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March 23, 1994

52-001

Mr. Dennis Crutchfield
Associate Director for Advanced Reactors
and License Renewal
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Crutchfield:

We understand that the NRC staff is currently developing a draft notice of proposed rulemaking and draft rule form and content for the ABWR design certification proceeding. The subject draft, we further understand, will take account of comments received in response to the Advanced Notice of Proposed Rulemaking (ANPR) for evolutionary design certifications (58 Fed. Reg. 58664, Nov. 3, 1993) and the resolution of outstanding ANPR issues. (Specifically noted, in this regard, are the issues raised in the NUMARC comment letter dated December 30, 1993, and the GE comment letter dated January 5, 1994)

Given the staff's drafting focus on the ABWR as the lead certification application, we have prepared on GE's behalf, and are enclosing for the staff's consideration, a draft notice of proposed rulemaking and draft rule form and content for the ABWR design certification proceeding. The enclosed draft follows the model of the generic rulemaking draft submitted to the staff by NUMARC last September (letter from William Rasin to Dennis Crutchfield dated September 10, 1993), augmented to reflect NRC guidance received subsequent thereto. While certain matters in the enclosed draft may need to be revisited following receipt of NRC guidance on still-outstanding ANPR issues, we believe that the present content of this draft can be useful to the staff in its formulation undertaking.

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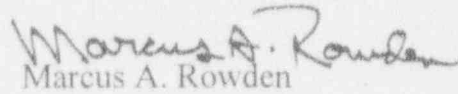
We would be pleased to answer any questions regarding the enclosed draft and would welcome the opportunity for an early meeting with the staff on the content of a proposed rulemaking package for the ABWR design certification proceeding.

Sincerely,


Marcus A. Rowden

Enclosure

cc: Jerry Wilson (w/encl.)
Martin Malsch (w/encl.)

DRAFT
March 22, 1994

NUCLEAR REGULATORY COMMISSION

10 C.F.R. PART 52

PROPOSED AMENDMENTS APPROVING
THE GENERAL ELECTRIC COMPANY
ADVANCED BOILING WATER REACTOR DESIGN;
OPPORTUNITY FOR COMMENT AND TO REQUEST AN INFORMAL
HEARING UNDER 10 C.F.R. § 52.51(b).
DOCKET NO. 52-001

AGENCY: Nuclear Regulatory Commission

ACTION: Proposed Rule, Opportunity to Comment and to Request an Informal Hearing

SUMMARY: The Nuclear Regulatory Commission (the Commission or NRC) is proposing to amend its regulations in 10 C.F.R. Part 52 (Part 52) to approve the design of the General Electric Company Advanced Boiling Water Reactor (ABWR) in accordance with the procedures set forth in Part 52, Subpart B. The Commission is also proposing amendments to specify, pursuant to the pertinent requirements of the National Environmental Policy Act of 1969, as amended (NEPA), the consideration of issues related to ABWR design alternatives for preventing and mitigating severe accidents (SAMDAs). Prior to publication of this proposed rule and in accordance with the provisions of Appendix O to Part 52, the NRC Staff and Advisory Committee on Reactor Safeguards (ACRS) reviewed the ABWR design, following which the Staff issued a

Final Design Approval (FDA) for the design on **[date]** (__ Fed. Reg. __). Approval of the design in the form of a design certification rule is the next procedural step which the Commission may take under Part 52 in order to achieve early resolution of licensing issues associated with the ABWR design. Similarly, NEPA treatment of SAMDAs is being addressed to achieve the same purpose. Pursuant to 10 C.F.R. § 52.51, the Commission is affording interested persons an opportunity to provide written comments and to request an informal hearing concerning the proposed amendments as set forth in this notice.

DATES: The comment period expires 120 days from the date of this Federal Register Notice (FRN). Comments received after this date will be considered if it is practical to do so, but the Commission is able to assure consideration only of comments received on or before this date. Within 120 days from the date of this FRN, interested persons who wish to request an informal hearing must do so in the manner set forth herein.

ADDRESSES: Send comments and requests for an informal hearing to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch. Alternatively, any such comment or request may be hand delivered to the Commission's Public Document Room (PDR), 2120 "L" Street, N.W., Washington, D.C. 20555, by the above deadlines, between 7:30 a.m. and 4:15 p.m. on federal workdays.

Copies of the application (including the Standard Safety Analyses Report (SSAR)) for an FDA and a design certification rule for the ABWR and the FRN therefor, the NRC Staff's Final Safety Evaluation Report (FSER, NUREG-XXXX) concerning the design, the reports of the ACRS in connection with its reviews of the application, the Staff's FDA and related FRN noticing its issuance, General Electric Company's Technical Support Document (TSD) and corresponding NRC Staff Environmental Survey forming the basis for the proposed amendments specifying the consideration of SAMDAs pursuant to NEPA, the Environmental Assessment (EA) and draft finding of no significant environmental impact (FONSI) concerning issuance of the proposed amendments, and other required analyses, as well as any comments that may be received on the proposed rule, may be examined at the NRC PDR, 2120 "L" Street, N.W., Washington, D.C. 20555.

Single copies of the EA, draft FONSI, Environmental Survey, FSER, and FDA may be obtained from: **[name, address, and telephone number of Staff contact]**.

The applicant for the design certification rule of the ABWR design is General Electric Company (Applicant). The address of the Applicant is: 175 Curtner Avenue, San Jose, CA 95125. Service of documents on the Applicant shall be made on: **[Legal Counsel]**.

FOR FURTHER INFORMATION CONTACT: (Name of contact person, telephone (301) 504-XXXX), Office of Nuclear Reactor Regulation;

(Name of contact person, telephone (301) 504-XXXX), Office of Nuclear Regulatory Research; or **(Name of Contact person, telephone (301) 504-XXXX)**, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555; [Designated GE contact], Applicant.

SUPPLEMENTARY INFORMATION:

I. Background

A. **Summary of Relevant Design Certification Provisions of Part 52**

On April 18, 1989, the Commission revised and supplemented its procedures for the licensing of nuclear power plants with the issuance of Part 52. 54 Fed. Reg. 15372 (April 18, 1989). A key element of Part 52 is approval of a nuclear power plant design through issuance of a design certification rule in advance of any proceeding to authorize construction and operation of a plant of that design in a Part 52 combined license (COL) proceeding or a 10 C.F.R. Part 50 (Part 50) licensing proceeding.

A major purpose of rulemaking for standardized reactor designs (and including resolution of SAMDAs) is to realize the safety benefits of nuclear power plant standardization while, at the same time, achieving early resolution of licensing issues associated with those designs, thereby furthering both a more predictable and stable licensing process and more timely and effective public participation. A design certification rule can be referenced in a subsequent application for a Part 52 COL or

for a Part 50 construction permit or operating license, the proceedings for which would be conducted in accordance with Subpart G of 10 C.F.R. Part 2 (Part 2). See, e.g., 10 C.F.R. §§ 52.73, 52.87. Except as provided in 10 C.F.R. § 2.758, all matters resolved in connection with the issuance of a design certification rule (i.e., all matters within the scope of the design approved by this rulemaking) will be treated by the Commission as resolved in any subsequent proceeding. See 10 C.F.R. § 52.63(a)(4).

In promulgating Part 52, the Commission recognized that there were safety benefits in maintaining standardization, and therefore determined to restrict the conditions under which generic or plant-specific changes could be made to a standardized design approved by the Commission. The Commission determined to restrict NRC-imposed changes to those that meet the backfit standards in 10 C.F.R. § 52.63(a). Pursuant to this section, the Commission may not modify, rescind, or impose new requirements on the certification unless it determines in a rulemaking that a modification is necessary to bring the certification or the referencing plants into compliance with the Commission's regulations at the time the certification was issued, or to assure adequate protection of the public health and safety or the common defense and security.

As respects plant-specific changes by the NRC to the certified design, in addition to satisfying the aforesaid standards, special circumstances, as defined in 10 C.F.R.

§ 50.12(a), must be present and consideration must be given to whether those special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the plant-specific order. Pursuant to 10 C.F.R. § 52.63(b), similar constraints also apply to proposed facility-specific design changes to the certified design by an applicant for or holder of a license that references a standard design certification.

