carbon tetrachloride had risen during that four-year period. Releases of tritium (a radioactive isotope of hydrogen) and radioactive isotopes of iodine resulted from chemical processing operations at REDOX and PUREX. The wastes containing these contaminants have been disposed in ponds, cribs, trenches, and reverse wells.[3] At the same time, uranium (a radioactive element and a product of UO^3 Plant operations), cyanide (an organic compound used to precipitate cesium during uranium recovery), and carbon tetrachloride (a chlorinated organic solvent used in the plutonium extraction process in the Plutonium Finishing Plant) wastes were disposed into the soil.

Although uranium, cyanide, and carbon tetrachloride generally bind to the soil in the 200 Area, some of those three substances plus chromium and tritium can be found in large groundwater plumes, or areas of contamination within the aquifer. The tritium plume, for example, extends east to the Columbia River. In total, the 200 Area contains 230 known disposal locations that generated 215 square miles of contaminated plumes. Potential pathways for human exposure to the contaminated groundwater are public and private wells and the Columbia River. Existing data suggest there is no immediate threat to the public from those sources.

300 Area Contamination

The primary contaminants in the 300 Area include uranium, metals, and solvents which resulted from fuel fabrication operations. As Hanford's 100 Area production reactors (except N Reactor) were shut down in the 1960s, fuel-manufacturing support activities from the 300 Area also declined. From 1944 to 1975, uranium-contaminated wastes were disposed in the north and south ponds (pools in which the movement of liquid waste is restricted due to soil retention) and several trenches. At one time there were 14 disposal locations in the 300 Area, which currently has approximately five square miles of radioactive contamination. Potential exposure pathways include wells in the North Richland area, the Columbia River, and an irrigation well used by Battelle Farm Operations. Existing data indicate there is no current danger to the public from those sources.

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[3]Reverse wells, also called injection wells, were used briefly in the 1940s at Hanford to inject wastes deep into the ground.

1100 Area Contamination

Contaminants in the 1100 Area are liquid battery acid containing lead and sulfuric acid, and ethylene glycol (antifreeze), both of which could potentially contaminate the groundwater beneath the 1100 Area. The lead and sulfuric acid (an inorganic acid) resulted from the disposal of batteries between 1954 and the 1970s. The batteries were brought from the 100 Area and placed in an unlined disposal pit west of the 1171 building. The ethylene glycol resulted from leaks of antifreeze stored in a 5,000-gallon underground tank beneath the 1171 building. The tank leaked between 1976 and 1978 and was removed from the ground in 1986.

Potential exposure pathways of concern for the contaminants in the 1100 Area are related to groundwater. These pathways include municipal water system recharge wells belonging to the City of Richland, located adjacent to the 1100 Area. The Battelle farm irrigation well is also located nearby. Quarterly samples of nine wells adjacent to the 1100 Area have yet to detect the above-mentioned contaminants. The area has been stabilized with an asphalt cover to prevent contaminants from being washed away by rain or being blown by winds.

APPLICATION OF RCRA AND THE STATE DANGEROUS WASTE PROGRAM TO FEDERAL FACILITIES

The Hanford Site has been designated as a generator of hazardous waste in accordance with the state of Washington Hazardous Waste Management Act (commonly referred to as the State Dangerous Waste Program). In addition, the Hanford Site includes more than 60 treatment, storage and/or disposal (TSD) units that must be permitted and/or closed under the authority of the State Dangerous Waste Program and RCRA.

Currently Hanford's TSD units are being operated under interim status authority pending receipt of a final permit. Interim status was obtained through submittal of a Part A Permit application for the Hanford Site, which was updated in May 1988 to include mixed waste units. Mixed waste units are those that have received both radioactive and hazardous components.

Facilities that will continue to operate are required to submit a Part B application to the regulators. This application is required to identify all design and operating requirements of the facility. Upon approval of this application, a final facility permit is prepared by Ecology for public review.

