U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL

REPORT ON

THE AUDIT OF THE REPLACEMENT HIGH

LEVEL WASTE EVAPORATOR

AT THE SAVANNAH RIVER SITE

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Eastern Regional Audit Office
Oak Ridge, TN 37830

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EXECUTIVE SUMMARY

BACKGROUND

The Savannah River Site (Site), owned by the Department of Energy (Department) and managed by Westinghouse Savannah River Company (Westinghouse), recently changed its primary mission from producing nuclear materials to environmental restoration and waste management. A major focus in the Site's mission is the storage, treatment, stabilization, and disposal of high level radioactive waste materials. To accomplish this mission, the Site will integrate its high level waste treatment facilities into a High Level Waste System (System), which will process the radioactive waste material in six distinct batches.

An integral part of the System is the Replacement High Level Waste Evaporator (Replacement Evaporator) which will evaporate water added to the high level waste during processing, thereby minimizing the volume of the waste stream. Currently, the System has the evaporator and tank farm capacity to accommodate the processing of the first batch of radioactive waste, which is scheduled to begin in March 1996. However, the system will need the Replacement Evaporator to accommodate the volume of water and solvent added during processing of the second batch of radioactive waste scheduled to begin processing in 2004.

OBJECTIVE

The objective of the audit was to determine whether the schedule delays and cost increases associated with the Replacement Evaporator were avoidable.

FINDING

Although the Department has taken some steps to more effectively manage its projects, the Replacement Evaporator has incurred significant schedule delays and cost increases. These schedule delays and cost increases have extended the project's scheduled completion date from December 1993 to May 2001. Also, the project's total estimated cost has escalated from $44 million to $118 million. While some

delays and cost increases were outside management's control, other delays and cost increases could have been avoided had the Department adequately planned, contracted, funded and maintained management continuity on the Replacement Evaporator. If delays and cost increases continue, the Site's System will not be able to operate as designed, which will impair Savannah River Operations Office's ability to accomplish its primary mission.

The finding related to the management of the Replacement Evaporator describes a material internal control weakness that should be considered by Department program managers when preparing their year-end assurance memorandum on internal controls.

RECOMMENDATIONS

We recommend that the Manager, Savannah River Operations Office:

1. Obtain approvals for the Replacement Evaporator's Project Plan and Baseline Change Proposals within the requirements of DOE Order 4700.1,

2. Establish procedures to ensure that Functional Design Criteria will be developed in accordance with the requirements of DOE Order 4700.1 for future Site projects;

3. Evaluate alternative contracting methods for acquiring architect/engineering services at the Site, and

4. Ensure, to the extent possible, that turnover associated with key project personnel is kept to a minimum for all major projects at the Site.

MANAGEMENT REACTION

Management concurred with the recommendations and is taking action to resolve the issues addressed in the report. Changes to project management processes are also being implemented, which will effectively eliminate the source of the problems. Management acknowledges that significant schedule delays and costs increases could be avoided by adequately planning, contracting, funding, and maintaining management continuity on Site projects. Also, management noted that there must be a clear understanding of the responsibilities, accountability, and authority assigned to both the Department and operating contractor project managers and that it is the Department's intent to have certified project managers assigned to Site projects based on education and experience. See Part III for detailed management and auditor comments.

Signed
Office of Inspector General

PART I

INTRODUCTION

BACKGROUND

The Savannah River Site (Site), owned by the Department of Energy (Department) and managed by Westinghouse Savannah River Company (Westinghouse), is located near Aiken, South Carolina. For over 40 years, the Site used five nuclear reactors to fulfill its primary mission of producing tritium and other radioisotopes for use in defense-related activities. In August 1988, the Site's last three operating reactors were shut down for maintenance, modernization, and management improvement.

Since the end of the "Cold War" and the decision by the President to stop arms production, the Site's primary mission changed from producing nuclear materials to environmental restoration and waste management. A major focus of the new mission is the storage, treatment, stabilization, and disposal of the over 33 million gallons of high level radioactive waste stored at the Site. The Site also expects to accept and process spent fuel rods from various sources. To accomplish this mission, the Site devised the High Level Waste System (System).