The Commission recognized, however, that an applicant or licensee of a plant that references a standard design may be obliged to deviate from the standard design to meet the particularities of procurement or as-built construction needs. For this reason, Part 52 provides for appropriate change flexibility through use of a process similar to that of 10 C.F.R. § 50.59.

To accommodate both the objective of design standardization and the need to permit limited change flexibility and technological improvements, designs approved in a design certification rule have been divided into two parts or tiers: Tier 1, which describes the safety significant aspects of the design features (sometimes referred to as the "certified design"); and Tier 2, which describes the more detailed design information from which Tier 1 is derived. A fuller description of the bases for determining the design information to be contained in each tier is set forth in Section 14.3 of the SSAR and the corresponding section of the NRC's FSER.

More stringent criteria have been established for making changes in the certified design in Tier 1 than for the more detailed design features in Tier 2. In promulgating Part 52, the Commission recognized that, while all of the information in a design certification application would be subject to Commission review and approval, only those safety significant aspects of the design features would comprise the certified design portion of the rule. In particular, the Commission stated:

> The Commission does expect, however, that there will be less detail in a certification than in an application for certification, and that a rule certifying a design is likely to encompass roughly the same design features that § 50.59 prohibits changing without prior NRC approval. (54 Fed. Reg. 15372, 15377 (1989)).

This Commission expectation is codified in 10 C.F.R. § 52.63(b). This section provides that facility-specific design changes by an applicant or a licensee will be subject to differing criteria, depending upon whether the proposed change pertains to the "certified" design (Tier 1) or the remainder of the approved design (Tier 2). Under Section 52.63(b)(1), facility-specific changes to the "certified" design can be made only by means of an exemption. The Commission may grant such a request only if it determines that the exemption will comply with 10 C.F.R. § 50.12(a) and the special circumstances, which Section 50.12(a)(2) requires to be present, outweigh any decrease in standardization caused by the exemption. The granting of an applicant's exemption request is subject to litigation in the same manner as

other issues in the COL or operating license hearing. In contrast, Section 52.63(b)(2) provides that, subject to Section 50.59, a licensee who references a standard design certification may make changes to the design, without prior Commission approval, unless the proposed change involves a change to the design as described in the rule certifying the design (i.e., Tier 1). As the Commission noted in the Statement of Considerations for Part 52, "§ 50.59 will continue to apply to the uncertified portion" of the approved design. (54 Fed. Reg. 15372, 15377 (1989)). This change process is sometimes referred to as the "50.59-like" change process since it is based upon the provisions of 10 C.F.R. § 50.59.

In order to consolidate design-related information that is referenced by this rule into a stand-alone master document, the Commission has developed the concept of a Design Control Document (DCD). The DCD contains the Tier 1 and Tier 2 design-related information. The DCD is incorporated by reference in this design certification rule.

Tier 1 for the ABWR includes the following information: (1) Definitions and General Provisions; (2) Design Descriptions; (3) Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC); (4) Interface Requirements for interfaces between systems within the scope of ABWR standard design and other systems that are wholly or partially outside the scope of the ABWR standard design; and (5) Site Parameters for the ABWR standard design.

Tier 2 includes, to the extent technically applicable for the ABWR standard design, the following information: (1) the information required for a final safety analysis report under 10 C.F.R. § 50.34(b); (2) information related to the Three Mile Island requirements under 10 C.F.R. § 50.34(f); (3) technical resolutions of the Unresolved Safety Issues and medium and high priority Generic Safety Issues identified in NUREG-0933; and (4) important features identified from the probabilistic risk assessment (PRA) for the ABWR and a description of design features for preventing and mitigating severe accidents. Tier 2 excludes from the information contained in the FDA the full description of the PRA, proprietary information, and conceptual design information for structures, systems, and components that are outside the scope of the standard design.

The Design Descriptions, Interface Requirements, and Site Parameters in Tier 1 are derived entirely from the provisions of Tier 2, and generally consist of those safety significant aspects of the design features and functions. Although the provisions in Tier 1 are derived from Tier 2, these provisions may be more general than the provisions in Tier 2. Compliance with the more detailed Tier 2 material provides a sufficient method, but not the only acceptable method, for complying with the design provisions in Tier 1.

The change processes applicable to each tier are, as indicated, specified in the design certification rule. In that connection, the criteria specified for performing 50.59-like

safety evaluations will be essentially the same as those currently used in Part 50 practice. In making such evaluations, applicants and licensees should consider the PRA insights set forth in Chapter 19 of Tier 2 of the DCD. However, design changes need not be evaluated using PRA methodologies. Under Section 50.59, PRA methodologies may be utilized to help determine whether a proposed design change may result in an increase in the probability of an accident, but such methodology use is not required. Consistent with the goal of affording applicants and licensees appropriate flexibility in making Tier 2 changes, applicants and licensees may use reasonable engineering practices, engineering judgment, PRA techniques, or a combination thereof as appropriate, for determining under Section 50.59 whether the probability of occurrence of an event may be increased as a result of implementing a proposed change. Design changes impacting severe accident features discussed in Chapter 19 of Tier 2 of the DCD should be evaluated in accordance with the criteria set forth in 10 C.F.R. § 50.59(a)(2).

The ITAAC in Tier 1 are intended to verify that the as-built plant conforms with the certified design. Accordingly, the scope and content of the ITAAC correspond to the scope and content of the Tier 1 design descriptions. A COL application that references the design certification for the ABWR will include these ITAAC, together with ITAAC for that portion of the plant that interfaces with portions outside the scope of the ABWR certified design. In total, satisfactory completion of the ITAAC

in the COL will provide reasonable assurance that the plant has been constructed and will be operated in conformity with the COL, the Atomic Energy Act, and the Commission's regulations. The Commission will authorize the holder of the COL to load fuel and to commence operation upon finding that the acceptance criteria in the combined license are met and otherwise complying with the provisions of Section 52.103. Since the ITAAC must be completed prior to fuel load, they do not include any inspections, tests, or analyses that are dependent upon conditions that exist only after fuel load.

The DCD describes the design of structures, systems, and components for the ABWR. In general, the DCD does not contain requirements related to the operability of those structures, systems, and components. Instead, the same process currently applied to Part 50 plants will be used to develop operability requirements for structures, systems, and components for plants that reference the ABWR standard design. For example, licenses for plants that reference the ABWR standard design will include technical specifications, which will identify operability requirements and allowed outage times for specified structures, systems, and components within the scope of the ABWR standard design.

B. Application for Certification of the ABWR

In implementing the foregoing, the Commission is proposing to amend its regulations to approve the ABWR design, including several accident prevention and mitigation features, in

accordance with the procedures described below in Section III. Significant aspects of the proposed amendments are described below in Section II.

On September 29, 1987, the Applicant submitted an application pursuant to 10 C.F.R. Part 50, Appendix O, seeking NRC acceptance of the ABWR design as an approved standard design. Following the adoption of Part 52, the Applicant on December 20, 1991, requested to have its Appendix O application, as supplemented by Amendments 1 through 19, be considered as an application for an FDA and a standard design certification pursuant to Part 52. Receipt of this request was noticed in the Federal Register. (See 57 Fed. Reg. 9749 (March 20, 1992)). The Applicant further supplemented its application by Amendments 23 through 34. Additionally, on **[date]**, the Applicant submitted the proposed DCD for the ABWR design.

Following review of the information submitted in support of the applications for an FDA and a design certification and receipt of an ACRS letter thereon, the Staff issued an FSER on **[date]** and an FDA on **[date]**, and noticed these actions in the Federal Register (___ Fed. Reg. ___ (date)). The results of the ACRS review are set forth in a letter to the Commission dated **[date]**.