The majority of TSD units at Hanford contain mixed waste. They include radioactive mixed waste burial grounds, single and double-shell storage tanks, ponds, cribs, ditches, and several treatment systems within processing plants. The liquid disposal units are not currently being used for disposal of mixed wastes and will be closed in the future. A number of future Hanford facilities will also be regulated as TSD units. They include the Hanford Waste

Vitrification Plant (HWVP), where liquid wastes will be processed for final disposal, and a central waste complex to store, treat, and repackage low-level and transuranic wastes for final disposal. New storage and disposal facilities, such as concrete vaults that hold solidified liquid wastes (grout), will also be regulated under RCRA and the State Dangerous Waste Program.

Appendix D

TRI-CITIES AREA COMMUNITY BACKGROUND

The community affected by and interested in remedial activities at the Hanford Site consists of several widespread geographic and socioeconomic groups, each of which has distinct concerns about Hanford. These groups include residents of the Tri-Cities area, environmental and peace organizations, Native American Tribes, Hanford public interest groups, and residents of the Pacific Northwest.

Residents of the Tri-Cities area have been involved in activities at Hanford since operations started during World War II, primarily because many Tri-Cities' residents are or have been employed by USDOE or one of its contractors at Hanford. Current Tri-Cities residents generally can be categorized in one of three groups with regard to their involvement at Hanford:

People whose livelihood is directly related to Hanford;

People whose daily activities bring them in contact with Hanford or with individuals who are employed at Hanford; and

People who have little or no direct contact with Hanford or individuals who are not employed at Hanford but who nonetheless are aware of the facility.

The public became more involved with Hanford activities after the Nuclear Waste Policy Act of 1982 placed Hanford under consideration as a possible location for the high-level nuclear waste repository (the Hanford program was known as the Basalt Waste Isolation Project, or BWIP). Formal mechanisms were developed by which the public throughout the region could express interest in activities related to Hanford. Some local elected and agency officials participated in studies to determine the best location within the Hanford Site for the repository.

A small number of Tri-Cities community members attended hearings in 1989, when Ecology, USDOE, and EPA proposed the Hanford Federal Facility Agreement and Consent Order. In addition, a group of residents who live downwind of Hanford have expressed concern about health problems they believe may be associated with past atmospheric and river releases of radioactive materials from Hanford.

Another group involved in activities related to Hanford is TRIDEC, the Tri-City Industrial Development Council. TRIDEC is an economic development organization that promotes Hanford activities and also works to help the Tri-Cities diversify its economic base. For example, TRIDEC currently is working to promote business opportunities for the research and design portions of the hazardous waste industry, wherein hazardous waste technologies

would be developed in the Tri-Cities area, tested at Hanford, and used at sites around the country.

In addition to organized groups, a wide range of individuals in the Tri-Cities area are interested in activities at Hanford, although they are not affiliated with any particular organization. These people are likely to express opinions in letters to the Editor of the Tri-City Herald and western Washington newspapers, and through other forms of public commentary.

Hanford is a nationally recognized cleanup project. People from all over the nation are concerned and affected by the federal site. Specifically, many people throughout the states of Washington and Oregon are very concerned with the cleanup work at Hanford. Moreover, residents along the Columbia River continue to take a concerted interest in Hanford cleanup.

Appendix E

HANFORD TRI-PARTY AGREEMENT COMMUNITY RELATIONS PLAN UPDATE PROCESS

To update the Hanford Tri-Party Agreement Community Relations Plan, Ecology, USDOE, and EPA conducted the following activities.

- The agencies conducted two informal meetings with interested parties. Representatives from local Tri-City area governments, state of Oregon, Native Americans, Hanford public interest groups, labor unions, and other individuals and organizations attended.

  At the meetings the agencies and interested parties discussed concerns about Tri-Party Agreement public involvement activities. The agencies also asked the interested parties to recommend ways to improve the public involvement activities. In addition, the agencies and the interested parties discussed the Tri-Party Agreement decision processes. The interested parties proposed areas for public involvement within the decision processes.

