WASTE RECEIVING AND PROCESSING (WRAP) FACILITY PROJECT STATUS

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ABSTRACT

Waste Receiving and Processing (WRAP) Module 1 (WRAP-I) Facility conceptual design was completed in 1989, and the advanced conceptual design for WRAP-I commenced in April 1990 leading to definitive design beginning January 1991. The engineering study WRAP Module 2 (WRAP-II) Facility has been completed, and a preliminary conceptual design was initiated in April 1990.

Summary:

- WRAP-I Project was validated in fiscal year (FY) 1989 as an FY 1991 line item
- WRAP-I conceptual design has been completed; advanced conceptual design started in FY 1990
- WRAP-II Conceptual Design started in FY 1990 for an FY 1993 line item Operations of WRAP-I to start in FY 1997; operations of WRAP-II to start in FY 1999
- Architect-Engineer (A-E) contractor selection for WRAP-I has been completed
- Total estimated cost (TEC) for WRAP-I is $53,600,000 and WRAP-II is ~$300,000,000.

INTRODUCTION

The WRAP Facility will be an integral part of the Hanford Central Waste Complex (HCWC) and will be located at the Hanford Site near Richland, Washington. The WRAP Facility mission is to treat solid retrievably stored waste and all forms of newly generated wastes for disposal. The WRAP Facility, as part of the HCWC, will perform waste receipt, lag storage, repackaging, volume reduction, certification, treatment of solid transuranic (TRU) wastes and mixed waste (MW) generated, stored, and received at the Hanford Site. The WRAP Facility will also provide offsite shipment capability for TRU wastes and for treatment, certification, and shipment of waste to permitted onsite disposal facilities.

The WRAP Facility will be constructed as two modules: first, WRAP-I will become operational toward the beginning of 1997, and second, WRAP-II will become operational toward the end of 1999. The WRAP-I will have approximately 52,000 ft^2 of floor space, while WRAP-II will have approximately 100,000 ft^2 of floor space. The WRAP-I will perform waste receipt, repackaging, and certification; WRAP-II will treat and perform volume reduction for low-level waste (LLW), TRU, low-level waste-mixed waste (LLW-MW), and transuranic-mixed waste (TRU-MW). Not all functions will be required for each waste type.

COST AND SCHEDULE OBJECTIVES

WRAP-I Project:

The WRAP-I Project was validated in April 1989 as an FY 1991 line item based on the Conceptual Design Report estimate and schedule.

The current capital cost estimate to complete the WRAP-I Project is $53,600,000 for design and construction.

The Budget Validation Update Review will be conducted in April 1991. The Project Estimate will be updated at the end of Preliminary Design (October 1991).

The overall schedule objectives are to complete construction by 1996 and to provide an operating facility by March 1997 in order to meet the Tri-Party Agreement milestones associated with the WRAP-I.

Currently major activity start and completion dates are as follows:

Activity	Start date		Completion date	
Preliminary design (Title I)	January	1991	October	1991
Detail design (Title II)	November	1991	May	1993
Procurement	January	1993	September	1995
Construction	March	1993	March	1996
Startup operations	February	1996	March	1997

WRAP-II Project:

The WRAP-II Project will be validated for design only in April 1991 as an FY 1993 line item and will be based on the Conceptual Design Report estimate and schedule (to be completed in March 1992).

The capital cost objective is to complete the WRAP-II Project within the current TEC of ~$300,000,000 (based on estimates developed during initial conceptual design activities).

The overall schedule objectives are to complete construction by 1998 and to provide an operating facility by October 1999.

The major current activity start and completion dates are as follows:

Activity	Start date		Completion date	
Preliminary design (Title I)	January	1993	November	1993
Detail design (Title II)	November	1993	December	1995
Procurement	January	1994	October	1996
Construction	January	1995	September	1998
Startup operations	October	1998	September	1999

PROJECT ORGANIZATION

The WRAP Project is being directed by the U.S. Department of Energy-Headquarters (DOE-HQ) and DOE-Richland Operations Office (DOE-RL); the DOE-RL will have the overall management responsibility through the designated operation contractor (OC), Westinghouse Hanford Company (Westinghouse Hanford). The onsite Engineering/Construction Contractor, Kaiser Engineers Hanford, will provide the construction management. An offsite A-E has been designated, United Engineers & Constructors Inc. & British Nuclear Fuels Ltd. (BNFL), for WRAP-I definitive design (Titles I and II) with an option for Field Engineering and Inspection Services (Title III). The Westinghouse Hanford will provide technical management of the offsite A-E for the DOE-RL.