On August 23, 1993, the Applicant submitted a Technical Support Document (TSD) addressing consideration of SAMDAs under NEPA for plants referencing the ABWR design. The NRC Staff prepared and made available for comment to the public and other

appropriate Federal agencies, a draft Environmental Survey (__ Fed. Reg. __ (date)). The Environmental Survey is similar in scope and in content to the Applicant's TSD. It provides assessments of severe accident prevention and mitigation measures, and radiological impacts from normal operation for the ABWR. The Environmental Survey concludes that all reasonable steps have been taken to reduce the probability of occurrence and consequences of severe accidents in the ABWR and the radiological environmental impacts of normal operation of the ABWR, including expected occurrences, and that there are no reasonable, cost-effective alternatives for reducing these risks or impacts or the radiological impacts of normal operation. Based upon comments received on the draft, the Staff published **[will publish]** a final Environmental Survey (__ Fed. Reg. __ (date)).

On **[dates]**, the NRC Staff published **[will publish]** an EA and a draft FONSI, respectively. These were also **[will be]** noticed in the Federal Register at **[insert FRN]**, respectively. The EA addresses the environmental impacts of the issuance of this design certification rule. The EA also summarizes the conclusions reached in the Staff's Environmental Survey. Since this rulemaking does not authorize any construction or operation of a nuclear facility referencing this design, the EA concludes that this rulemaking has no environmental impacts. The draft FONSI reflects the findings in the EA and concludes that no Environmental Impact Statement is required for this rulemaking.

The record developed thus far consists of the Applicant's initial application for an FDA, including its SSAR and amendments thereto; the Applicant's responses to NRC Staff's requests for additional information; the application for a standard design certification and amendments thereto, including the proposed DCD; the results of the Staff's safety review of the applications for an FDA and standard design certification, which include the Staff's FSER; the reports on the application by the ACRS; the FDA itself; and the applicable FRNs. The record also includes the TSD addressing NEPA consideration of SAMDAs, the Staff's Environmental Survey, the EA and the draft FONSI. The proposed design certification rule under Part 52, and the proposed NEPA/SAMDA amendments, are based upon this record.

In addition to the foregoing, timely comments submitted in the course of this rulemaking proceeding and the record developed in the course of any requested rulemaking hearing will become part of the record considered by the Commission in making its decision on whether to issue a final rule certifying the ABWR design and on the rule's content. Untimely comments will be considered to the extent practicable.

The Commission and the NRC Staff have held a substantial number of public meetings to discuss matters related to the FDA and design certification review. Summaries of these meetings with the Applicant are included in the ABWR application docket and are part of the record of this proceeding.

Additionally, the Commission has furnished the public an early opportunity to provide comments and recommendations on the procedures for the design certification rulemaking and on the form and content of a design certification rule. In particular, the Commission held two public workshops, on July 20, 1992 and November 23, 1993, to receive such public input.

Further, the Staff and Commission have issued a number of guidance papers to facilitate this process. These include, among others: SECY-90-377, November 8, 1990, "Requirements for Design Certification under 10 CFR Part 52;" SRM dated February 15, 1991, "SECY-90-377 -- Requirements for Design Certification under 10 CFR Part 52;" SECY-92-287, August 18, 1992, "Form and Content for a Design Certification Rule;" SRM dated September 30, 1992, "SECY-92-287 -- Form and Content for a Design Certification Rule;" SECY-92-287A, March 26, 1993, "Form and Content for a Design Certification Rule;" SRM dated June 23, 1993, "SECY-92-287/287A -- Form and Content for a Design Certification Rule;" SECY-93-087, April 2, 1993, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactor Designs;" SRM dated July 21, 1993, "SECY-93-087 -- Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactors Designs;" and **[Letter from Dennis M. Crutchfield, Associate Director for Advanced Reactors and License Renewal, Office of Nuclear Reactor Regulation, Nuclear Regulatory Commission to Patrick W. Marriott, Manager, Licensing & Consulting Services, GE Nuclear Energy,**

August 26, 1993, "Guidance on the Form and Content of a Design Control Document." Revise when superseding guidance letter issued.] The Commission also published an advanced notice of proposed rulemaking (ANPR) on November 3, 1993, (58 Fed. Reg. 58664) to invite public recommendations on issues pertaining to the form and content of rules that will certify evolutionary light water reactor designs. In addition, the Commission has held numerous publicly-noticed meetings with the Applicant and others to discuss various aspects of the ABWR design and the design certification process in general. Transcripts of these meetings are available in the PDR. Thus, the opportunity for public participation in resolution of these underlying matters has been extensive.

On the basis of the Staff's review of the ABWR design and the Staff's determination that the design meets the applicable standards and requirements of the Atomic Energy Act and the Commission's regulations, the Commission is proposing to issue a standard design certification in the form of a rule for the ABWR design.

C. NEPA Evaluation of Severe Accidents

The term "severe accidents" refers to those events which are "beyond the substantial coverage of design basis events" and includes those for which there is substantial damage to the reactor core whether or not there are serious off-site consequences. (See Severe Accident Policy Statement, 50 Fed. Reg. 32139 (August 8, 1985)). For advanced reactor designs, such

as the ABWR, the Commission, in accordance with its severe accident safety requirements and guidance, is requiring the evaluation of design alternatives to reduce the radiological risk from a severe accident by preventing substantial core damage, by mitigating the impacts of a severe accident, or both.

NEPA requires the consideration of reasonable alternatives to proposed major Federal actions significantly affecting the quality of the human environment, including alternatives to mitigate the impacts of the proposed action. While the Commission has made a finding **[will determine]** in an EA that issuance of this design certification rule entails no significant environmental impact (a "FONSI"), the Commission is requiring in Part 52 design certification rulemaking proceedings NEPA consideration of whether there are cost-effective SAMDAs which should be added to a new reactor design to reduce severe accident risk. This consideration could be done later on a facility-specific basis for each combined license application under Subpart C to Part 52; however, the Commission has decided that maintenance of design standardization will be enhanced if this consideration is done on a generic basis for each standard design in conjunction with design certification. See Commission SRM, dated October 25, 1991 on SECY-91-229, "Severe Accident Mitigation Design Alternatives for Certified Standard Designs." That is, the Commission has decided to resolve any NEPA/SAMDA question through rulemaking at the time of certification in a unitary rulemaking proceeding, rather than in the context of

later individual plant licensing proceedings. Additionally, for design certification rulemaking proceedings, the Commission has decided to expand the concept of SAMDAs to encompass design alternatives to prevent severe accidents, as well as to mitigate them.

As part of its application for certification of the ABWR design, the Applicant has submitted an analysis which demonstrates how the ABWR design meets the Commission's severe accident policy. In particular, Chapter 19 of the SSAR identifies the dominant severe accident sequences and associated source terms for the ABWR design; describes modifications that have been made to the ABWR design to prevent or mitigate severe accidents and thereby reduce the risk and consequences of a severe accident; and provides the bases for concluding that "all reasonable steps [have been taken] to reduce the chances of occurrence of a severe accident involving substantial damage to the reactor core and to mitigate the consequences of such an accident should one occur." (Severe Accident Policy Statement (50 Fed. Reg. 32139)). It also provides the bases for concluding that NRC safety goals have been met. (See Safety Goals for the Operations of Nuclear Power Plants, Policy Statement (51 Fed. Reg. 30028 (August 21, 1986)). Consequently, Chapter 19 of the SSAR and the FSER provide the bases for concluding that modifications to the ABWR design to further reduce severe accident risk are not warranted.

On August 23, 1993, the Applicant submitted a Technical Support Document (TSD) which addressed consideration of SAMDAs under NEPA for plants referencing the ABWR design. Based upon the information from Chapter 19 of the SSAR, the TSD identifies the probability of severe accidents in plants referencing the ABWR design. The TSD also identifies the environmental and societal impacts of severe accidents. Additionally, the TSD identifies possible alternative design features for preventing or mitigating severe accidents, the cost of these features, and the associated reduction in risk. The TSD then compares each of these costs against its associated reduction in risk to determine whether any of the features are cost-beneficial.

The TSD concludes that:

(1) For the ABWR design, all reasonable steps have been taken to reduce the probability of occurrence of a severe accident involving substantial damage to the reactor core and to mitigate the consequences of such an accident should one occur.

(2) No further cost-effective alternatives to the ABWR design have been identified to prevent or mitigate the consequences of a severe accident involving substantial damage to the core.

