

NUCLEAR REGULATORY COMMISSION

10 CFR Part 52

[NRC-2010-0135]

RIN 3150-AI85

ESBWR Design Certification

AGENCY: Nuclear Regulatory Commission.

ACTION: Supplemental proposed rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to certify the Economic Simplified Boiling-Water Reactor (ESBWR) standard plant design. The proposed ESBWR design certification rule was published for public comment on March 24, 2011. The NRC is publishing this supplemental proposed rule to provide an opportunity for the public to comment on two matters. The first is proposed changes related to the analysis methodology supporting the ESBWR steam dryer design that were made after the close of the public comment period for the proposed ESBWR design certification rule. The second is the NRC's proposed clarification of its intent to treat 50 referenced documents within Revision 10 of the ESBWR design control document (DCD) as requirements and matters resolved in subsequent licensing and enforcement actions for plants referencing the ESBWR design certification. In addition, the supplemental proposed rule clarifies that the NRC intends to obtain approval for incorporation by reference from the Director of the Office of the Federal Register for the generic DCD and 20 publicly-available documents that are referenced in the DCD that are intended by the NRC to be requirements. The supplemental proposed rule does

not offer an opportunity for public comment on this clarification of the NRC's intent. Finally, the supplemental proposed rule updates the version of the DCD (from Revision 9 to Revision 10) which the NRC proposes to obtain approval for incorporation by reference from the Office of the Federal Register. Revision 10 of the DCD was needed to address the previously described matters. The applicant for certification of the ESBWR design is GE-Hitachi Nuclear Energy (GEH).

DATES: Submit comments by **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**. The NRC will not address any comments received after this date, except as discussed in Section I.B of the SUPPLEMENTARY INFORMATION section of this document.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2010-0135. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this proposed rule.

- **E-mail comments to:** Rulemaking.Comments@nrc.gov. If you do not receive an automatic e-mail reply confirming receipt, then contact us at 301-415-1677.

- **Fax comments to:** Secretary, U.S. Nuclear Regulatory Commission at 301-415-1101.

- **Mail comments to:** Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.

- **Hand deliver comments to:** 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. (Eastern Time) Federal workdays; telephone: 301-415-1677.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: George M. Tartal, telephone: 301-415-0016, e-mail: George.Tartal@nrc.gov; or David Misenhimer, telephone: 301-415-6590, e-mail: David.Misenhimer@nrc.gov. Both of the Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001.

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I. Obtaining Information and Submitting Comments.

A. Obtaining Information.

Please refer to Docket ID NRC-2010-0135 when contacting the NRC about the availability of information for this action. You may access publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2010-0135.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**
You may access publicly-available documents online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

1. Documents Related to Changes Associated with the Analysis Methodology Supporting the ESBWR Steam Dryer Design.

The documents identified in Table 1, relating to the changes associated with the analysis methodology supporting the ESBWR steam dryer design, are available to interested persons who wish to comment on the proposed changes. Some of the documents in Table 1 have two versions: a version which is publicly-available, and the (original and complete) version which is not publicly available because it contains information which is proprietary. If you need to obtain access to the non-public version of a document in order to provide comments on the proposed changes to the analysis methodology supporting the ESBWR steam dryer design, please follow the process described in Section X of the SUPPLEMENTARY INFORMATION section of this document. Before requesting access to the non-public version of any document, please obtain

the publicly-available version of the document to verify if the information in the publicly-available version of a document is sufficient to allow you to comment on the proposed changes to the analysis methodology supporting the ESBWR steam dryer design.

Table 1. Documents relating to the changes associated with the analysis methodology supporting the ESBWR steam dryer design.

DOCUMENT NO.	DOCUMENT TITLE	PUBLICLY-AVAILABLE ADAMS ACCESSION NO.	NON-PUBLICLY AVAILABLE ADAMS ACCESSION NO.
<i>Supplemental proposed rule documents</i>			
Supplemental Final Safety Evaluation Report	Advanced Supplemental Safety Evaluation Report For The Economic Simplified Boiling-Water Reactor Standard Plant Design	ML14043A134	ML13330A950
ESBWR DCD, Rev. 10	ESBWR Design Control Document, Revision 10	ML14104A929 (package)	ML14104A153 (package)
NEDO-33312, Rev. 5 NEDE-33312P, Rev. 5	GE Hitachi Nuclear Energy, "ESBWR Steam Dryer Acoustic Load Definition," NEDE-33312P, Class III (Proprietary), Revision 5, December 2013, and NEDO-33312, Class I (Non-proprietary), Revision 5, December 2013	ML13344B157	ML13344B163
NEDO-33313, Rev. 5 NEDE-33313P, Rev. 5	GE Hitachi Nuclear Energy, "ESBWR Steam Dryer Structural Evaluation," NEDE-33313P, Class III (Proprietary), Revision 5, December 2013, and NEDO-33313, Class I (Non-proprietary), Revision 5, December 2013	ML13344B158	ML13344B164
NEDO-33408, Rev. 5 NEDE-33408P, Rev. 5	GE Hitachi Nuclear Energy, "ESBWR Steam Dryer – Plant Based Load Evaluation Methodology, PBLE01 Model Description," NEDE-33408P, Class III (Proprietary), Revision 5, December 2013, and NEDO-33408, Class I (Non-proprietary), Revision 5, December 2013	ML13344B159	ML13344B176 (part 1) ML13344B175 (part 2)
<i>Other NRC documents relevant to the safety review of the ESBWR steam dryer analysis methodology</i>			
N/A	Letter from Michael E. Mayfield,	ML120170304	N/A

	NRC, to Gerald G. Head, GEH, "Economic Simplified Boiling Water Reactor Design Certification Rulemaking Schedule," January 19, 2012		
N/A	NRC Staff Audit of Steam Dryer Design Methodology Supporting Chapter 3 of the Economic Simplified Boiling Water Reactor Design Certification Document, Revision #1 (Audit Plan), March 20, 2012 (PUBLIC), March 20, 2012 (PROPRIETARY)	ML120790454	ML120760509
N/A	Audit Report of ESBWR Steam Dryer Design Methodology Supporting Chapter 3 of ESBWR Design Control Document (Audit Report), June 14, 2012 (PUBLIC), May 17, 2012 (PROPRIETARY)	ML12166A127	ML12137A497
N/A	Letter from Kerri Kavanagh, NRC, to Gerald G. Head, GEH, "Quality Assurance Implementation Inspection of Economic Simplified Boiling Water Reactor," March 14, 2012	ML12073A165	N/A
NRC Inspection Report 052010/2012-201	NRC Inspection Report 05200010/2012-201 and Notice of Violation, July 6, 2012 (PUBLIC), May 31, 2012 (PROPRIETARY)	ML12187A102	ML12129A438

Table 1 Note: Documents whose document number contains "NEDC" or "NEDE" are non-public and documents whose document number contains "NEDO" are public.

2. 50 Non-Public Documents Which the NRC Regards As Requirements and Are Matters Resolved.

In addition to Revision 10 of the ESBWR DCD, the non-public versions of the 50 documents identified in Table 2 are documents which the NRC regards as requirements and are matters resolved under Paragraph VI, ISSUE RESOLUTION, of the ESBWR Design Certification Rule. The documents in Table 2 are available to interested persons who wish to comment on the NRC's proposed clarification of its intent to treat these non-public documents

as requirements and matters resolved in subsequent licensing and enforcement actions for plants referencing the ESBWR design certification. The NRC notes that three of the documents in Table 2 related to the ESBWR steam dryer are the same documents described in Section III.A and listed in Table 1 of the SUPPLEMENTARY INFORMATION section of this document. Accordingly, the NRC regards these three documents as requirements and are matters resolved under Paragraph VI, ISSUE RESOLUTION, of the ESBWR Design Certification Rule.

All of the documents in Table 2 have two versions: a version which is publicly-available, and the (original and complete) version which is not publicly available because it contains information which is either Sensitive Unclassified Non-Safeguards Information (SUNSI) (including SUNSI constituting “proprietary information”¹), or Safeguards Information (SGI) under Section 147 of the Atomic Energy Act of 1954, as amended. If you need to obtain access to the non-public document in order to provide comments on the NRC’s proposed clarification of its intent to treat the 50 documents in Table 2 as matters resolved in subsequent licensing and enforcement actions for plants referencing the ESBWR design certification, please follow the process described in Section X of the SUPPLEMENTARY INFORMATION section of this document. Before requesting access to any non-public document, please obtain the publicly-available version of the document to verify if the information in the publicly-available version of a document is sufficient to allow you to comment on the NRC’s proposed clarification of its intent to treat the 50 documents in Table 2 as matters resolved in subsequent licensing and enforcement actions for plants referencing the ESBWR design certification.

¹ For purposes of this discussion, “proprietary information” constitutes trade secrets or commercial or financial information that are privileged or confidential, as those terms are used under the Freedom of Information Act and the NRC’s implementing regulation at part 9 of Title 10 of the *Code of Federal Regulations*.

Table 2. 50 Non-Public Documents which the NRC Regards as Requirements and are Matters Resolved under Paragraph VI, ISSUE RESOLUTION, of the ESBWR Design Certification Rule.

