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7. Abstract

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**300 AREA FUEL SUPPLY
FACILITIES DEACTIVATION
MISSION ANALYSIS REPORT**

April 1995

Prepared for:

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1.0 INTRODUCTION

1.1 PURPOSE

This report presents the results of the 300 AREA FUEL SUPPLY FACILITIES (formerly called "N REACTOR FUEL FABRICATION FACILITIES") Deactivation Project mission analysis. Hanford systems engineering (SE) procedures call for a mission analysis. The mission analysis is an important first step in the SE process.

1.2 BACKGROUND

The 300 AREA FUEL SUPPLY FACILITIES was a nuclear fuel fabrication plant which was mainly used to fabricate low enriched uranium nuclear reactor fuel elements along with special test elements for production reactors on the Hanford Site. The first building (313 Building) was constructed in 1943, and the last building (333 Building) was constructed in 1958. The 300 AREA FUEL SUPPLY FACILITIES fabricated fuel until 1987 when its mission was discontinued.

The 300 AREA FUEL SUPPLY FACILITIES consist of fifteen facilities, plus a utility trench, storage tanks, and a mobile office. A burial ground is located within the 333 Building security fence. The Fuel Supply Facilities Shutdown Plan (WHC 1994) describes the current status and direction of shutdown activities. Deactivation of these facilities has been separated into three major activities:

- Storage and disposition of Special Nuclear Material (SNM). Facility specific National Environmental Policy Act (NEPA) process has not been initiated.
- Completion of work defined in the Resource Conservation and Recovery Act (RCRA 1976) Closure Plans for designated facilities systems, or areas.
- Shutdown and cleanup of all the remaining facilities, systems, and areas for turnover to decontamination and decommissioning (D&D). Because of the low hazards, the remaining scope of work is covered by an approved categorical exclusion (CX) for NEPA.

At present SNM is stored in six buildings (3712, 3716, 303A, 303B, 303E, 303G). The total amount of SNM in these buildings is 1900 metric tons (MT) of finished uranium fuel elements, partially finished fuel elements, and billets. (This uranium material consists of 0.71% (natural), 0.95% and 1.25 ²³⁵U enrichments.) In addition, 3.4 MT of uranium powder and 0.47 MT of thorium powder require disposition and are stored in the south portion of the 303K building. Security, protection, and accountability will be required until an another storage location is available.

RCRA activities which involve the 300 AREA FUEL SUPPLY FACILITIES are described in the following RCRA Closure Plans:

- 304 Concrete Facility Closure Plan, Rev. 2, (DOE-RL 1990a)
- 303K Radioactive Mixed-Waste Storage Facility Closure Plan, (DOE-RL 1990b)
- 300 Area Waste Acid Treatment System Closure Plan, (DOE-RL 1990c)
- 300 Area Solvent Evaporator Closure Plan, (DOE-RL 1988).

These RCRA closures totally involve two facilities (303K and 304) as well as portions of other facilities (333, 313, 303F, and 334A Buildings, the 334 & 311 Storage Tanks, and the 300 Area Solvent Evaporator). The closure plans describe the sampling, characterization, and investigative studies to be performed in these facilities; defines their hazard potential; and identifies required corrective actions. Remediation work is expected to be required, soil cleanup under CERCLA may be needed before the facilities can be defined as closed.

The 300 Area Fuel Supply Shutdown facilities are located within 300-FF-3 (source) and 300-FF-5 (groundwater) operable units, as designated in the Hanford Tri-Party Agreement (Ecology 1990 et al.). The 300-FF-3 and 300-FF-5 operable units are scheduled to be remediated using the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remediation investigation/ feasibility study (RI/FS) process. Therefore any soil and groundwater contamination not related to the RCRA closure plan activities will be deferred to the CERCLA RI/FS process. The 300 Area Facility 303M RCRA closure plan has not been prepared, but is deferred to the 300-FF-3 (CERCLA) Operable Unit (M-20-92-05).

The third major activity is to deactivate and cleanup the remaining 300 AREA FUEL SUPPLY FACILITIES such that custody can be transferred to D&D.