(3) All reasonable steps have been taken to reduce the radiological environmental impacts from normal reactor operation of the ABWR, including expected operational occurrences, to as low as reasonably

achievable, and that further evaluation of alternatives for reducing such impacts is not required in any environmental report, environmental assessment, environmental impact statement or other environmental analysis prepared in connection with issuance of a license for a nuclear power plant referencing the ABWR design certification rule.

(4) No further evaluation of severe accidents for the ABWR design, including design alternatives for preventing or mitigating the consequences of severe accidents, is required in any environmental report, environmental assessment, environmental impact statement or other environmental analysis prepared in connection with issuance of a license for a nuclear power plant referencing the ABWR design certification rule.

The NRC Staff has prepared **[will prepare]** an EA and draft FONSI for the ABWR and a draft Environmental Survey of NEPA/SAMDA considerations which were noticed for public comment in the Federal Register (__ Fed. Reg. __ (date)). The Commission's conclusions in the EA are **[will be]** the basis for its draft FONSI determination. The conclusions in the draft Environmental Survey take account, inter alia, of the analyses in the TSD and are the bases for the Commission's proposed NEPA/SAMDA determinations. The TSD, EA, draft FONSI, and draft

Environmental Survey are all part of the record of the rulemaking proceeding.

The Commission is proposing to amend Part 51 and Part 52 to codify the conclusions in the Environmental Survey. This will eliminate the need for applicants for plants that reference the ABWR design certification rule from having to duplicate the NEPA/SAMDA review performed on behalf of the ABWR. Promulgation of such amendments to Part 51 and Part 52 will further the goal of design standardization.

II. Description of Proposed Amendments

The proposed amendments to Part 52 would add a new Appendix A which approves the ABWR design. New Appendix A would describe the ABWR design and govern the treatment of matters related to the approved design, including the NEPA treatment of SAMDA matters. In addition, a proposed amendment to Part 51 would add a footnote to Section 51.20(b)(1) which would reference the NEPA/SAMDA environmental findings in new Appendix A to Part 52.

Appendix A to Part 52 would consist of several sections. Section A.1 would set forth the scope of the design certification rule. Section A.3 would contain relevant definitions for Appendix A. Section A.5 would specify those documents which have been approved by the Office of the Federal Register for incorporation by reference and thereby are deemed to be part of the ABWR design certification rule. Those documents

are the ABWR DCD and the American Society of Mechanical Engineers Boiler and Pressure Vessel (ASME) Code Sections III and XI, 1989 edition. Because Tier 1 does not identify a specific revision or edition of the ASME Code Sections listed in Section A.5, Section A.5(a)(3) provides that a COL applicant or licensee may use a subsequent edition or revision.

Section A.6 discusses the use of the DCD. It would require an applicant for a construction permit or license that references this standard design certification to reference both tiers of the ABWR DCD, and would provide that the ABWR DCD is the controlling document in the event there exists a conflict between the information in it and the application for standard design certification or the FSER. In addition, it specifies that compliance with the information in Tier 2 is an acceptable method, but not necessarily the only acceptable method, for satisfying the provisions in Tier 1.

Section A.7 would specify the matters that would be accorded finality under 10 C.F.R. § 52.63(a)(4) as matters resolved in connection with issuance of Appendix A. The Commission will treat as resolved in any subsequent proceeding all matters within the scope of the design approved in the design certification rulemaking. These include all matters discussed in the DCD, SSAR, FSER, FDA, TSD and associated staff environmental analysis for the ABWR, and all of the matters that were raised and resolved in the rulemaking proceeding on the ABWR. Additionally, the Commission is proposing to make the

determination that the design features and functions of the ABWR as described in the DCD satisfy the Commission's existing regulations and provide reasonable assurance of adequate protection of the health and safety of the public. Inherent in this determination would be the finding that additional design features and functions are not necessary for the ABWR standard design. The lack of need for such additional design features and functions would also be considered as a matter resolved in connection with issuance of Appendix A. Any matter that is resolved in connection with the issuance of Appendix A would be treated as resolved in all subsequent proceedings, except as provided in 10 C.F.R. § 2.758.

Section A.9 would contain provisions which specify the conditions under which Appendix A would be in effect. These provisions would include the duration of Appendix A in accordance with 10 C.F.R. § 52.55; the effectiveness of Appendix A for specific license applications and licenses after its expiration, in accordance with 10 C.F.R. §§ 52.55 and 52.57; and provisions for renewal of Appendix A in accordance with 10 C.F.R. §§ 52.57, 52.59, and 52.61.

Section A.11 would identify the limitations on changes to the information in the DCD. In summary, these limitations are as follows:

- The Commission (on its own volition or at the request of any person) could not change any provision in Appendix A, including the DCD, except by means of a

rulemaking that would satisfy the criteria specified in 10 C.F.R. § 52.63(a)(1).

- With respect to a plant that references Appendix A, the Commission (on its own volition or at the request of any person) could not impose requirements by plant-specific order with respect to any part of the design that is within the scope of the DCD, other than by plant-specific order that would satisfy the criteria specified in 10 C.F.R. § 52.63(a)(3), except that the standardization reduction factor in criterion (ii) therein would apply only to Tier 1 changes.
- Except as stated below, an applicant or licensee of a plant that references Appendix A could not make plant-specific changes from the requirements in Tier 1 of the DCD, other than by means of an exemption or an amendment that would satisfy the criteria specified in 10 C.F.R. § 52.63(b)(1).
- An applicant or licensee of a plant that references Appendix A could make plant-specific changes in Tier 2 of the DCD by means of an exemption or an amendment that would satisfy the criteria in 10 C.F.R. § 52.63(b)(1) or by means of a process similar to that in 10 C.F.R. § 50.59 where the specified criteria for such changes are satisfied.

Section A.13 would prescribe the recordkeeping requirements for applicants or licensees that reference the ABWR

design certification. This section would require records to be kept of all changes made under the § 50.59-like process and to contain the type of information described in 10 C.F.R. § 50.59(b)(1). This section would also require applicants or licensees that reference the ABWR design certification to submit or amend reports of all such changes to the facility.

Section A.15 would contain provisions governing application of the ITAAC. For example, these provisions would specify that the ITAAC apply only prior to fuel load, that an applicant or licensee may conduct activities at its own risk pending an NRC Staff finding that ITAAC have been satisfied, and that corrective actions may be taken to demonstrate compliance with the ITAAC. Because the purpose of ITAAC is to provide the basis for authorization under 10 C.F.R. § 52.103 to load fuel, subsequent to fuel load the ITAAC cease to have any regulatory effect and are of archival interest only. Consequently, modifications after fuel load, while subject to the design change requirements applicable to the DCD, need not demonstrate compliance with the ITAAC. **[Additionally, ITAAC are applicable only to Part 52 combined licenses; they are not applicable with respect to Part 50 construction permits or operating licenses that reference the design certification rule, nor to applications for such construction permits or operating licenses.]**

Finally, Section A.17 would set forth the environmental findings resolving SAMDAs pursuant to NEPA. Specifically, Section A.17 would provide that:

(1) For the ABWR design that is the subject of this rulemaking, all reasonable steps have been taken to reduce the probability of occurrence of a severe accident involving substantial damage to the reactor core and to mitigate the consequences of such an accident, should one occur.

(2) No further cost-effective alternatives to the ABWR design have been identified to prevent or mitigate the consequences of a severe accident involving substantial damage to the core.

(3) All reasonable steps have been taken to reduce the radiological environmental impacts from normal reactor operation of the ABWR, including expected operational occurrences, to as low as reasonably achievable, and that further evaluation of alternatives for reducing such impacts is not required in any environmental report, environmental assessment, environmental impact statement or other environmental analysis prepared in connection with issuance of a license for a nuclear power plant referencing the ABWR design certification rule.

(4) No further evaluation of severe accidents for the ABWR design, including alternatives to prevent or mitigate the consequences of a severe accident, is required in any environmental report, environmental assessment, environmental impact statement or other environmental analysis prepared in connection with issuance of a license for a nuclear power plant referencing the ABWR design certification rule.

III. Rulemaking Process

A. **Notice and Comment**

Pursuant to 10 C.F.R. § 52.51, the Commission is providing the opportunity to submit written comments and to request an informal hearing on the proposed amendments set forth in this notice. 1/ Persons will have 120 days from the publication of this notice to file written comments. Comments received on or before this deadline will be considered by the Commission in preparing the amendments in final form. Comments received after the deadline will be considered only to the extent practicable.