DOCUMENT NO.	DOCUMENT TITLE	PUBLICLY-AVAILABLE ADAMS ACCESSION NO.	NON-PUBLICLY AVAILABLE ADAMS ACCESSION NO.
NEDE-33391 NEDO-33391	GE Hitachi Nuclear Energy, "ESBWR Safeguards Assessment Report," NEDE-33391, Class III (Safeguards, Security-Related, and Proprietary), Revision 3, March 2010, and NEDO-33391, Class I (Non-safeguards, Non-security related, and Non-proprietary), Revision 3, March 2014	ML14093A138	N/A (Safeguards information cannot be placed in ADAMS)
NEDC-31959P NEDO-31959	GE Nuclear Energy, "Fuel Rod Thermal-Mechanical Analysis Methodology (GSTRM)," NEDC-31959P (Proprietary), April 1991, and NEDO-31959 (Non-proprietary), April 1991	ML14093A145	ML14093A146
NEDC-32992P-A NEDO-32992-A	GE Nuclear Energy, J. S. Post and A. K. Chung, "ODYSY Application for Stability Licensing Calculations," NEDC-32992P-A, Class III (Proprietary), July 2001, and NEDO-32992-A, Class I (Non-proprietary), July 2001	ML14093A250	ML012610605
NEDC-33139P-A NEDO-33139-A	Global Nuclear Fuel, "Cladding Creep Collapse," NEDC-33139P-A, Class III (Proprietary), July 2005, and NEDO-33139-A, Class I (Non-proprietary), July 2005	ML14094A227	ML14094A228
NEDE-31758P-A NEDO-31758-A	GE Nuclear Energy, "GE Marathon Control Rod Assembly," NEDE-31758P-A (Proprietary), October 1991, and NEDO-31758-A (Non-proprietary), October 1991	ML14093A142	ML14093A143
NEDC-32084P-A NEDO-32084-A	GE Nuclear Energy, "TASC-03A, A Computer Program for Transient Analysis of a Single Channel," NEDC-32084P-A, Revision 2, Class III (Proprietary), July 2002, and NEDO-32084-A, Class 1 (Non-proprietary), Revision 2, September 2002	ML100220484	ML100220485
NEDC-32601 P-A NEDO-32601-A	GE Nuclear Energy, "Methodology and Uncertainties for Safety Limit MCPR	ML14093A216	ML003740145

	Evaluations," NEDC-32601 P- A, Class III (Proprietary), and NEDO-32601-A, Class I (Non-proprietary), August 1999		
NEDC-32983P-A NEDO-32983-A	GE Nuclear Energy, "GE Methodology for Reactor Pressure Vessel Fast Neutron Flux Evaluations," Licensing Topical Report NEDC-32983P-A, Class III (Proprietary), Revision 2, January 2006, and NEDO-32983-A, Class I (Non-proprietary), Revision 2, January 2006	ML072480121	ML072480125
NEDC-33075P-A NEDO-33075-A	GE Hitachi Nuclear Energy, "General Electric Boiling Water Reactor Detect and Suppress Solution – Confirmation Density," NEDC-33075P-A, Class III (Proprietary), and NEDO-33075-A, Class I (Non-proprietary), Revision 6, January 2008	ML080310396	ML080310402
NEDC-33079P NEDO-33079	GE Nuclear Energy, "ESBWR Test and Analysis Program Description," NEDC-33079P, Class III (Proprietary), Revision 1, March 2005, and NEDO-33079, Class I (Non-proprietary), Revision 1, November 2005	ML053460471	ML051390233
NEDC-33083P-A NEDO-33083-A	GE Nuclear Energy, "TRACG Application for ESBWR," NEDC-33083P-A, Revision 1, Class III (Proprietary), September 2010, and NEDO-33083-A, Revision 1, Class I (Non-proprietary), September 2010	ML102770606	ML102770608
NEDC-33237P-A NEDO-33237-A	Global Nuclear Fuel, "GE14 for ESBWR – Critical Power Correlation, Uncertainty, and OLMCPR Development," NEDC-33237P-A, Revision 5, Class III (Proprietary), and NEDO-33237-A, Revision 5, Class I (Non-proprietary), September 2010	ML102770246	ML102770244
NEDC-33238P NEDO-33238	Global Nuclear Fuel, "GE14 Pressure Drop Characteristics," NEDC-33238P, Class III (Proprietary), and NEDO-33238, Class I (Non-proprietary), December 2005	ML060050328	ML060050330
NEDC-33239P-A NEDO-33239P-A	Global Nuclear Fuel, "GE14 for ESBWR Nuclear Design Report," NEDC-33239P-A, Class III (Proprietary), and NEDO-33239-	ML102800405	ML102800408 (part 1) ML102800425 (part 2)

	A, Class I (Non-proprietary), Revision 5, October 2010		
NEDC-33240P-A NEDO-33240-A	Global Nuclear Fuel, "GE14E Fuel Assembly Mechanical Design Report," NEDC-33240P-A, Revision 1, Class III (Proprietary), and NEDO-33240-A, Revision 1, Class I (Non-proprietary), September 2010	ML102770060	ML102770061
NEDC-33242P-A NEDO-33242-A	Global Nuclear Fuel, "GE14 for ESBWR Fuel Rod Thermal-Mechanical Design Report," NEDC-33242P-A, Revision 2, Class III (Proprietary), and NEDO-33242-A, Revision 2, Class I (Non-proprietary), September 2010	ML102730885	ML102730886
NEDC-33326P-A NEDO-33326-A	Global Nuclear Fuel, "GE14E for ESBWR Initial Core Nuclear Design Report," NEDC-33326P-A, Revision 1, Class III (Proprietary), and NEDO-33326-A, Revision 1, Class I (Non-proprietary), September 2010	ML102740191	ML102740193 (part 1) ML102740194 (part 2)
NEDC-33374P-A NEDO-33374-A	GE-Hitachi Nuclear Energy, "Safety Analysis Report for Fuel Storage Racks Criticality Analysis for ESBWR Plants," NEDC-33374P-A, Revision 4, Class III (Proprietary), September 2010, and NEDO-33374-A, Revision 4, Class I (Non-proprietary), September 2010	ML102860687	ML102860688
NEDC-33456P NEDO-33456	Global Nuclear Fuel, "Full-Scale Pressure Drop Testing for a Simulated GE14E Fuel Bundle," NEDC-33456P, Class III (Proprietary), and NEDO-33456, Class I (Non-proprietary), Revision 0, March 2009	ML090920867	ML090920868
NEDE-10958-PA NEDO-10958-A	General Electric Company, "General Electric Thermal Analysis Basis Data, Correlation and Design Application," NEDE-10958-PA, Class III (Proprietary), and "General Electric BWR Thermal Analysis Basis (GETAB): Data, Correlation and Design Application," NEDO-10958-A, Class I (Non-proprietary), January 1977	ML102290144	ML092820214
NEDE-24011-P-A-16 NEDO-24011-A-16	Global Nuclear Fuel, "GESTAR II General Electric Standard	ML091340077	ML091340081

	Application for Reactor Fuel," NEDE-24011- P-A-16, Class III (Proprietary), and NEDO-24011-A-16, Class I (Non-proprietary), Revision 16, October 2007		
NEDE-24011-P-A-US-16 NEDO-24011-A-US-16	Global Nuclear Fuel, "GESTAR II General Electric Standard Application for Reactor Fuel, Supplement for United States," NEDE-24011-P-A-US-16, Class III (Proprietary), and NEDO-24011-A-US-16, Class I (Non-proprietary), Revision 16, October 2007	ML091340080	ML091340082
NEDE-30130-P-A NEDO-30130-A	General Electric Company, "Steady State Nuclear Methods," NEDE-30130-P-A, Class III (Proprietary), April 1985, and NEDO-30130-A, Class I (Non-proprietary), May 1985	ML14104A064	ML070400570
NEDE-31152P NEDO-31152	Global Nuclear Fuel, "Global Nuclear Fuels Fuel Bundle Designs," NEDE-31152P, Revision 9, Class III (Proprietary), May 2007, and NEDO-33152, Revision 9, Class I (Non-proprietary), May 2007	ML071510287	ML071510289
NEDE-32176P NEDO-32176	GE Hitachi Nuclear Energy, J. G. M. Andersen, et al., "TRACG Model Description," NEDE-32176P, Revision 4, Class III (Proprietary), January 2008, and NEDO-32176, Class I (Non-proprietary), Revision 4, January 2008	ML080370271	ML080370276
NEDE-33083 Supplement 1P-A NEDO-33083 Supplement 1-A	GE Hitachi Nuclear Energy, B.S. Shiralkar, et al, "TRACG Application for ESBWR Stability Analysis," NEDE-33083, Supplement 1P-A, Revision 2, Class III (Proprietary), September 2010, and NEDO-33083, Supplement 1-A, Revision 2, Class I (Non-proprietary), September 2010	ML102770552	ML102770550
NEDE-33083 Supplement 2P-A NEDO-33083 Supplement 2-A	GE Hitachi Nuclear Energy, "TRACG Application for ESBWR Anticipated Transient Without Scram Analyses," NEDE-33083, Supplement 2P-A, Revision 2, Class III (Proprietary), October 2010 and NEDO-33083, Supplement 2-A, Revision 2, Class I (Non-proprietary),	ML103000353	ML103000355