When operational, the System will process radioactive waste in six distinct batches. The waste is removed from designated storage tanks within the Site's tank farms and liquefied with high volumes of water and solvent. This processing will add approximately 5D6 million gallons of liquid per year to the System. Currently, the System has the evaporator and tank farm capacity to accommodate the first batch of radioactive waste, which is scheduled to begin processing in March 1996. However, when the second batch of radioactive waste is processed, now scheduled to begin in 2004, the System will need additional evaporator capacity--the Replacement High Level Waste Evaporator--to accommodate the volume of water and solvent added during processing. The Site will need the Replacement Evaporator until its remaining radioactive wastes are processed by the System; projected for the year 2020.

The Replacement Evaporator is one of three major evaporation systems used to reduce the volume within the System. All three are needed for the System to operate efficiently. The Replacement Evaporator is responsible for 42 percent of the System's evaporation capacity. Without the Replacement Evaporator, the System will become overloaded and will have to be shut down.

Containment limitations of several storage tanks also have

a significant impact on the processing of the high level waste. During processing, the liquefied waste is stored in and moved through the various underground tanks in the tank farms at the Site. However, 24 of the Site's high level waste storage tanks must eventually be removed from service because they do not meet secondary containment requirements of the Federal Facilities Agreement executed by the Department, the Environmental Protection Agency, and the South Carolina Department of Health and Environmental Control. This reduction in tank farm capacity will reduce the handling capacity of the entire System. With reduced capacity, the need to remove excess liquid from the waste stream will be even more critical.

Since 1989, the Replacement Evaporator (a "Fast-Track" project) has experienced significant schedule delays and cost increases. The project's original completion date was December 1993; however, it is now scheduled to be completed in May 2001. Also, the total estimated cost (construction cost) for the project has increased 168 percent from an original estimate of $44 million to its current estimate of $118 million. Although the Replacement Evaporator is only 40 percent complete, the Department has already spent more than was originally estimated to complete the project. For a chronology of key events associated with the Replacement Evaporator see appendix A. For a glossary of terms, see appendix B.

OBJECTIVE

The objective of the audit was to determine whether the schedule delays and cost increases associated with the Replacement Evaporator were avoidable.

SCOPE AND METHODOLOGY

The audit was performed from May 1994 through February 1995 at the Site near Aiken, South Carolina. Our audit was limited to the schedule and cost of the Replacement Evaporator and did not include any other projects within the Site's System.

To accomplish the audit objective, we:

- Reviewed applicable Departmental regulations and site procedures concerning project management;
- Reviewed current and proposed budget information concerning the Site's System;
- Interviewed Savannah River Operations Office and Westinghouse project managers assigned to the Replacement Evaporator;
- Reviewed contracts for architect/engineering services provided to the Replacement Evaporator;
- Reviewed the history, original justification, and

original cost for the Replacement Evaporator; and

o Reviewed and analyzed changes to the scope of the Replacement Evaporator.

The audit was conducted in accordance with generally accepted Government auditing standards for performance audits, and it included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the objective of the audit. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We placed no reliance on computer-generated data during this audit and, thus, did not test the reliability of any computer generated data.

We held an exit conference with the Assistant Manager for High Level Waste at the Site and members of his staff on May 5, 1995 to discuss the findings and recommendations presented in this report. For management's comments on the report refer to pages 14 through 16.

PART II

FINDING AND RECOMMENDATIONS

Schedule Delays and Cost Increases on the Replacement High Level Waste Evaporator

The Department should accomplish projects on schedule and within cost estimates while meeting programmatic needs. However, the Replacement Evaporator has incurred significant schedule delays and cost increases. Originally, the Replacement Evaporator was scheduled to be completed in December 1993 at a cost of $44 million; however, it is currently estimated to be completed in May 2001 at a cost of $118 million. Many of the schedule delays and cost increases could have been avoided had the Department, including Savannah River, adequately planned, contracted, funded and maintained management continuity on the Replacement Evaporator. If the Replacement Evaporator continues to incur schedule delays and cost increases, the capacity of the System may be jeopardized, which could preclude the Site from accomplishing its mission.

RECOMMENDATIONS

We recommend that the Manager, Savannah River Operations Office:

1. Obtain approvals for the Replacement Evaporator's Project Plan and Baseline Change Proposals within the requirements of DOE Order 4700.1;

2. Establish procedures to ensure that Functional Design Criteria will be developed in accordance with the

requirements of DOE Order 4700.1 for future Site projects;

3. Evaluate alternative contracting methods for acquiring architect/engineering services at the Site, and

4. Ensure, to the extent possible, that turnover associated with key project personnel is kept to a minimum for all major projects at the Site.