B. **Absence of Qualifying Hearing Request**

In the event a hearing is not requested within the time period and in the manner set forth below in Section C.1, the Applicant will be expected to submit to the Commission a proposed final rule and statement of considerations (SOC) thirty days after the close of the comment period, which shall contain the Applicant's response to comments on the proposed rule. The Commission will then proceed to determine whether the application meets the applicable standards and requirements of the Atomic Energy Act, NEPA, and the Commission's regulations. If the Commission makes an affirmative determination as respects the foregoing, it will issue a standard design certification in the form of a rule. The Commission's decision will be based on the

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1/ Written comments may be in the form of statements, information, opinions and arguments.

rulemaking record, which includes: the Applicant's application for an FDA, including its SSAR; the Applicant's responses to NRC Staff requests for additional information; the application for a design certification rule, including the DCD; the results of the Staff's safety review of the applications for an FDA and design certification rule, which include the Staff's FSER; the report on the application by the ACRS; the FDA itself; the applicable FRNs; the TSD addressing NEPA consideration of SAMDAs and the basis for their inclusion in or exclusion from the ABWR design; the EA and draft FONSI; the Staff's Environmental Survey; any comments on the proposed rulemaking; and the Applicant's response to the comments.

C. Hearing Process

1. Introduction

In addition to the opportunity to comment on the proposed amendments, the Commission, pursuant to 10 C.F.R. § 52.51, is affording the opportunity to request an informal hearing before an Atomic Safety and Licensing Board (Hearing Board or Board). Section 52.51 specifies the requirements for such an informal hearing, providing in pertinent part:

> The rulemaking procedures must provide for notice and comment and an opportunity for an informal hearing before an Atomic Safety and Licensing Board. The procedures for the informal hearing must include the opportunity for written presentations made under oath or affirmation and for oral presentations and questioning if the Board finds them either necessary for the creation of an adequate record or the most expeditious way to resolve controversies. Ordinarily, the questioning in the informal hearing will be done by members of the Board using the Board's

> questions or questions submitted to the Board by the parties. The Board may also request authority from the Commission to use additional procedures, such as direct and cross examination by the parties, or may request that the Commission convene a formal hearing under Subpart G of 10 CFR Part 2 on specific and substantial disputes of fact, necessary for the Commission's decision, that cannot be resolved with sufficient accuracy except in a formal hearing. The staff will be a party in the hearing.

10 C.F.R. § 52.51(b) (1990).

This FRN provides the specific procedures for implementing these requirements in response to any hearing request under Section 52.51.

Within 120 days after publication of this notice in the Federal Register, any person may request the Commission to hold an informal hearing in accordance with the procedures set forth in this FRN. The purpose of any informal hearing is to assist in the development of an adequate record for the Commission to resolve issues in finalizing the design certification rule by permitting interested persons the opportunity to supplement the record of the rulemaking. Should a hearing be requested and granted, a Notice of Informal Hearing will be published in the Federal Register.

As discussed more fully below, the Hearing Board will serve as a "limited magistrate" in any rulemaking hearing, whether formal or informal. The sole task of the Hearing Board appointed by the Commission will be to assist in the development of the rulemaking record with respect to issues raised by hearing participants (parties) that are within the scope of this

rulemaking proceeding. Among other matters, the Board will have the authority to rule on offers of proof and receive evidence, ask questions of witnesses and parties, order consolidation of parties, regulate the course and conduct of the hearing, and certify questions or refer rulings to the Commission for its determination.

The Board will not have authority to consider *sua sponte* matters not raised in any informal or formal hearing. If, during the course of the hearing, the Board does identify issues not raised by the parties, but which the Board believes are significant enough to warrant the attention of the Commission, the Board may identify those matters to the Commission along with its certification of the record at the close of the hearing.

Any rulemaking hearing will be held in the Washington, D.C. metropolitan area at a location specified in an FRN convening the hearing. A party may submit a request to the Commission for a hearing to be held in another location. Requests for hearing sessions in other locations will be considered by the Commission upon demonstration by a requester of special circumstances or in the Commission's discretion.

The hearing record will supplement the record developed in the course of the notice and comment rulemaking process. Thus, it is not necessary that persons request or participate in an informal hearing in order for the Commission to consider their comments. The Commission will consider the entire record

developed in the course of this rulemaking in making its decisions concerning these amendments to the regulations.

In order to formulate comments concerning the proposed rule, persons should consult the rulemaking record referenced above, which is available for review at the Commission's PDR, at the address provided above. Persons wishing to request an informal hearing should similarly consult this record to assure compliance with the requirements set forth below concerning submittals in connection with an informal hearing. The Commission is allowing persons 120 days to submit comments and to submit requests for a hearing.

2. Overview of Procedures Governing the Hearing Process

In conformity with Section 52.51, this FRN specifies the procedures to be used in the conduct of this design certification rulemaking. The procedures are in a hierarchical structure, as required by Section 52.51(b).

The first level of procedures offers, in addition to notice and comment, an opportunity for informal hearing. Section 3, below, sets forth the procedures governing requests for such hearings. The first level of procedures also provides opportunity for oral presentations and questioning by the Board. Section 4 provides details on the filing of oral presentations and questions for the Board's consideration.

At the second level of procedures, the Board may request authority from the Commission to use additional procedures (such as discovery or direct and cross examination by

the parties) or to convene a formal hearing, if the Board, following a request therefor by a party, believes such additional procedures or a formal hearing to be necessary in accordance with criteria specified hereinafter. 2/ The Commission will grant such authority to the Board upon determining that specific and substantial disputes on issues of material fact necessary for a decision cannot be resolved with sufficient accuracy except by supplementing the written record through the use of additional procedures or by convening a formal hearing. Section 5 sets forth the procedures governing requests by parties for additional procedures or formal hearings, and the standards governing a Board's request for such additional authority and the Commission's grant of the Board's request.

3. Request for Informal Hearing and Related Requirements

In addition to filing comments on the proposed rule, the Commission is affording persons an opportunity to request an informal hearing before a Hearing Board, which includes the opportunity for written presentations under oath or affirmation, and for oral presentations and questioning. 3/ Requests for informal hearing must be filed within 120 days of the date of this FRN with the Secretary, U.S. Nuclear Regulatory Commission and served on the Applicant, as provided above in the **ADDRESSES**

2/ The Board will not have *sua sponte* authority to request additional procedures or formal hearings.

3/ Presentations may be in the form of statements, information, opinions or arguments.

section. Requests which are not filed within 120 days from the date of publication of this FRN will be treated as late-filed comments on the proposed rule, rather than as requests for hearing. Comments become part of the rulemaking record, to be considered by the Commission in reaching a final decision concerning issuance of a rule to certify the ABWR design.

Any person may request and obtain an informal hearing upon meeting the two-part threshold established in Part 52. First, the requester must submit a written presentation to be included in the record of the hearing. The written presentation must be submitted within the public comment period and shall identify that portion of the written comments that the requester wishes to submit in the informal hearing, the portions of the proposed rule or supporting bases which are being challenged, the proposed revisions and the bases for the proposed revisions, references to all sources and documents upon which the requester relies, and any other statements, information, opinions and arguments the requester wishes to provide. The Commission believes that this information is necessary to permit it to make an informed decision on the need for hearing. Such information will provide the basis for the Commission's decision on whether to grant an informal hearing and the scope of any informal hearing. Additionally, this information will promote the establishment of an effective and efficient hearing process.

Second, requesters (or persons they intend to have represent them at the hearing) must demonstrate an appropriate

knowledge or qualifications to contribute significantly to the development of a hearing record on the controverted issue. In this regard, a requester or their intended representatives need not satisfy a judicial "expert witness" standard in order to meet these qualifications. 4/

Within 15 days after the deadline for requesting an informal hearing or after service of the request(s) upon the NRC Staff and the Applicant (whichever is later), the Applicant, as proponent of the design proposed for certification, may submit any written responses under oath or affirmation to any requests for an informal hearing. 5/ The Applicant will serve its written responses upon those persons who have requested an informal hearing and upon the NRC Staff.