In 1987, DOE-Richland Operations Office (RL) directed Westinghouse Hanford Company (WHC) to initiate transition-to-standby activities for N REACTOR and its associated 300 AREA FUEL SUPPLY FACILITIES. In September 1991, DOE instructed Westinghouse Hanford Company to commence deactivation of 300 AREA FUEL SUPPLY FACILITIES.

1.3 PROJECT SCOPE

The scope of the 300 AREA FUEL SUPPLY FACILITIES Deactivation is defined as including:

- Deactivation of the 300 AREA FUEL SUPPLY FACILITIES plants (15 major buildings and several auxiliary buildings located in the northeast corner of the 300 area), and related plant utilities. The major portion of effort will be transferring

nuclear fuel materials to an alternate storage facility; RCRA Closure of 2 facilities and 7 partial facilities; and cleanup and shutdown of all facilities (the two largest are the 313 and 333 Buildings) and surrounding areas. Until specific turnover criteria is developed and negotiated, the Hanford Surplus Facility Program Criteria (100 Area Projects generic acceptance criteria for D&D) will be used to determine what needs to be done to deactivate 300 AREA FUEL SUPPLY FACILITIES and its ancillary support structures.

- The 300 AREA FUEL SUPPLY FACILITIES Plant configuration shall be modified and controlled sufficiently to enable safety and regulatory compliance during deactivation. Records shall be established and archived for reactivating D&D essential systems and providing meaningful D&D characterization information.
- Hazardous, radioactive materials, and special nuclear material shall be removed from the facilities or stabilized sufficiently to ensure long-term safety and regulatory compliance, enable facility classification as non-occupied, and enable subsequent successful D&D.

Materials shall be removed and/or stabilized sufficiently to ensure that the plant complies with DOE-N-5480.6, Hanford Site Radiological Control Manual, as applicable to a non-occupied facility. Materials shall also be removed where plant knowledge and expertise is necessary to ensure safe and compliant removal.

- Final facility configuration shall ensure D&D operations are jeopardized, and facility safety and environmental protection can be maintained until D&D.
- To achieve a non-occupied facility status, the following actions shall be performed:
 - Ventilation and monitoring equipment shall be eliminated, consolidated, relocated, housed, operated, and/or maintained such that facility entry frequency does not compromise the non-occupancy status.
 - Fire protection systems shall be modified or eliminated to minimize system testing and maintenance and to reflect the non-occupied status.
 - Electrical and water supply services to the facilities shall be isolated; electrical and water supply services in the surrounding yard areas shall be

reduced to meet minimum surveillance and maintenance requirements. Utilities will be terminated at the classical junction. Sanitary sewer systems will be capped at the floor level. Centralized services shall be considered.

- The facilities steam system shall be deactivated, requiring facilities steam requirements to be eliminated.
- At completion of deactivation, the facilities will be unoccupied, locked and maintained with minimum entry requirements.

1.4 MISSION STATEMENT

The purpose of the 300 AREA FUEL SUPPLY FACILITIES Deactivation Project is to establish a passively safe and environmentally secure configuration of the 300 AREA FUEL SUPPLY FACILITIES, and turnover the 300 AREA FUEL SUPPLY FACILITIES (buildings will be turned over individually when deactivation is completed) to D&D. The project removes, reduces, and/or stabilizes the special nuclear material and major remaining radioactive sources and hazardous chemicals within and around the 300 AREA FUEL SUPPLY FACILITIES. There will be no active systems or utilities within the facilities. During deactivation, all aspects of the safety envelope will be continually challenged, and appropriate portions maintained to ensure deactivation takes place in a safe and regulatory compliant manner. Stakeholders will be actively involved during deactivation.

2.0 MISSION ANALYSIS

2.1 300 AREA FUEL SUPPLY FACILITIES PROBLEM STATEMENT

Because the 300 AREA FUEL SUPPLY FACILITIES no longer have a production mission due to the shutdown of the N Reactor; because the cost is too high to maintain the safety envelope; and because deactivation of the facilities will reduce the cost to operate; the DOE has ordered deactivation of the 300 AREA FUEL SUPPLY FACILITIES. Essentially, the problem is how to deactivate 300 AREA FUEL SUPPLY FACILITIES to a point where safe and compliant D&D operations can take place with acceptable risk, and only minimum maintenance and surveillance is required until D&D.