  After the meetings the agencies summarized the interested parties' comments and responded to the comments, which are included in this section. The agencies incorporated many of the comments and recommendations into the draft update to the Community Relations Plan.

- Ecology asked the Nuclear Waste Advisory Council to comment on the Community Relations Plan.

- The agencies conducted a 45-day public comment period (March 15 - April 28, 1993), which included two public meetings in Washington.

		Approximate Attendance
April 13	Tri-Cities	24
April 14	Seattle	20

The public comment period also included an opportunity for individuals to submit written comments. The agencies received 5 written comments.

HANFORD TRI-PARTY AGREEMENT
COMMUNITY RELATIONS PLAN UPDATE
SUMMARY OF INTERESTED PARTIES' COMMENTS AND RESPONSES

October 1992

COMMENT	RESPONSE
Public Meetings are not successful. The city of Richland (and other cities) effectively inform and involve citizens. The agencies should consider working with the city of Richland (and other cities) to communicate with the public. Moreover, city governments are generally "more trusted" and more "in touch" with local communities. The city of Richland has scored high for credibility and public trust in surveys. The city of Richland believes that local governments should be used to assist in "getting the word out" about Tri-Party Agreement activities.	Statistically, and often realistically, the smaller the government unit, the closer the people feel to that unit. Therefore, people generally trust their local city government more than the county, state, or federal government. The agencies appreciate any offers that local governments, such as the city of Richland, can provide that would aid in "getting the word out" about Tri-Party Agreement activities.
City of Richland has a dialogue with Ecology and EPA; they do not with USDOE. Richland recommends: 1) that the three agencies conduct informal dialogue with local governments and 2) that the three agencies "get on local governments' agendas."	The agencies welcome opportunities to meet informally with local governments. Also, the agencies would welcome participating in local government, school, or civic organizations' meetings throughout Washington and Oregon.

COMMENT	RESPONSE
Currently the agencies are not conducting Quarterly Public Meetings, because they conduct a public meeting in key cities (Spokane, Seattle, Vancouver) once a year. Agencies should conduct an annual meeting in five cities: Tri-Cities, Spokane, Seattle, Portland, and White Salmon. Conduct the meeting in November or December in the evening. The meeting should address the following issues: • Provide a report card on Tri-Party Agreement project activities • Provide a report card on Tri-Party Agreement public involvement activities • Funding--what was spent for Hanford cleanup in previous fiscal year • Funding--what is projected to be spent for Hanford cleanup in upcoming fiscal year • Major budget items for upcoming fiscal year • ERAs planned for upcoming fiscal year • Research and Development planned for upcoming fiscal year	All three agencies are exploring the idea of conducting annual public meetings in key cities around Washington and Oregon. It is also vital for the three agencies to meet one-on-one with groups that would like more information on the cleanup of Hanford. These meetings would be held informally with representatives from all three agencies. A report on Tri-Party Agreement project activities and public involvement activities can be set up for either a formal public meeting, or a one-on-one session with a group or groups requesting such information. Budget information is restricted by the Office of Management and Budget, but representatives of USDOE are willing to meet with interested members of the public and talk about the information that is available. If groups are interested in meeting with budget analysts from USDOE, and representatives from all three agencies, a meeting can be arranged.
The general public is not really interested in Hanford cleanup. The issues are complex and hard for the public to understand and comment.	Although the general public may not be interested in Hanford cleanup, there are many individuals and organizations that feel they are affected by the decisions made regarding the Hanford Tri-Party Agreement. It's vital for the three agencies to continue to communicate to all publics, whether actively involved, or moderately informed, of the latest developments at the Hanford Site.
Involve the public earlier. The earlier the public is involved in the decision making process, the more opportunity the public has for affecting the decision. Also, the public needs adequate time to comment.	The agencies agree and the updated Community Relations Plan will provide for an early public involvement process.