The Commission itself will rule on hearing requests. If a hearing is denied, the Applicant will be expected to submit to the Commission a proposed final rule and SOC within 30 days of the Commission's Order, which shall contain the Applicant's responses to comments and written statements on the proposed rule. If a hearing is granted, the Commission will also specify

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4/ A written presentation may contain contributions from more than one individual. Each contributor, however, must subscribe to his/her contribution by oath or affirmation.

5/ Whenever a party has the right or is required to do some act within a prescribed period after the service of a notice or some other paper upon him or her and the notice or paper is served by mail, five (5) days shall be added to the prescribed period. Two (2) days shall be added when a document is served by express mail.

the controverted matters on which the Hearing Board is to compile a record.

The Applicant will be a party in any informal or other hearing hereunder. Unless the additional procedures of Subpart G or a formal hearing are involved (see Section 5 below), the Staff will not be treated as a party to any such hearings. In any informal hearing held, the Staff may assist in the hearing at the Board's request in order to answer questions about its FSER or the proposed rule or provide additional information or documentation and render such other assistance as the Board may request without assuming the role of an adversary party in the proceeding.

4. Oral Presentations and Questioning by the Board

Pursuant to 10 C.F.R. § 52.51(b), an informal hearing must include the opportunity for written presentations made under oath or affirmation and for oral presentations and questioning. Parties participating in that phase must file the text of their oral presentations and serve them on the other parties and the NRC Staff as follows. Parties other than the Applicant must file and serve on the other parties and the NRC Staff their oral presentations within 10 days of the order; the Applicant, as proponent of the design certification, must file and serve on the other parties and the NRC Staff its oral presentations 10 days after service by the other parties. Ten days after the Applicant has filed and served texts of its oral presentations, parties may file with the Board, and serve upon the other parties and the NRC

Staff, proposed questions for the Board to ask concerning the oral presentations. This information must be served upon the Staff and parties in the manner provided in the **ADDRESSES** section. Five days later, oral presentations and Board questioning of the presenters will commence. The Board shall have the authority to grant an extension to the schedule upon a showing of good cause. The Board also shall have the authority to question parties at the hearing on hearing issues and to consolidate parties and issues in the hearing. While parties other than the Applicant may not participate as parties on issues which they did not controvert, they may submit written information and written arguments on such issues. Following oral presentations and questioning by the Board, the informal hearing will be concluded (see Section 6 below), unless a party requests additional procedures or formal hearings (see Section 5 below).

5. Requests for Additional Procedures or Formal Hearings

A party may ask the Board to request authority from the Commission to use additional procedures (e.g., direct and cross-examination by the parties) or to convene a formal hearing under Subpart G of Part 2. Requests for discovery must be filed with the Board and served on the Applicant and NRC Staff within 15 days of the Commission's grant of the informal hearing request. All other requests for additional procedures or a formal hearing shall be filed and served at the conclusion of the oral phase of the informal hearing. The Applicant shall file and serve a

response to any requests within 15 days of service of the request.

A party's request must identify precisely the additional procedures sought or the bases for requesting a formal hearing; identify the factual issues, including specific record citations, to which the additional procedures or formal hearing will be applied; and address why use of the additional procedures or formal hearing meets the criteria set forth herein below. Factual issues identified must lie within the scope of the oral presentation sponsored by the party.

If any parties have asked the Board to request authority from the Commission to use additional procedures or convene a formal hearing, and the Board believes that such request satisfies the criteria set forth below, the Board will refer the request to the Commission within 30 days of the request. The Board will ask the Commission for authority to use additional procedures or formal hearings only if it believes a compelling showing has been made that all of the following criteria are satisfied:

(1) there are specific and substantial disputes of fact;

(2) the resolution of the disputes is necessary to the Commission's decision;

(3) the cumulative record is insufficient to resolve the disputes, and testimony proffered through supplemental written presentations under oath or affirmation or oral

presentations with Board questioning are insufficient to develop an adequate record or resolve the disputes with sufficient accuracy; and

(4) the use of additional procedures or convening a formal hearing under Subpart G of Part 2 is essential to resolution of the disputes with sufficient accuracy.

If the Board decides not to seek authority to use additional procedures or to convene a formal hearing, it will issue an order to that effect. The Board's order will explain its reasons for concluding that the use of additional procedures or a formal hearing is unnecessary and that the record provides an adequate basis for Commission decision. The oral presentation phase of the informal hearing will then be concluded (see Section 6 below).

If the Board decides to request authority for additional procedures or a formal hearing, the Commission will rule on whether to grant such authority within 30 days of the Board's request. The Commission will apply the same criteria to the Board's request as are described above. If the Commission authorizes the use of additional procedures or convenes a formal hearing, the Commission will specify the provisions of Subpart G which will apply and any special considerations in their hearing application. The proceeding will continue in conformance with the Commission's order.

6. Close of the Record; Findings of Fact and Conclusions

Within 30 days after the Board closes the record, at the conclusion of the hearing phase, each party in that proceeding shall file directly with the Commission and serve on the other parties and the NRC Staff its proposed findings and conclusions. A party must file its findings and conclusions in the form of a proposed final rule and SOC with respect to that party's controverted issues. These findings may be in the form of a mark-up of the proposed rule specifically identifying how the party would change the rule. In addition, the Applicant shall file a proposed final rule and SOC which addresses all hearing issues as well as issues raised in written comments. Failure of a party to file findings on a controverted issue will not, in itself, result in "dismissal" of that issue from the rulemaking; however, the Commission will not necessarily address that issue explicitly in its decision. Within 30 days after closure of the rulemaking hearing record, the Hearing Board must certify the record to the Commission without any findings or recommendations. The certified record will include written presentations and texts of oral presentations, filings, transcripts and rulings. If, during the course of the hearing, the Board identifies issues not raised by the parties, but which the Board believes are significant enough to warrant the attention of the Commission, the Board may identify those matters to the Commission, along with its certification of the record.

D. Issuance of Final Rule

After conducting the rulemaking proceeding on the application for certification of the ABWR design in accordance with Section 52.51 and the procedures set forth in this FRN, and after receiving the report submitted by the ACRS under Section 52.53, if the Commission determines that the application meets the applicable standards and requirements of the Atomic Energy Act, NEPA, and the Commission's regulations, the Commission will issue a design certification rule for the ABWR.

E. Treatment of Proprietary Information

In accordance with 10 C.F.R. § 52.51(c), proprietary information "will be protected in the same manner and to the same extent as proprietary information submitted in connection with applications for construction permits and operating licenses under 10 C.F.R. Part 50 . . . ." Past Part 50 practice reflects the Commission's ability to accommodate the public policy interest in making agency records reasonably available to the public with the public policy interest in affording appropriate protection to proprietary information submitted by persons seeking licensing or other regulatory action. See, e.g., Wisconsin Electric Power Company (Point Beach Nuclear Power Plant, Units 1 and 2), LBP-82-42, 15 NRC 1307, 1322 (1982).

Consistent with Section 52.51(c) and the relevant Part 50 licensing practice to which it refers, access to proprietary information in the design certification rulemaking proceeding will be provided only to parties to the rulemaking hearing and

then only upon a party's showing that: (1) the available non-proprietary information is inadequate to prepare for the hearing; (2) the proprietary information sought is relevant to issues to be considered in the hearing; and (3) the party has the expertise to use the information to make a significant contribution to the hearing record.

With respect to the content of the rule itself, no proprietary information will be included in the rule or the documents referenced in the rule.

Should it become necessary, however, for the NRC to rely upon proprietary information to form the basis for part of the design certification rule, requesting commenters will be provided access to the relevant proprietary information through the execution of non-disclosure agreements tailored to the specific circumstances. A commenter shall first seek access to proprietary information directly from the Applicant. If the person seeking access is unable to obtain the information from the Applicant or believes that the terms of the Applicant's non-disclosure agreement are unreasonable, the person may seek resolution of the matter from the Hearing Board, if one has been designated, or from the Commission.