	October 2010		
NEDE-33083 Supplement 3P-A NEDO-33083 Supplement 3-A	GE Hitachi Nuclear Energy, "TRACG Application for ESBWR Transient Analysis," NEDE-33083, Supplement 3P-A, Revision 1, Class III (Proprietary), and NEDO-33083, Supplement 3-A, Revision 1, Class I (Non-proprietary), September 2010	ML102770606	ML102770608
NEDE-33197P-A NEDO-33197-A	GE Hitachi Nuclear Energy, "Gamma Thermometer System for LPRM Calibration and Power Shape Monitoring," NEDE-33197P-A, Revision 3, Class III (Proprietary), and NEDO-33197-A, Revision 3, Class I, (Non-proprietary), October 2010	ML102810320	ML102810341
NEDE-33217P NEDO-33217	GE Hitachi Nuclear Energy, "ESBWR Man-Machine Interface System and Human Factors Engineering Implementation Plan," NEDE-33217P, Class III (Proprietary), and NEDO-33217, Class I (Non-proprietary), Revision 6, February 2010	ML100480284	ML100480285
NEDE-33220P NEDO-33220	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Allocation of Function Implementation Plan," NEDE-33220P, Class III (Proprietary), and NEDO-33220, Class I (Non-proprietary), Revision 4, February 2010	ML100480209	ML100480202
NEDE-33221P NEDO-33221	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Task Analysis Implementation Plan," NEDE-33221P, Class III (Proprietary), and NEDO-33221, Class I (Non-proprietary), Revision 4, February 2010	ML100480212	ML100480213
NEDE-33226P NEDO-33226	GE Hitachi Nuclear Energy, "ESBWR – Software Management Program Manual," NEDE-33226P, Class III (Proprietary), Revision 5, February 2010, and NEDO-33226, Class I (Non-proprietary), Revision 5, February 2010	ML100550837	ML100550844
NEDE-33243P-A NEDO-33243-A	GE Hitachi Nuclear Energy, "ESBWR Control Rod Nuclear Design," NEDE-33243P-A, Revision 2, Class III	ML102740171	ML102740178

	(Proprietary), September 2010, and NEDO-33243- A, Revision 2, Class I (Non-proprietary), September 2010		
NEDE-33244P-A NEDO-33244-A	GE Hitachi Nuclear Energy, "ESBWR Marathon Control Rod Mechanical Design Report," NEDE-33244P-A, Class III (Proprietary), Revision 2, September 2010, and NEDO-33244-A, Revision 2, Class I (Non-proprietary), September 2010	ML102770208	ML102770209
NEDE-33245P NEDO-33245	GE Hitachi Nuclear Energy, "ESBWR – Software Quality Assurance Program Manual," NEDE-33245P, Class III (Proprietary), Revision 5, February 2010, and NEDO-33245, Class I (Non-proprietary), Revision 5, February 2010	ML100550839	ML100550847
NEDE-33259P-A NEDO-33259-A	GE Hitachi Nuclear Energy, "Reactor Internals Flow Induced Vibration Program," NEDE-33259P-A, Class III (Proprietary), Revision 3, October 2010, and NEDO-33259-A, Class I (Non-proprietary), Revision 3, October 2010	ML102920241	ML102920248
NEDE-33261P NEDO-33261	GE Hitachi Nuclear Energy, "ESBWR Containment Load Definition," NEDE-33261P, Class III (Proprietary), and NEDO-33261, Class I (Non-proprietary), Revision 2, June 2008	ML082600720	ML082600721
NEDE-33268P NEDO-33268	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Human-System Interface Design Implementation Plan," NEDE-33268P, Class III (Proprietary), and NEDO-33268, Class I (Non-proprietary), Revision 5, February 2010	ML100480179	ML100480180
NEDE-33276P NEDO-33276	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Verification and Validation Implementation Plan," NEDE-33276P, Class III (Proprietary), and NEDO-33276, Class I (Non-proprietary), Revision 4, February 2010	ML100480182	ML100480183
NEDE-33295P NEDO-33295	GE Hitachi Nuclear Energy, "ESBWR Cyber Security	ML102880103	ML102880104

	Program Plan,” NEDE-33295P, Class III (Proprietary), Revision 2, September 2010, and NEDO-33295, Class I (Non-proprietary), Revision 2, September 2010		
NEDE-33304P NEDO-33304	GE Hitachi Nuclear Energy, “GEH ESBWR Setpoint Methodology,” NEDE-33304P, Class III (Proprietary), and NEDO-33304, Class I (Non-proprietary), Revision 4, May 2010	ML101450251	ML101450253
NEDE-33312P NEDO-33312	GE Hitachi Nuclear Energy, “ESBWR Steam Dryer Acoustic Load Definition,” NEDE-33312P, Class III (Proprietary), Revision 5, December 2013, and NEDO-33312, Class I (Non-proprietary), Revision 5, December 2013	ML13344B157	ML13344B163
NEDE-33313P NEDO-33313	GE Hitachi Nuclear Energy, “ESBWR Steam Dryer Structural Evaluation,” NEDE-33313P, Class III (Proprietary), Revision 5, December 2013, and NEDO-33313, Class I (Non-proprietary), Revision 5, December 2013	ML13344B158	ML13344B164
NEDE-33408P NEDO-33408	GE Hitachi Nuclear Energy, “ESBWR Steam Dryer – Plant Based Load Evaluation Methodology, PBLE01 Model Description,” NEDE-33408P, Class III (Proprietary), Revision 5, December 2013, and NEDO-33408, Class I (Non-proprietary), Revision 5, December 2013	ML13344B159	ML13344B176 (part 1) ML13344B175 (part 2)
NEDE-33440P NEDO-33440	GE Hitachi Nuclear Energy “ESBWR Safety Analysis– Additional Information,” NEDE-33440P, Class III (Proprietary), and NEDO-33440, Class I (Non-proprietary), Revision 2, March 2010	ML100920316	ML100920317 (part 1) ML100920318 (part 2)
NEDE-33516P-A NEDO-33516-A	GE Hitachi Nuclear Energy, “ESBWR Qualification Plan Requirements for a 72-Hour Duty Cycle Battery,” NEDE-33516P-A, Revision 2, Class III (Proprietary), September 2010, and NEDO-33516-A, Revision 2, Class I (Non-proprietary), September 2010	ML102880499	ML102880500

NEDE-33536P NEDO-33536	GE Hitachi Nuclear Energy, "Control Building and Reactor Building Environmental Temperature Analysis for ESBWR," NEDE-33536P, Class III (Security-Related and Proprietary), Revision 1, October 2010, and NEDO-33536, Class I (Non-security Related and Non-proprietary), Revision 1, October 2010	ML102780329	ML102780330
NEDE-33572P NEDO-33572	GE Hitachi Nuclear Energy, "ESBWR ICS and PCCS Condenser Combustible Gas Mitigation and Structural Evaluation," NEDE-33572P, Class II (Proprietary), Revision 3, September 2010, and NEDO-33572, Revision 3, Class I (Non-proprietary), September 2010	ML102740579	ML102740566
Letter w/ attachment	Letter from R. J. Reda (GE) to R. C. Jones, Jr. (NRC), MFN 098-96, "Implementation of Improved Steady-State Nuclear Methods," Class III (Proprietary), July 2, 1996, and Letter from J. G. Head (GEH) to NRC Document Control Desk, MFN 098-96 Supplement 1, Class I (Non-proprietary), March 31, 2014	ML14093A140	ML14094A240

Table 2 Note: Documents whose document number contains "NEDC" or "NEDE" are non-public and documents whose document number contains "NEDO" are public.

Throughout the development of the ESBWR design certification rule, the NRC may post additional documents related to this rule, including public comments, on the Federal rulemaking Web site at <http://www.regulations.gov> under Docket ID NRC-2010-0135. The Federal rulemaking Web site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: 1) navigate to the docket folder (NRC-2010-0135); 2) click the "Sign up for E-mail Alerts" link; and 3) enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly).

Documents that are not publicly available because they are considered to be SUNSI or SGI may be available to interested persons who may wish to comment on the changes

associated with the analysis methodology supporting the ESBWR steam dryer design. Such persons shall follow the procedures described in Section X of the SUPPLEMENTARY INFORMATION section of this document in order to obtain access to those documents.

B. Additional Information on Submitting Comments.

General Information.

Please include Docket ID NRC-2010-0135 in the subject line of your comment submission, in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <http://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

Comments Based Upon a Review of Non-Public Documents Obtained Under the Procedures in Section X of the SUPPLEMENTARY INFORMATION Section of this Document.

The NRC strongly encourages commenters, submitting comments based upon a review of non-public documents to which the commenter obtained access under the procedures in

Section X of the SUPPLEMENTARY INFORMATION section of this document, to avoid submitting comments with non-public information derived from those non-public documents. In many cases, effective arguments may be presented by referring to the location of relevant information in those documents. In other cases, a summary of the key information in the document, and a reference to the portion of the document supporting the comment, will provide adequate basis for the comment without disclosing non-public information. However, if the comment must include non-public information, the commenter must submit the comments in accordance with § 2.390 of Title 10 of the *Code of Federal Regulations* (10 CFR). The NRC recommends preparing two versions of your comment submission – one public and one non-public, and submitting an affidavit with your comment submission explaining, with specificity, why the information in your comment submission should be regarded as non-public.

Scope of Comments

The NRC is limiting the scope of the supplemental proposed rule to two areas, which are further discussed in Section III of the SUPPLEMENTARY INFORMATION section of this document:

- Proposed changes related to the analysis methodology supporting the ESBWR steam dryer design that were made after the close of the public comment period for the proposed ESBWR design certification rule (76 FR 16549; March 24, 2011).
- The NRC's proposed clarification of its intent to treat 50 non-public documents referenced in the ESBWR DCD as requirements and matters resolved in subsequent licensing and enforcement actions for plants referencing the ESBWR design certification.

The NRC will not address in a final rule any comments submitted that are outside the scope of this supplemental proposed rule. For example, comments on Revision 10 of the ESBWR DCD which do not relate to the changes in the analysis methodology supporting the

ESBWR steam dryer design which were made after the close of the public comment period for the proposed ESBWR design certification rule, would be regarded as outside the scope of the commenting opportunity with respect to the steam dryer analysis methodology.

