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FINAL REPLY:

Dr. Ronald L. Simard  
Nuclear Energy Institute (NEI)

TO:

Vietti-Cook, SECY

FOR SIGNATURE OF :

\*\* GRN \*\*

CRC NO: 01-0206

DESC:

10 CFR Part 52 Rulemaking

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DATE: 04/18/01

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SPECIAL INSTRUCTIONS OR REMARKS:

For Appropriate Action.





NUCLEAR ENERGY INSTITUTE

**Dr. Ronald L. Simard**  
Senior Director, Business  
Services Department  
Business Operations Division

April 3, 2001

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
Attention: Rulemakings and Adjudication Staff  
Subject: 10 CFR Part 52 Rulemaking

In a September 3, 1999, letter, the NRC solicited stakeholder comments and suggestions on the forthcoming update of 10 CFR Part 52. A productive series of public meetings has been held on the subject over the last few months. These meetings have been very constructive and helpful in providing an understanding of the changes that are needed to Part 52 to incorporate lessons learned from the design certification rulemakings and to facilitate efficient siting and licensing of new nuclear plants in a restructured business environment.

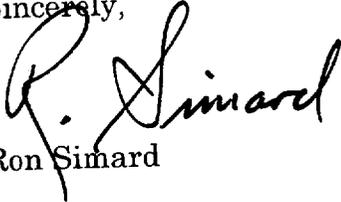
One result of these interactions has been the identification of a substantial number of additional Part 52 changes beyond the eleven identified in the staff's September 1999 letter to stakeholders. We recognize that the NRC staff may require more time to consider and incorporate these additional items into the upcoming notice of proposed rulemaking, which we understand is scheduled for July. As we have emphasized in our public meetings, we consider it more important for the proposed rule to be as clear and complete as possible than to adhere to the current NOPR schedule. Accordingly, we recommend the NRC staff accept a reasonable delay (on the order of 60 days) in the rulemaking schedule to ensure that the most is made of this singular opportunity to prepare the Part 52 licensing processes for the future.

Enclosure 1 is a comprehensive list of rulemaking items/issues that have been identified by either the NRC staff or by our Part 52 Licensing Issues Task Force. This enclosure briefly identifies the status of each item and the affected Part 52 section (if any). Specific industry recommendations for modifying Part 52 are provided by Enclosure 2. This enclosure includes a detailed mark-up of the rule, including Appendix O and Appendix A (typical of each design certification rule). Earlier versions of Enclosure 1 and the mark-up of Part 52 have been provided to the staff as a basis for discussion in public meetings on December 14, 2000, and February 16 and March 7 of this year.

Secretary, U.S. Nuclear Regulatory Commission  
April 3, 2001  
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We look forward to further interactions with the NRC staff to ensure the clarity and completeness of the Part 52 update rulemaking. If there are any questions concerning the enclosures, please contact me at 202-739-8128 ([rls@nei.org](mailto:rls@nei.org)) or Russ Bell at 202-739-8087 ([rjb@nei.org](mailto:rjb@nei.org)).

Sincerely,

A handwritten signature in black ink that reads "R. Simard". The signature is written in a cursive style with a large, looped initial "R".

Ron Simard

Enclosures

c: Jerry Wilson  
Geary Mizuno  
Carol Gallagher

**Items Related to Part 52 “Lessons Learned” Rulemaking—March 30, 2001**

<u>Rulemaking Item</u>	<u>Status or Comment</u>	Done?	<u>Affected Section</u>
<b>NRC staff items identified in September 3, 2000 letter</b>			
1.	Delete Appendices M, N, O, and Q from Part 50. These appendices were intended to be moved from Part 50 to Part 52 when Part 52 was created. Deleting these provisions from Part 50 will eliminate the redundancy that currently exists.	Agree provided the SOC make clear that no options are foreclosed, eg, seeking a Part 50 CP or OL that references a certified design.	x  Part 50, Apps. M, N, O & Q
2.	Delete 10 CFR 52.43(c) and 52.45(c). These provisions can be deleted because the nuclear plant designers and NRC staff now have sufficient experience with design certification reviews so that reliance on the Appendix O process is no longer needed.	Industry prefers to retain modified provisions. We agree that an FDA should be an option but not a prerequisite.  Also, deletion recommended for 52.47(b)(2)(ii)	x  Modified §§52.43(c) & 52.45(c)  Deleted 52.47(b)(2)(ii)
3.	Move 10 CFR 52.63(c) to Section 52.73 or 52.79. This provision applies to applicants for combined licenses, not standard design certifications.	Agree. Recommend move to §52.79. See item 3a. NRC considering also retaining 52.63(c) because DCRs may be referenced in a CP/OL.	x  §52.79(b)(3) (new para)
3.a	Consider the need to modify/delete the last sentence of relocated 52.63(c), “This information may be acquired by appropriate arrangements with the design certification applicant.”	Sentence is OK as is in 52.63(c). However, in §52.79, it states the obvious (that the onus is on the COL applicant to provide all necessary technical info), and is not essential to the rule (the language is permissive). Thus, sentence is not included in proposed new §52.79(b)(3).	x  new §52.79(b)(3)
4.	Add a provision to Part 52 analogous to the current Section 50.9, which would apply to applicants for and holders of design certifications, and possibly to applicants for and holders of early site permits.	Recommend incorporation of Part 50-like general provisions, as appropriate, and as modified for Part 52 purposes.	X  New 52.4, 52.6 and 52.7

<u>Rulemaking Item</u>		<u>Status or Comment</u>	Done?	<u>Affected Section</u>
4.5	(Identified at Dec. 14 mtg.) NRC considering specifying under general provisions, possibly in §52.5, which Part 50 sections apply, eg, 50.3, 50.4, 50.5, 50.7, 50.9, 50.110, 50.111.			
5.	Require a licensee, who has been authorized to operate under 10 CFR 52.103(g), to have financial protection under Part 140, as is currently required of holders of operating licenses under Part 50.	52.97(a) refers to 50.40 which requires that financial protection requirements be satisfied. Thus no change to Part 52 is necessary.  NEI plans to work w/NRC to separately identify needed changes to Part 140 (and other 10 CFR) to accommodate merchant nuclear plant applications.	x	None
6.	Change the title of 10 CFR Part 52 to "Licensing Processes." Part 52 contains many licensing processes, in addition to early site permits, standard design certifications, and combined licenses. The new title will be more representative of Part 52.	Recommend Part 52 be titled, "Alternative Licensing Processes for NPPs"	x	Title
7.	Whether the design certification vendor (holder) has any ongoing obligation <i>after the design certification rule is codified</i> to inform <i>the</i> NRC of error and newly discovered information that brings into question the safety of the certified design.	See item 4.	x	
8.	The desirability of requiring that the operational requirements in Title 10, as applied to holders of combined licenses, become effective only after the Commission has made the finding under 10 CFR 52.103(g). NRC staff noted during Dec. 14 mtg. that 52.99 and 52.103 provisions should be looked at for duplication, overlap, and coherence.	52.83 modified to reflect that the 52.103g finding (not the findings under 52.99) as the point at which operational regulations generally become effective; SOC and guidance can reinforce that certain requirements will take effect prior to the 103(g) finding.	x	None

<u>Rulemaking Item</u>		<u>Status or Comment</u>	Done?	<u>Affected Section</u>
9.	The desirability of requiring holders of ESPs to periodically update throughout the duration of an ESP, emergency planning information and plans that were approved as part of an ESP.	No change to Part 52 recommended. It is more appropriate for a COL applicant who references the ESP to supply any EP updates at that time. ESP renewal applicants would update ESP info at time of renewal per 52.29. NRC may identify ESP update options in NOPR (eg, none or voluntary).	x	None
10.	The desirability of adopting some or all of the revisions to 10 CFR 50.59 in the similar Tier 2 change process for Appendices A, B and C (Section VIII.B.5) to 10 CFR Part 52 (see Section N of Attachment 1 to SECY-99-130, dated May 12, 1999).	Agree that Appendices should be updated to conform to revised 10 CFR 50.59 change process.	x	Apps A,B,C Sec.VIII.5.b
11.	The desirability of allowing construction permit applicants under 10 CFR Part 50 to reference design certification rule under 10 CFR Part 52.	Agree that a CP applicant should be able to reference a design certification. For purposes of NOPR, new §52.62b provides strawman approach to non-applicability of ITAAC under Part 50.		New §52.62a  New §52.62b
<b>NRC staff items identified in SECY-00-0092</b>				
11.1a	Add requirement that COL applicants submit a plant-specific PRA	We agree on the NRC vision for a plant-specific PRA at COL that supplements the DC PRA with any changes that affect the DC PRA plus site-specific (interface) design information.	x	New 52.79(b)(4)
11.1b	Possible inclusion of COL requirement to update and maintain the plant-specific PRA (Issue identified at Feb. 16 meeting)	We do not agree that such a requirement is needed as evidenced by the lack of such a requirement on operating plants. As a practical matter, all recognize that future licensees will update and maintain their plant specific PRA. Imposing a new operational requirement is beyond the scope of the Part 52 rulemaking.		None.

<u>Rulemaking Item</u>		<u>Status or Comment</u>	Done?	<u>Affected Section</u>
11.1c	Possible inclusion of requirements for PRA quality. (Issue identified at Feb. 16 meeting)	We do not agree that such a requirement is needed. Guidance could state that PRAs submitted at COL are expected to be consistent in quality and depth with the referenced DC PRA (if any).		None.
11.2a	Add requirement that COL holders certify that ITAAC have been met	Proposed incorporation of DCR ITAAC verification provisions as expanded 52.99 includes requirement for licensee notification of ITAAC completion.	x	Expanded 52.99
11.2b	“Certification” (oath and affirmation) vs. “notification”	Notification is sufficient. Proposed rule language states that NRC notification would be by a “designated officer or manager of the licensee.”	x	Proposed 52.99(b)
<b>Industry items identified at Dec. 14 public meeting</b>				
12.	Modify Subpart A to state that NRC will issue an ESP for a site that has already been issued a CP or OL without reconsidering previously approved siting issues (except in accordance with the Backfit Rule).	New §52.16 proposed (clarified based on March 7 discussions). NRC expressed concerns about proposal for backfit protection.		New §52.16
13.	Modify Subpart C to state that NRC will issue a COL for a reactor located at a site with an operating reactor without reconsidering previously approved programmatic issues adopted by the COL applicant.	Promotes safety through implementation of standard on-site programs such as FFD, training, security, EP, QA, etc. New §52.80 proposed (clarified based on March 7 discussions). NRC has backfit concerns similar to Item 12		New §52.80
14.	Modify Part 52 (eg, 52.103) to support reviews, hearings, and phased schedules for construction and operation of reactor modules at a site.	NRC agrees conceptually that a COL would be granted on a facility and that modular facilities would be inspected and authorized on a module by-module basis. Revised §52.103(h) proposed.	x	Revised 52.103(h)

<u>Rulemaking Item</u>		<u>Status or Comment</u>	Done?	<u>Affected Section</u>
15.	Revise 52.79 to allow a COL applicant referencing a certified design to submit a plant specific DCD rather than an FSAR. See also 15.a.	NRC agrees	x	Revised §52.79(b)
15.a (new)	Revise 52.47 to allow design certification applicants to submit a generic DCD vice an FSAR	NRC agrees	x	New §52.47(c)
16.	Change 52.83 to allow for a 40 year COL duration from the date of the 52.103 finding, <i>vice</i> the 52.99 findings.	EPACT changes sought by NRC in last two legislative cycles to clarify intent. NEI support needed for '02		Modified §52.83
17.	Consideration of the scope of, and procedures for, design certification renewal was deferred until after the rules were issued. Will they be considered as part of this rulemaking? (Note typo in 52.59 with respect to regulations in effect at time "or" renewal.	Industry considers 52.59 to be adequate. SOC and guidance should clarify that NRC review for DC renewal will be limited to proposed design changes, material insights from operating experience and other new material info arising since the design was certified. No <i>de novo</i> review.	X	None.
18.	Revise Appendix O to state (a) that an FDA shall be valid for 15 years and may be renewed, (b) that an application for an FDA would not be required to have ITAAC.	The FDA should have the same regulatory approval time frame as a design certification whether or not design certification is sought for the design. This is because the NRC review is the same in either case. NRC requested additional rationale for this position.	x	a) App. O, Item 5 b) App. O, Item 3
19.	Modify Subpart A to (a) explicitly allow for the transfer of ESPs and (b) state that ownership of a site is not required to obtain an ESP.	NRC questioned the need for rule changes. Industry recommends changes for clarity.		(a) New §52.36 (b) New 52.17(b)4