IV. Ex Parte and Separation of Functions Restrictions

A. Ex Parte Restrictions

Restraints on communications between parties and the Commission shall apply after the NRC receives a request for a

design certification rulemaking hearing. (see Section III.C. above). These restrictions are the same as the restrictions contained in 10 C.F.R. § 2.780(a). Under such *ex parte* restrictions, the Commission as a whole will communicate with parties on design certification rulemaking issues only through docketed, publicly available written communications and public meetings. Individual Commissioners could communicate privately with parties, but the substance of the communication must be memorialized in a document that is placed in the PDR and distributed to the Hearing Board and parties to the design certification rulemaking hearing. In an informal hearing, the Staff would be able to communicate with interested outsiders on rulemaking hearing issues. However, to the extent the communication is used by the Staff in the rulemaking, the communication will be treated the same way a private communication between an individual commissioner and a party is treated.

B. Separation of Functions

In an informal hearing, the Staff will not be a party to the hearing and will not be subject to any separation of functions limitations. Accordingly, in an informal hearing, the Staff may communicate with the Commission on rulemaking hearing issues. To the extent any informal hearing is held, the Staff may assist in the hearing in order to answer questions about the FSER or the proposed rule, or provide additional information or documentation, or provide such other assistance as the Hearing

Board may request without the Staff's assuming the role of an adversary party in the proceeding. Where the formal procedures of Subpart G or formal hearings are invoked (see Section III.C.5. above), the Staff will be treated as a party and will be subject to the separation of functions limitations delineated in 10 C.F.R. § 2.781.

V. Paperwork Reduction Act Statement

The NRC has submitted the information collection requirements contained in this Appendix to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). OMB has approved the information collection requirements contained in the appendix under control number 3150 _____.

VI. Regulatory Analysis

The Commission has prepared a draft regulatory analysis of this proposed regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. The draft analysis is available for inspection in the NRC PDR, 2120 "L" Street, N.W., Washington, D.C. 20555. Single copies may be obtained from **[insert name, address, and telephone number of contact person]**.

The Commission requests public comment on the draft regulatory analysis. Comments on the draft analysis may be submitted to the NRC as indicated under the **ADDRESSES** heading

within the time period specified for other comments on the proposed rule.

VII. Regulatory Flexibility Act Certification

As required by the Regulatory Flexibility Act of 1980, 5 U.S.C. § 605(b), the Commission certifies that this rule, if adopted, will not have a significant impact upon a substantial number of small entities. The proposed rule would certify the design of the ABWR. The design, once certified could be used by applicants for a combined construction and operating license to construct and operate a nuclear power plant of the ABWR design. The proponent of the ABWR design, General Electric Company, does not fall within the definition of a small business as defined in Section 3 of the Small Business Act, 15 U.S.C. § 632, the Small Business Size Standards of the Small Business Administrator (13 C.F.R. Part 121), or the Commission's Size Standards (50 Fed. Reg. 50241 (1985)).

VIII. Non-Applicability of Backfit Rule

The NRC has determined that the backfit rule, 10 C.F.R. § 50.109, does not apply to this proposed rule, and therefore, that a backfit analysis is not required for this proposed rule because these amendments do not involve any provisions which would impose backfits as defined in 10 C.F.R. § 50.109(a)(1).

IX. List of Subjects

[TO BE ADDED]

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. 553, the NRC is proposing to adopt the following amendments to 10 C.F.R. Part 51 and Part 52.

1. The following footnote is added to 10 C.F.R. § 51.20(b)(1) to read as follows:

As to an application to either construct or operate an Advanced Boiling Water Reactor and the requirements of § 51.20(b)(1) and (2), see 10 C.F.R. Part 52, Appendix A, § A.17.

2. The following Appendix A is added to 10 C.F.R. Part 52 to read as follows:

STANDARD DESIGN CERTIFICATION RULE FOR THE GENERAL ELECTRIC COMPANY ADVANCED BOILING WATER REACTOR 10 C.F.R. Part 52, Appendix A

A.1 Scope

This Appendix constitutes the standard design certification for the General Electric Company Advanced Boiling Water Reactor (ABWR) design, in accordance with 10 C.F.R. Part 52, Subpart B (Section 52.54). The Applicant for the certification of the design was General Electric Company.

A.2 [Reserved]

A.3 Definitions

As used in this Appendix:

License applicant or application, unless otherwise specified, means an applicant or application for a combined license issued under Part 52, or for a construction permit

or operating license issued under Part 50, that references this Appendix.

Design Control Document (DCD) **[provide full title and date]** means the document that contains the Tier 1 and Tier 2 design-related information that is incorporated by reference into this Appendix.

License or Licensee, unless otherwise specified, means the following: The license means a combined license issued under Part 52, or a construction permit or operating license issued under Part 50, that references this Appendix. Unless otherwise specified, the licensee means the holder of such a license.

Tier 1 means that the portion of the design-related information contained in the DCD that is certified by this rule. Tier 1 includes the following information: (1) Definitions and General Provisions; (2) Design Descriptions; (3) Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC); (4) Interface Requirements for interfaces between systems within the scope of the ABWR standard design and other systems that are wholly or partially outside the scope of the ABWR standard design; and (5) Site Parameters for the ABWR standard design.

Tier 2 means the remainder of the design-related information contained in the DCD that is approved by this rule. Tier 2 contains detailed information on the ABWR design from which the information in Tier 1 was derived. Tier 2 includes the following information to the extent applicable for the ABWR Standard Design: (1) the information required for a final safety analysis report under 10 C.F.R. § 50.34(b); (2) information related to the Three Mile Island requirements under 10 C.F.R. § 50.34(f); (3) technical resolution of the Unresolved Safety Issues and medium and high-priority Generic Safety Issues identified in NUREG-0933; and (4) important features identified from the Probabilistic Risk Assessment (PRA) for the ABWR and a description of design features for preventing and mitigating severe accidents.

Unreviewed safety question means a proposed change in the facility or procedures described in Tier 2 of the DCD if, as a result of the change:

(i) the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the DCD may be increased; or

(ii) a possibility for an accident or malfunction of a different type than any evaluated previously in the DCD may be created; or

(iii) the margin of safety as defined in the basis for any technical specification is reduced.

A.4 [Reserved]

A.5 Documents Incorporated by Reference

(a) The following documents, which have been approved by the Office of the Federal Register for incorporation by reference, are deemed to be part of the ABWR design certification and are incorporated herein by reference:

(1) ABWR DCD dated ____________.

(2) American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Sections III and XI, 1989 Edition.

(b) A license applicant or licensee may utilize a subsequent edition or revision of the document listed in section A.5(a)(2) of this appendix, subject to the change process specified in section A.11(d) of this Appendix.

A.6 Use of the DCD

(a) A license applicant for a construction permit or license that references this standard design certification must reference both tiers of information in the ABWR DCD.

(b) If there is a conflict between the information in the ABWR DCD and the application for standard design certification or the final safety evaluation report (FSER) on the application and supplements thereto, then the ABWR DCD is the controlling document.

(c) Tier 2 does not include the full description of the PRA, proprietary information or conceptual design information for structures, systems, and components that are outside the scope of the Standard Design. Compliance with the information in Tier 2 is an acceptable method, but not necessarily the only acceptable method, for satisfying the provisions in Tier 1.

A.7 Issue Resolution for the ABWR Design Certification

Except as provided in 10 C.F.R. § 2.758, the Commission shall treat as resolved within the meaning of 10 C.F.R. § 52.63(a)(4) in any subsequent proceeding all matters

within the scope of the design approved in the design certification rulemaking. These matters include the following:

(i) all matters addressed in the DCD and in the standard safety analysis report for the ABWR standard design;

(ii) all matters addressed in the Staff's FSER and Final Design Approval for the ABWR;

(iii) all matters addressed in the Technical Support Document and the Staff's Environmental Analysis and Environmental Survey for the ABWR;

(iv) any changes made in accordance with any of the change processes set forth in section A.11 of this Appendix;

(v) all matters raised and resolved in the rulemaking proceeding on the design certification rule for the ABWR.

Additionally, the Commission has determined that the design features and functions of the ABWR as described in the DCD satisfy the Commission's existing regulations and provide reasonable assurance of adequate protection of the health and safety of the public. Inherent in this determination is the finding that additional design features and functions are not necessary for the ABWR design. The lack of need for such additional design features and functions is also considered a matter resolved in connection with issuance of this Appendix.