The NRC notes that some of the documents listed in Tables 1 and 2 in Section I.A of the SUPPLEMENTARY INFORMATION section of this document contain SUNSI, SGI, or proprietary information and, therefore, are not publicly available. For each of those non-publicly available documents, GEH has created a publicly-available version of the document. If a commenter needs to review the material in a non-publicly available document in order to submit comments, the commenter should first review the publicly-available version of the document. If the commenter determines, after reviewing the publicly-available version, that access to the non-public document is needed in order to provide meaningful comments within the scope of comments as previously described, then the commenter should seek access to the non-public document in accordance with the procedures in Section X of the SUPPLEMENTARY INFORMATION section of this document.

Late-filed Comments

The NRC will not be obligated to address any comments received after **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**, nor will the NRC entertain any requests for extension of the public comment period unless the commenter is approved to access SUNSI or SGI as described in Section X of the SUPPLEMENTARY INFORMATION section of this document, because of the substantial delays in the ESBWR rulemaking. If a commenter is approved to access SUNSI or SGI, the public comment period will be extended exclusively for that commenter, but limited to the matters for which access to SUNSI or SGI is necessary to make informed comments.

II. Background.

ESBWR design certification and March 2011 proposed rule.

Subpart B of 10 CFR part 52 sets forth the process for obtaining standard design certifications. On August 24, 2005 (70 FR 56745; September 28, 2005), in accordance with subpart B of 10 CFR part 52, GEH submitted its application for certification of the ESBWR standard plant design to the NRC. The NRC formally accepted the application as a docketed application for design certification (Docket No. 52-010) on December 1, 2005 (70 FR 73311; December 9, 2005). The pre-application information submitted before the NRC formally accepted the application can be found in ADAMS under Docket No. PROJ0717 (Project No. 717).

The application for design certification of the ESBWR design has been referenced in the following combined license (COL) applications as of the date of this document: 1) Detroit Edison Company, Fermi Unit 3, Docket No. 52-033 (73 FR 73350; December 2, 2008); 2) Dominion Virginia Power, North Anna Unit 3, Docket No. 52-017 (73 FR 6528; February 4, 2008); 3) Entergy Operations, Inc., Grand Gulf Unit 3, Docket No. 52-024 (73 FR 22180; April 24, 2008) (APPLICATION SUSPENDED); 4) Entergy Operations, Inc., River Bend Unit 3, Docket No. 52-036 (73 FR 75141; December 10, 2008) (APPLICATION SUSPENDED); and 5) Exelon Nuclear Texas Holdings, LLC, Victoria County Station Units 1 and 2, Docket Nos. 52-31 and 52-032 (73 FR 66059; November 6, 2008) (APPLICATION WITHDRAWN).

On March 24, 2011 (76 FR 16549), the NRC published a proposed rule that would certify the ESBWR design in the Commission's regulations. The public comment period closed on June 7, 2011. The NRC received six comment submissions from members of the public. In addition, on September 9, 2011, the Commission issued a *Memorandum and Order*, CLI-11-05,

74 NRC 141, referring these comment submissions to the NRC staff for consideration as comments on the proposed ESBWR design certification rule. *Id.* at 176.

Issues on the analytical methodology for design of the ESBWR steam dryer.

Following the close of the public comment period on the proposed ESBWR design certification rule, the NRC staff identified issues applicable to the ESBWR steam dryer structural analysis. These issues were the result of NRC consideration of information obtained during the NRC's review of a license amendment request for a power uprate at an operating boiling-waterreactor (BWR) nuclear power plant. As this BWR power uprate used the same methodology for steam dryer analysis as was being proposed for the ESBWR, the NRC staff needed to resolve these issues before moving forward with the ESBWR design. The NRC informed GEH by letter dated January 19, 2012 (ADAMS Accession No. ML120170304), that it identified issues "relevant to the conclusions in its Final Safety Evaluation Report (FSER) [ADAMS Accession No. ML103070392] issued in support of the ESBWR [design certification] rulemaking. Specifically, errors have been identified in the benchmarking GEH used as a basis for determining fluctuating pressure loads on the steam dryer, and errors have been identified in a number of GEH's modeling parameters. These errors may affect the conclusions in the staff's FSER and need to be addressed before we complete the ESBWR [design certification]." Consequently, the NRC staff informed GEH that the rulemaking was on hold until the errors were adequately addressed.

In March 2012, the NRC staff conducted an audit of the GEH steam dryer analysis methodology at the GEH facility in Wilmington, North Carolina. In addition, in April 2012, the NRC staff performed a vendor inspection at that facility of the quality assurance program for GEH engineering methods. As a result of the audit and inspection, the NRC staff submitted requests for additional information (RAIs) to support a supplemental FSER. In addressing these

RAIs, GEH made a number of significant changes in Revision 10 to the ESBWR DCD and in the supporting documentation. Those changes did not result in modifications to the overall design of the steam dryer but did result in replacing relevant sections in the DCD, withdrawing referenced licensing topical reports (LTRs) and replacing them with new engineering reports, designating the new engineering reports as Tier 2* information, and adding new Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC). References to publicly-available documents associated with the development of the supplemental FSER, including RAIs and responses, public meeting notices and summaries, etc., are listed in the NRC's supplemental FSER (ADAMS Accession No. ML14043A134). Because these changes to the ESBWR steam dryer description in the DCD and supporting documentation occurred after the close of the public comment opportunity on the proposed ESBWR design certification rule, the NRC is publishing this supplemental proposed rule to provide an opportunity for public comment on these changes.

The NRC notes that GEH made several other changes in Revision 10 to the ESBWR DCD which are not related to the ESBWR steam dryer analysis methodology. The NRC is not providing an opportunity for public comments on these other changes, and the NRC will explain in a final ESBWR design certification rule why these additional ESBWR DCD changes did not require a supplemental comment opportunity. The NRC will not be obligated to provide responses to any comments submitted in this supplemental comment opportunity which address matters unrelated to the changes to the ESBWR steam dryer analysis methodology.

III. Discussion.

This section describes the changes that the NRC made to the proposed ESBWR design certification rule text and the changes GEH made to the analysis methodology supporting the

ESBWR steam dryer design. A more detailed description of the changes to the analysis methodology and compliance with the NRC's regulations can be found in the NRC's supplemental FSER. This section also clarifies the NRC's intention that 50 non-public documents referenced in the ESBWR DCD are considered to be requirements and matters resolved under paragraph VI, ISSUE RESOLUTION, of the ESBWR design certification rule. This section also clarifies which documents would contain binding requirements for the ESBWR design and the NRC's intention to clarify in the final ESBWR design certification rule that these documents would be incorporated by reference.

A. ESBWR Steam Dryer Design.

1. Correction of Information Related to the Steam Dryer Design.

Following the issuance of the FSER for the ESBWR design certification on March 9, 2011, the NRC staff identified issues applicable to the ESBWR steam dryer structural analysis based on information obtained during the NRC's review of a license amendment request for a power uprate at an operating BWR nuclear power plant. Consequently, the NRC staff communicated to GEH that it was concerned that the basis for its FSER on the ESBWR DCD and the safety evaluation reports on these topical reports was no longer valid. Specifically, errors were identified in the benchmarking GEH used as a basis for determining fluctuating pressure loading on the steam dryer, and errors were identified in a number of GEH's modeling parameters. The NRC staff subsequently issued RAIs and held multiple public meetings to identify issues and clarify the steam dryer analysis methodology. The NRC staff also conducted an audit of the GEH steam dryer analysis methodology at the GEH facility in Wilmington, North Carolina, in March 2012, and a vendor inspection at that facility of the quality assurance program for GEH engineering methods in April 2012.

To document the resolution of those issues, GEH revised the ESBWR DCD by removing references to the LTRs which address the ESBWR steam dryer structural evaluation and to reference new engineering reports that describe the updated ESBWR steam dryer analysis methodology. The following four LTRs were removed by GEH (public and proprietary versions cited):

- NEDE-33313 and NEDE-33313P, “ESBWR Steam Dryer Structural Evaluation,” all revisions;
- NEDE-33312 and NEDE-33312P, “ESBWR Steam Dryer Acoustic Load Definition,” all revisions;
- NEDC-33408 and NEDC-33408P, “ESBWR Steam Dryer-Plant Based Load Evaluation Methodology,” all revisions; and
- NEDC-33408, Supplement 1, and NEDC-33408P, Supplement 1, “ESBWR Steam Dryer – Plant Based Load Evaluation Methodology Supplement 1,” all revisions.

To replace the information formerly provided by the four LTRs, GEH revised the ESBWR DCD to reference three new engineering reports (public and proprietary versions cited):

- NEDO-33312 and NEDE-33312P, Rev. 5, December 2013, “ESBWR Steam Dryer Acoustic Load Definition;”
- NEDO-33408 and NEDE-33408P, Rev. 5, December 2013, “ESBWR Steam Dryer - Plant Based Load Evaluation Methodology - PBLE01 Model Description;” and
- NEDO-33313 and NEDE-33313P, Rev. 5, December 2013, “ESBWR Steam Dryer Structural Evaluation.”

The following DCD sections were revised by GEH to correct errors and provide additional information related to the design and evaluation of the structural integrity of the ESBWR reactors pressure vessel internals related to the steam dryer:

- Tier 1, Chapter 2, Section 2.1, “Nuclear Steam Supply;”

- Tier 1, Chapter 2, Section 2.1.1, “Reactor Pressure Vessel and Internals;”
- Tier 2, Chapter 1, Tables 1.6-1, 1.9-21, and 1D-1;
- Tier 2, Chapter 3, Section 3.9.2, “Dynamic Testing and Analysis of Systems, Components and Equipment;”
- Tier 2, Chapter 3, Section 3.9.5, “Reactor Pressure Vessel Internals;”
- Tier 2, Chapter 3, Section 3.9.9, “COL Information;”
- Tier 2, Chapter 3, Section 3.9.10, “References;” and
- Tier 2, Chapter 3, Appendix 3L, “Reactor Internals Flow Induced Vibration Program.”