COMMENT	RESPONSE
The Public Information Repositories (PIRs) need to be improved. More documents and correspondence between the regulators and USDOE need to be included in the PIRs. Work with concerned citizens to ensure that the Public Information Repositories are helpful and comprehensive sources of information. Add an optical imaging system computer to PIRs to aid the public in locating Tri-Party Agreement documents. The computers should allow citizens to access documents by title, key words, reference number, or author. Also, install a printer to enable the public to print copies of needed documents. Include all documents in the PIRs and Administrative Record on the optical imaging system.	The agencies will update the document list for Tri-Party Agreement information contained in the Public Information Repositories. The three agencies agree the information repositories need upgrading. Currently, USDOE is planning to hold a workshop to work with libraries in Spokane, Seattle, and Portland to promote techniques for establishing and maintaining an information repository. Ecology and EPA will also be participating in the workshop. Some computerized indexes are possible in the near term.
The Hanford Update needs to be improved. Appreciation for the Bonneville Power Administration newsletter was stated, because it provides dates and information of when public comments are due.	The agencies will continue to make the Hanford Update a more beneficial newsletter. One response may be that the public is requesting that the objective of the Hanford Update be redefined and refocused. Another response may be to create two types of newsletters or update pieces. The agencies welcome any suggestions to improve the Hanford Update. The newsletter has to be beneficial to those most involved, and to those who would simply like to be informed. Adding information on public involvement activities, such as public comment periods, is an excellent idea. The agencies are planning to include public comment period information beginning with the October 1992 Hanford Update.
Agencies need to develop a more detailed criteria for measuring success--whether it is attendance at public meetings, etc. What is it the Tri-Party Agreement public involvement is trying to accomplish. Define goal.	Our goal for public involvement is to include the concerns and issues of the general public and the interested parties into the Hanford Tri-Party Agreement decision making process. We are updating the Community Relations Plan to achieve this goal.

COMMENT	RESPONSE
Tri-Party Agreement advertisements are poor. They do not solicit public involvement, they turn people away. Write the advertisements in "plain" language. Improve public announcements. Explain how a particular project impacts the overall "big picture" for Hanford cleanup.	The agencies continue to strive to write advertisements in "user friendly" language. The agencies will work to 1) write the advertisements in "user friendly" language, and 2) explain how the subject may be important to the public.
Deleting the public comment period for the work plans could be negative--taking away an opportunity for public comment. If agencies have not received "substantive" public comments on work plans yet, it does not mean they will not. The Technical Assistance Grants and Public Participation Grants have not been funding reviewers yet. There is a need to take the plans to outside interest groups to collectively fund technical reviewers.	The agencies agree. The agencies discussed this issue because the work plan public comment periods have not resulted in very many comments or in comments relating to the work plans. The agencies agree that they should not consider eliminating the public comment periods at this time.
How is the public aware of the Expedited Response Action (ERA) candidate list? Put candidate lists and proposed ERA plans in the Public Information Repositories. Public is not aware of how ERAs are ranked.	The agencies will update the list of documents distributed to the public information repositories. The ERA candidate list will be included as a public information repository document.
Public would like to know how cleanup dollars are being spent. Public needs an opportunity to know and to talk about how their tax dollars are being spent for Hanford cleanup. It is difficult for the public to push Congress for cleanup funding, because the public does not know what is being spent on cleanup.	In the future, USDOE will include budget and spending information in the Hanford Tri-Party Agreement Annual Meetings, to the extent allowed by the regulations of the Office of Management and Budget.
To make the work plans and other public comment documents more understandable to review, write executive summaries to accompany work plans, in "user friendly" language. Fact sheets should also be written to explain public comment documents.	When appropriate, the agencies will develop fact sheets for public comment documents and executive summaries for work plans and some public comment documents. When possible, the fact sheets and executive summaries will be distributed with the public notice announcing the public comment periods.