	<u>Rulemaking Item</u>	<u>Status or Comment</u>	Done?		<u>Affected Section</u>
20.	Revise Subpart C to allow for completion of DAC at the COL application stage.	Guidance and SOC should describe that completed DAC may be transformed into typical construction verification ITAAC at COL. NRC agrees in concept that DCR ITAAC may be completed at COL and that a rule change would be needed to accommodate this. The COL hearing takes the place of the 103(g) hearing for such ITAAC. COL applicants would specify which DCR ITAAC are complete. No changes necessary to Appendices A, B or C.	x		Modified §52.79(c)
21.	Given that Subpart C allows for COL applications that do not reference a certified design, consider asking for comments on how this would work, for example a) The change process (especially with respect to PRA and severe accident information, the change process for plant-specific ITAAC, the change process during construction) b) Applicability of operational programs and tech specs during construction c) Termination of ITAAC following authorization of operation	(a) New 52.98 proposed to incorporate COL change process applicable to FSARs and DCDs. SOC and guidance should clarify that the Tier 2 change process would apply to plant-specific information in the COL.  (b) See item 8  (c) Expanded 52.99 proposed.	X   X  X		New 52.98     Expanded 52.99
22.	Errata on DC rules.	These are editorial and typographical changes.  Note that vendors have identified errata to NRC for Apps. A &B, but not C (AP600).	x		Apps. A,B,C

<u>Rulemaking Item</u>	<u>Status or Comment</u>	Done?	<u>Affected Section</u>
<b>Additional industry items for revised Part 52</b>			
23.	Consider incorporating DCR general provisions into Subpart C as appropriate	Description of DCD, Tier 1 and Tier 2 added to new 52.47(c); DCR change process provisions incorporated into 52.98; ITAAC verification provisions incorporated into expanded 52.99.  NRC questioned advisability of codifying two-tier structure for all future DCs.	x  new 52.47(c); new 52.98; expanded 52.99
24.	Changes necessary to resolve scope of COL ITAAC, including the need for ITAAC on operational programs	No rule changes proposed. Guidance and SOC should clarify scope of required COL ITAAC. Staff stated their view that ITAAC are required on matters traditionally included in readiness findings. NEI outlined plans to provide a white paper favoring an alternate interpretation and to seek early Commission resolution of this issue.	None
25.	Clarifications necessary to support expedited construction inspection, eg, to §52.99	No rule changes proposed. Guidance needed on ITAAC verification process. See also Item 31.	x None
26.	Consider whether changes are needed to accommodate optional use by DCR or COL applicants of risk-informed regulations (Option 2 or Option 3) or future risk-informed operational requirements.	Guidance should say that future Part 50 regulations, including risk-informed regulations, would apply to future licensees as appropriate. Licensee would seek simultaneous exemptions, as needed, from DCR requirements.	X None.
27.	Clarify Subpart A concerning the extent of required description of the type of facility to be constructed on the site	NRC agreed in concept.	X Modified §52.17a.2

<u>Rulemaking Item</u>		<u>Status or Comment</u>	Done?	<u>Affected Section</u>
28.	Revise Subpart C to allow for combining of licenses		x	New §52.82
29.	Incorporate 50.12 analog on Exemptions, into Part 52 general provisions	See item 4.	x	New 52.7
30.	Modify §52.8 and 52.113 to include additional sections		x	Modified §§52.8 and 52.113(b)
<b>Additional Issues</b>				
31.	<b>Identified During Feb. 16 Public meeting</b>  Further discussion needed of approaches to 52.99 and 52.103 findings regarding ITAAC completion, eg, number and timing of hearing opportunities and clarification of NRC staff vs Commission findings.	It is recommended that the NOPR request stakeholder comments on this issue.		None.
32.	<b>Identified During March 7 Public meeting</b>  Eliminate Subpart A requirement to consider alternate sites as part of ESP applications.	Subpart A revision proposed. NRC indicated this may be addressed via separate rulemaking on alternate sites		Modified 52.17(a)(2) and 52.18
33.	Consider modifying 52.51(b) hearing process requirements	No changes proposed.	x	None

**PROPOSED REVISIONS TO 10 CFR PART 52**

**PART 52 – EARLY SITE PERMITS; STANDARD DESIGN CERTIFICATIONS;  
AND COMBINED LICENSES/ALTERNATIVE LICENSING PROCESSES FOR  
NUCLEAR POWER PLANTS**

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**SECTION 52.1 SCOPE.**

This part governs the issuance of early site permits, standard design certifications, and combined licenses for nuclear power facilities licensed under Section 103 or 104b of the Atomic Energy Act of 1954, as amended (68 Stat. 919), and Title II of the Energy Reorganization Act of 1974 (88 Stat. 1242). This part also gives notice to all persons who knowingly provide to any holder of or applicant for an early site permit, standard design certification, or combined license, or to a contractor, subcontractor, or consultant of any of them, components, equipment, materials, or other goods or services, that relate to the activities of a holder of or applicant for an early site permit, standard design certification, or combined license, subject to this part, that they may be individually subject to NRC enforcement action for violation of § 52.9.

**SECTION 52.3 DEFINITIONS.**

As used in this part,

- (a) Combined license means a combined construction permit and operating license with conditions for a nuclear power facility issued pursuant to subpart C of this part.
- (b) Early site permit means a Commission approval, issued pursuant to subpart A of this part, for a site or sites for one or more nuclear power facilities.
- (c) Standard design means a design which is sufficiently detailed and complete to support certification in accordance with subpart B of this part, and which is usable for a multiple number of units or at a multiple number of sites without reopening or repeating the review.
- (d) Standard design certification, design certification, or certification means a Commission approval, issued pursuant to subpart B of this part, of a standard design for a nuclear power facility. A design so approved may be referred to as a certified standard design.
- (e) All other terms in this part have the meaning set out in 10 CFR 50.2, or section 11 of the Atomic Energy Act, as applicable.

**SECTION 52.4 EMPLOYEE PROTECTION**

- (a) Discrimination by a Commission licensee, an applicant for a Commission license, or a contractor or subcontractor of a Commission licensee or applicant against an employee for engaging in certain protected activities is prohibited. Discrimination includes discharge and other actions that relate to compensation, terms, conditions, or privileges of employment. The protected activities are established in section 211 of the Energy Reorganization Act of 1974, as amended, and in

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general are related to the administration or enforcement of a requirement imposed under the Atomic Energy Act or the Energy Reorganization Act.

- (1) The protected activities include but are not limited to:
  - (i) Providing the Commission or his or her employer information about alleged violations of either of the statutes named in paragraph (a) introductory text of this section or possible violations of requirements imposed under either of those statutes;
  - (ii) Refusing to engage in any practice made unlawful under either of the statutes named in paragraph (a) introductory text or under these requirements if the employee has identified the alleged illegality to the employer;
  - (iii) Requesting the Commission to institute action against his or her employer for the administration or enforcement of these requirements;
  - (iv) Testifying in any Commission proceeding, or before Congress, or at any Federal or State proceeding regarding any provision (or proposed provision) of either of the statutes named in paragraph (a) introductory text.
  - (v) Assisting or participating in, or is about to assist or participate in, these activities.

(2) These activities are protected even if no formal proceeding is actually initiated as a result of the employee assistance or participation.

(3) This section has no application to any employee alleging discrimination prohibited by this section who, acting without direction from his or her employer (or the employer's agent), deliberately causes a violation of any requirement of the Energy Reorganization Act of 1974, as amended, or the Atomic Energy Act of 1954, as amended.

(b) Any employee who believes that he or she has been discharged or otherwise discriminated against by any person for engaging in protected activities specified in paragraph (a)(1) of this section may seek a remedy for the discharge or discrimination through an administrative proceeding in the Department of Labor. The administrative proceeding must be initiated within 180 days after an alleged violation occurs. The employee may do this by filing a complaint alleging the violation with the Department of Labor, Employment Standards Administration, Wage and Hour Division. The Department of Labor may order reinstatement, back pay, and compensatory damages.

(c) A violation of paragraph (a), (e), or (f) of this section by a Commission licensee, an applicant for a Commission license, or a contractor or subcontractor of a Commission licensee or applicant may be grounds for --

- (1) Denial, revocation, or suspension of the license.
- (2) Imposition of a civil penalty on the licensee or applicant.
- (3) Other enforcement action.

(d) Actions taken by an employer, or others, which adversely affect an employee may be predicated upon nondiscriminatory grounds. The prohibition applies when the adverse action occurs because the employee has engaged in protected activities. An employee's engagement in protected activities does not automatically render

him or her immune from discharge or discipline for legitimate reasons or from adverse action dictated by nonprohibited considerations.

(e)

(1) Each licensee and each applicant for a license shall prominently post the revision of NRC Form 3, "Notice to Employees," referenced in 10 CFR 19.11(c). This form must be posted at locations sufficient to permit employees protected by this section to observe a copy on the way to or from their place of work. Premises must be posted not later than 30 days after an application is docketed and remain posted while the application is pending before the Commission, during the term of the license, and for 30 days following license termination.

(2) Copies of NRC Form 3 may be obtained by writing to the Regional Administrator of the appropriate U.S. Nuclear Regulatory Commission Regional Office listed in Appendix D to Part 20 of this chapter or by calling the NRC Information and Records Management Branch at (301) 415 - 7230.

(f) No agreement affecting the compensation, terms, conditions, or privileges of employment, including an agreement to settle a complaint filed by an employee with the Department of Labor pursuant to section 211 of the Energy Reorganization Act of 1974, as amended, may contain any provision which would prohibit, restrict, or otherwise discourage an employee from participating in protected activity as defined in paragraph (a)(1) of this section including, but not limited to, providing information to the NRC or to his or her employer on potential violations or other matters within NRC's regulatory responsibilities.

#### SECTION 52.5 INTERPRETATIONS.

Except as specifically authorized by the Commission in writing, no interpretation of the meaning of the regulations in this part by any officer or employee of the Commission other than a written interpretation by the General Counsel will be recognized to be binding upon the Commission.

#### SECTION 52.6 – COMPLETENESS AND ACCURACY OF INFORMATION

(a) Information provided to the Commission by an applicant for or holder of an early site permit, standard design certification, or combined license or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the holder shall be complete and accurate in all material respects.

(b) Each applicant for a combined license, early site permit, or standard design certification, and each holder of a combined license, shall notify the Commission of information identified by the applicant or holder as having for the regulated activity a significant implication for public health and safety or common defense and security. An applicant or holder violates this paragraph only if the applicant or holder fails to notify the Commission of information that the applicant or holder has identified as having a significant implication for public health and safety or common defense and security. Notification shall be provided to the Commission within two working days of identifying the information. This

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- requirement is not applicable to information which is already required to be provided to the Commission by other reporting or updating requirements.
- (c) If a holder of an early site permit identifies information having for the regulated activity a significant implication for public health and safety or common defense and security, the holder shall notify the Commission of the information (or provide corrected information) at the time it submits an application for renewal of the permit or submits an application for a construction permit or combined license for a facility to be located on the site. A holder violates this paragraph only if the holder has identified that the information has a significant implication for public health and safety or common defense and security and fails to include this information or corrected information in the application.
- (d) If, following issuance of a standard design certification, the applicant for the certification identifies information having for the regulated activity a significant implication for public health and safety or common defense and security, the applicant shall provide the information to any person who has contracted with the applicant to supply the certified design for use by the person under § 52.73 of subpart C of this part. If such person applies for a construction permit or combined license and references the certified design, the person shall notify the Commission of the information (or provide corrected information) at the time it submits an application for the construction permit or combined license. An applicant for design certification violates this paragraph only if the applicant has identified that the information has a significant implication for public health and safety or common defense and security and fails to provide that information to a person who has contracted with the applicant and applied for a construction permit or combined license referencing the certified design.

#### SECTION 52.7 – EXEMPTIONS

The Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

#### SECTION 52.8 INFORMATION COLLECTION REQUIREMENTS: OMB APPROVAL.

- (a) The Nuclear Regulatory Commission has submitted the information collection requirements contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act (44 U.S.C. 3501 et seq.). The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. OMB has approved the information collection requirements contained in this part under control number 3150-0151.
- (b) The approved information collection requirements contained in this part appear in §§ 52.6, 52.15, 52.16, 52.17, 52.29, 52.35, 52.36, 52.45, 52.47, 52.57, 52.62, 52.63, 52.75, 52.77, 52.78, 52.79, 52.80, 52.82, 52.91, 52.97, 52.98, 52.99, 52.103, and appendices A, B, and C.

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and  
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## SECTION. 52.9 DELIBERATE MISCONDUCT.

- (a) Any holder of, or applicant for, an early site permit, standard design certification, or combined license, including its employees, contractors, subcontractors, or consultants and their employees, who knowingly provides to any holder of, or applicant for, an early site permit, standard design certification, or combined license, or to a contractor, subcontractor or consultant of any of them, equipment, materials, or other goods or services that relate to the activities of a holder of, or applicant for, an early site permit, standard design certification or combined license in this part, may not:
- (1) Engage in deliberate misconduct that causes or would have caused, if not detected, a holder of, or applicant for, an early site permit, standard design certification, or combined license, to be in violation of any rule, regulation, or order; or any term, condition, or limitation of any permit, certification or license issued by the Commission; or
  - (2) Deliberately submit to the NRC, a holder of, or applicant for, an early site permit, standard design certification, or combined license, or a contractor, subcontractor, or consultant of any of them, information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.
- (b) A person who violates paragraph (a)(1) or (a)(2) of this section may be subject to enforcement action in accordance with the procedures in 10 CFR part 2, subpart B.
- (c) For the purposes of paragraph (a)(1) of this section, deliberate misconduct by a person means an intentional act or omission that the person knows:
- (1) Would cause a holder of, or applicant for, an early site permit, standard design certification, or combined license, to be in violation of any rule, regulation, or order; or any term, condition, or limitation, of any license issued by the Commission; or
  - (2) Constitutes a violation of a requirement, procedure, instruction, contract, purchase order, or policy of a holder of, or applicant for, an early site permit, certified design or combined license, or a contractor or subcontractor of any of them.