A.8 [Reserved]

A.9 Duration of the ABWR Design Certification

(a) *Expiration Date.* This standard design certification is valid for a period of 15 years from **[Date of Effectiveness of Appendix]**, or for such further period beyond expiration as provided for in 10 C.F.R. §§ 52.55(b) and 52.57(b).

(b) *Renewal.*

(1) In accordance with the provisions of 10 C.F.R. §§ 52.57, 52.59, and 52.61, this Appendix may be renewed for a period of not less than ten years nor more than fifteen years.

(2) There is no limit to the number of times this Appendix may be renewed.

(3) When a timely application for renewal has been filed, this Appendix shall remain in effect until the Commission has ruled on the application.

(c) *Effectiveness after Expiration.*

(1) This Appendix remains in effect after its date of expiration with respect to a license application that references this Appendix, provided that the license application was filed before the expiration date or before the date the Commission rules on a timely application for renewal of this Appendix.

(2) This Appendix remains in effect after its date of expiration with respect to a license that references this Appendix.

A.10 [Reserved]

A.11 Change Process

(a) *Generic Changes to the DCD by the Commission.*

(1) Notwithstanding any provision in 10 C.F.R. § 50.109, while this Appendix is in effect, the Commission may not modify, rescind, or impose new requirements on matters within the scope of the DCD, whether on its motion, or in response to a petition from any person, unless the Commission determines in a rulemaking that a modification is necessary either to bring the DCD or the referencing plants into compliance with the Commission's regulations applicable and in effect at the time this Appendix was issued, or to assure adequate protection of the public health and safety or the common defense and security. The rulemaking procedures must provide for notice and comment and an opportunity for an informal hearing which uses procedures described in 10 C.F.R. § 52.51.

(2) Any modification the Commission imposes on the DCD under paragraph (a)(1) of this section will be applied to all plants referencing this Appendix, except those to which the modification has been rendered technically irrelevant by action taken under paragraphs (b), (c), or (d) of this section.

(b) *Plant-Specific Orders by the Commission.*

While this Appendix is in effect, unless a modification is necessary to secure compliance with the Commission's regulations applicable and in effect at the time this Appendix was issued, or to assure adequate protection of the public health and safety or the common defense and security,

and special circumstances exist under 50.12(a), the Commission may not impose new or different requirements by plant-specific order on any part of the design of a specific plant referencing the DCD if that part is within the scope of the DCD. With respect to Tier 1 modifications, in addition to the factors listed in § 50.12(a), the Commission shall consider whether the special circumstances which § 50.12(a) requires to be present outweigh any decrease in safety that may result from the reduction in standardization caused by the plant-specific order.

(c) *Plant-Specific Changes to Tier 1 by a License Applicant or Licensee.*

(1) A license applicant or licensee who references this Appendix may request an exemption from one or more elements of Tier 1. The Commission may grant such a request only if it determines that the exemption will comply with the requirements of 10 C.F.R. § 50.12(a). In addition to the factors listed in § 50.12(a), the Commission shall consider whether the special circumstances which § 50.12(a) requires to be present outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption.

(2) A request for an exemption by a license applicant shall be subject to litigation in the same manner as other plant-specific information in the license applicant's safety analysis report (*e.g.*, in a combined license proceeding).

(3) A request for an exemption by a licensee shall be part of a license amendment and shall be subject to litigation in the same manner as applications for license amendments under 10 C.F.R. § 50.90 (*e.g.*, in a combined license amendment proceeding).

(d) *Plant-Specific Changes to Tier 2 by a License Applicant or Licensee.*

(1) A license applicant or licensee who references this Appendix may make changes to Tier 2, without prior Commission approval, unless the proposed change involves a change to Tier 1, a change to the technical specifications incorporated in the license for the plant, or an unreviewed safety question as defined in section A.3 of this Appendix.

(2) Changes made without prior Commission approval pursuant to paragraph (d)(1) of this section shall be documented in accordance with section A.13 of this Appendix. Such changes by a license applicant shall not be subject to litigation in a proceeding for a Part 52 combined license or in a licensing proceeding under Part 50 except upon a *prima*

facie showing that there was a failure to comply with the requirements of paragraph (d)(1) in making the changes. Such changes by the holder of a combined license shall not be subject to litigation in a proceeding under 10 C.F.R. § 52.103 except upon a *prima facie* showing that there was a failure to comply with the requirements of paragraph (d)(1) in making the changes and a *prima facie* showing that one or more of the acceptance criteria in the ITAAC have not been, or will not be, met because of the changes.

(3) Proposed changes to the technical specifications incorporated in the license for the plant shall be the subject of an application for a license amendment in accordance with 10 C.F.R. § 50.59(c).

(4) Proposed changes involving unreviewed safety questions as defined in section A.3 of this appendix shall be subject to approval by the Commission as follows:

(i) Such changes by a license applicant shall be identified in the license applicant's safety analysis report, and shall be subject to litigation in the same manner as other plant-specific information in the license application.

(ii) Such changes by a licensee shall be the subject of a request for an exemption as part of a license amendment and shall be subject to litigation in the same manner as applications for license amendments under 10 C.F.R. § 50.90.

A.12 [Reserved]

A.13 Recordkeeping

(a) A license applicant or licensee that references the ABWR design certification must maintain records of all changes under Section A.11(d)(1). These records must contain the type of information described in 10 C.F.R. § 50.59(b)(1).

(b) A license applicant or licensee that references the ABWR design certification must maintain and submit semi-annual reports of all changes to the facility under section A.11(d) of this Appendix until the license applicant or licensee receives either an operating license under 10 C.F.R. Part 50 or the Commission makes its findings under 10 C.F.R. § 52.103. Records must be maintained and submitted in accordance with the recordkeeping requirements of 10 C.F.R. § 50.59 thereafter.

(c) A license applicant or licensee that references the ABWR design certification must maintain all records

required by this section in an auditable form and make them available for NRC inspection until its license application is withdrawn or its license expires.

A.14 [Reserved]

A.15 Inspections, Tests, Analyses, and Acceptance Criteria

(a) *Effectiveness of ITAAC.* The ITAAC contained in Tier 1 are effective only for a combined license under Part 52 that references this Appendix. For such a license, the ITAAC are effective only until the NRC authorizes fuel load pursuant to 10 C.F.R. § 52.103.

(b) *Implementation.* Prior to authorization of fuel load, an applicant for or a holder of a combined license may proceed at its own risk with design, procurement, construction, or preoperational test activities, even though the NRC staff has not determined that the ITAAC have been satisfied.

(c) *Corrective Actions.* A holder of a combined license may take corrective actions to demonstrate compliance with the ITAAC.

(d) *Noncomformances with Quality Assurance Requirements.* A nonconformance with an applicable quality assurance requirement (such as nonconformance with a requirement related to training or documentation) is not material to an ITAAC unless the nonconformance precludes a finding of compliance with the acceptance criteria of the ITAAC.

A.16 [Reserved]

A.17 Environmental Findings

Pursuant to the National Environmental Policy Act of 1969, the Commission has determined that for the design described in the DCD:

(a) All reasonable design features have been considered to reduce the radiological environmental impacts from normal operations, including expected operational occurrences, for the design described in the DCD, and no further evaluation of such features or impacts shall be performed in any environmental report, environmental assessment, environmental impact statement or other environmental analysis prepared in connection with issuance of a license for a nuclear power plant referencing this Appendix;

(b) All reasonable design features have been considered to reduce the probability of occurrence of a severe accident involving substantial damage to the reactor core and to mitigate the consequences of such an accident should one occur;

(c) No cost-effective severe accident design alternatives have been identified to further prevent or mitigate the consequences of a severe accident involving substantial damage to the core; and

(d) No further evaluation of severe accident design features for the design described in this Appendix, including alternatives for preventing or mitigating the consequences of severe accidents, shall be performed in any environmental report, environmental assessment, environmental impact statement or other environmental analysis prepared in connection with issuance of a license for a nuclear power plant referencing this Appendix.

(ABWRRULE.710)