2.2 PROJECT OBJECTIVES

- Establish a passively safe and environmentally secure configuration of the facilities (no active internal functions or equipment within confinement), and retain that configuration until turnover to D&D.
- Achieve a total yearly cost target of \$1.6 million/year at turnover.
- Implement cost-effective, innovative approaches to ensure the required safety envelope is defined and maintained during deactivation. Apply lessons learned from commercial deactivation experience.
- Achieve compliance with Environmental, Safety, and Health codes and standards during deactivation.
- Involve stakeholders, as appropriate, in the development and execution of the 300 AREA FUEL SUPPLY FACILITIES Deactivation Project.
- Establish the 300 AREA FUEL SUPPLY FACILITIES Deactivation Project as a model for uranium fuel fabrication facilities deactivations.

2.3 MISSION DEFINITION

In addition to the mission statement, the mission to deactivate 300 AREA FUEL SUPPLY FACILITIES can be further defined through an understanding of the initial conditions prior to deactivation, the final endpoint or conditions desired upon completion of the mission, the constraints under which the mission must be performed, and the resources that are available to enable the mission. The following paragraphs describe the initial and final conditions, the physical boundaries and programmatic interfaces, and the resources to

achieve 300 AREA FUEL SUPPLY FACILITIES deactivation. A diagram of the initial conditions, final conditions, constraints and resources required to perform the 300 AREA FUEL SUPPLY FACILITIES Deactivation Mission are shown in Figure 1.

2.3.1 INITIAL CONDITIONS

LEGACY FACILITIES, EQUIPMENT AND NON-NUCLEAR MATERIALS

The following facilities, equipment and non-nuclear materials are included in addition to the 300 AREA FUEL SUPPLY FACILITIES two largest buildings (313 and 333 Buildings): thirteen smaller facilities, plus a utility trench, storage tanks, and a mobile office. The major portion of effort will be transfer of nuclear fuel materials (SNM) to an alternate storage facility; RCRA Closure of 2 facilities and 7 partial facilities; and cleanup, shutdown, and deactivation of all facilities and surrounding areas requiring cleanup.

In 1987, DOE-Richland Operations Office (RL) directed Westinghouse Hanford Company (WHC) to initiate transition-to-standby activities for N REACTOR and its associated 300 AREA FUEL SUPPLY FACILITIES. In September 1991, DOE instructed Westinghouse Hanford Company to commence deactivation of 300 AREA FUEL SUPPLY FACILITIES.

LEGACY NUCLEAR MATERIALS

The following legacy nuclear materials are included: N Reactor fuel; fission product surface contaminated N Reactor fuel; uranium billets; uranium powder, pellets, pins, partial assemblies, and assemblies; thorium powder; radioactive-mixed waste; contaminated solvents; radiologically contaminated buildings, equipment and waste; contaminated acids; and contaminated soil.

At present SNM is stored in six buildings (3712, 3716, 303A, 303B, 303E, 303G). The total amount of SNM in these buildings is 1900 metric tons (MT), consisting of finished uranium fuel elements, partially finished fuel elements, and billets. This uranium material consists of 0.71% (natural), 0.95% and 1.25 ²³⁵U enrichments. In addition, 3.4 MT of uranium powder and 0.47 MT of thorium powder require disposition and are stored in the south portion of the 303K building.

2.3.2 FINAL CONDITIONS

DEACTIVATED FACILITY(S)

Deactivated facilities will include the 303A, 303B, 303E, 303F, 303G, 303K, 303M, 304, 313, 333, 334A, 334, 3707G, 3712, and 3716 Buildings along with a utility trench, storage tanks, and mobile office for the 300 AREA FUEL SUPPLY FACILITIES. The condition of the 300 AREA FUEL SUPPLY FACILITIES and surrounding areas at turnover to D&D is as follows: RCRA Closure completed on