The revisions to these documents enhance the detailed design and evaluation process related to the structural integrity of the steam dryer in several ways. For example, the source of data used to benchmark the analysis methodology was changed in Revision 10 to the ESBWR DCD to a different operating nuclear power plant for which the NRC recently authorized an extended power uprate. In addition, the details of the design methodology were made more restrictive in several respects, including limiting the analysis method for fillet welds and using more conservative data and assumptions. The changes also designate additional information as Tier 2* and clarify regulatory process steps for completing the detailed design and startup testing of the ESBWR steam dryer, including COL information items to be satisfied by a COL applicant, ITAAC to be met by a COL licensee, and model license conditions that can be proposed by a COL applicant. References to the relevant documents associated with the changes made to the steam dryer analysis methodology are listed in Section I.A of the SUPPLEMENTARY INFORMATION section of this document.

The NRC staff has reviewed the revised ESBWR DCD sections, new GEH engineering reports, and RAI responses and prepared a supplemental FSER. The supplemental FSER concludes that Revision 10 to the ESBWR DCD and the referenced engineering reports provide sufficient information to support the adequacy of the design basis for the ESBWR reactor

internals. The supplemental FSER also concludes that the design process for reactor internals is acceptable and meets the requirements of 10 CFR part 50, appendix A, General Design Criteria 1, 2, 4, and 10; 10 CFR 50.55a; and 10 CFR part 52. Finally, the supplemental FSER concludes that the ESBWR design documentation in Revision 10 to the ESBWR DCD is acceptable and that GEH's application for design certification meets the requirements of 10 CFR part 52, subpart B, that are applicable and technically relevant to the ESBWR standard plant design. The NRC concludes, based on the review of application materials in the March 2011 FSER and the supplemental FSER, that the ESBWR steam dryer design meets all applicable NRC requirements and can be incorporated by reference in a combined license application.

This supplemental proposed rule provides an opportunity to comment on the proposed changes related to the analysis methodology supporting the ESBWR steam dryer design. Documents relevant to the proposed changes related to the analysis methodology supporting the ESBWR steam dryer design are listed in Table 1, Section I.A of the SUPPLEMENTARY INFORMATION section of this document. The NRC notes that three of these documents are also listed in Table 2. These three non-publicly available documents – addressing the ESBWR steam dryer analysis methodology – are intended by the NRC to be requirements and matters resolved under Paragraph VI, ISSUE RESOLUTION, of the proposed ESBWR design certification rule. The status of the non-public documents identified in Table 2 as requirements and matters resolved is discussed in Section III.B of the SUPPLEMENTARY INFORMATION section of this document.

2. Designation of Revised Steam Dryer Analysis Methodology as Tier 2.*

The NRC proposes to designate the revised ESBWR steam dryer analysis methodology as Tier 2* information throughout the life of any license referencing the ESBWR design

certification rule. This is a change from Revision 9 of the ESBWR DCD, which identified much of this information (in its earlier form before the revisions reflected in Revision 10) as Tier 2. Therefore, the ESBWR steam dryer analysis methodology was not identified as Tier 2* information in the proposed ESBWR design certification rule under paragraph VIII.B.6.b of appendix E of 10 CFR part 52. References to the DCD are listed in Table 1, Section I.A of the SUPPLEMENTARY INFORMATION section of this document.

In this supplemental proposed rule, the NRC is proposing to designate the revised ESBWR steam dryer analysis methodology as Tier 2* for two reasons. First, as described in Section III.A.1 of the SUPPLEMENTARY INFORMATION section of this document, the NRC's experience with other applications using this methodology highlighted the importance of the proper application of the steam dryer analysis methodology. Therefore, the NRC believes that it is necessary to review any changes a referencing applicant or licensee proposes to the methodology from that which the NRC previously reviewed and approved. Second, in Revision 10 of the ESBWR DCD, GEH revised the designation of this methodology to Tier 2* and, therefore, the rule's designation would be consistent with the GEH's designation in the DCD.

This supplemental proposed rule provides an opportunity to comment on the proposed designation as Tier 2* of certain information related to the analysis methodology supporting the ESBWR steam dryer design. Documents relevant to the proposed designation as Tier 2* of certain information related to the analysis methodology supporting the ESBWR steam dryer design are also listed in Table 1, Section I.A of the SUPPLEMENTARY INFORMATION section of this document.

B. Clarification of 50 Non-Public Documents Which the NRC Regards as Requirements and Are Matters Resolved Under Paragraph VI, ISSUE RESOLUTION, of the ESBWR Design Certification Rule.

In Tier 2, Section 1.6 of Revision 9 of the ESBWR DCD, GEH stated that a number of referenced documents are incorporated by reference, in whole or in part, in the ESBWR DCD Tier 2. Accordingly, the NRC questioned whether these documents contain binding requirements and whether they should also be incorporated by reference in the ESBWR design certification rule. The NRC reviewed these document references and determined that, while many of these documents do contain binding requirements and should be incorporated by reference, some of those documents do not contain binding requirements and therefore should be considered as references only.

To address the NRC's concerns, GEH revised Section 1.6 of Revision 10 of the ESBWR DCD to clearly identify documents containing requirements, and which documents are references which do not contain binding requirements. Table 1.6-1 of the DCD lists the GE and GEH documents which the NRC regards as requirements for the ESBWR design, and are, therefore, incorporated by reference into the ESBWR DCD. Table 1.6-2 of the DCD lists the non-GE and non-GEH documents which the NRC regards as requirements for the ESBWR design, and are, therefore, incorporated by reference into the ESBWR DCD. The NRC notes that GEH's incorporation by reference of the documents in Tables 1.6-1 and 1.6-2 into the ESBWR DCD is *not* the same as the Director of the Office of the Federal Register's approval of incorporation by reference under 1 CFR part 51. Table 1.6-3 of the DCD lists information which is general reference material and which the NRC does not consider to be a requirement of the ESBWR design certification rule. The documents in Table 1.6-3 of the DCD are not incorporated by reference into the ESBWR DCD by GEH, and the NRC does not intend to obtain approval from the Director of the Office of the Federal Register for incorporation by reference of the documents in Table 1.6-3 of the DCD.

The NRC also notes that many of these documents containing requirements also contain either SUNSI (proprietary information, and security-related information subject to non-disclosure

under 10 CFR 2.390(a)(7)(vi)) or SGI. For each of these documents containing SUNSI or SGI there is a corresponding, publicly-available version. In this supplemental proposed rule, the NRC is clarifying that the NRC intends the 50 non-public documents in Table 2 of Section I.A of the SUPPLEMENTARY INFORMATION section of this document to be both requirements and matters resolved under paragraph VI, ISSUE RESOLUTION, of the ESBWR design certification rule.

C. Clarification of 20 Publicly-Available Documents Which the NRC Regards As Requirements and Are Matters Resolved Under Paragraph VI, ISSUE RESOLUTION, of the ESBWR Design Certification Rule.

In Section III of the proposed ESBWR design certification rule (proposed appendix E to 10 CFR part 52), the NRC proposed that Revision 9 of the ESBWR DCD be the sole document which would be incorporated by reference, as a binding requirement, into the Commission's regulations for the ESBWR design certification. However, as previously described, after the proposed rule was issued and the public comment period had expired, the NRC determined that 20 documents listed in Table 1.6-1 of Revision 9 to the ESBWR DCD, publicly available in their entirety, were regarded by the NRC as requirements and matters resolved under Paragraph VI, ISSUE RESOLUTION, of the proposed ESBWR design certification rule. However, the NRC did not clearly identify in proposed paragraph III.A of the proposed ESBWR design certification rule identifying these publicly-available documents as approved by the Director of the Office of the Federal Register for incorporation by reference. The NRC is clarifying that it intends to obtain approval for incorporation by reference from the Director of the Office of the Federal Register under 1 CFR 51.9 for the 20 documents listed in Table 3 of Section III.C of the SUPPLEMENTARY INFORMATION section of this document.

Table 3. 20 Publicly-Available Documents to be Approved for Incorporation by Reference into the ESBWR Design Certification Rule (10 CFR part 52, appendix E) by the Director of the Office of the Federal Register.