## SUBPART A – EARLY SITE PERMITS

### SECTION 52.11 SCOPE OF SUBPART.

This subpart sets out the requirements and procedures applicable to Commission issuance of early site permits for approval of a site or sites for one or more nuclear power facilities separate from the filing of an application for a construction permit or combined license for such a facility.

### SECTION 52.13 RELATIONSHIP TO SUBPART F OF 10 CFR PART 2 AND APPENDIX Q OF THIS PART.

The procedures of this subpart do not replace those set out in subpart F of 10 CFR part 2 or appendix Q of this part. Subpart F applies only when early review of site suitability issues is sought in connection with an application for a permit to construct certain power

facilities. Appendix Q applies only when NRC staff review of one or more site suitability issues is sought separately from and prior to the submittal of a construction permit. A Staff Site Report issued under appendix Q in no way affects the authority of the Commission or the presiding officer in any proceeding under subpart F or G of 10 CFR part 2. Subpart A applies when any person who may apply for a construction permit under 10 CFR part 50 or for a combined license under 10 CFR part 52 seeks an early site permit from the Commission separately from an application for a construction permit or a combined license for a facility.

#### SECTION 52.15 - FILING OF APPLICATIONS

- (a) Any person who may apply for a construction permit under 10 CFR part 50, or for a combined license under 10 CFR part 52, may file with the Director of Nuclear Reactor Regulation an application for an early site permit. An application for an early site permit may be filed notwithstanding the fact that an application for a construction permit or a combined license has not been filed in connection with the site or sites for which a permit is sought.
- (b) The application must comply with the filing requirements of 10 CFR 50.30 (a), (b), and (f) as they would apply to an application for a construction permit. The following portions of § 50.4, which is referenced by § 50.30(a)(1), are applicable: paragraphs (a), (b) (1)-(3), (c), (d), and (e).

#### SECTION 52.16 – EARLY SITE PERMITS FOR LICENSED SITES

- (a) An application for an early site permit may be filed for a site for which a license or construction permit has been issued.
- (b) The application may incorporate by reference all or part of the current licensing basis for the site, to the extent that it pertains to the siting issues specified in § 52.17.
- (c) Safety information incorporated by reference shall be augmented to include, to the extent applicable:
  - (1) significant new information that materially affects the ability of the site to support the additional nuclear facility as described in the early site permit application;
  - (2) information regarding the cumulative radiological impacts of the existing facility and the facility as described in the early site permit application (to the extent that the information is available);
  - (3) an analysis of the potential safety impacts of the existing facility on the suitability of the site for the facility as described in the early site permit application;
  - (4) an analysis of the potential safety impacts on the existing facility from the facility as described in the early site permit application; and
  - (5) information that addresses regulations applicable to siting issues that became effective after licensing of the existing facility, to the extent that such regulations are not addressed by the current licensing basis.
- (d) Environmental information incorporated by reference shall be augmented to include, to the extent applicable:

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- (1) significant new information relevant to environmental concerns bearing on the ability of the site to support the additional nuclear facility as described in the early site permit application; and
- (2) information regarding the cumulative environmental impacts of the existing facility and the facility as described in the early site permit application (to the extent that the information is available).
- (e) The Commission shall treat as resolved those matters incorporated by reference under paragraph (c) of this section, except to the extent that those matters are subject to new information under subparagraphs (c)(1) – (5) of this section. In addition, the Commission may impose a change in the application with respect to the information incorporated by reference, to the extent that the change satisfies the criteria in 10 CFR 50.109.
- (f) The Commission shall treat as resolved those matters incorporated by reference under paragraph (d) of this section, except to the extent that those matters are subject to new information under subparagraphs (d)(1) – (2) of this section. In preparing its environmental impact statement for the early site permit, the Commission will adopt the applicable portions of the existing environmental impact statement associated with the site (including any supplements), modified or supplemented as necessary to reflect the Commission's review of the new information identified under subparagraphs (d)(1) – (2) of this section.

## SECTION 52.17 - CONTENTS OF APPLICATIONS

- (a)
  - (1) The application must contain the information required by § 50.33 (a) through (d), the information required by § 50.34 (a)(12) and (b)(10), and to the extent approval of emergency plans is sought under paragraph (b)(2)(ii) of this section, the information required by § 50.33 (g) and (j), and § 50.34 (b)(6)(v) of this chapter. The application must also contain a description and safety assessment of the site on which the facility is to be located. The assessment must contain an analysis and evaluation of the major structures, systems, and components of the facility that bear significantly on the acceptability of the site under the radiological consequence evaluation factors identified in § 50.34(a)(1) of this chapter. Site characteristics must comply with part 100 of this chapter. In addition, the application should describe the following:
    - (i) The number, type, and thermal power level of the facilities for which the site may be used
    - (ii) The boundaries of the site
    - (iii) The proposed general location of each facility on the site
    - (iv) The anticipated maximum levels of radiological and thermal effluents each facility will produce
    - (v) The type of cooling systems, intakes, and outflows that may be associated with each facility
    - (vi) The seismic, meteorological, hydrologic, and geologic characteristics of the proposed site;

- (vii) The location and description of any nearby industrial, military, or transportation facilities and routes; and
- (viii) The existing and projected future population profile of the area surrounding the site.

(2) If the applicant has not yet selected the type of facility to be located on the site, the safety assessment and additional information provided in the application shall identify and be based on the range of possible types of facilities or shall provide bounding parameters for possible facilities to be located on the site.

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(23) A complete environmental report as required by 10 CFR 51.45 and 51.50 must be included in the application, provided, however, that such environmental report must focus on the environmental effects of construction and operation of a reactor, or reactors, which have characteristics that fall within the postulated site parameters, and provided further that the report need not include an assessment of the benefits (for example, need for power) of the proposed action, ~~but must include an evaluation of alternative sites to determine whether there is any obviously superior alternative to the site proposed.~~

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(b)

- (1) The application must identify physical characteristics unique to the proposed site, such as egress limitations from the area surrounding the site, that could pose a significant impediment to the development of emergency plans.
- (2) The application may also either:
  - (i) Propose major features of the emergency plans, such as the exact sizes of the emergency planning zones, that can be reviewed and approved by NRC in consultation with FEMA in the absence of complete and integrated emergency plans; or
  - (ii) Propose complete and integrated emergency plans for review and approval by the NRC, in consultation with the Federal Emergency Management Agency, in accord with the applicable provisions of 10 CFR 50.47.
- (3) Under paragraphs (b)(1) and (2)(i) of this section, the application must include a description of contacts and arrangements made with local, state, and federal governmental agencies with emergency planning responsibilities. Under the option set forth in paragraph (b)(2)(ii) of this section, the applicant shall make good faith efforts to obtain from the same governmental agencies certifications that: (i) The proposed emergency plans are practicable; (ii) These agencies are committed to participating in any further development of the plans, including any required field demonstrations, and (iii) that these agencies are committed to executing their responsibilities under the plans in the event of an emergency. The application must contain any certifications that have been obtained. If these certifications cannot be obtained, the application must contain information, including a utility plan, sufficient to show that the proposed plans nonetheless provide reasonable assurance that adequate protective

measures can and will be taken, in the event of a radiological emergency at the site.

(4) The application shall include information describing the applicant's ownership interest in or control over the site. If the applicant does not have an ownership interest in or control over the site, the application shall describe the applicant's plans to obtain such interest or control, or shall provide documentation from the current owner authorizing the applicant to file the application.

19.b

- (c) If the applicant wishes to be able to perform, after grant of the early site permit, the activities at the site allowed by 10 CFR 50.10(e)(1) without first obtaining the separate authorization required by that section, the applicant shall propose, in the early site permit, a plan for redress of the site in the event that the activities are performed and the site permit expires before it is referenced in an application for a construction permit or a combined license issued under subpart C of this part. The application must demonstrate that there is reasonable assurance that redress carried out under the plan will achieve an environmentally stable and aesthetically acceptable site suitable for whatever non-nuclear use may conform with local zoning laws.

#### SECTION 52.18 - STANDARDS FOR REVIEW OF APPLICATIONS

Applications filed under this subpart will be reviewed according to the applicable standards set out in 10 CFR part 50 and its appendices and part 100 as they apply to applications for construction permits for nuclear power plants. In particular, the Commission shall prepare an environmental impact statement during review of the application, in accordance with the applicable provisions of 10 CFR part 51, provided, however, that the draft and final environmental impact statements prepared by the Commission focus on the environmental effects of construction and operation of a reactor, or reactors, which have characteristics that fall within the postulated site parameters, and provided further that the statements need not include an assessment of the benefits (for example, need for power) of the proposed action, ~~but must include an evaluation of alternative sites to determine whether there is any obviously superior alternative to the site proposed.~~ The Commission shall determine, after consultation with the Federal Emergency Management Agency, whether the information required of the applicant by § 52.17(b)(1) shows that there is no significant impediment to the development of emergency plans, whether any major features of emergency plans submitted by the applicant under § 52.17(b)(2)(i) are acceptable, and whether any emergency plans submitted by the applicant under § 52.17(b)(2)(ii) provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

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#### SECTION 52.19 - PERMIT AND RENEWAL FEES

The fees charged for the review of an application for the initial issuance or renewal of an early site permit are set forth in 10 CFR 170.21 and shall be paid in accordance with 10 CFR 170.12.

#### SECTION 52.21 - HEARINGS

An early site permit is a partial construction permit and is therefore subject to all procedural requirements in 10 CFR part 2 which are applicable to construction permits, including the requirements for docketing in §§ 2.101(a)(1)-(4), and the requirements for issuance of a notice of hearing in §§ 2.104(a), (b)(1)(iv) and (v), (b)(2) to the extent it runs parallel to (b)(1)(iv) and (v), and (b)(3), provided that the designated sections may not be construed to require that the environmental report or draft or final environmental impact statement include an assessment of the benefits of the proposed action. In the hearing, the presiding officer shall also determine whether, taking into consideration the site criteria contained in 10 CFR part 100, a reactor, or reactors, having characteristics that fall within the parameters for the site can be constructed and operated without undue risk to the health and safety of the public. All hearings conducted on applications for early site permits filed under this part are governed by the procedures contained in subpart G of part 2.

#### SECTION 52.23 - REFERRAL TO THE ACRS

The Commission shall refer a copy of the application to the Advisory Committee on Reactor Safeguards (ACRS). The ACRS shall report on those portions of the application which concern safety.

#### SECTION 52.24 - ISSUANCE OF EARLY SITE PERMIT

After conducting a hearing under § 52.21 of this subpart and receiving the report to be submitted by the Advisory Committee on Reactor Safeguards under § 52.23 of this subpart, and upon determining that an application for an early site permit meets the applicable standards and requirements of the Atomic Energy Act and the Commission's regulations, and that notifications, if any, to other agencies or bodies have been duly made, the Commission shall issue an early site permit, in the form and containing the conditions and limitations, as the Commission deems appropriate and necessary.

#### SECTION 52.25 - EXTENT OF ACTIVITIES PERMITTED

- (a) If an early site permit contains a site redress plan, the holder of the permit, or the applicant for a construction permit or combined license who references the permit, may perform the activities at the site allowed by 10 CFR 50.10(e)(1) without first obtaining the separate authorization required by that section, provided that the final environmental impact statement prepared for the permit has concluded that the activities will not result in any significant adverse environmental impact which cannot be redressed.
- (b) If the activities permitted by paragraph (a) of this section are performed at any site for which an early site permit has been granted, and the site is not referenced in an application for a construction permit or a combined license issued under subpart C of this part while the permit remains valid, then the early site permit must remain in effect solely for the purpose of site redress, and the holder of the permit shall redress the site in accordance with the terms of the site redress plan required by § 52.17(c). If, before redress is complete, a use not envisaged in the redress plan is found for the site or parts thereof, the holder of the permit shall carry out the redress plan to the greatest extent possible consistent with the alternate use.

#### SECTION 52.27 - DURATION OF PERMIT

- (a) Except as provided in paragraph (b) of this section, an early site permit issued under this subpart may be valid for not less than ten nor more than twenty years from the date of issuance.
- (b)
  - (1) An early site permit continues to be valid beyond the date of expiration in any proceeding on a construction permit application or a combined license application which references the early site permit and is docketed either before the date of expiration of the early site permit, or, if a timely application for renewal of the permit has been filed, before the Commission has determined whether to renew the permit.
  - (2) An early site permit also continues to be valid beyond the date of expiration in any proceeding on an operating license application which is based on a construction permit which references the early site permit, and in any hearing held under § 52.103 of this part before operation begins under a combined license which references the early site permit.
- (c) An applicant for a construction permit or combined license may, at its own risk, reference in its application a site for which an early site permit application has been docketed but not granted.