DETAILS OF FINDING

DEPARTMENT RESPONSIBILITY FOR PROJECT COMPLETION

One of the Department's goals when executing a multi-million dollar project, such as the Replacement Evaporator, is to ensure that the project is successfully completed within the authorized schedule and funding limitations while satisfying the Department's programmatic needs. Specifically, the Department is responsible for ensuring that its projects are accomplished on schedule and within cost estimates.

Meeting this goal is especially critical on the Replacement Evaporator. The Replacement Evaporator is essential to the Site's ability to efficiently process high level waste. Further delays in completing the Replacement Evaporator could require the Site's multi-billion dollar system to be shut down; thereby, jeopardizing the Site's mission of storing, treating, stabilizing, and disposing of the over 33 million gallons of waste materials at the Site. Without the Replacement Evaporator, the Site's tank farms will not have the capacity to accommodate the radioactive wastes processed by the Site's System.

PROJECT DELAYS AND COST INCREASES

The Department has not achieved its goal of meeting schedule and cost estimates with respect to the Replacement Evaporator. The Replacement Evaporator has incurred numerous schedule delays and cost increases which have extended the project's scheduled completion date from December 1993 to May 2001 and increased the projects total estimated cost from $44 million to $118 million.

Some schedule delays and cost increases on the project were outside the control of Savannah River. For example, with the Department's budget being reduced over the next several years, Savannah River expected a reduction in funding for the System below previously approved levels. Consequently, Savannah River was uncertain whether to allocate funds to the Replacement Evaporator for Fiscal Years 1995, 1996 and 1997. In August 1994, the Westinghouse project manager on the Replacement Evaporator was directed by the Savannah River Operations Office to start suspension activities on the project; however, a month later Savannah River decided to fund the project in Fiscal Year

1995. This action cost the Department approximately $700,000 to demobilize and remobilize during August and September. The latest revision of the High Level Waste System Plan, which includes the effects of the expected budget cuts, has extended the completion date of the Replacement Evaporator an additional 42 months to May 2001 and increased the total estimated cost to $118 million.

However, 11 of the 89 months of schedule delays and $15.4 million of the $74 million in cost increases could have been avoided. Specifically, improved project planning could have saved 2 months of delays and $900,000 of cost increases, and changing contracting procedures could have saved 9 months of delays and $14.5 million of cost increases. Additionally, an undetermined portion of the 89 months in delays and $74 million in cost increases could have been avoided by improving funding procedures and maintaining management continuity on the Replacement Evaporator.

PROJECT MANAGEMENT

The Replacement Evaporator incurred avoidable schedule delays and cost increases because the Department did not follow good management practices. Specifically, the Department could have improved management practices with respect to planning, contracting, funding, and maintaining management continuity on the Replacement Evaporator.

Planning

If Savannah River had followed the requirements of DOE Order 4700.1 with respect to Functional Design Criteria it could have eliminated continuing questions about the design, cost, and schedule of the project and thereby avoided unproductive design assessments.

According to DOE Order 4700.1, the initial purpose of establishing Conceptual Design Criteria is to support the Conceptual Design effort prior to getting approval for the project. As part of Conceptual Design Criteria, Functional Design Criteria is the basic documentation for a project that develops the scope of the project, the reliability of cost estimates and schedules, the performance levels, and the project criteria and design parameters. However, the Replacement Evaporator did not establish Functional Design Criteria until later in the design process. Instead of Functional Design Criteria, the Replacement Evaporator used a Basic Data Report as its basic documentation. This document did not present a firm set of design requirements against which the project could be designed. Consequently, the scope of the project evolved during the early stages of project design.

As a result of not having established Functional Design Criteria, two unnecessary design assessments were performed. In December of 1990, a newly assigned Savannah River project

manager requested an independent design assessment of the Replacement Evaporator despite the fact the Replacement Evaporator employed no new technology. Essentially, the Replacement Evaporator is a larger version of the existing evaporators that have been utilized successfully at the Site for over 30 years. At the conclusion of this design assessment, Savannah River, at the request of Westinghouse, commissioned a second design assessment. This subsequent assessment was to validate the initial assessment's findings. However, the subsequent design assessment, completed in February 1992, determined that the initial findings were not supportable and advocated the use of the original design. These unproductive assessments delayed the project by 2 months and cost $900,000.