DOCUMENT NO.	DOCUMENT TITLE	ADAMS ACCESSION NO.
BC-TOP-3-A	Bechtel, "Tornado and Extreme Wind Design Criteria for Nuclear Power Plants," Topical Report BC-TOP-3-A, Revision 3, August 1974	ML14093A218
BC-TOP-9A	Bechtel, "Design of Structures for Missile Impact," Topical Report BC-TOP-9A, Revision 2, September 1974	ML14093A217
GEZ-4982A	General Electric Large Steam Turbine Generator Quality Control Program, GEZ-4982A, Revision 1.2, February 7, 2006	ML14093A215
NEDO-11209-04A	GE Nuclear Energy, "GE Nuclear Energy Quality Assurance Program Description," Class I (Non-proprietary), NEDO-11209-04A, Revision 8, March 31, 1989	ML14093A209
NEDO-31960-A	GE Nuclear Energy, "BWR Owners' Group Long-Term Stability Solutions Licensing Methodology," NEDO-31960-A, November 1995	ML14093A212
NEDO-31960-A Supplement 1	GE Nuclear Energy, "BWR Owners' Group Long-Term Stability Solutions Licensing Methodology," NEDO-31960-A, Supplement 1, Class I (Non-proprietary), November 1995	ML14093A211
NEDO-32465-A	GE Nuclear Energy and BWR Owners' Group, "Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology for Reload Applications," NEDO-32465-A, Class I (Non-proprietary), August 1996	ML14093A210
NEDO-33181	GE Hitachi Nuclear Energy, "NP-2010 COL Demonstration Project Quality Assurance Program," NEDO-33181, Revision 6, August 2009	ML100110150
NEDO-33219	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Functional Requirements Analysis Implementation Plan," NEDO-33219, Class I (Non-proprietary), Revision 4, February 2010	ML100350104
NEDO-33260	GE Hitachi Nuclear Energy, "Quality Assurance Requirements for Suppliers of Equipment and Services to the GEH ESBWR Project," NEDO-33260, Revision 5, April 2008	ML100110150
NEDO-33262	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Operating Experience Review Implementation Plan," NEDO-33262, Class I (Non-proprietary), Revision 3, January 2010	ML100340030
NEDO-33266	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Staffing and Qualifications Implementation Plan," NEDO-33266, Class I (Non-proprietary), Revision 3, January 2010	ML100350167

NEDO-33267	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Human Reliability Analysis Implementation Plan," NEDO-33267, Class I (Non-proprietary), Revision 4, January 2010	ML100330609
NEDO-33277	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Human Performance Monitoring Implementation Plan," NEDO-33277, Class I (Non-proprietary), Revision 4, January 2010	ML100270770
NEDO-33278	GE Hitachi Nuclear Energy, "ESBWR Human Factors Engineering Design Implementation Plan," NEDO-33278, Class I (Non-proprietary), Revision 4, January 2010	ML100270468
NEDO-33289	GE Hitachi Nuclear Energy, "ESBWR Reliability Assurance Program," NEDO-33289, Class I (Non-proprietary), Revision 2, September 2008	ML100110150
NEDO-33337	GE Hitachi Nuclear Energy, "ESBWR Initial Core Transient Analyses," NEDO-33337, Class I (Non-proprietary), Revision 1, April 2009	ML091130628
NEDO-33338	GE Hitachi Nuclear Energy, "ESBWR Feedwater Temperature Operating Domain Transient and Accident Analysis," NEDO-33338, Class I (Non-proprietary), Revision 1, May 2009	ML091380173
NEDO-33373-A	GE-Hitachi Nuclear Energy, "Dynamic, Load-Drop, and Thermal-Hydraulic Analyses for ESBWR Fuel Racks," NEDO-33373-A, Revision 5, Class I (Non-proprietary), October 2010	ML102990226 (part 1) ML102990228 (part 2)
NEDO-33411	GE Hitachi Nuclear Energy, "Risk Significance of Structures, Systems and Components for the Design Phase of the ESBWR," NEDO-33411, Class I (Non-proprietary), Revision 2, February 2010	ML100610417

The NRC would obtain approval from the Director of the Office of the Federal Register for incorporation by reference of these documents before the NRC issues a final rule for the ESBWR design certification. Consistent with the Office of the Federal Register's requirements, the NRC would, in the final rule, correct paragraph III.A of appendix E to 10 CFR part 52 by identifying in a table all of the publicly-available documents which are approved for incorporation by reference by the Director of the Office of the Federal Register. Therefore, these documents would be regarded as legally-binding requirements by virtue of publication in the *Federal Register* of the Director of the Office of the Federal Register's approval of incorporation by reference.

The NRC is not requesting public comment in this supplemental proposed rule on the additional documents (*i.e.*, those other than as described in Section I of the SUPPLEMENTARY INFORMATION section of this document) that would be incorporated by reference in this rulemaking. The NRC will explain in a final ESBWR design certification rule why the changes to paragraph III.A, reflecting the Director of the Office of the Federal Register's approval for incorporation by reference of these 20 additional documents, did not require a supplemental comment opportunity.

IV. Section-by-Section Analysis.

The following section-by-section analysis discusses two proposed revisions to the NRC's regulations that were not part of the proposed ESBWR design certification rule published on March 24, 2011 (76 FR 16549), which address the changes related to the analysis methodology supporting the ESBWR steam dryer design that were made after the close of the public comment period for the proposed ESBWR design certification rule. No section-by-section analysis is provided for the NRC's proposed clarification of its intent to treat 50 referenced documents within the ESBWR DCD as requirements and matters resolved in subsequent licensing and enforcement actions for plants referencing the ESBWR design certification. This is because the NRC's proposed clarification does not require any change to the revision to the language of the proposed ESBWR design certification rule which was previously published for public comment, other than the revision of the ESBWR DCD from Revision 9 to Revision 10, which includes clarifying changes in Section 1.6 of the ESBWR DCD (described in Section III.B of the SUPPLEMENTARY INFORMATION section of this document).

Appendix E, Paragraph III.A

This paragraph identifies the version of the ESBWR DCD which is approved for incorporation by reference by the Director of the Office of the Federal Register, and therefore is considered to be a legally-binding regulation by virtue of the rulemaking process. In this supplemental proposed rule, the NRC proposes to revise this paragraph to update the generic DCD revision number from Revision 9 to 10, provide the ADAMS accession number for Revision 10 of the DCD, and update the name and address of the GEH contact from whom a member of the public could obtain copies of the generic DCD. In addition, editorial changes were made in this paragraph to improve clarity.

Appendix E, Paragraph VIII.B.6.b

This paragraph identifies Tier 2* information which retains that status throughout the duration of a license referencing the ESBWR design certification rule. In this supplemental proposed rule, the NRC proposes to add the ESBWR steam dryer analysis methodology to paragraph VIII.B.6.b.(8). As a result, this methodology would be designated as Tier 2* and that status would continue throughout the duration of a license referencing this appendix. A licensee referencing this appendix would be subject to the change controls as specified in paragraph VIII.B.6.b with respect to the ESBWR steam dryer analysis methodology.

V. Plain Writing.

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998 (63 FR 31883). The NRC requests

comment on the supplemental proposed rule with respect to the clarity and effectiveness of the language used.

VI. Environmental Impact: Finding of No Significant Environmental Impact: Availability.

In the proposed ESBWR design certification rule published on March 24, 2011, the NRC made available for public comment a draft Environmental Assessment (ADAMS Accession No. ML102220247) for the ESBWR design addressing various design alternatives to prevent and mitigate severe accidents. This supplemental proposed rule does not materially change the ESBWR design nor does it affect the NRC's prior evaluation of design alternatives to prevent and mitigate severe accidents. Therefore, the NRC has not prepared a supplemental environmental assessment for this supplemental proposed rule, nor is the NRC seeking additional public comment on the environmental assessment already prepared to support the proposed ESBWR design certification rule.

VII. Paperwork Reduction Act.

The proposed ESBWR design certification rule, published on March 24, 2011, contains new or amended information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq) (PRA). The proposed rule was submitted to the Office of Management and Budget (OMB) for review and approval of the information collection requirements under clearance number 3150-0151. Public comments regarding the information collection requirements were requested in conjunction with the proposed rule.

This supplemental proposed rule does not contain any new or amended information collection requirements not already identified in the March 24, 2011, proposed rule and, therefore, is not subject to the requirements of the PRA. As a result, the supplemental proposed rule will not be submitted to OMB for approval. Further, the NRC is not seeking further public comment on the potential impact of the information collections contained in or the issues outlined in the PRA section of the ESBWR design certification proposed rule.

Public Protection Notification.

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

VIII. Regulatory Analysis.

The NRC has not prepared a regulatory analysis for this supplemental proposed rule. As discussed in the proposed ESBWR design certification rule, the NRC does not prepare regulatory analyses for design certification rulemakings. This supplemental proposed rule does not materially change the regulatory nature of this design certification rulemaking. Accordingly, the Commission concludes that preparation of a regulatory analysis for this supplemental proposed rule to certify the ESBWR standard plant design is neither required nor appropriate.

IX. Backfitting and Issue Finality.

The NRC has determined that this supplemental proposed rule does not constitute backfitting as defined in the backfit rule under 10 CFR 50.109, nor is it inconsistent with any of the finality provisions for design certifications under 10 CFR 52.63. This design certification does not impose new or changed requirements on existing 10 CFR part 50 licensees, nor does it impose new or changed requirements on existing design certification rules in appendices A through D to 10 CFR part 52. Therefore, a backfit analysis was not prepared for this supplemental proposed rule.

X. Procedures for Access to Sensitive Unclassified Non-Safeguards Information (Including Proprietary Information) and Safeguards Information for Preparation of Comments on the Supplemental Proposed ESBWR Design Certification Rule.

This section contains instructions regarding how interested persons who wish to comment on the proposed design certification, with respect to any of the 50 non-publicly available documents (including the three documents addressing the analysis methodology supporting the ESBWR steam dryer design), may request access to those documents in order to prepare their comments within the scope of this supplemental proposed rule. These documents, which are listed in Table 2 of Section I.A of the SUPPLEMENTARY INFORMATION section of this document, contain SUNSI (including proprietary information² and security-related information³) and, in one case, SGI. Requirements for access to SGI are primarily set forth in

² For purposes of this discussion, “proprietary information” constitutes trade secrets or commercial or financial information that are privileged or confidential, as those terms are used under the Freedom of Information Act and the NRC’s implementing regulation at 10 CFR part 9.

³ For purposes of this discussion, “security-related information” means information subject to non-disclosure under 10 CFR 2.390(a)(7)(vi).

10 CFR parts 2 and 73. This document provides information specific to this supplemental proposed rule; however, nothing in this document is intended to conflict with the SGI regulations.

Interested persons who desire access to SUNSI information on the ESBWR design constituting proprietary information should first request access to that information from GEH, the design certification applicant. A request for access should be submitted to the NRC if the applicant does not either grant or deny access by the 10-day deadline described in the following section.