#### SECTION 52.29 - APPLICATION FOR RENEWAL

- (a) Not less than twelve nor more than thirty-six months prior to the end of the initial twenty-year period, or any later renewal period, the permit holder may apply for a renewal of the permit. An application for renewal must contain all information necessary to bring up to date the information and data contained in the previous application.
- (b) Any person whose interests may be affected by renewal of the permit may request a hearing on the application for renewal. The request for a hearing must comply with 10 CFR 2.714. If a hearing is granted, notice of the hearing will be published in accordance with 10 CFR 2.703.
- (c) An early site permit, either original or renewed, for which a timely application for renewal has been filed, remains in effect until the Commission has determined whether to renew the permit. If the permit is not renewed, it continues to be valid in certain proceedings in accordance with the provisions of § 52.27(b).
- (d) The Commission shall refer a copy of the application for renewal to the Advisory Committee on Reactor Safeguards (ACRS). The ACRS shall report on those portions of the application which concern safety and shall apply the criteria set forth in § 52.31.

#### SECTION 52.31 - CRITERIA FOR RENEWAL

- (a) The Commission shall grant the renewal if the Commission determines that the site complies with the Atomic Energy Act and the Commission's regulations and orders applicable and in effect at the time the site permit was originally issued, and any new requirements the Commission may wish to impose after a determination that there is a substantial increase in overall protection of the public health and safety or the common defense and security to be derived from the new

requirements and that the direct and indirect costs of implementation of those requirements are justified in view of this increased protection.

- (b) A denial of renewal on this basis does not bar the permit holder or another applicant from filing a new application for the site which proposes changes to the site or the way in which it is used which correct the deficiencies cited in the denial of the renewal.

#### SECTION 52.33 - DURATION OF RENEWAL

Each renewal of an early site permit may be for not less than ten nor more than twenty years.

#### SECTION 52.35 - USE OF SITE FOR OTHER PURPOSES

A site for which an early site permit has been issued under this subpart may be used for purposes other than those described in the permit, including the location of other types of energy facilities. The permit holder shall inform the Director of Nuclear Reactor Regulation of any significant uses for the site which have not been approved in the early site permit. The information about the activities must be given to the Director in advance of any actual construction or site modification for the activities. The information provided could be the basis for imposing new requirements on the permit, in accordance with the provisions of § 52.39. If the permit holder informs the Director that the holder no longer intends to use the site for a nuclear power plant, the Director shall terminate the permit.

#### SECTION 52.36 – TRANSFER OF AN EARLY SITE PERMIT

- (a) An early site permit, or any right thereunder, shall not be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the permit to any person, unless the Commission shall give its consent in writing.
- (b) An application for transfer of an early site permit shall include information demonstrating that the applicant satisfies the requirements of this section.
- (c) The Commission may require any person who submits an application for transfer of an early site permit pursuant to the provisions of this section to file a written consent from the existing holder of the early site permit or a certified copy of an order or judgment of a court of competent jurisdiction attesting to the person's right (subject to the licensing requirements of the Act and these regulations) to possession of the early site permit.
- (d) Except in conjunction with an application for transfer of an early site permit, a person who is not the holder of the early site permit may not apply for a construction permit or a combined license at the same site.
- (e) After appropriate notice to interested persons, including the existing holder of the early site permit, and observance of such procedures as may be required by the Act or regulations or orders of the Commission, the Commission will approve an application for the transfer of an early site permit, if the Commission determines:
- (1) That the proposed transferee satisfies the requirements of this section;  
and

19.a

- (2) That transfer of the permit is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

SECTION 52.37 - REPORTING OF DEFECTS AND NONCOMPLIANCE;  
REVOCATION, SUSPENSION, MODIFICATION OF PERMITS FOR CAUSE  
For purposes of part 21 and 10 CFR 50.100, an early site permit is a construction permit.

SECTION 52.39 - FINALITY OF EARLY SITE PERMIT DETERMINATIONS

(a)

- (1) Notwithstanding any provision in 10 CFR 50.109, while an early site permit is in effect under §§ 52.27 or 52.33 the Commission may not impose new requirements, including new emergency planning requirements, on the early site permit or the site for which it was issued, unless the Commission determines that a modification is necessary either to bring the permit or the site into compliance with the Commission's regulations and orders applicable and in effect at the time the permit was issued, or to assure adequate protection of the public health and safety or the common defense and security.
- (2) In making the findings required for issuance of a construction permit, operating license, or combined license, or the findings required by § 52.103 of this part, if the application for the construction permit, operating license, or combined license references an early site permit, the Commission shall treat as resolved those matters resolved in the proceeding on the application for issuance or renewal of the early site permit, unless a contention is admitted that a reactor does not fit within one or more of the site parameters included in the site permit, or a petition is filed which alleges either that the site is not in compliance with the terms of the early site permit, or that the terms and conditions of the early site permit should be modified.
  - (i) A contention that a reactor does not fit within one or more of the site parameters included in the site permit may be litigated in the same manner as other issues material to the proceeding.
  - (ii) A petition which alleges that the site is not in compliance with the terms of the early site permit must include, or clearly reference, official NRC documents, documents prepared by or for the permit holder, or evidence admissible in a proceeding under subpart G of part 2, which show, prima facie, that the acceptance criteria have not been met. The permit holder and NRC staff may file answers to the petition within the time specified in 10 CFR 2.730 for answers to motions by parties and staff. If the Commission, in its judgment, decides, on the basis of the petitions and any answers thereto, that the petition meets the requirements of this paragraph, that the issues are not exempt from adjudication under 5 U.S.C. 554(a)(3), that genuine issues of material fact are raised, and that settlement or other informal resolution of the issues is not possible, then the

- genuine issues of material fact raised by the petition must be resolved in accordance with the provisions in 554, 556, and 557 which are applicable to determining application for initial licenses.
- (iii) A petition which alleges that the terms and conditions of the early site permit should be modified will be processed in accord with 10 CFR 2.206. Before construction commences, the Commission shall consider the petition and determine whether any immediate action is required. If the petition is granted, then an appropriate order will be issued. Construction under the construction permit or combined license will not be affected by the granting of the petition unless the order is made immediately effective.
  - (iv) Prior to construction, the Commission shall find that the terms of the early site permit have been met.
- (b) An applicant for a construction permit, operating license, or combined license who has filed an application referencing an early site permit issued under this subpart may include in the application a request for a variance from one or more elements of the permit. In determining whether to grant the variance, the Commission shall apply the same technically relevant criteria as were applicable to the application for the original or renewed site permit. Issuance of the variance must be subject to litigation during the construction permit, operating license, or combined license proceeding in the same manner as other issues material to those proceedings.

## **SUBPART B – STANDARD DESIGN CERTIFICATIONS**

### **SECTION 52.41 - SCOPE OF SUBPART**

This subpart set out the requirements and procedures applicable to Commission issuance of rules granting standard design certification for nuclear power facilities separate from the filing of an application for a construction permit or combined license for such facility.

### **SECTION 52.43 - RELATIONSHIP TO APPENDICES M, N, AND O OF THIS PART**

- (a) Appendix M to this part governs the issuance of licenses to manufacture nuclear power reactors to be installed and operated at sites not identified in the manufacturing license application. Appendix N governs licenses to construct and operate nuclear power reactors of duplicate design at multiple sites. These appendices may be used independently of the provisions in this subpart unless the applicant also wishes to use a certified standard design approved under this subpart.
- (b) Appendix O governs the staff review and approval of preliminary and final standard designs. A staff approval under appendix O in no way affects the authority of the Commission or the presiding officer in any proceeding under subpart G of 10 CFR part 2. Subpart B of part 52 governs Commission approval, or certification, of standard designs by rulemaking.
- (c) A final design approval under appendix O is not a prerequisite for certification of a standard design under this subpart. ~~An application for a final design approval must state whether the applicant intends to seek certification of the design. If the~~

applicant does so intend, the application for the final design approval must, in addition to containing the information required by appendix O, comply with the applicable requirements of part 52, subpart B, particularly §§ 52.45 and 52.47.

#### SECTION 52.45 - FILING OF APPLICATIONS

- (a)
- (1) Any person may seek a standard design certification for an essentially complete nuclear power plant design which is an evolutionary change from light water reactor designs of plants which have been licensed and in commercial operation before the effective date of this rule.
  - (2) Any person may also seek a standard design certification for a nuclear power plant design which differs significantly from the light water reactor designs described in paragraph (a)(1) of this section or utilizes simplified, inherent, passive, or other innovative means to accomplish its safety functions.
- (b) An application for certification may be filed notwithstanding the fact that an application for a construction permit or combined license for such a facility has not been filed.
- (c)
- (1) ~~Because a~~ final design approval under appendix O of this part is not a prerequisite for certification of a standard design; ~~a~~ person who seeks such a certification ~~and does not hold, or has not applied for, may, but is not required to, apply for~~ a final design approval, ~~shall file with the Director of Nuclear Reactor Regulation an application for a final design approval and certification.~~
  - (2) Any person who seeks certification but already holds, or has applied for, a final design approval, also shall file with the Director of Nuclear Reactor Regulation an application for certification, because the NRC staff may require that the information before the staff in connection with the review for the final design approval be supplemented for the review for certification.
- (d) The applicant must comply with the filing requirements of 10 CFR 50.30(a) (1)-(4), and (6) and 50.30(b) as they would apply to an application for a nuclear power plant construction permit. The following portions of § 50.4, which is referenced by § 50.30(a)(1), are applicable to the extent technically relevant: paragraphs (a); (b), except for paragraphs (6); (c); and (e).

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#### SECTION 52.47 - CONTENTS OF APPLICATIONS

- (a) The requirements of this paragraph apply to all applications for design certification.
- (1) An application for design certification must contain:
    - (i) The technical information which is required of applicants for construction permits and operating licenses by 10 CFR part 20, part 50 and its appendices, and parts 73 and 100, and which is technically relevant to the design and not site-specific

- (ii) Demonstration of compliance with any technically relevant portions of the Three Mile Island requirements set forth in 10 CFR 50.34(f)
  - (iii) The site parameters postulated for the design, and an analysis and evaluation of the design in terms of such parameters
  - (iv) Proposed technical resolutions of those Unresolved Safety Issues and medium- and high-priority Generic Safety Issues which are identified in the version of NUREG-0933 current on the date six months prior to application and which are technically relevant to the design
  - (v) A design-specific probabilistic risk assessment
  - (vi) Proposed tests, inspections, analyses, and acceptance criteria which are necessary and sufficient to provide reasonable assurance that, if the tests, inspections and analyses are performed and the acceptance criteria met, a plant which references the design is built and will operate in accordance with the design certification.
  - (vii) The interface requirements to be met by those portions of the plant for which the application does not seek certification. These requirements must be sufficiently detailed to allow completion of the final safety analysis and design-specific probabilistic risk assessment required by paragraph (a)(1)(v) of this section
  - (viii) Justification that compliance with the interface requirements of paragraph (a)(1)(vii) of this section is verifiable through inspection, testing (either in the plant or elsewhere), or analysis. The method to be used for verification of interface requirements must be included as part of the proposed tests, inspections, analyses, and acceptance criteria required by paragraph (a)(1)(vi) of this section; and
  - (ix) A representative conceptual design for those portions of the plant for which the application does not seek certification, to aid the staff in its review of the final safety analysis and probabilistic risk assessment required by paragraph (a)(1)(v) of this section, and to permit assessment of the adequacy of the interface requirements called for by paragraph (a)(1)(vii) of this subsection.
- (2) The application must contain a level of design information sufficient to enable the Commission to judge the applicant's proposed means of assuring that construction conforms to the design and to reach a final conclusion on all safety questions associated with the design before the certification is granted. The information submitted for a design certification must include performance requirements and design information sufficiently detailed to permit the preparation of acceptance and inspection requirements by the NRC, and procurement specifications and construction and installation specifications by an applicant. The Commission will require, prior to design certification, that information normally contained in certain procurement specifications and construction and installation specifications be completed and available for audit if such

information is necessary for the Commission to make its safety determination.

- (3) The staff shall advise the applicant on whether any technical information beyond that required by this section must be submitted.
- (b) This paragraph applies, according to its provisions, to particular applications:
- (1) The application for certification of a nuclear power plant design which is an evolutionary change from light water reactor designs of plants which have been licensed and in commercial operation before the effective date of this rule must provide an essentially complete nuclear power plant design except for site-specific elements such as the service water intake structure and the ultimate heat sink.
  - (2)
    - (i) Certification of a standard design which differs significantly from the light water reactor designs described in paragraph (b)(1) of this section or utilizes simplified, inherent, passive, or other innovative means to accomplish its safety functions will be granted only if
      - (A)
        - (1) The performance of each safety feature of the design has been demonstrated through either analysis, appropriate test programs, experience, or a combination thereof
        - (2) Interdependent effects among the safety features of the design have been found acceptable by analysis, appropriate test programs, experience, or a combination thereof
        - (3) Sufficient data exist on the safety features of the design to assess the analytical tools used for safety analyses over a sufficient range of normal operating conditions, transient conditions, and specified accident sequences, including equilibrium core conditions; and
        - (4) The scope of the design is complete except for site-specific elements such as the service water intake structure and the ultimate heat sink; or
      - (B) There has been acceptable testing of an appropriately sited, full-size, prototype of the design over a sufficient range of normal operating conditions, transient conditions, and specified accident sequences, including equilibrium core conditions. If the criterion in paragraph (b)(2)(i)(A)(4) of this section is not met, the testing of the prototype must demonstrate that the non-certified portion of the plant cannot significantly affect the safe operation of the plant.
    - ~~(ii) The application for final design approval of a standard design of the type described in this subsection must propose the specific testing necessary to support certification of the design, whether the~~

testing be prototype testing or the testing required in the alternative by paragraph (b)(2)(i)(A) of this section.