Figure 1. 300 AREA FUEL SUPPLY FACILITIES DEACTIVATION MISSION

CONSTRAINTS

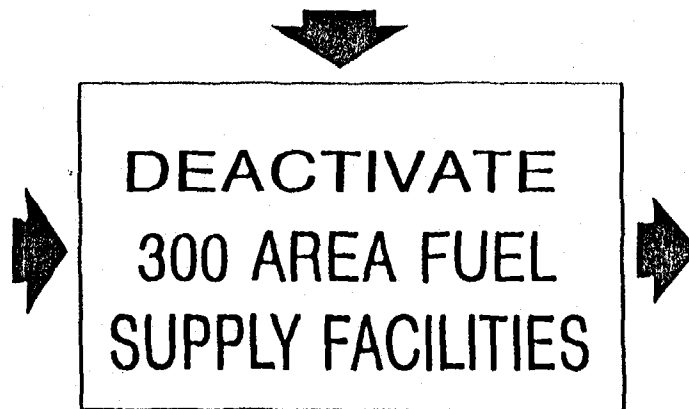
DEF WK DIRECTION MISSION TRANSFER
PKG & REQMENTS AGREEMENTS
 CONTROL

INITIAL CONDITIONS

LEGACY FACILITIES, EQUIPMENT
& NON NUCLEAR MATERIALS

LEGACY NUCLEAR
MATERIALS

2-3



FINAL CONDITIONS

DEACTIVATE FACILITY
TRANSFER TO D&D

ON-SITE NUCLEAR MATERIALS

WASTE GENERATED DURING
DEACTIVATION

FACILITIES/RESOURCES
TRANSFERRED TO
BENEFICIAL USE

ALLOCATED MISSION ESSENTIAL
RESOURCES CAPABILITIES

RESOURCES

2 facilities and 7 partial facilities; all offices have been cleaned out; all unattached equipment, tools, spare parts, components, furniture, chemicals, supplies, etc., removed; all SNM removed; radioactive, mixed waste, hazardous and non-hazardous waste, chemical waste, and hazardous materials removed or stabilized; radiologically contaminated building components, equipment, walls, ceilings, floors, tanks, and outside pads and soils will be decontaminated stabilized or contained; HVAC shutdown; steam heating shutdown; electrical services greatly reduced; dry fire system installed; water and sewer shutdown; and the facilities deactivated.

Until specific turnover criteria is developed and negotiated, the Hanford Surplus Facility Program Criteria (100 Area Projects generic acceptance criteria for D&D) will be used to determine what needs to be done to deactivate 300 AREA FUEL SUPPLY FACILITIES. Deactivated facilities along with the D&D data package are transferred to the Environmental Restoration (ER) contractor for D&D. In some cases, it may take years before D&D can occur, making it essential that the facilities be placed in a minimum safe, stable and environmentally compliant condition that requires minimal maintenance and surveillance and results in an unoccupied facilities status. Deactivated facilities shall not pose undue risk to future D&D activities.

A D&D data package that documents and describes what has been done to deactivate the 300 AREA FUEL SUPPLY FACILITIES and current conditions, will be transferred to D&D at their takeover of the 300 AREA FUEL SUPPLY FACILITIES.

ON-SITE NUCLEAR MATERIALS

Nuclear materials removed include: 1900 MT of uranium (uranium material consists of 0.71% (natural), 0.95% and 1.25 ²³⁵U enrichments) as N Reactor fuel; fission product surface contaminated N Reactor fuel; finished uranium fuel elements, partially finished fuel elements, and billets. In addition, 3.4 MT of uranium powder and 0.47 MT of thorium powder will be removed.

WASTES GENERATED DURING DEACTIVATION

Other nuclear radiological materials that must be removed, treated, or stabilized are radioactive-mixed waste; contaminated solvents; radiologically contaminated buildings, equipment and waste; contaminated acids; and contaminated soil. Wastes generated during deactivation that must be disposed from each facility(s) are as follows: off specification oil; low level radioactive waste; mixed/hazardous waste; and non-hazardous material.

FACILITIES/RESOURCES TRANSFERRED TO BENEFICIAL USE

Equipment, furniture, components, chemicals, supplies redeployed to other programs or excessed. All usable transportation vehicles redeployed. Personnel have been or will be redeployed to other programs.