Contracting

Schedule delays and cost increases on the Replacement Evaporator could have been reduced if an alternative contracting method had been used to procure architect/engineering services. The contract for architect/engineering services issued at Savannah River was a site-wide contract. This type of contracting did not allow existing architect/engineering contractors to remain on projects that were in critical design phases. Under the site-wide contract, if the architect/engineering contractor was changed, design services for all projects had to be suspended, regardless of the consequences.

If Savannah River had followed a different contracting philosophy when acquiring architect/engineering services, design work on the Replacement Evaporator would not have been significantly delayed. In August 1991, the Site changed architect/engineering contractors. In preparation for the change, design work on the Replacement Evaporator scheduled to be performed by the departing architect/engineer contractor was suspended to allow them time to prepare transition packages documenting the current status and future plans for each segment of the project. Design work was further delayed while the new architect/engineering contractor's personnel were moved, trained, and familiarized with Site architect/engineering activities. This delay in the completion of the design of the Replacement Evaporator extended the schedule by 9 months and increased the cost by $14.5 million.

Funding

Savannah River could have reduced the uncertainty about current and future funding levels for the Replacement Evaporator if it had followed the requirements contained in DOE Order 4700.1 concerning project plans and baseline management. Reducing the uncertainty would have improved the consistency in procurement and construction scheduling, and minimized the changes in direction given to the management and operating contractor.

Even though DOE Order 4700.1 required the project to have an approved project plan, the Replacement Evaporator project did not have one. The project plan is a formal agreement between Department Headquarters and an Operations Office about the execution of a project. It establishes the scope of the project, estimated requirements for funding and technical performance, project schedules, designation of responsibility and authority, organizational interfaces, implementation plans, and accountability. Without an agreement on these matters Savannah River was uncertain about Department Headquarters' commitment to provide sufficient, timely funding for the Replacement Evaporator.

DOE Order 4700.1 also assigned certain responsibilities in regard to baseline management which Department Headquarters did not carry out. Department Headquarters is required to approve or disapprove "priority" Baseline Change Proposals within 10 working days after submittal. However, the Department did not adhere to this requirement for two "priority" Baseline Change Proposals associated with the Replacement Evaporator. Baseline Change Proposal 076, submitted by Savannah River in January 1992, addressed 12 baseline changes including those associated with changing architect/engineering contractors. Baseline Change Proposal 121, submitted by Savannah River in December 1993, addressed 11 baseline changes including a request for a significant increase in engineering support. Neither of these Baseline Change Proposals were approved by Department Headquarters. Instead, Baseline Change Proposal 163 was issued in November 1994. This Baseline Change Proposal superseded Baseline Change Proposals 076 and 121 and authorized the project's baselines to be updated to correspond with Fiscal Year 1995 Congressionally approved budget limits.

The lack of an approved project plan coupled with inadequate baseline management created significant uncertainty on the part of Savannah River management about the Department's commitment to timely funding for the completion of the Replacement Evaporator. This lack of commitment to the project is illustrated by Savannah River's inability to properly schedule procurements and construction activities. For example, project managers had difficulties acquiring a crane for the Replacement Evaporator because the additional $261,000 needed to acquire the crane was part of Baseline Change Proposal 076 which Department Headquarters had not approved. Also, construction activities associated with updating the Replacement Evaporator's Process Ventilation System were hindered because Baseline Change Proposal 076 had not been approved.

We could not quantify the schedule delays or cost increases resulting from the lack of an approved project plan or baseline change proposals; however, the management team on the Replacement Evaporator expended time and resources in an attempt to compensate for the lack of approvals. Eight interim Baseline Change Proposals had to be prepared to obtain contingency funds to keep the project's schedule from slipping further due to lack of funding. If the two "priority" Baseline Change Proposals had been acted upon in accordance with DOE Order 4700.1, these

interim Baseline Change Proposals would not have been needed. The undeterminable amount of resources used to prepare these additional Baseline Change Proposals increased the cost of the project.

Management Continuity

Finally, if Savannah River had learned from past Department construction management pitfalls described in DOE Order 4700.1, it could have controlled and executed the project more efficiently by maintaining a stable management structure.