The Appendix O final design approval of such a design must identify the specific testing required for certification of the design.

- (3) An application seeking certification of a modular design must describe the various options for the configuration of the plant and site, including variations in, or sharing of, common systems, interface requirements, and system interactions. The final safety analysis and the probabilistic risk assessment should also account for differences among the various options, including any restrictions which will be necessary during the construction and startup of a given module to ensure the safe operation of any module already operating.

(c) Form of the safety analysis in the application

- (1) In substitution for the final safety analysis report required by 10 CFR 50.34(b), the application for a standard design certification shall contain a generic design control document containing Tier 1 and Tier 2 information.
- (2) Tier 1 is the portion of the design-related information contained in the generic DCD that is approved and certified. The design descriptions, interface requirements, and site parameters are derived from Tier 2 information. Tier 1 information includes:
  - (i) Definitions and general provisions;
  - (ii) Design descriptions;
  - (iii) Inspections, tests, analyses, and acceptance criteria (ITAAC);
  - (iv) Significant site parameters; and
  - (v) Significant interface requirements.
- (3) Tier 2 is the portion of the design-related information contained in the generic DCD that is approved but not certified. Tier 2 information includes:
  - (i) Remaining information required by 10 CFR 52.47, with the exception of generic technical specifications, conceptual design information, and the probabilistic risk assessment;
  - (ii) Information required for a final safety analysis report under 10 CFR 50.34; and
  - (iii) Supporting information on the inspections, tests, and analyses that will be performed to demonstrate that the acceptance criteria in the ITAAC have been met.

15.a  
and  
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#### SECTION 52.48 - STANDARDS FOR REVIEW OF APPLICATIONS

Applications filed under this subpart will be reviewed for compliance with the standards set out in 10 CFR part 20, part 50 and its appendices, and parts 73 and 100 as they apply to applications for construction permits and operating licenses for nuclear power plants, and as those standards are technically relevant to the design proposed for the facility.

#### SECTION 52.49 - FEES FOR REVIEW OF APPLICATIONS

The fees charged for the review of an application for the initial issuance or renewal of a standard design certification are set out in 10 CFR 170.21 and shall be paid in accordance with 10 CFR 170.12.

#### SECTION 52.51 - ADMINISTRATIVE REVIEW OF APPLICATIONS

- (a) A standard design certification is a rule that will be issued in accordance with the provisions of subpart H of 10 CFR part 2, as supplemented by the provisions of this section. The Commission shall initiate the rulemaking after an application has been filed under § 52.45 and shall specify the procedures to be used for the rulemaking.
- (b) 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 either 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.
- (c) The decision in such a hearing will be based only on information on which all parties have had an opportunity to comment, either in response to the notice of proposed rulemaking or in the informal hearing. Notwithstanding anything in 10 CFR 2.790 to the contrary, 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 CFR part 50, provided that the design certification shall be published in chapter I of this title.

#### SECTION 52.53 - REFERRAL TO THE ACRS

The Commission shall refer a copy of the application to the Advisory Committee on Reactor Safeguards (ACRS). The ACRS shall report on those portions of the application which concern safety.

#### SECTION 52.54 - ISSUANCE OF STANDARD DESIGN CERTIFICATION

After conducting a rulemaking proceeding under § 52.51 on an application for a standard design certification and receiving the report to be submitted by the Advisory Committee on Reactor Safeguards under § 52.53, and upon determining that the application meets the applicable standards and requirements of the Atomic Energy Act and the Commission's regulations, the Commission shall issue a standard design certification in the form of a rule for the design which is the subject of the application.

#### SECTION 52.55 - DURATION OF CERTIFICATION

- (a) Except as provided in paragraph (b) of this section, a standard design certification issued pursuant to this subpart is valid for fifteen years from the date of issuance.
- (b) A standard design certification continues to be valid beyond the date of expiration in any proceeding on an application for a combined license or operating license which references the standard design certification and is docketed either before the date of expiration of the certification, or, if a timely application for renewal of the certification has been filed, before the Commission has determined whether to renew the certification. A design certification also continues to be valid beyond the date of expiration in any hearing held under § 52.103 before operation begins under a combined license which references the design certification.
- (c) An applicant for a construction permit or combined license may, at its own risk, reference in its application a design for which a design certification application has been docketed but not granted.

#### SECTION 52.57 - APPLICATION FOR RENEWAL

- (a) Not less than twelve nor more than thirty-six months prior to expiration of the initial fifteen-year period, or any later renewal period, any person may apply for renewal of the certification. An application for renewal must contain all information necessary to bring up to date the information and data contained in the previous application. The Commission will require, prior to renewal of certification, that information normally contained in certain procurement specifications and construction and installation specifications be completed and available for audit if such information is necessary for the Commission to make its safety determination. Notice and comment procedures must be used for a rulemaking proceeding on the application for renewal. The Commission, in its discretion, may require the use of additional procedures in individual renewal proceedings.
- (b) A design certification, either original or renewed, for which a timely application for renewal has been filed remains in effect until the Commission has determined whether to renew the certification. If the certification is not renewed, it continues to be valid in certain proceedings, in accordance with the provisions of § 52.55.
- (c) The Commission shall refer a copy of the application for renewal to the Advisory Committee on Reactor Safeguards (ACRS). The ACRS shall report on those portions of the application which concern safety and shall apply the criteria set forth in § 52.59.

#### SECTION 52.59 - CRITERIA FOR RENEWAL

- (a) The Commission shall issue a rule granting the renewal if the design, either as originally certified or as modified during the rulemaking on the renewal, complies with the Atomic Energy Act and the Commission's regulations applicable and in effect at the time the certification was issued, and any other requirements the Commission may wish to impose after a determination that there is a substantial increase in overall protection of the public health and safety or the common defense and security to be derived from the new requirements and that the direct and indirect costs of implementation of those requirements are justified in view

of this increased protection. In addition, the applicant for renewal may request an amendment to the design certification. The Commission shall grant the amendment request if it determines that the amendment will comply with the Atomic Energy Act and the Commission's regulations in effect at the time of renewal. If the amendment request entails such an extensive change to the design certification that an essentially new standard design is being proposed, an application for a design certification shall be filed in accordance with § 52.45 and 52.47 of this part.

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- (b) Denial of renewal does not bar the applicant, or another applicant, from filing a new application for certification of the design, which proposes design changes which correct the deficiencies cited in the denial of the renewal.

#### SECTION 52.61 - DURATION OF RENEWAL

Each renewal of certification for a standard design will be for not less than ten nor more than fifteen years.

#### SECTION 52.62 - REFERENCING A STANDARD DESIGN CERTIFICATION

- (a) A standard design certification may be referenced by an applicant for a combined license under subpart C of this part or by an applicant for a construction permit or operating license under 10 CFR part 50.
- (b) The inspections, tests, analyses and acceptance criteria in a standard design certification are not applicable to an applicant for a part 50 construction permit who references the certification. Prior to issuing an operating license, the Commission shall provide an opportunity for hearing on whether, and shall find that, construction of the plant has been completed in conformity with Tier 1 and Tier 2 of the plant-specific design control document, as amended.

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#### SECTION 52.63 - FINALITY OF STANDARD DESIGN CERTIFICATIONS

- (a)
  - (1) Notwithstanding any provision in 10 CFR 50.109, while a standard design certification is in effect under § 52.55 or 52.61, the Commission may not modify, rescind, or impose new requirements on the certification, whether on its own 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 certification or the referencing plants into compliance with the Commission's regulations applicable and in effect at the time the certification 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 the party which applied for the certification to request an informal hearing which uses the procedures described in § 52.51 of this subpart.
  - (2) Any modification the NRC imposes on a design certification rule under paragraph (a)(1) of this section will be applied to all plants referencing the certified design, except those to which the modification has been rendered technically irrelevant by action taken under paragraphs (a)(3), (a)(4), or (b) of this section.

- (3) While a design certification is in effect under § 52.55 or § 52.61, unless (i) a modification is necessary to secure compliance with the Commission's regulations applicable and in effect at the time the certification was issued, or to assure adequate protection of the public health and safety or the common defense and security, and (ii) special circumstances as defined in 10 CFR 50.12(a) are present, the Commission may not impose new requirements by plant-specific order on any part of the design of a specific plant referencing the design certification if that part was approved in the design certification. In addition to the factors listed in § 50.12(a), the Commission shall consider whether the special circumstances which § 50.12(a)(2) requires to be present outweigh any decrease in safety that may result from the reduction in standardization caused by the plant-specific order.
- (4) Except as provided in 10 CFR 2.758, in making the findings required for issuance of a combined license or operating license, or for any hearing under § 52.103, the Commission shall treat as resolved those matters resolved in connection with the issuance or renewal of a design certification.

(b)

- (1) An applicant or licensee who references a standard design certification may request an exemption from one or more elements of the design certification. The Commission may grant such a request only if it determines that the exemption will comply with the requirements of 10 CFR 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)(2) requires to be present outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption. The granting of an exemption on request of an applicant must be subject to litigation in the same manner as other issues in the operating license or combined license hearing.
- (2) Subject to 50.59, a licensee who references a standard design certification may make changes to the design of the nuclear power facility, without prior Commission approval, unless the proposed change involves a change to the design as described in the rule certifying the design. The licensee shall maintain records of all changes to the facility and these records must be maintained and available for audit until the date of termination of the license.

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~~(e) The Commission will require, prior to granting a construction permit, combined license, or operating license which references a standard design certification, that information normally contained in certain procurement specifications and construction and installation specifications be completed and available for audit if such information is necessary for the Commission to make its safety determinations, including the determination that the application is consistent with~~

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~~the certified design. This information may be acquired by appropriate arrangements with the design certification applicant.~~

## **SUBPART C – COMBINED LICENSES**

### **SECTION 52.71 - SCOPE OF SUBPART**

This subpart sets out the requirements and procedures applicable to Commission issuance of combined licenses for nuclear power facilities.

### **SECTION 52.73 - RELATIONSHIP TO SUBPARTS A AND B**

An application for a combined license under this subpart may, but need not, reference a standard design certification issued under subpart B of this part or an early site permit issued under subpart A of this part, or both. In the absence of a demonstration that an entity other than the one originally sponsoring and obtaining a design certification is qualified to supply such design, the Commission will entertain an application for a combined license which references a standard design certification issued under subpart B only if the entity that sponsored and obtained the certification supplies the certified design for the applicant's use.

### **SECTION 52.75 - FILING OF APPLICATIONS**

Any person except one excluded by 10 CFR 50.38 may file an application for a combined license for a nuclear power facility with the Director of Nuclear Reactor Regulation. The applicant shall comply with the filing requirements of 10 CFR 50.4 and 50.30 (a) and (b), except for paragraph (b)(6) of § 50.4, as they would apply to an application for a nuclear power plant construction permit. The fees associated with the filing and review of the application are set out in 10 CFR part 170.

### **SECTION 52.77 - CONTENTS OF APPLICATIONS; GENERAL INFORMATION**

The application must contain all of the information required by 10 CFR 50.33, as that section would apply to applicants for construction permits and operating licenses, and 10 CFR 50.33a, as that section would apply to an applicant for a nuclear power plant construction permit. In particular, the applicant shall comply with the requirement of § 50.33a(b) regarding the submission of antitrust information.

### **SECTION 52.78 - CONTENTS OF APPLICATIONS; TRAINING AND QUALIFICATION OF NUCLEAR POWER PLANT PERSONNEL**

- (a) Applicability. The requirements of this section apply only to the personnel associated with the operating phase of the combined licenses.
- (b) The application must demonstrate compliance with the requirements for training programs established in § 50.120 of this chapter.

### **SECTION 52.79 - CONTENTS OF APPLICATIONS; TECHNICAL INFORMATION**

- (a)
  - (1) In general, if the application references an early site permit, the application need not contain information or analyses submitted to the

Commission in connection with the early site permit, but must contain, in addition to the information and analyses otherwise required, information sufficient to demonstrate that the design of the facility falls within the parameters specified in the early site permit, and to resolve any other significant environmental issue not considered in any previous proceeding on the site or the design.