COMMENT	RESPONSE
Develop a Federal Facilities Oversight Board based upon the Keystone recommendations. The board should be funded; should be guaranteed input in decision making; have the authority to have public involvement activities; allowed to schedule public meetings; should be technically competent; and be allowed to respond to public comments at public meetings. Priorities of the Tri-Party Agreement activities need to be set by the Federal Facilities Board. USDOE-Richland should not proceed with plans to develop a Site Advisory Board. The Washington State Nuclear Waste Advisory Council should be the main advisory council regarding Tri-Party Agreement activities, until the Council sunsets in 1994. At that time a Federal Facilities Oversite Board, based upon the Keystone recommendations, should be launched.	The agencies agree that advisory groups play a positive role in public involvement. We'll be considering the Keystone recommendations carefully. The Nuclear Waste Advisory Council advises the Department of Ecology. All three agencies support the idea of an advisory group that advises all of the agencies.
The Nuclear Waste Advisory Council should be briefed monthly on the status of milestone progress.	Ecology is proposing a revised scope of work for the Advisory Council which will include briefings on key cleanup issues.
The regulators need to conduct Tri-Party Agreement public meetings and develop meeting summaries.	According to the 1990 Tri-Party Agreement Community Relations Plan or Hanford Tri-Party Agreement activities, Ecology and EPA, with assistance from USDOE upon request, conduct Tri-Party Agreement public meetings and develop meeting summaries.
An effective public involvement campaign needs to be conducted by the most credible party. EPA and Ecology are more credible than USDOE, therefore they should be conducting the Tri-Party Agreement public involvement activities. The Tri-Party Agreement does not say that Westinghouse Hanford Company would be conducting public involvement activities; the Tri-Party Agreement says the regulators should be conducting the public involvement activities. The regulators should be conducting the public involvement activities.	Ecology agrees. However, EPA and USDOE believe all three agencies are equally interested in providing meaningful public involvement. Westinghouse Hanford Company does not conduct public involvement activities. They only provide assistance to USDOE when appropriate.

COMMENT	RESPONSE
Milestone changes should be presented altogether once each year. The public should be asked to comment on the changes in a package--annually. It is confusing and non-productive to ask the public to comment on a different milestone change every month of the year.	Although this would be ideal, it is not practical. Milestone completion dates occur throughout the calendar year. So, the need to consider milestone changes occurs year round.
Work with local groups to provide for better attendance at public meetings. Fund local groups to assist in their mailing and public involvement activities. Provide information early to interest groups so the groups can distribute information to their members.	The agencies agree that local groups can help increase attendance. Also, when appropriate, the agencies will provide information early-on to the local groups for distribution to members and the community. Funding for citizen groups may be obtained through Washington State Public Participation Grants and U.S. Environmental Protection Agency Technical Assistance Grants. Both grants are discussed in the Community Relations Plan.

Appendix F

GLOSSARY

Basalt Waste Isolation Project (BWIP) - Program to study Hanford as a possible location for the high-level nuclear waste repository.

Carbon Tetrachloride - A chlorinated organic solvent used in the plutonium extraction process at the Plutonium Finishing Plant. Carbon tetrachloride is a known human liver carcinogen via inhalation and other ingestion. Other toxic effects include central nervous system damage.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as **Superfund** - The federal statute enacted in 1980 and reauthorized in 1986 that provides the statutory authority for cleanup of hazardous substances that could endanger public health or welfare or the environment.

Chromium - An inorganic element found in the environment in two forms: hexavalent and trivalent. Hexavalent chromium is carcinogenic via inhalation; hexavalent and trivalent chromium are less toxic via ingestion. Hexavalent chromium is a primary contaminant in groundwater beneath the 100 Area at Hanford.

Cold Standby - A condition whereby a reactor is de-fueled and maintained in a state that will allow the reactor to be restarted, if necessary.

Community Relations Plan (CRP) - A report that assesses and defines a community's informational needs concerning potential hazards posed by conditions at hazardous waste sites. The CRP also encourages and ensures two-way communication between an affected community and the public agency overseeing the site cleanup.

