

Design Certification Application Reviews

Explanation of the Issue

The NRC is currently reviewing the following design certifications (DCs): the General Electric Hitachi Nuclear Energy (GEH) ESBWR, the Westinghouse Electric Company, LLC (Westinghouse) AP1000 DC rule amendment, the AREVA Nuclear Power (AREVA) U.S. Evolutionary Power Reactor (U.S. EPR), the Mitsubishi Heavy Industries, Ltd. (MHI) U.S.-Advanced Pressurized-Water Reactor (US-APWR), and the STP Nuclear Operating Company (STPNOC) ABWR DC rule amendment. NRC received two ABWR DC renewal applications, one from Toshiba and one from GEH. Both applications have been accepted for review. The staff is developing technical review schedules for these DC renewal applications.

Status

ESBWR: The NRC received the ESBWR DC application on August 24, 2005 from GEH. The advanced final safety evaluation report (FSER) was completed in October 2010. The FSER and the final design approval were issued on March 9, 2011. On March 24, 2011, the proposed ESBWR design certification rule was published in the *Federal Register* for public comment. The current public schedule for publishing the final rule is September 2011.

AP1000: On May 26, 2007, Westinghouse submitted an application to amend the AP1000 DC rule and also submitted Revision 16 to the AP1000 design control document (DCD). As of November 23, 2010, the staff completed its technical review of the amendment application. On February 24, 2011, the proposed rule on the AP1000 DC amendment was published in the *Federal Register* for public comment. The 75-day comment period ends on May 10, 2011. The current public schedule for publishing the final rule is the end of September 2011.

US EPR: The NRC received a US EPR DC application on December 11, 2007 from AREVA. NRC staff notified AREVA NP, Inc., that it was unable to complete its review of the remaining eight chapters within the published milestone schedule due to changes to the previously committed schedule for providing responses to the staff's RAIs and new design information that was recently submitted. The overall review schedule for US EPR design certification was rebase-lined in January 2011. Additional RAIs in several technical areas have been issued and the staff is working with the applicant to bring these issues to closure. The NRC staff will continue to evaluate schedule impacts as it receives new information. The current public schedule for completing the technical review is June 2012.

US-APWR: The US-APWR DC was submitted on December 31, 2007 by MHI. MHI resubmitted its digital instrumentation and control (D I&C) software program manuals; changed its design basis seismic model and analysis methodology for the reactor building complex, and submitted additional upstream and downstream testing to address GSI-191 issues of the sump design performance. A schedule letter was issued to the applicant on February 25, 2011, revising the schedule due to these new submittals and design changes. The current public schedule for completing the technical review is May 2013. The NRC staff will continue to evaluate schedule impacts as it receives new information.

ABWR: STPNOC submitted on June 30, 2009, an application to amend the ABWR DC Rule (DCR) to address the requirements of the aircraft impact rule. The staff completed its technical evaluation in October 2010 and published the propose rule in the Federal Register in January 2011. The public comment period closed on April 5, 2011. The NRC staff is working to address the comments and to submit the final rule to the Commission. The current public schedule for completing the rulemaking is November 2011.

Relevant Additional Information

None provided.