- (2) If the application does not reference an early site permit, the applicant shall comply with the requirements of 10 CFR 50.30(f) by including with the application an environmental report prepared in accordance with the provisions of subpart A of 10 CFR part 51.
  - (3) If the application does not reference an early site permit which contains a site redress plan as described in § 52.17(c), and if the applicant wishes to be able to perform the activities at the site allowed by 10 CFR 50.10(e)(1), then the application must contain the information required by § 52.17(c).
- (b) The application must contain the technically relevant information required of applicants for an operating license by 10 CFR 50.34.
- (1) If the application does not reference a certified design, the application must comply with the requirements of § 52.47(a)(2) for level of design information, and shall contain the technical information required by §§ 52.47(a)(1) (i), (ii), (iv), and (v) and (3), and, if the design is modular, § 52.47(b)(3).
  - (2) If the application references a certified design, the application must include a plant-specific design control document. The final safety analysis report and other required information may incorporate by reference the final safety analysis report for a certified standard design. The plant-specific design control document must include the information in the generic design control document, as modified by plant-specific departures and exemptions. In particular, an application referencing a certified design. Additionally, the plant-specific design control document must describe those portions of the design which are site-specific, such as the service water intake structure and the ultimate heat sink. An application referencing a certified design. The plant-specific design control document must also demonstrate compliance with the interface requirements established for the design under § 52.47(a)(1). The plant-specific design control document must clearly distinguish between those portions that are generic and those portions that are site-specific, and have available for audit procurement specifications and construction and installation specifications in accordance with § 52.47(a)(2). If the application does not reference a certified design, the application must comply with the requirements of § 52.47(a)(2) for level of design information, and shall contain the technical information required by §§ 52.47(a)(1) (i), (ii), (iv), and (v) and (3), and, if the design is modular, § 52.47(b)(3).
  - (3) The Commission will require, prior to granting a construction permit, combined license, or operating license which references a standard design certification, that information normally contained in certain procurement specifications and construction and installation specifications be

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completed and available for audit if such information is necessary for the Commission to make its safety determinations, including the determination that the application is consistent with the certified design.

- (4) If the application references a certified design, the application shall include a plant-specific probabilistic risk assessment. This assessment may be based upon the design-specific probabilistic risk assessment submitted under § 52.47(a)(1)(v), revised as necessary to account for site-specific design information and conditions.
- (c) The application for a combined license must include the proposed inspections, tests and analyses, including those applicable to emergency planning, which the licensee shall perform and the acceptance criteria therefor which are necessary and sufficient to provide reasonable assurance that, if the inspections, tests and analyses are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the combined license, the provisions of the Atomic Energy Act, and the NRC's regulations. Where the application references a certified standard design, the inspections, tests, analyses and acceptance criteria contained in the certified design must apply to those portions of the facility design which are covered by the design certification.
- (1) An application may include information demonstrating that one or more of the prescribed acceptance criteria in the standard design certification have been met.
- (2) This information shall be subject to review and hearings in a manner similar to other information in the application.
- (3) If the Commission finds that the acceptance criteria in question have been met, the matter shall be considered resolved and not subject to further review under § 52.99 or § 52.103.
- (d) The application must contain emergency plans which provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the site.
- (1) If the application references an early site permit, the application may incorporate by reference emergency plans, or major features of emergency plans, approved in connection with the issuance of the permit.
- (2) If the application does not reference an early site permit, or if no emergency plans were approved in connection with the issuance of the permit, the applicant shall make good faith efforts to obtain certifications from the local and State governmental agencies with emergency planning responsibilities (i) that the proposed emergency plans are practicable, (ii) that these agencies are committed to participating in any further development of the plans, including any required field demonstrations, and (iii) that these agencies are committed to executing their responsibilities under the plans in the event of an emergency. The application must contain any certifications that have been obtained. If these certifications cannot be obtained, the application must contain information, including a utility plan, sufficient to show that the proposed plans nonetheless provide reasonable assurance that adequate protective

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measures can and will be taken in the event of a radiological emergency at the site.

SECTION 52.80 – COMBINED LICENSES FOR SITES WITH EXISTING LICENSED FACILITIES OR FOR APPLICANTS HOLDING LICENSES FOR OTHER FACILITIES

- (a) An application for a combined license may be filed for a facility located at a site with an existing licensed facility or by an applicant that holds a license for an existing facility at another site.
- (b) If the application is for a facility located at a site with an existing licensed facility, the application may incorporate by reference the type of information described in § 52.16, subject to the requirements of that section.
- (c) The application may also incorporate by reference all or part of the type of information identified in 10 CFR 50.33(g); 50.34(b)(6)(i), (ii), (iv), and (v); 50.34(c); 50.34(d); 50.34(f)(2)(ii); and 50.34(f)(3)(i), (ii), (iii), and (vii), to the extent such information is contained in the current licensing basis of an existing licensed facility located at the same site or owned or operated by the same licensee. The information incorporated by reference shall be augmented to include:
- (1) information that addresses regulations applicable to the incorporated information that became effective after licensing of the existing facility, to the extent that such regulations are not addressed by the current licensing basis for the existing facility.
- (d) The Commission shall treat as resolved those matters incorporated by reference under paragraph (c) of this section, except to the extent that those matters are subject to new information under subparagraph (c)(1) of this section. In addition, the Commission may direct that a change be made in the application with respect to the information incorporated by reference under subparagraph (c)(1) of this section, to the extent that the change satisfies the criteria in 10 CFR 50.109.

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SECTION 52.81 - STANDARDS FOR REVIEW OF APPLICATIONS

Applications filed under this subpart will be reviewed according to the standards set out in 10 CFR parts 20, 50, 51, 55, 73, and 100 as they apply to applications for construction permits and operating licenses for nuclear power plants, and as those standards are technically relevant to the design proposed for the facility.

SECTION 52.82 – COMBINING APPLICATIONS AND LICENSES

- (a) An applicant may combine in one his several applications for different kinds of licenses under the regulations in this chapter.
- (b) The Commission may combine in a single license the activities of an applicant which would otherwise be licensed severally.

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SECTION 52.83 - APPLICABILITY OF PART 50 PROVISIONS

Unless otherwise specifically provided for in this subpart, all provisions of 10 CFR part 50 and its appendices applicable to holders of construction permits for nuclear power reactors, and 10 CFR 50.109, also apply to holders of combined licenses issued under this subpart. Similarly, all provisions of 10 CFR parts 50 and its appendices, and 171 applicable to holders of operating licenses also apply to holders of combined licenses issued under this subpart, once the Commission has made the findings required under § ~~52.99~~52.103(g), provided that, as applied to a combined license, 10 CFR 50.51 must require that the initial duration of the license may not exceed 40 years from the date on which the Commission makes the findings required under § ~~52.99~~52.103(g). However, any limitations contained in part 50 regarding applicability of the provisions to certain classes of facilities continue to apply. Provisions of 10 CFR part 50 that do not apply to holders of combined licenses issued under this subpart include §§ 50.55 (a), (b) and (d), and 50.58.

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#### SECTION 52.85 - ADMINISTRATIVE REVIEW OF APPLICATIONS

A proceeding on a combined license is subject to all applicable procedural requirements contained in 10 CFR part 2, including the requirements for docketing (§ 2.101) and issuance of a notice of hearing (§ 2.104). All hearings on combined licenses are governed by the procedures contained in part 2, subpart G.

#### SECTION 52.87 - REFERRAL TO THE ACRS

The Commission shall refer a copy of the application to the Advisory Committee on Reactor Safeguards (ACRS). The ACRS shall report on those portions of the application which concern safety and shall apply the criteria set forth in § 52.81, in accordance with the finality provisions of this part.

#### SECTION 52.89 - ENVIRONMENTAL REVIEW

If the application references an early site permit or a certified standard design, the environmental review must focus on whether the design of the facility falls within the parameters specified in the early site permit and any other significant environmental issue not considered in any previous proceeding on the site or the design. If the application does not reference an early site permit or a certified standard design, the environmental review procedures set out in 10 CFR part 51 must be followed, including the issuance of a final environmental impact statement, but excluding the issuance of a supplement under § 51.95(a).

#### SECTION 52.91 - AUTHORIZATION TO CONDUCT SITE ACTIVITIES

(a)

- (1) If the application references an early site permit which contains a site redress plan as described in § 52.17(c) the applicant is authorized by § 52.25 to perform the site preparation activities described in 10 CFR 50.10(e)(1).
- (2) If the application does not reference an early site permit which contains a redress plan, the applicant may not perform the site preparation activities allowed by 10 CFR 50.10(e)(1) without first submitting a site redress plan in accord with § 52.79(a)(3) and obtaining the separate authorization

required by 10 CFR 50.10(e)(1). Authorization must be granted only after the presiding officer in the proceeding on the application has made the findings and determination required by 10 CFR 50.10(e)(2) and has determined that the site redress plan meets the criteria in § 52.17(c).

- (3) Authorization to conduct the activities described in 10 CFR 50.10(e)(3)(i) may be granted only after the presiding officer in the combined license proceeding makes the additional finding required by 10 CFR 50.10(e)(3)(ii).
- (b) If, after an applicant for a combined license has performed the activities permitted by paragraph (a) of this section, the application for the license is withdrawn or denied, and the early site permit referenced by the application expires, then the applicant shall redress the site in accord with the terms of the site redress plan. If, before redress is complete, a use not envisaged in the redress plan is found for the site or parts thereof, the applicant shall carry out the redress plan to the greatest extent possible consistent with the alternate use.

#### SECTION 52.93 - EXEMPTIONS AND VARIANCES

- (a) Applicants for a combined license under this subpart, or any amendment to a combined license, may include in the application a request, under 10 CFR 50.12, for an exemption from one or more of the Commission's regulations, including any part of a design certification rule. The Commission shall grant such a request if it determines that the exemption will comply with the requirements of 10 CFR 50.12(a) or 52.63(b)(1) if the exemption includes any part of the design certification rule.
- (b) An applicant for a combined license, or any amendment to a combined license, who has filed an application referencing an early site permit issued under this subpart may include in the application a request for a variance from one or more elements of the permit. In determining whether to grant the variance, the Commission shall apply the same technically relevant criteria as were applicable to the application for the original or renewed site permit. Issuance of the variance must be subject to litigation during the combined license proceeding in the same manner as other issues material to that proceeding.

#### SECTION 52.97 - ISSUANCE OF COMBINED LICENSES

- (a) The Commission shall issue a combined license for a nuclear power facility upon finding that the applicable requirements of 10 CFR 50.40, 50.42, 50.43, 50.47, and 50.50 have been met, and that there is reasonable assurance that the facility will be constructed and operated in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's regulations.
- (b)
  - (1) The Commission shall identify within the combined license the inspections, tests, and analyses, including those applicable to emergency planning, that the licensee shall perform, and the acceptance criteria that, if met, are necessary and sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with

the license, the provisions of the atomic Energy Act, and the Commission's rules and regulations.

- (2)
  - (i) Any modification to, addition to, or deletion from the terms of a combined construction and operating license, including any modification to, addition to, or deletion from the inspections, tests, analyses, or related acceptance criteria contained in the license is a proposed amendment to the license. There must be an opportunity for a hearing on these amendments.
  - (ii) The Commission may issue and make immediately effective any amendment to a combined construction and operating license upon a determination by the Commission that the amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person. The amendment may be issued and made immediately effective in advance of the holding and completion of any required hearing. The amendment will be processed in accordance with the procedures specified in 10 CFR 50.91.

SECTION 52.98 – CHANGES IN THE FINAL SAFETY ANALYSIS REPORT OR PLANT-SPECIFIC DESIGN CONTROL DOCUMENT

(a) After issuance of a combined license, the licensee may make changes in the final safety analysis report (FSAR) or plant-specific design control document (DCD), as applicable, in accordance with the following process:

(1) Changes in the FSAR.

(i) Changes in the FSAR, not affecting resolution of a severe accident issue, shall be made in accordance with 10 CFR 50.59.

(ii) Changes affecting resolution of a severe accident issue identified in the FSAR, may be made without prior NRC approval, unless:

(A) There is a substantial increase in the probability of a severe accident such that a particular severe accident previously reviewed and determined to be not credible could become credible; or

(B) There is a substantial increase in the consequences to the public of a particular severe accident previously reviewed.

(2) Changes in the plant-specific DCD

(i) Changes in the generic standard design information in the plant-specific DCD shall be made in accordance with § 52.63 of subpart B of this part and the applicable design certification rule.

Notwithstanding the provisions in § 52.63 and the applicable design certification rule, the licensee may make a change in the generic standard design information in the plant-specific DCD without prior Commission approval, to the extent that the change implements a Commission rule or regulation that became effective after the effective date of the design certification rule.

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- (ii) Changes in the plant-specific information in the plant-specific DCD shall be made in accordance with the criteria in paragraph (a)(1) of this section.
- (b) Reporting of changes in the FSAR and plant-specific DCD
  - (1) Reports of changes in the FSAR
    - (i) After the Commission has made the finding under § 52.103(g) of this subpart, reports of changes and updates in the FSAR shall be made in accordance with 10 CFR 50.59(d) and 50.71(e).
    - (ii) Before the Commission has made the finding under § 52.103(g), reports of changes in the FSAR shall be made as follows:
      - (A) The report required by 10 CFR 50.59(d)(2) must be submitted quarterly.
      - (B) The update to the FSAR required by 10 CFR 50.71(e) must be submitted annually.
  - (2) Reports of changes in the plant-specific DCD
    - (i) Changes in the generic standard design information in the plant-specific DCD shall be reported in accordance with the applicable design certification rule.
    - (ii) Changes in the plant-specific information in the plant-specific DCD shall be reported in accordance with the same process used for reporting changes in the FSAR in paragraph (b)(1) of this section.