The "lessons learned" section of DOE Order 4700.1 points out that past Departmental construction projects have experienced difficulties due to the lack of sufficient experienced management staff. Despite this warning, the Replacement Evaporator has had six Savannah River project managers in the last 6 years. This turnover in project management staff assigned to the project led to loss of project knowledge and lack of commitment to project baselines established by previous project managers. Because DOE Order 4700.1 designates the project manager as the individual responsible for controlling all activities within the project, it is essential to have continuity at the project manager level.

EFFECTS OF SCHEDULE DELAYS ON THE HIGH LEVEL WASTE SYSTEM

Because the Replacement Evaporator is behind schedule and over budget, the Department has jeopardized the Site's ability to accomplish its mission of storing, treating, stabilizing, and disposing of waste materials. Once the System begins to operate, the waste produced by the System will need the Replacement Evaporator to assure that the Site's tank farm operations can support the enormous volume of liquid waste produced. The Replacement Evaporator is estimated to provide approximately 42 percent of the System's long-term evaporation needs. If the Replacement Evaporator continues to incur schedule delays and cost increases, the System may have to be shut down until the volume of waste material can be reduced.

PART III

MANAGEMENT AND AUDITOR COMMENTS

Management concurred with the recommendations and is taking action to resolve the issues addressed in the report. Changes to project management processes are also being implemented which will effectively eliminate the source of the problems. Management acknowledged that significant schedule delays and costs increases could be avoided by adequately planning, contracting, funding, and maintaining management continuity on Site projects.

Audit recommendations, management's responses, and auditor comments follow:

Recommendation 1: Obtain approvals for the Replacement Evaporator's Project Plan and Baseline Change Proposals within the requirements of DOE Order 4700.1.

Management Comments. Concur

Management stated that changes to project management processes are being implemented which will effectively eliminate this problem, and until these changes are implemented, the necessary approvals are being pursued. Savannah River personnel have participated on a Department Headquarters sponsored Process Improvement Team which made recommendations regarding changes to DOE Order 4700.1, and it is expected that the order will be replaced in the near future by a less prescriptive document that pushes the project decision making down to lower levels and increases the Project Manager's authority and influence. In the future, Project Plans and Project Management Plans will be replaced by a single document called a Project Execution Plan which, for a project the size of the Replacement Evaporator, would not require Department Headquarters approval. Additionally, the approval thresholds for the Baseline Change Proposals will be changed to decentralize the decision making process regarding baseline documentation. Also, in-scope and out-of-scope changes will be more rigorously reviewed to further control costs.

Auditor Comments. Management's comments are responsive to the recommendation. The intent of the recommendation will be met when the Department revises DOE Order 4700.1 with respect to the approval process for the Project Plan and Baseline Change Proposals.

Recommendation 2: Establish procedures to ensure that Functional Design Criteria will be developed in accordance with the requirements of DOE Order 4700.1 for future Site projects.

Management Comments. Concur

Management stated that current Site procedures for new projects require Functional Design Criteria to be prepared and approved prior to authorization of the project; therefore, this recommendation has already been implemented. However, management also stated that the requirement of this document is only a small portion of what is considered the biggest cause of the project cost and schedule overruns. Projects must have better front-end definition to clearly understand and define realistic scope, schedules, and cost baselines. Currently, new projects are not authorized and key decisions on existing projects are not made without a clear understanding of the

overall direction of the project and the full "buy-in" and support from programmatic customers.

Auditor Comments: Management's comments are responsive to the recommendation. The intent of the recommendation will be met through adequate implementation of the new Site Procedures related to Functional Design Criteria.

Recommendation 3: Evaluate alternative contracting methods for acquiring Architect/Engineering services at the Site.

Management Comments. Concur

Management stated that this recommendation is already being implemented. Westinghouse has been directed to implement a different approach regarding contracting for Architecture and Engineering services. Currently, Westinghouse employs a full service Architect/Engineering subcontractor on a cost plus basis. Architect/Engineering services are obtained from this subcontractor on a non-competitive basis.

Additionally, management stated that in the future, several Architect/Engineering subcontracts will be awarded to qualified firms. Required Architect/Engineering services will be packaged as delivery orders and furnished to these firms for their proposals, including price quotes. The delivery order will be placed with the firm with the best proposal, with cost and schedule being major factors in the decision. The delivery order will be awarded on a fixed price basis. This competitive atmosphere should result in significant savings. In cases like the Replacement Evaporator where design will be expected to last for several years, stand alone fixed price design contracts will be the preferred approach. This approach to design, coupled with the thorough understanding of the technical scope of the project, would have resulted in significant savings to the Replacement Evaporator had it been implemented at the initiation of the project.

