



Design Certification Applications for New Reactors

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Design Certification Application Review - Economic Simplified Boiling-Water Reactor (ESBWR)

The Economic Simplified Boiling-Water Reactor (ESBWR) is a 4,500-MWt reactor, which uses natural circulation for normal operation and has passive safety features. GE-Hitachi Nuclear Energy (GEH) submitted an [application](#) for final design approval and standard design certification for the ESBWR on August 24, 2005. By [letter](#) dated December 1, 2005, the U.S. Nuclear Regulatory Commission (NRC) accepted the application for docketing, and assigned Docket No. 52-010. For additional information, please use the [Advanced Web Search](#) feature of our Agencywide Documents Access and Management System (ADAMS), and enter 05200010 in the "Docket Number" field to search for documents related to the ESBWR design certification application.

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Some links on this page are to documents in our [Agencywide Documents Access and Management System \(ADAMS\)](#), and others are to documents in Adobe Portable Document Format (PDF). ADAMS documents are provided in either PDF or Tagged Image File Format (TIFF). To obtain free viewers for displaying these formats, see our [Plugins, Viewers, and Other Tools](#) page. If you have questions about search techniques or problems with viewing or printing documents from ADAMS, please contact the [Public Document Room staff](#).

Design Certification Review

On [June 1, 2008](#), GEH submitted Revision 5 of the ESBWR DCD. Revision 3 of the ESBWR Probabilistic Risk Assessment (PRA) is also publicly available. See [NEDO-33201, Revision 3](#).



Application Review Schedule

The staff's review schedule for the ESBWR Design Certification was provided to GEH on [November 27, 2007](#). On [February 20, 2008](#), GEH updated its schedule for submittal of Revision 5 of the ESBWR DCD, and GEH subsequently submitted DCD Revision 5 on June 1, 2008. GEH also submitted letters dated [July 7, 2008](#), and [September 17, 2008](#), updating their schedule for responding to staff requests for additional information and for submittal of revisions to Topical Reports currently under staff review in support of the design certification. The staff is currently re-evaluating its review schedule based on this information.

Key Milestones	Completion Date Actual - A Target - T
<i>Application</i>	
Received design certification application	08/24/05 - A
<i>Acceptance Review</i>	
Federal Register Notice (FRN) published for receipt and availability	09/28/05 - A

FRN published announcing acceptance	12/09/05 - A
Review schedule published	
<i>Review</i>	
Advanced SER with no Open Items issued to ACRS	
Response to ACRS regarding SER with no Open Items issued	
Final SER issued	
<i>Rulemaking</i>	
Issue proposed rule	
Issue final draft rule	
Issue final rule	

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Pre-Application Review

On April 18, 2002, GEH requested a pre-application review of the ESBWR design. Since that time, the staff completed its review of the application of the TRAC-G thermal hydraulic code to [ESBWR loss-of-coolant accidents](#). The staff is currently reviewing the application of the TRAC-G code for ESBWR anticipated operational occurrences (AOOs) and thermal-hydraulic stability. These reviews will be completed as part of the design certification review. For additional information, please use the [Advanced Web Search](#) feature of our Agencywide Documents Access and Management System (ADAMS), and enter proj0717 in the "Docket Number" field to search for documents related to the ESBWR design certification application.

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Contacts

Contacts for ESBWR Design Certification	
Lead Project Manager	Amy Cabbage
Contact a Public Affairs Officer	

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Thursday, September 25, 2008