One of the 50 non-publicly available documents in Table 2, NEDE-33536P, contains proprietary information and security-related information. Another of the non-publicly available documents in Table 2, NEDE-33391, contains proprietary information, security-related information, and SGI. If you need access to proprietary information in one or both of these two documents in order to develop comments within the scope of this supplemental proposed rule, then your request for access should first be submitted to GEH in accordance with the previous paragraph. By contrast, if you need access to the security-related information and/or SGI in one or both of those documents in order to provide comments within the scope of this supplemental proposed rule, then your request for access to the security-related information and/or SGI must be submitted to the NRC as described further in this section. Therefore, if you need access to proprietary information as well as security-related information and/or SGI in one or both of those documents, then you should pursue access to the information in separate requests submitted to GEH and the NRC.

Submitting a request to the NRC for access.

Within 10 days after publication of this supplemental proposed rule, any individual or entity who, in order to submit comments on the supplemental proposed ESBWR design

certification rule, believes access to information in this rulemaking docket that the NRC has categorized as SUNSI or SGI is necessary may request access to such information. Requests for access to SUNSI or SGI submitted more than 10 days after publication of this document will not be considered absent a showing of good cause for the late filing explaining why the request could not have been filed earlier.

The individual or entity requesting access to the information (hereinafter, the “requester”) shall submit a letter requesting permission to access SUNSI and/or SGI to the Office of the Secretary, U.S. Nuclear Regulatory Commission, Attention: Rulemakings and Adjudications Staff, Washington, DC 20555-0001. The expedited delivery or courier mail address is: Office of the Secretary, U.S. Nuclear Regulatory Commission, Attention: Rulemakings and Adjudications Staff, 11555 Rockville Pike, Rockville, Maryland 20852. The e-mail address for the Office of the Secretary is rulemaking.comments@nrc.gov. The requester must send a copy of the request to the design certification applicant at the same time as the original transmission to the NRC using the same method of transmission. Requests to the applicant must be sent to Jerald G. Head, Senior Vice President, Regulatory Affairs, GE-Hitachi Nuclear Energy, 3901 Castle Hayne Road, MC A-18, Wilmington, North Carolina 28401, e-mail: gerald.head@ge.com. For purposes of complying with this requirement, a “request” includes all the information required to be submitted to the NRC as set forth in this section.

The request must include the following information:

1. The name of this design certification, ESBWR Design Certification; the rulemaking identification number, RIN 3150-AI85; the rulemaking docket number, NRC-2010-0135; and a *Federal Register* citation to this supplemental proposed rule at the top of the first page of the request.

2. The name, address, e-mail or FAX number of the requester. If the requester is an entity, the name of the individual(s) to whom access is to be provided, then the address and

e-mail or FAX number for each individual, and a statement of the authority granted by the entity to each individual to review the information and to prepare comments on behalf of the entity must be provided. If the requester is relying upon another individual to evaluate the requested SUNSI and/or SGI and prepare comments, then the name, affiliation, address and e-mail or FAX number for that individual must be provided.

3.a. If the request is for SUNSI, the requester's need for the information in order to prepare meaningful comments on the supplemental proposed design certification must be demonstrated. Each of the following areas must be addressed with specificity:

- i. The specific issue or subject matter on which the requester wishes to comment;
- ii. An explanation why information which is publicly available, including the publicly-available versions of the application and design control document, and information on the NRC's docket for the design certification application is insufficient to provide the basis for developing meaningful comment on the supplemental proposed ESBWR design certification rule with respect to the issue or subject matter described in paragraph 3.a.i. of this section; and
- iii. Information demonstrating that the individual to whom access is to be provided has the technical competence (demonstrable knowledge, skill, experience, education, training, or certification) to understand and use (or evaluate) the requested information for a meaningful comment on the supplemental proposed ESBWR design certification rule with respect to the issue or subject matter described in paragraph 3.a.i. of this section.

b. If the request is for SUNSI constituting proprietary information, then a chronology and discussion of the requester's attempts to obtain the information from the design certification applicant, and the final communication from the requester to the applicant and the applicant's response with respect to the request for access to proprietary information must be submitted.

4. Based on an evaluation of the information submitted under paragraph 3 of this section, the NRC staff will determine within 10 days of receipt of the written access request whether the requester has established a legitimate need for SUNSI access.

4.a. If the request is for SGI, then the requester's "need to know" the SGI as required by 10 CFR 73.2 and 10 CFR 73.22(b)(1) must be demonstrated. Consistent with the definition of "need to know" as stated in 10 CFR 73.2 and 10 CFR 73.22(b)(1), each of the following areas must be addressed with specificity:

i. The specific issue or subject matter on which the requester wishes to comment;

ii. An explanation why information which is publicly available, including the publicly-available versions of the application and design control document, and information on the NRC's docket for the design certification application is insufficient to provide the basis for developing meaningful comment on the proposed design certification with respect to the issue or subject matter described in paragraph 4.a.i. of this section, and that the SGI requested is indispensable in order to develop meaningful comments;⁴ and

iii. Information demonstrating that the individual to whom access is to be provided has the technical competence (demonstrable knowledge, skill, experience, education, training, or certification) to understand and use (or evaluate) the requested SGI, in order to develop meaningful comments on the proposed design certification with respect to the issue or subject matter described in paragraph 4.a.i. of this section.

b. A completed Form SF-85, "Questionnaire for Non-Sensitive Positions," must be submitted for each individual who would have access to SGI. The completed Form SF-85 will be used by the NRC's Office of Administration to conduct the background check required for

⁴ Broad SGI requests under these procedures are unlikely to meet the standard for need to know. Furthermore, NRC staff redaction of information from requested documents before their release may be appropriate to comport with this requirement. The procedures in this notice of proposed rulemaking do not authorize unrestricted disclosure or less scrutiny of a requester's need to know than ordinarily would be applied in connection with either adjudicatory or non-adjudicatory access to SGI.

access to SGI, as required by 10 CFR part 2, subpart G, and 10 CFR 73.22(b)(2) to determine the requester's trustworthiness and reliability. For security reasons, Form SF-85 can only be submitted electronically through the electronic Questionnaire for Investigations Processing (e-QIP) Web site, a secure Web site that is owned and operated by the Office of Personnel Management. To obtain online access to the form, the requester should contact the NRC's Office of Administration at 301-415-7000.⁵

c. A completed Form FD-258 (fingerprint card), signed in original ink, and submitted under 10 CFR 73.57(d). Copies of Form FD-258 may be obtained by writing the Office of Information Services, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; by calling 301-415-3710 or 301-492-7311; or by e-mail to Forms.Resource@nrc.gov. The fingerprint card will be used to satisfy the requirements of 10 CFR part 2, 10 CFR 73.22(b)(1), and Section 149 of the Atomic Energy Act of 1954, as amended, which mandates that all persons with access to SGI must be fingerprinted for a Federal Bureau of Investigation identification and criminal history records check;

d. A check or money order in the amount of \$238.00⁶ payable to the U.S. Nuclear Regulatory Commission for each individual for whom the request for access has been submitted; and

e. If the requester or any individual who will have access to SGI believes they belong to one or more of the categories of individuals relieved from the criminal history records check and background check requirements, as stated in 10 CFR 73.59, the requester should also provide a statement specifically stating which relief the requester is invoking, and explaining the requester's basis (including supporting documentation) for believing that the relief is applicable.

⁵ The requester will be asked to provide his or her full name, social security number, date and place of birth, telephone number, and e-mail address. After providing this information, the requester usually should be able to obtain access to the online form within one business day.

⁶ This fee is subject to change pursuant to the Office of Personnel Management's adjustable billing rates.

While processing the request, the NRC's Office of Administration, Personnel Security Branch, will make a final determination whether the stated relief applies. Alternatively, the requester may contact the Office of Administration for an evaluation of their status prior to submitting the request. Persons who are not subject to the background check are not required to complete the SF-85 or Form FD-258; however, all other requirements for access to SGI, including the need to know, are still applicable.

Copies of documents and materials required by paragraphs 4.b., 4.c., 4.d., and 4.e., as applicable, of this section must be sent to the following address:

Office of Administration
U.S. Nuclear Regulatory Commission
Personnel Security Branch
Mail Stop TWF-03B46M
Washington, DC 20555-0012

These documents and materials should not be included with the request letter to the Office of the Secretary, but the request letter should state that the forms and fees have been submitted as required.

5. To avoid delays in processing requests for access to SGI, all forms should be reviewed for completeness and accuracy (including legibility) before submitting them to the NRC. The NRC will return incomplete or illegible packages to the sender without processing.

6. Based on an evaluation of the information submitted under paragraphs 3.a. and 3.b., or 4.a., 4.b., 4.c., and 4.e. of this section, as applicable, the NRC staff will determine within 10 days of receipt of the written access request whether the requester has established a legitimate need for SUNSI access or need to know the SGI requested.

7. For SUNSI access requests, if the NRC staff determines that the requester has established a legitimate need for access to SUNSI, the NRC staff will notify the requester in writing that access to SUNSI has been granted; *provided, however*, that if the SUNSI consists of proprietary information (i.e., trade secrets or confidential or financial information), the NRC staff

must first notify the applicant of the NRC staff's determination to grant access to the requester not less than 10 days before informing the requester of the NRC staff's decision. If the applicant wishes to challenge the NRC staff's determination, it must follow the procedures in paragraph 12 of this section. The NRC staff will not provide the requester access to disputed proprietary information until the procedures in paragraph 12 of this section are completed.