2.3.3 PHYSICAL BOUNDARIES

The physical boundaries of the 300 AREA FUEL SUPPLY FACILITIES are a list of what buildings and other areas are included. The buildings are: 303A, 303B, 303E, 303F, 303G, 303K, 303M, 304, 313, 333, 334, 334A, 3707G, 3712, and 3716. The other areas are a utility trench, storage tanks and a mobil office. All of these areas are located in the northeast side of the 300 Area.

2.3.4 EXTERNAL INTERFACES

Interfaces occur when information, material or energy are exchanged between two entities. The 300 AREA FUEL SUPPLY FACILITIES interface with the following areas and functions including those agencies which impose requirements.

- Federal Agencies
- State and Local Governments
- Confederated Tribes
- DOE Headquarters and Field Office
- DOE Laboratories
- Other Hanford Programs and Projects
 - Solid Waste
 - Liquid Effluent
 - Site Infrastructure
- Environmental Restoration (ER) Contractor
- Stakeholder.

2.3.5 CONSTRAINTS

DEFINED WORK PACKAGES

Defined work packages at this level really constitute the technical baseline for the current fiscal year. They define the intended work scope in broad terms, generally at a program level.

DIRECTION AND CONTROL

Direction and control is provided from the Manage function as described in WHC-EP-0722 "Systems Engineering Functions and Requirements for the Hanford Cleanup Mission: First Issue". Direction is generally provided at a program level. The Manage function must integrate all program and project efforts and

make site level decisions to achieve the best overall results at the site level.

MISSION REQUIREMENTS

Mission requirements are physical limits on system design solutions imposed from authority outside the cleanup mission. On a broad level, mission requirements consist of compliance with the following:

- Mission constraints that are self imposed upon the cleanup mission are as follows:
 - Design solutions must inherently improve the safety posture of the site with respect to subsequent operations.
 - Only cost effective design solutions will be considered.
 - Stakeholder interests must be included in alternative definition and selection.
 - Successful alternatives must be capable of resulting in, or contributing to, the rapid progress needed to sustain mission momentum and support.
 - The cleanup work must not adversely affect other ongoing or project Hanford Site missions.
- Public Law (PL); these are federal legislative statutory laws that are generated by a specific session of Congress. The National Defense Authorization Report in connection with the permanent closure of DOE Defense Nuclear Facilities is an example of one applicable PL.
- United States Code (USC); these are laws of a general and permanent nature under arrangement of official code of laws of the United States. Examples include: Clean Water Act; National Environmental Policy Act; Resource Conservation and Recover Act of 1976; Comprehensive Environmental Response, Compensation, and Liability Act of 1980; and the Nuclear Waste Policy Act.
- Federal Register (FR); these include, but are not limited to, proposed and final federal agency regulations, policies, documents required to be published by an act of Congress and other federal agency documents of public interest. The Final Environmental Impact Statement for the Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes, Hanford Site, Richland, Washington: Decision of Records is an example of a FR document.

- Code of Federal Regulations (CFR); these are a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government. Examples include: Packaging and Transportation of Radioactive Material; Occupational Safety and Health Administration; Identification and Listing of Hazardous Waste; Standards Applicable to Generators of Hazardous Waste; and Shippers-General Requirements for Shipments and Packaging.
- Hanford Federal Facility Agreement and Consent Order (89-10, Rev. 1); this is the agreement between DOE, EPA, and the Washington State Department of Ecology and is more commonly known as the Tri-Party Agreement. The Tri-Party Agreement identifies milestones that quantify actions toward Hanford Site compliance with the Resource Conservation and Recovery Act of 1976, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, and the Washington State Hazardous Waste Management Act.
- Washington Administrative Code (WAC); these are a codification of general and permanent rules published in the Washington State Register by the agencies of the State of Washington. Examples include: Dangerous Waste Regulations; Washington Ambient Air Quality Standards and Emission Limits for Radionuclides; Washington Standard for Protection Against Radiation; and Transportation of Hazardous Materials.
- Revised Code of Washington (RCW); comprises all laws of a general and permanent nature under arrangement of official code of laws of the State of Washington. Examples include: Washington State Environmental Policy Act; Washington Radioactive Waste Act; Washington Industrial Safety and Health Act; and Washington Clean Air Act.
- Executive Order (EO); these are orders or regulations issued by the President, or administrative authority, that can have the effect of law if published in the Federal Register. Responses to Environmental Standards (Aug. 14, 1981; 46 FR 42237) and Superfund Implementation (Feb. 23, 1987; 52 FR 2923) are examples of EOs.
- Secretary of Energy Notices (SEN); these convey direction on processes and procedures which control operations, design, procurement, etc.. SEN-35-91, Nuclear Safety Policy is an example of a SEN.
- U.S. Department of Energy Orders; these are long-lasting directives stating policy or establishing standards of operation. Examples of DOE Orders include: Comprehensive