Corrective Action - Under CERCLA this term means cleanup. Under RCRA, for purposes of continuing operations this term means to mitigate. For a more thorough definition of correction action, see 45 Federal Register 33316, 6/15/85.

Corrective Measures Implementation (CMI) - The step in the RCRA past practice process in which a corrective action system is designed and implemented; comparable to the Remedial Design and Remedial Action phases of the CERCLA process.

Corrective Measures Study (CMS) - The step in the RCRA past practice process in which alternatives for a corrective action system are investigated and screened; comparable to the Feasibility Study phase of the CERCLA process.

Crib - An underground structure designed to receive liquid waste that can percolate into the soil directly after traveling to a connected tile field.

Cyanide - An extremely poisonous substance used in the extraction of ores, treatment of metals, and in the manufacture of pharmaceuticals.

Dangerous Waste Management Unit - Is a contiguous area of land on or in which dangerous waste is placed, or the largest area in which there is a significant likelihood of mixing dangerous waste constituents in the same area.

Decontamination and Decommissioning (D&D) - (as defined by USDOE Order 5840.2 for the D&D Program):

- Decontamination: the removal of radioactive contamination from facilities, equipment, or soils by washing, heating, chemical or electrochemical action, mechanical cleaning, or other techniques.

- Decommissioning: actions taken to reduce the potential health and safety impacts of USDOE contaminated facilities, including activities to stabilize, reduce, or remove radioactive materials or to demolish the facilities.

Defense Environmental Restoration Program (DERP) - A program initiated by Congress in 1983 to consider environmental problems created by the military use of land areas within the United States.

Ecology - Washington State Department of Ecology

EPA - U.S. Environmental Protection Agency

Ethylene Glycol - An organic compound used primarily as an anti-freeze. Ethylene glycol is moderately toxic when ingested.

Fast Flux Test Facility (FFTF) Advanced Reactor - A liquid metal test reactor that serves as a test tool for advanced reactor technology. Operations at the FFTF began in April 1982 and have since expanded into other areas, such as fusion research, space power systems, and isotope production.

Feasibility Study (FS) - The step in the CERCLA process in which alternatives for a remedial action system are investigated and screened.

Groundwater - Water which fills the spaces between soil, sand, rock, and gravel particles beneath the Earth's surface. Rain that does not immediately flow to streams and rivers slowly percolates down through the soil to the point of saturation to form groundwater reservoirs. Groundwater flows at a very slow rate, compared to surface water, along

gradients which often lead to river systems. If occurring in significant quantities, groundwater can be withdrawn for domestic, industrial, and agricultural purposes.

Iodine - An inorganic chemical produced in the plutonium production reactors at Hanford. Radioactive isotopes of iodine are found in most radioactive waste streams at Hanford.

Isotopes - Any of two or more forms of a chemical element with the same atomic number and nearly identical chemical behavior but different atomic mass and physical properties (e.g., radioactive properties).

Hazard Ranking System (HRS) - A scoring system used by EPA to evaluate potential risks to public health and the environment from releases or threatened releases of hazardous substances. The score is used to determine whether or not to list sites on the National Priorities List.

Hazardous Wastes - Those solid wastes designated by 40 CFR Part 261, and regulated as hazardous wastes by the EPA.

Lead - A heavy metal used as a gasoline additive, in storage batteries, foil, solder, and construction equipment. Lead can be toxic when ingested or inhaled. Lead can impair nervous system development in children and can cause nervous system damage in adults. Lead is also a reproductive toxin.

National Priorities List (NPL) - EPA's list of the top priority hazardous waste sites that are eligible for investigation and cleanup under the federal Superfund program.

N Reactor - N Reactor is a dual purpose reactor, which generated electricity from its steam by-product in addition to producing plutonium. The plutonium production reactor operated from 1971 until January 1987. It is currently in a transition to shut down and is preparing for decontamination and decommissioning.