Auditor Comments. Management's new approach for the acquisition of Architect/Engineering services are responsive to the recommendation.

Recommendation 4: Ensure, to the extent possible, that turnover associated with key project personnel is kept to a minimum for all major projects at the Site.

Management Comments. Concur

Management stated that this recommendation is being implemented to the extent possible for all projects at the Site. With the current reductions in the Site population and the ensuing restructuring that will take place as a result, maintaining project team continuity is not always possible. However, Savannah River will make every effort to maintain team continuity and minimize turnover of key personnel for current and future Site projects. To illustrate, the major portion of

the project team at the Replacement Evaporator has been maintained and co-located for more than a year. The payoff is realized in baseline "ownership" and continuity in project knowledge.

Auditor Comments. Management comments are responsive to the recommendation and we believe the Department will, to the extent possible, maintain management continuity for current and future major projects at the Site.

Chronology of Key Events

February, 1987	Initiate Replacement Evaporator and issue the conceptual design report.
April, 1989	Change in management & operating contractors at the Savannah River Site from Du Pont to Westinghouse.
May, 1989	Start of Title I Design.
September, 1989	Start of Title II Design.
March, 1990	Start of construction activities.
April, 1990	Submitted Change Request #1 to Department.
October, 1990	Change Request #1 approved by Department Headquarters.
December, 1990	Department notified Westinghouse of an independent design assessment.
August, 1991	A new contract for architect/engineering services at the Site was awarded to Ebasco Inc.
October, 1991	Ebasco Inc. assumed Site responsibilities for architect/engineering services.
January, 1992	Change Request 076 submitted to Department Headquarters to increase total estimated costs to $93.2 million and extend schedule to September 1994.
February, 1992	Independent Design Review completed.
December, 1993	Baseline Change Proposal 121 sent to Department Headquarters requesting $24.9 million increase in total estimated costs and schedule extension to November 1997.

January, 1994 High Level Waste System Plan D revision 2 issued with an estimated completion date for the Replacement Evaporator of November 1997.

August, 1994 Replacement Evaporator put on hold due to Departmental Fiscal Year 1995 budget cuts.

October, 1994 Memo sent to Department Headquarters describing additional resources needed for the Fiscal Year 1995 Savannah River Site budget to fund high level waste activities including the Replacement Evaporator.

October, 1994 High Level Waste System Plan D draft revision 4 issued. This draft depicted significant budget cuts to the Replacement Evaporator in Fiscal Year 1995, 1996, and 1997 and extended the completion date for the Replacement Evaporator to May 2001.

Glossary of Terms

1. Replacement High Level Waste Evaporator

A facility whose purpose is to evaporate water from the high level waste streams. This evaporation process will maximize the space in the Site's tank farms and allow the Site's high level waste system to operate as designed.

2. Total Estimated Costs

Costs associated with engineering design (after conceptual design), facility construction and other costs specifically related to those construction efforts. These costs are typically capitalized and subject to specific Congressional authorization.

3. Conceptual Design Criteria

Conceptual Design encompasses those efforts to develop project scope, assure project feasibility, assure attainable performance levels, develop reliable cost estimates and realistic schedules, and develop project criteria and design parameters.

4. Functional Design Criteria

As part of Conceptual Design Criteria, Functional Design Criteria provides the technical criteria and design requirements necessary to develop the projects design (from conceptual design to detailed design). The Functional Design Criteria also provides the evaluation and

justification for any design alternatives.

5. Baseline Change Proposal

The instrument/document prepared to provide a complete description of a proposed change and its resulting impacts on project baselines. These documents are the justifications for additional funding and scope changes needed on a project.

6. High Level Waste System Plan

The plan that describes the current operational strategy for the management of the Site's High Level Waste System. It describes operational constraints, planning bases, issues, assumptions, integrated schedules, contingency analysis and other pertinent information as it relates to the Site's High Level Waste facilities and operations.

7. "Fast-Track" Project

A "Fast-Track" project is a project in which project construction and project design are done concurrently throughout the life of the project.

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