Environmental Response, Compensation, and Liability Act Requirements; Radiation Protection of the Public and the Environment; National Environmental Policy Act Compliance Program; Environmental Protection, Safety and Health Protection Standards; and Radiation Protection for Occupational Workers.

- U.S. Department of Energy Notices; these are one-time or short-term (less than 1 year) instructions or information. Notices are used to provide immediate dissemination until the information can be incorporated into an order.
- Codes and Standards; these are national or international consensus documents written and critiqued by technical specialists versed in the field of interest. Usually these standards are generated by professional societies.
- U.S. Department of Energy Environmental Management Policy; these are guidelines formulated by the Assistant Secretary for Environmental Management or by the Secretary of Energy.
- Westinghouse Hanford Company Controlled Manuals; these are internal company procedures that are intended to encompass all relevant requirements associated with activities covered in the procedure and describe how the activities need to be performed to ensure compliance. Examples include WHC-CM-4-3, Industrial Safety Manual; etc....

TRANSFER AGREEMENT

Transfer agreements provide the authority to make transfers of materials between various programs and projects on-site, or off-site. Authority for the transfer comes from the Manage function as described in WHC-EP-0722 "Systems Engineering Functions and Requirements for the Hanford Cleanup Mission: First Issue".

2.3.6 RESOURCES

ALLOCATED RESOURCES

Allocated resources primarily includes the budget and personnel necessary to carry out the current fiscal technical baseline defined by the Manage function as described in WHC-EP-0722 "Systems Engineering Functions and Requirements for the Hanford Cleanup Mission: First Issue".

MISSION ESSENTIAL CAPABILITIES

Mission essential capabilities include the expertise, facilities, equipment, infrastructure, supplies, information, services and technology to perform the 300 AREA FUEL SUPPLY FACILITIES Deactivation Project. Typically,

these are provided by the Acquire Mission Essential Capabilities function reference.

2.4 MISSION EVALUATION

2.4.1 MISSION RISK AREAS/FACTORS

- Sufficient budget will be available to support the planned work for each fiscal year of deactivation. Insufficient budget will negatively impact the schedule for completion of deactivation activities.
- 300 AREA FUEL SUPPLY FACILITIES will be able to transfer the necessary nuclear and hazardous materials to other programs to meet the deactivation project turnover criteria. Inability to remove these materials will delay completion of deactivation.
- Public involvement in the deactivation decisions can affect the scope of work and thus impact budget needs and effect the schedule for completion of deactivation.
- Changing requirements can effect the scope of work and thus impact budget needs and the schedule for completion of deactivation.
- Mission essential capabilities are not provided in a timely manner and to the degree necessary to ensure successful deactivation.
- Environmental impacts beyond those anticipated as a result of deactivation.
- Risk to workers beyond those anticipated as a result of deactivation.
- Timely decisions by the Manage function and other interfacing organizations to ensure minimal impact to deactivation.
- Ability to move the SNM, hazardous waste, and waste out of the 300 AREA FUEL SUPPLY FACILITIES due to NEPA issues, or no policy agreement on the disposition of the SNM, hazardous waste, and waste.

2.4.2 MEASURES OF EFFECTIVENESS

- SNM dispositioned or relocated to another facility with a storage mission.