The written notification to the requester will contain instructions on how the requester may obtain copies of the requested documents, and any other conditions that may apply to access to those documents. These conditions will include, but are not necessarily limited to, the signing of a protective order setting forth terms and conditions to prevent the unauthorized or inadvertent disclosure of SUNSI by each individual who will be granted access to SUNSI. Claims that the provisions of such a protective order have not been complied with may be filed by calling the NRC's toll-free safety hotline at 1-800-695-7403. Please note: Calls to this number are not recorded between the hours of 7:00 a.m. to 5:00 p.m. Eastern Time. However, calls received outside these hours are answered by the NRC's Incident Response Operations Center on a recorded line. Claims may also be filed via e-mail sent to [NRO Allegations@nrc.gov](mailto:NRO_Allegations@nrc.gov), or may be sent in writing to the U.S. Nuclear Regulatory Commission, ATTN: Timothy Frye, Mail Stop T7-D24, Washington, DC 20555-0001.

8. For requests for access to SGI, if the NRC staff determines that the requester has established a need to know the SGI, the NRC's Office of Administration will then determine, based upon completion of the background check, whether the proposed recipient is trustworthy and reliable, as required for access to SGI by 10 CFR 73.22(b). If the NRC's Office of Administration determines that the individual or individuals are trustworthy and reliable, the NRC will promptly notify the requester in writing. The notification will provide the names of approved individuals as well as the conditions under which the SGI will be provided. Those conditions will include, but are not necessarily limited to, the signing of a protective order by each individual

who will be granted access to SGI. Claims that the provisions of such a protective order have not been complied with may be filed by calling the NRC's toll-free safety hotline at 800-695-7403. Please note: Calls to this number are not recorded between the hours of 7:00 a.m. to 5:00 p.m. Eastern Time. However, calls received outside these hours are answered by the NRC's Incident Response Operations Center on a recorded line. Claims may also be filed via e-mail sent to NRO_Allegations@nrc.gov, or may be sent in writing to the U.S. Nuclear Regulatory Commission, ATTN: Timothy Frye, Mail Stop T7-D24, Washington, DC 20555-0001. Because SGI requires special handling, initial filings with the NRC should be free from such specific information. If necessary, the NRC will arrange an appropriate setting for transmitting SGI to the NRC.

9. Release and Storage of SGI. Prior to providing SGI to the requester, the NRC staff will conduct (as necessary) an inspection to confirm that the recipient's information protection system is sufficient to satisfy the requirements of 10 CFR 73.22. Alternatively, recipients may opt to view SGI at an approved SGI storage location rather than establish their own SGI protection program to meet SGI protection requirements.

10. Filing of Comments on the Supplemental Proposed ESBWR Design Certification Rule. Any comments in this rulemaking proceeding that are based upon the disclosed SUNSI or SGI information must be filed by the requester no later than 25 days after receipt of (or access to) that information, or the close of the public comment period, whichever is later. The commenter must comply with all NRC requirements regarding the submission of SUNSI and SGI to the NRC when submitting comments to the NRC (including marking and transmission requirements).

11. Review of Denials of Access.

a. If the request for access to SUNSI or SGI is denied by the NRC staff, the NRC staff shall promptly notify the requester in writing, briefly stating the reason or reasons for the denial.

b. Before the NRC's Office of Administration makes an adverse determination regarding the trustworthiness and reliability of the proposed recipient(s) of SGI, the NRC's Office of Administration, as specified by 10 CFR 2.705(c)(3)(iii), must provide the proposed recipient(s) any records that were considered in the trustworthiness and reliability determination, including those required to be provided under 10 CFR 73.57(e)(1), so that the proposed recipient is provided an opportunity to correct or explain information.

c. Appeals from a denial of access must be made to the NRC's Executive Director for Operations (EDO) under 10 CFR 9.29. The decision of the EDO constitutes final agency action under 10 CFR 9.29(d).

12. Predisclosure Procedures for SUNSI Constituting Trade Secrets or Confidential Commercial or Financial Information. The NRC will follow the procedures in 10 CFR 9.28 if the NRC staff determines, under paragraph 7 of this section, that access to SUNSI constituting trade secrets or confidential commercial or financial information will be provided to the requester. However, any objection filed by the applicant under 10 CFR 9.28(b) must be filed within 15 days of the NRC staff notice in paragraph 7 of this section rather than the 30-day period provided for under that paragraph. In applying the provisions of 10 CFR 9.28, the applicant for the design certification rule will be treated as the "submitter."

XI. Availability of Documents.

The documents related to the ESBWR steam dryer analysis methodology for which the NRC is seeking public comment are listed in Table 1, Section 1.A of the SUPPLEMENTARY INFORMATION section of this document. The documents which the NRC regards as requirements and are matters resolved under Paragraph VI, ISSUE RESOLUTION, of the ESBWR design certification rule, and for which the NRC is seeking public comment on the

NRC's proposed clarification of its intent to treat these non-public documents as requirements and matters resolved, are listed in Table 2, Section 1.A of the SUPPLEMENTARY INFORMATION section of this document.

The documents to be treated by the NRC as requirements in the final ESBWR design certification rule, but the NRC is not seeking public comment, are listed in Table 3, Section III.C of the SUPPLEMENTARY INFORMATION section of this document. Additional documents relevant to the proposed ESBWR design certification rule, for which an opportunity for public comment was provided in the proposed ESBWR design certification rule (76 FR 16549; March 24, 2011), are listed in Table 4. These documents have not changed since the publication of the proposed ESBWR design certification rule for public comment. The NRC is not seeking public comment on these documents in this supplemental proposed rule; they are listed in Table 4 for the benefit of the reader.

Table 4. Documents Relevant to the ESBWR Design Certification Rule, for Which an Opportunity for Public Comment was Provided in the ESBWR Proposed Rule.

DOCUMENT NO.	DOCUMENT TITLE	PUBLICLY AVAILABLE ADAMS ACCESSION NO.	NON-PUBLICLY AVAILABLE ADAMS ACCESSION NO.
<i>Proposed Rule Documents</i>			
SRM-SECY-11-0006	Staff Requirements Memorandum for SECY-11-0006, "Staff Requirements – SECY-11-0006 - Proposed Rule - Economic Simplified Boiling-Water Reactor Design Certification," dated March 8, 2011	ML110670047	N/A
SECY-11-0006	SECY-11-0006, "Proposed Rule-Economic Simplified Boiling-Water Reactor Design Certification," dated January 7, 2011	ML102220172	N/A
Proposed Rule <i>Federal Register</i> Notice	<i>Federal Register</i> Notice – Proposed Rule – ESBWR Design Certification	ML102220215	N/A

Proposed Rule Environmental Assessment	Draft Environmental Assessment – Proposed Rule – ESBWR Design Certification	ML102220247	N/A
Final Safety Evaluation Report	ESBWR Final Safety Evaluation Report, dated March 9, 2011	ML103070392 (package)	N/A

List of Subjects in 10 CFR Part 52

Administrative practice and procedure, Antitrust, Backfitting, Combined license, Early site permit, Emergency planning, Fees, Inspection, Limited work authorization, Nuclear power plants and reactors, Probabilistic risk assessment, Prototype, Reactor siting criteria, Redress of site, Reporting and recordkeeping requirements, Standard design, Standard design certification, Incorporation by reference.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 552 and 553, the NRC is proposing to adopt the following amendments to 10 CFR Part 52.

PART 52 -- LICENSES, CERTIFICATIONS, AND APPROVALS FOR NUCLEAR POWER PLANTS

1. The authority citation for 10 CFR part 52 continues to read as follows:

Authority: Atomic Energy Act secs. 103, 104, 147, 149, 161, 181, 182, 183, 185, 186, 189, 223, 234 (42 U.S.C. 2133, 2201, 2167, 2169, 2232, 2233, 2235, 2236, 2239, 2282); Energy Reorganization Act secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); Government Paperwork Elimination Act sec. 1704 (44 U.S.C. 3504 note); Energy Policy Act of 2005, Pub. L. 109-58, 119 Stat. 594 (2005).

2. In appendix E to 10 CFR part 52, as proposed to be added March 24, 2011 (76 FR 16549):

- A. Revise paragraph III.A.
- B. Add new paragraph VIII.B.6.b.(8).

The revision and addition read as follows:

Appendix E to Part 52 - Design Certification Rule for the ESBWR Design.

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III. Scope and Contents

A. Incorporation by reference approval. All Tier 1, Tier 2 (including the availability controls in Appendix 19ACM), and the generic TS in the ESBWR DCD, Revision 10, dated April 2014, "ESBWR Design Control Document," are approved for incorporation by reference by the Director of the Office of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies of the generic DCD from Jerald G. Head, Senior Vice President, Regulatory Affairs, GE-Hitachi Nuclear Energy, 3901 Castle Hayne Road, MC A-18, Wilmington, NC 28401, telephone: 1-910-819-5692. You can view the generic DCD online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. In ADAMS, search under ADAMS Accession No. ML14104A929. If you do not have access to ADAMS or if you have problems accessing documents located in ADAMS, contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 1-301-415-3747, or by e-mail at PDR.Resource@nrc.gov. The generic DCD can also be viewed at the Federal rulemaking Web site, <http://www.regulations.gov>, by searching for documents filed under Docket ID NRC-2010-0135. A copy of the DCD is available for examination and copying at the NRC's PDR located at Room O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. A copy also is available for examination at the NRC Library located at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland 20852, telephone: 301-415-5610, e-mail: Library.Resource@nrc.gov. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 1-202-

741-6030 or go to <http://www.archives.gov/federal-register/cfr/ibrlocations.html>.

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VIII. * * *

B. * * *

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(8) Steam dryer pressure load analysis methodology.

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Dated at Rockville, Maryland, this 23rd day of April, 2014.

For the Nuclear Regulatory Commission.

/RA/

Mark A. Satorius,
Executive Director for Operations.