Nuclear Waste Advisory Council (NWAC) - The Washington State Legislature created the 19-member Nuclear Waste Advisory Council. The ten citizen members, appointed by the Washington State Governor, eight legislators, and Yakima Indian Nation representative advise Ecology on nuclear waste issues.

Operable Unit - An operable unit at Hanford is a group of land disposal sites placed together for the purposes of doing a Remedial Investigation/Feasibility Study (RI/FS) and subsequent cleanup actions. The primary criteria for placement of a site into an operable unit include geographic proximity, similarity of waste characteristics and site type, and the possibilities for economies of scale.

Plume - A defined area of groundwater contamination.

Plutonium - A radioactive element used as the primary fuel in nuclear weapons. Plutonium was purified during various production operations at Hanford.

RCRA Facility Assessment (RFA) - The initial RCRA process that determines whether corrective action for a RCRA past practice unit is warranted, or defines the additional data necessary to make this determination; analogous to a CERCLA Preliminary Assessment and Site Investigation.

RCRA Facility Investigation (RFI) - The RCRA process that determines the extent of hazardous waste contamination; analogous to a CERCLA Remedial Investigation.

Record of Decision (ROD) - The CERCLA document that selects the method of remedial action to be implemented at a site after the Feasibility Study/Proposed Plan process is completed. The ROD is published in the Federal Register.

Remedial Action (RA) - The CERCLA process of remedial action implementation after the investigative steps are completed, after issuing the Record of Decision, and after the Remedial Design is completed.

Remedial Design (RD) - The CERCLA process of design for the remedial action alternative that was selected in the Record of Decision.

Remedial Investigation (RI) - The CERCLA process that determines the extent of hazardous substance contamination and includes, as appropriate, treatability investigations. The RI is done in conjunction with the Feasibility Study.

Resource Conservation and Recovery Act (RCRA) - A federal law enacted in 1981 that regulates the generation, transportation, treatment, storage, and disposal of hazardous wastes.

Responsiveness Summary - A summary of oral and/or written public comments received during a comment period on key documents, and agency responses to those comments. The responsiveness summary is especially valuable during the decision process at a site because it highlights community concerns about the proposed decision.

Strontium 90 - A highly radioactive isotope common in most radioactive waste streams at Hanford.

Sulfuric Acid - A highly corrosive inorganic acid used in various production processes at Hanford.

Superfund - The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act, also referred to as the Trust Fund.

Superfund Amendments and Reauthorization Act of 1986 (SARA) - The reauthorization of the CERCLA statute enacted by Congress in December 1986.

Transuranic Waste - Waste contaminated with long-lived transuranic elements in concentrations within a specified range established by USDOE, EPA, and the Nuclear Regulatory Commission. These are elements shown above uranium on the chemistry periodic table, such as plutonium, americium, and neptunium.

Treatment, Storage, and Disposal (TSD) Unit - A treatment, storage, or disposal unit that is required to be permitted and/or closed pursuant to RCRA requirements as determined in the Action Plan.

Tritium - A radioactive isotope of hydrogen used in nuclear weapons to increase the efficiency of the nuclear reaction.

Uranium - A naturally-occurring radioactive element existing in many radioactive production operations and radioactive waste streams at Hanford. The chemical toxicity of uranium is generally more of a health concern than the radioactive nature of the element.

USDOE - U.S. Department of Energy

Washington State Hazardous Waste Management Act - A state program, commonly referred to as the State Dangerous Waste Program, which regulates the generation, treatment, storage and/or disposal of hazardous wastes in cooperation with RCRA.

Approved for implementation consistent with the Hanford Federal Facility Agreement and Consent Order.

FOR THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY:

Joseph S. Stohr, Section Manager
Technical Support and Public Involvement
Department of Ecology

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

George Hofer, Branch Chief
Federal Facilities
U.S. Environmental Protection Agency, Region 10

FOR THE UNITED STATES DEPARTMENT OF ENERGY:

Steve Wisness
Hanford Project Manager
U.S. Department of Energy--Richland Operations