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- Successful completion of work defined in the RCRA Closure Plans for designated facilities systems, or areas.
- Deactivation of 300 AREA FUEL SUPPLY FACILITIES completed, successful, and approved with the 300 AREA FUEL SUPPLY FACILITIES turned over to D&D.
- 300 AREA FUEL SUPPLY FACILITIES D&D data package completed and accepted by D&D contractor.

3.0 REFERENCES

9452199; March 29, 1994; Hanford Site Systems Engineering Management Plan; Westinghouse Hanford Company.

9453650; May 25, 1994; Hanford Site Systems Engineering Manual; Westinghouse Hanford Company.

WHC-EP-0722 Rev. 0; January 1994; Systems Engineering Functions and Requirements for the Hanford Cleanup Mission: First Issue; Westinghouse Hanford Company.

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RCRA 1976, Resource Conservation and Recovery Act of 1976 as amended, Public Law 94-580, 90 Stat. 2795 USC 6901, et seq.

Ecology et al., 1990, Hanford Federal Facility Agreement and Consent Order, Vol. 1 & 2, Washington Department of Ecology, U. S. Environmental Protection Agency, and U. S. Department of Energy, Olympia, WA.

M-20-92-05, Delete 303M Oxide Facility Milestone M-20-30 and Incorporate 303M into the 300-FF-02 Operable Unit.

DOE 1990a, 304 Concretion Facility Closure Plan, DOE/RL-90-03, Rev. 2, U. S. Department of Energy, Richland, WA.

DOE 1990b, 303-K Radioactive Mixed-Waste Storage Facility Closure Plan, DOE/RL-90-04, Rev. 2, U. S. Department of Energy, Richland, WA.

DOE 1990c, 300 Area Waste Acid Treatment System Closure Plan, DOE/RL-90-11, Rev. 0, U. S. Department of Energy, Richland, WA.

DOE-RL 1988, 300 Area Solvent Evaporator Closure Plan, DOE/RL-88-08, Rev. 3B, U. S. Department of Energy, Richland, WA.

4.0 GLOSSARY

This section contains the definition of words and phrases found in the text of this document.

active	This term describes the operational status of a process or facility. When a facility is active, it is currently operating or scheduled for operation.
deactivation	The transition of facilities to a state where the buildings, chemical processing systems and infrastructure are placed in a long term, low cost, minimum surveillance and maintenance, safe condition and are ready for D&D. A facility enters deactivation when the need for a facility to fulfill its current mission does not exist.
D&D	D&D is decontamination and decommissioning and is performed when no other missions are identified. The objective of D&D is to place the site in a long-term radiologically safe condition. Dismantling and decontamination, mothball for later dismantlement and entombment are all D&D options.
ER	ER is Environmental Restoration. It is an activity contracted to the ER Contractor. They will perform D&D of facilities.
holdup	Holdup is residues, which contain Plutonium, that are located in the facility process hardware, such as the ventilation system. Holdup, depending on the quantity and accessibility, might be removed as part of the deactivation activities.
infrastructure	<p>Facility infrastructure is the physical portions of the facility which are implicit to the function of the activities in the structure, such as the heating ventilation, electricity etc.</p> <p>Includes all utility, support and other service systems that interfere with a particular facility complex. Within a facility complex ancillary facilities and structures provide infrastructure support to the main facility.</p>
interim storage	The storage of stabilized materials until these materials are transferred or dispositioned. The duration of storage depends on the availability of suitable storage locations and disposition instructions by the owners (DOE).

lay away	This term describes the operational status of a process or facility. A laid away process is not operable without major repairs/upgrades, and no operations are planned. This category is scheduled for decontamination and decommissioning (D&D).
mission	A mission is a narrative description of the ultimate goals and highest purpose for an organizational unit, facility or project.
stabilize	This is the process of treating (chemically or physically) material to make it less hazardous.
standby	<p>This term describes the operational status of a process or facility.</p> <p>A facility in stand by is not currently operating, but it is operable after appropriate start up checks and testing have been performed. In some cases appropriate repairs and upgrades may be necessary.</p>
turnover	Turnover is the transaction which transfers responsibility from the current organizational unit (Transition Projects) to the ER contractor.