#### SECTION 52.99 - INSPECTION DURING CONSTRUCTION

- (a) The licensee shall perform and demonstrate conformance with the ITAAC before fuel load. With respect to activities subject to an ITAAC, an applicant for a license may proceed at its own risk with design and procurement activities, and a licensee may proceed at its own risk with design, procurement, construction, and preoperational activities, even though the NRC may not have found that any particular ITAAC has been satisfied.
- (b) A designated officer or manager of the licensee shall notify the NRC that the required inspections, tests, and analyses in the ITAAC have been successfully completed and that the corresponding acceptance criteria have been met.
- (c) In the event that an activity is subject to an ITAAC, and the licensee has not demonstrated that the ITAAC has been satisfied, the licensee may either take corrective actions to successfully complete that ITAAC, or request an exemption from the ITAAC in accordance with the design certification rule or an amendment of the ITAAC under § 52.97(b) of this part, as applicable.
- (d) After issuance of a combined license, the Commission shall ensure that the required inspections, tests, and analyses are performed and, prior to operation of the facility, shall find that the prescribed acceptance criteria are met. Holders of combined licenses shall comply with the provisions of 10 CFR 50.70 and 50.71. At appropriate intervals during construction, the NRC staff shall publish in the Federal Register notices of the successful completion of inspections, tests, and analyses. The NRC shall ensure that the required inspections, tests, and analyses in the ITAAC are performed. The NRC shall verify that the inspections, tests, and

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analyses referenced by the licensee have been successfully completed and, based solely thereon, find the prescribed acceptance criteria have been met. At appropriate intervals during construction, the NRC shall publish notices of the successful completion of ITAAC in the Federal Register.

- (e) After the Commission has made the finding required by § 52.103(g) of this subpart, the ITAAC do not, by virtue of their inclusion within the DCD or combined license, constitute regulatory requirements either for licensees or for renewal of the license; except for specific ITAAC, which are the subject of a § 52.103(a) hearing, their expiration will occur upon final Commission action in such proceeding.

#### SECTION 52.103 - OPERATION UNDER A COMBINED LICENSE

- (a) Not less than one hundred and eighty days before the date scheduled for initial loading of fuel into a plant by a licensee that has been issued a combined construction permit and operating license under subpart C of this part, the Commission shall publish in the Federal Register notice of intended operation. That notice shall provide that any person whose interest may be affected by operation of the plant, may within sixty days request the Commission to hold a hearing on whether the facility as constructed complies, or on completion will comply, with the acceptance criteria of the inspections, tests, analyses, and acceptance criteria (ITAAC) in the license.
- (b) A request for hearing under paragraph (a) of this section shall show, prima facie, that-
- (1) One or more of the acceptance criteria of the ITAAC in the combined license have not been, or will not be met; and
  - (2) The specific operational consequences of nonconformance that would be contrary to providing reasonable assurance of adequate protection of the public health and safety.
- (c) After receiving a request for a hearing, the Commission expeditiously shall either deny or grant the request. If the request is granted, the Commission shall determine, after considering petitioners prima facie showing and any answers thereto, whether during a period of interim operation, there will be reasonable assurance of adequate protection of the public health and safety. If the Commission determines that there is such reasonable assurance, it shall allow operation during an interim period under the combined license.
- (d) The Commission, in its discretion, shall determine appropriate hearing procedures, whether informal or formal adjudicatory, for any hearing under paragraph (a) of this section, and shall state its reasons therefor.
- (e) The Commission shall, to the maximum possible extent, render a decision on issues raised by the hearing request within one hundred and eighty days of the publication of the notice provided by paragraph (a) of this section or the anticipated date for initial loading of fuel into the reactor, whichever is later.
- (f) A petition to modify the terms and conditions of the combined license will be processed as a request for action in accord with 10 CFR 2.206. The petitioner shall file the petition with the Secretary of the Commission. Before the licensed activity allegedly affected by the petition (fuel loading, low power testing, etc.)

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- commences, the Commission shall determine whether any immediate action is required. If the petition is granted, then an appropriate order will be issued. Fuel loading and operation under the combined license will not be affected by the granting of the petition unless the order is made immediately effective.
- (g) Prior to operation of the facility, the Commission shall find that the acceptance criteria of the ITAAC in the combined license are met.
  - (h) If the combined license is for a modular design, and if the modular reactors are being constructed on different schedules, each reactor module may require a separate notice and opportunity for hearing under paragraph (a) of this section and a separate finding as construction proceeds that the ITAAC are met under paragraph (g) of this section. If an individual ITAAC has been met for all modules, the Commission will provide only one notice and opportunity for hearing, and will make only one finding, with respect to that ITAAC for all modules.

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## SUBPART D - VIOLATIONS

### SECTION 52.111 - VIOLATIONS

- (a) The Commission may obtain an injunction or other court order to prevent a violation of the provisions of-
  - (1) The Atomic Energy Act of 1954, as amended
  - (2) Title II of the Energy Reorganization Act of 1974, as amended; or
  - (3) A regulation or order issued pursuant to those Acts.
- (b) The Commission may obtain a court order for the payment of a civil penalty imposed under section 234 of the Atomic Energy Act:
  - (1) For violations of-
    - (i) Section 53, 57, 62, 63, 81, 82, 101, 103, 104, 107, or 109 of the Atomic Energy Act of 1954, as amended
    - (ii) Section 206 of the Energy Reorganization Act
    - (iii) Any rule, regulation, or order issued pursuant to the sections specified in paragraph (b)(1)(i) of this section
    - (iv) Any term, condition, or limitation of any license issued under the sections specified in paragraph (b)(1)(i) of this section.
  - (2) For any violation for which a license may be revoked under section 186 of the Atomic Energy Act of 1954, as amended.

### SECTION 52.113 - CRIMINAL PENALTIES

- (a) Section 223 of the Atomic Energy Act of 1954, as amended, provides for criminal sanctions for willful violation of, attempted violation of, or conspiracy to violate, any regulation issued under sections 161b, 161i, or 161o of the Act. For purposes of section 223, all the regulations in part 52 are issued under one or more of sections 161b, 161i, or 161o, except for the sections listed in paragraph (b) of this section.
- (b) The regulations in part 52 that are not issued under sections 161b, 161i, or 161o for the purposes of section 223 are as follows: §§ 52.1, 52.3, 52.4, 52.5, 52.7, 52.8, 52.11, 52.13, 52.15, 52.16, 52.17, 52.18, 52.19, 52.21, 52.23, 52.24, 52.27,

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52.29, 52.31, 52.33, 52.37, 52.39, 52.41, 52.43, 52.45, 52.47, 52.48, 52.49, 52.51,  
52.53, 52.54, 52.55, 52.57, 52.59, 52.61, 52.62, 52.71, 52.73, 52.75, 52.77, 52.78,  
52.79, 52.80, 52.81, 52.82, 52.83, 52.85, 52.87, 52.89, 52.93, 52.97, 52.103,  
52.111, and 52.113.

## **Appendix A To Part 52--Design Certification Rule for the U.S. Advanced Boiling Water Reactor**

### I. Introduction

Appendix A constitutes the standard design certification for the U.S. Advanced Boiling Water Reactor (ABWR) design, in accordance with 10 CFR Part 52, Subpart B. The applicant for certification of the U.S. ABWR design was GE Nuclear Energy.

### II. Definitions

- A. Generic design control document (generic DCD) means the document containing the Tier 1 and Tier 2 information and generic technical specifications that is incorporated by reference into this appendix.
- B. Generic technical specifications means the information, required by 10 CFR 50.36 and 50.36a, for the portion of the plant that is within the scope of this appendix.
- C. Plant-specific DCD means the document, maintained by an applicant or licensee who references this appendix, consisting of the information in the generic DCD, as modified and supplemented by the plant-specific departures and exemptions made under Section VIII of this appendix.
- D. Tier 1 means the portion of the design-related information contained in the generic DCD that is approved and certified by this appendix (hereinafter Tier 1 information). The design descriptions, interface requirements, and site parameters are derived from Tier 2 information. Tier 1 information includes:
  - 1. Definitions and general provisions;
  - 2. Design descriptions;
  - 3. Inspections, tests, analyses, and acceptance criteria (ITAAC);
  - 4. Significant site parameters; and
  - 5. Significant interface requirements.
- E. Tier 2 means the portion of the design-related information contained in the generic DCD that is approved but not certified by this appendix (hereinafter Tier 2 information). Compliance with Tier 2 is required, but generic changes to and plant-specific departures from Tier 2 are governed by Section VIII of this appendix. Compliance with Tier 2 provides a sufficient, but not the only acceptable, method for complying with Tier 1. Compliance methods differing from Tier 2 must satisfy the change process in Section VIII of this appendix. Regardless of these differences, an applicant or licensee must meet the

requirement in Section III.B to reference Tier 2 when referencing Tier 1. Tier 2 information includes:

1. Information required by 10 CFR 52.47, with the exception of generic technical specifications and conceptual design information;
2. Information required for a final safety analysis report under 10 CFR 50.34;
3. Supporting information on the inspections, tests, and analyses that will be performed to demonstrate that the acceptance criteria in the ITAAC have been met; and
4. Combined license (COL) action items (COL license information), which identify certain matters that shall be addressed in the site-specific portion of the final safety analysis report (FSAR) by an applicant who references this appendix. These items constitute information requirements but are not the only acceptable set of information in the FSAR. An applicant may depart from or omit these items, provided that the departure or omission is identified and justified in the FSAR. After issuance of a construction permit or COL, these items are not requirements for the licensee unless such items are restated in the FSAR.

F. Tier 2\* means the portion of the Tier 2 information, designated as such in the generic DCD, which is subject to the change process in VIII.B.6 of this appendix. This designation expires for some Tier 2\* information under VIII.B.6.

G. All other terms in this appendix have the meaning set out in 10 CFR 50.2, 10 CFR 52.3, or Section 11 of the Atomic Energy Act of 1954, as amended, as applicable.

### III. Scope and Contents

A. Tier 1, Tier 2, and the generic technical specifications in the U.S. ABWR Design Control Document, GE Nuclear Energy, Revision 4 dated March 1997, are approved for incorporation by reference by the Director of the Office of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of the generic DCD may be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. A copy is available for examination and copying at the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC 20555. Copies are also available for examination at the NRC Library, 11545 Rockville Pike, Rockville, Maryland 20582 and the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington DC.

B. An applicant or licensee referencing this appendix, in accordance with Section IV of this appendix, shall incorporate by reference and comply with the requirements

of this appendix, including Tier 1, Tier 2, and the generic technical specifications except as otherwise provided in this appendix. Conceptual design information, as set forth in the generic DCD, and the "Technical Support Document for the ABWR" are not part of this appendix. Tier 2 references to sections of the the probabilistic risk assessment (PRA) in the ABWR Standard Safety Analysis Report that relate to the probabilistic risk assessment do not incorporate the ~~PRA~~those sections into Tier 2.

- C. If there is a conflict between Tier 1 and Tier 2 of the DCD, then Tier 1 controls.
- D. If there is a conflict between the generic DCD and either the application for design certification of the U.S. ABWR design or NUREG091503, "Final Safety Evaluation Report related to the Certification of the Advanced Boiling Water Reactor Design," (FSER) and Supplement No. 1, then the generic DCD controls.
- E. Design activities for structures, systems, and components that are wholly outside the scope of this appendix may be performed using site-specific design parameters, provided the design activities do not affect the DCD or conflict with the interface requirements.

#### IV. Additional Requirements and Restrictions

- A. An applicant for a license that wishes to reference this appendix shall, in addition to complying with the requirements of 10 CFR 52.77, 52.78, and 52.79, comply with the following requirements:
  - 1. Incorporate by reference, as part of its application, this appendix;
  - 2. Include, as part of its application:
    - a. A plant-specific DCD containing the same information and utilizing the same organization and numbering as the generic DCD for the U.S. ABWR design, as modified and supplemented by the applicant's exemptions and departures;
    - b. The reports on departures from and updates to the plant-specific DCD required by X.B of this appendix;
    - c. Plant-specific technical specifications, consisting of the generic and site-specific technical specifications, that are required by 10 CFR 50.36 and 50.36a;
    - d. Information demonstrating compliance with the site parameters and interface requirements;
    - e. Information that addresses the COL action items; and

- f. Information required by 10 CFR 52.47(a) that is not within the scope of this appendix.
  - 3. Physically include, in the plant-specific DCD, the proprietary information and safeguards information referenced in the U.S. ABWR DCD.
- B. The Commission reserves the right to determine in what manner this appendix may be referenced by an applicant for a construction permit or operating license under 10 CFR Part 50.
- V. Applicable Regulations
  - A. Except as indicated in paragraph B of this section, the regulations that apply to the U.S. ABWR design are in 10 CFR Parts 20, 50, 73, and 100, codified as of May 2, 1997, that are applicable and technically relevant, as described in the FSER (NUREG091503) and Supplement No. 1.
  - B. The U.S. ABWR design is exempt from portions of the following regulations:
    - 1. Paragraph (f)(2)(iv) of 10 CFR 50.34--Separate Plant Safety Parameter Display Console;
    - 2. Paragraph (f)(2)(viii) of 10 CFR 50.34--Post-Accident Sampling for Boron, Chloride, and Dissolved Gases; and
    - 3. Paragraph (f)(3)(iv) of 10 CFR 50.34--Dedicated Containment Penetration.
    - 4. Appendix A to 10 CFR part 100 - - Operating Basis Earthquake
- VI. Issue Resolution
  - A. The Commission has determined that the structures, systems, components, and design features of the U.S. ABWR design comply with the provisions of the Atomic Energy Act of 1954, as amended, and the applicable regulations identified in Section V of this appendix; and therefore, provide adequate protection to the health and safety of the public. A conclusion that a matter is resolved includes the finding that additional or alternative structures, systems, components, design features, design criteria, testing, analyses, acceptance criteria, or justifications are not necessary for the U.S. ABWR design.
  - B. The Commission considers the following matters resolved within the meaning of 10 CFR 52.63(a)(4) in subsequent proceedings for issuance of a combined license, amendment of a combined license, or renewal of a combined license,

proceedings held pursuant to 10 CFR 52.103, and enforcement proceedings involving plants referencing this appendix:

1. All nuclear safety issues, except for the generic technical specifications and other operational requirements, associated with the information in the FSER and Supplement No. 1, Tier 1, Tier 2 (including referenced information which the context indicates is intended as requirements), and the rulemaking record for certification of the U.S. ABWR design;
  2. All nuclear safety and safeguards issues associated with the information in proprietary and safeguards documents, referenced and in context, are intended as requirements in the generic DCD for the U.S. ABWR design;
  3. All generic changes to the DCD pursuant to and in compliance with the change processes in Sections VIII.A.1 and VIII.B.1 of this appendix;
  4. All exemptions from the DCD pursuant to and in compliance with the change processes in Sections VIII.A.4 and VIII.B.4 of this appendix, but only for that ~~proceeding~~plant; 22
  5. All departures from the DCD that are approved by license amendment, but only for that ~~proceeding~~plant; 22
  6. Except as provided in VIII.B.5.f of this appendix, all departures from Tier 2 pursuant to and in compliance with the change processes in VIII.B.5 of this appendix that do not require prior NRC approval;
  7. All environmental issues concerning severe accident mitigation design alternatives associated with the information in the NRC's final environmental assessment for the U.S. ABWR design and Revision 1 of the Technical Support Document for the U.S. ABWR, dated December 1994, for plants referencing this appendix whose site parameters are within those specified in the Technical Support Document.
- C. The Commission does not consider operational requirements for an applicant or licensee who references this appendix to be matters resolved within the meaning of 10 CFR 52.63(a)(4). The Commission reserves the right to require operational requirements for an applicant or licensee who references this appendix by rule, regulation, order, or license condition.
- D. Except in accordance with the change processes in Section VIII of this appendix, the Commission may not require an applicant or licensee who references this appendix to:
1. Modify structures, systems, components, or design features as described in the generic DCD;

2. Provide additional or alternative structures, systems, components, or design features not discussed in the generic DCD; or
3. Provide additional or alternative design criteria, testing, analyses, acceptance criteria, or justification for structures, systems, components, or design features discussed in the generic DCD.

E.

1. Persons who wish to review proprietary and safeguards information or other secondary references in the DCD for the U.S. ABWR design, in order to request or participate in the hearing required by 10 CFR 52.85 or the hearing provided under 10 CFR 52.103, or to request or participate in any other hearing relating to this appendix in which interested persons have adjudicatory hearing rights, shall first request access to such information from GE Nuclear Energy. The request must state with particularity:
  - a. The nature of the proprietary or other information sought;
  - b. The reason why the information currently available to the public at the NRC Web site, <http://www.nrc.gov>, and/or at the NRC Public Document Room, is insufficient;
  - c. The relevance of the requested information to the hearing issue(s) which the person proposes to raise; and
  - d. A showing that the requesting person has the capability to understand and utilize the requested information.
2. If a person claims that the information is necessary to prepare a request for hearing, the request must be filed no later than 15 days after publication in the Federal Register of the notice required either by 10 CFR 52.85 or 10 CFR 52.103. If GE Nuclear Energy declines to provide the information sought, GE Nuclear Energy shall send a written response within ten (10) days of receiving the request to the requesting person setting forth with particularity the reasons for its refusal. The person may then request the Commission (or presiding officer, if a proceeding has been established) to order disclosure. The person shall include copies of the original request (and any subsequent clarifying information provided by the requesting party to the applicant) and the applicant's response. The Commission and presiding officer shall base their decisions solely on the person's original request (including any clarifying information provided by the requesting person to GE Nuclear Energy), and GE Nuclear Energy's response. The Commission and presiding officer may order GE Nuclear Energy to

provide access to some or all of the requested information, subject to an appropriate non-disclosure agreement.

#### VII. Duration of This Appendix

This appendix may be referenced for a period of 15 years from June 11, 1997 except as provided for in 10 CFR 52.55(b) and 52.57(b). This appendix remains valid for an applicant or licensee who references this appendix until the application is withdrawn or the license expires, including any period of extended operation under a renewed license.

#### VIII. Processes for Changes and Departures

##### A. Tier 1 information.

1. Generic changes to Tier 1 information are governed by the requirements in 10 CFR 52.63(a)(1).
2. Generic changes to Tier 1 information are applicable to all applicants or licensees who reference this appendix, except those for which the change has been rendered technically irrelevant by action taken under paragraphs A.3 or A.4 of this section.
3. Departures from Tier 1 information that are required by the Commission through plant-specific orders are governed by the requirements in 10 CFR 52.63(a)(3).
4. Exemptions from Tier 1 information are governed by the requirements in 10 CFR 52.63(b)(1) and §52.97(b). The Commission will deny a request for an exemption from Tier 1, if it finds that the design change will result in a significant decrease in the level of safety otherwise provided by the design.

##### B. Tier 2 information.

1. Generic changes to Tier 2 information are governed by the requirements in 10 CFR 52.63(a)(1).
2. Generic changes to Tier 2 information are applicable to all applicants or licensees who reference this appendix, except those for which the change has been rendered technically irrelevant by action taken under paragraphs B.3, B.4, B.5, or B.6 of this section.
3. The Commission may not require new requirements on Tier 2 information by plant-specific order while this appendix is in effect under §§52.55 or 52.61, unless:

- a. A modification is necessary to secure compliance with the Commission's regulations applicable and in effect at the time this appendix was approved, as set forth in Section V of this appendix, or to assure adequate protection of the public health and safety or the common defense and security; and
  - b. Special circumstances as defined in 10 CFR 50.12(a) are present.
4. An applicant or licensee who references this appendix may request an exemption from Tier 2 information. The Commission may grant such a request only if it determines that the exemption will comply with the requirements of 10 CFR 50.12(a). The Commission will deny a request for an exemption from Tier 2, if it finds that the design change will result in a significant decrease in the level of safety otherwise provided by the design. The grant of an exemption to an applicant must be subject to litigation in the same manner as other issues material to the license hearing. The grant of an exemption to a licensee must be subject to an opportunity for a hearing in the same manner as license amendments.
- 5.
- a. An applicant or licensee who references this appendix may depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2\* information, or the technical specifications, or ~~involves an unreviewed safety question as defined~~ meets the criteria in paragraphs B.5.b and B.5.c of this section. When evaluating the proposed departure, an applicant or licensee shall consider all matters described in the plant-specific DCD. 10
  - b. A proposed departure from Tier 2, other than one affecting resolution of a severe accident issue identified in the plant-specific DCD, ~~involves an unreviewed safety question~~ requires prior NRC approval if the departure would-- 10
    - (1) ~~The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the plant specific DCD may be increased;~~
    - (2) ~~A possibility for an accident or malfunction of a different type than any evaluated previously in the plant specific DCD may be created; or~~ 10
    - (3) ~~The margin of safety as defined in the basis for any technical specification is reduced.~~

- (1) Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD;
- (2) Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the plant-specific DCD;
- (3) Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD;
- (4) Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD;
- (5) Create a possibility for an accident of a different type than any previously evaluated in the plant-specific DCD;
- (6) Create a possibility for a malfunction of an SSC important to safety with a different result than any previously evaluated in the plant-specific DCD;
- (7) Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered; or
- (8) Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

c. A proposed departure from Tier 2 affecting resolution of a severe accident issue identified in the plant-specific DCD, ~~involves an unreviewed safety question~~ requires prior NRC approval if--

- (1) There is a substantial increase in the probability of a severe accident such that a particular severe accident previously reviewed and determined to be not credible could become credible; or
- (2) There is a substantial increase in the consequences to the public of a particular severe accident previously reviewed.

d. ~~If a departure involves an unreviewed safety question as defined in~~ requires prior NRC approval under paragraph B.5 of this section, it is governed by 10 CFR 50.90.

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e. A departure from Tier 2 information that is made under paragraph B.5 of this section does not require an exemption from this appendix.

f. A party to an adjudicatory proceeding for either the issuance, amendment, or renewal of a license or for operation under 10 CFR 52.103(a), who believes that an applicant or licensee who references this appendix has not complied with VIII.B.5 of this appendix when departing from Tier 2 information, may petition to admit into the proceeding such a contention. In addition to compliance with the general requirements of 10 CFR 2.714(b)(2), the petition must demonstrate that the departure does not comply with VIII.B.5 of this appendix. Further, the petition must demonstrate that the change bears on an asserted noncompliance with an ITAAC acceptance criterion in the case of a 10 CFR 52.103 preoperational hearing, or that the change bears directly on the amendment request in the case of a hearing on a license amendment. Any other party may file a response. If, on the basis of the petition and any response, the presiding officer determines that a sufficient showing has been made, the presiding officer shall certify the matter directly to the Commission for determination of the admissibility of the contention. The Commission may admit such a contention if it determines the petition raises a genuine issue material of fact regarding compliance with VIII.B.5 of this appendix.

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6. a. An applicant who references this appendix may not depart from Tier 2\* information, which is designated with italicized text or brackets and an asterisk in the generic DCD, without NRC approval. The departure will not be considered a resolved issue, within the meaning of Section VI of this appendix and 10 CFR 52.63(a)(4), except as provided by VI.B.5 of this appendix.

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b. A licensee who references this appendix may not depart from the following Tier 2\* matters without prior NRC approval. A request for a departure will be treated as a request for a license amendment under 10 CFR 50.90.

(1) Fuel burnup limit (4.2).

(2) Fuel design evaluation (4.2.3).

(3) Fuel licensing acceptance criteria (Appendix 4B).

- c. A licensee who references this appendix may not, before the plant first achieves full power following the finding required by 10 CFR 52.103(g), depart from the following Tier 2\* matters except in accordance with paragraph B.6.b of this section. After the plant first achieves full power, the following Tier 2\* matters revert to Tier 2 status and are thereafter subject to the departure provisions in paragraph B.5 of this section.

(1) ASME Boiler & Pressure Vessel Code, Section III.

(2) ACI 349 and ANSI/AISC N09690.

(3) Motor-operated valves.

(4) Equipment seismic qualification methods.

(5) Piping design acceptance criteria.

(6) Fuel system and assembly design (4.2), except burnup limit.

(7) Nuclear design (4.3).

(8) Equilibrium cycle and control rod patterns (App. 4A).

(9) Control rod licensing acceptance criteria (App. 4C).

(10) Instrument setpoint methodology.

(11) EMS performance specifications and architecture.

(12) SSLC hardware and software qualification.

(13) Self-test system design testing features and commitments.

(14) Human factors engineering design and implementation process.

- d. Departures from Tier 2\* information that are made under paragraph B.6 of this section do not require an exemption from this appendix.

C. Operational requirements.

1. Generic changes to generic technical specifications and other operational requirements that were completely reviewed and approved in the design certification rulemaking and do not require a change to a design feature in the generic DCD are governed by the requirements in 10 CFR 50.109. Generic changes that do require a change to a design feature in the generic DCD are governed by the requirements in paragraphs A or B of this section.
2. Generic changes to generic technical specifications and other operational requirements are applicable to all applicants or licensees who reference this appendix, except those for which the change has been rendered technically irrelevant by action taken under paragraphs C.3 or C.4 of this section.
3. The Commission may require plant-specific departures on generic technical specifications and other operational requirements that were completely reviewed and approved, provided a change to a design feature in the generic DCD is not required, ~~and special circumstances as defined in 10 CFR 2.758(b) are present, and 10 CFR 50.109 is satisfied.~~ The Commission may modify or supplement generic technical specifications and other operational requirements that were not completely reviewed and approved or require additional technical specifications and other operational requirements on a plant-specific basis, provided a change to a design feature in the generic DCD is not required. 22
4. An applicant who references this appendix may request an exemption from the generic technical specifications or other operational requirements. A departure from an operational does not require an exemption unless the departure requires Commission approval under VIII.B.5. The Commission may grant such a request only if it determines that the exemption will comply with the requirements of 10 CFR 50.12(a). The grant of an exemption must be subject to litigation in the same manner as other issues material to the license hearing. 22
- 5.- A party to an adjudicatory proceeding for either the issuance, amendment, or renewal of a license or for operation under 10 CFR 52.103(a), who believes that an operational requirement approved in the DCD or a technical specification derived from the generic technical specifications must be changed may petition to admit into the proceeding such a contention. Such petition must comply with the general requirements of 10 CFR 2.714(b)(2) and must demonstrate why special circumstances as defined in 10 CFR 2.758(b) are present, or for compliance with the Commission's regulations in effect at the time this appendix was approved, as set forth in Section V of this appendix. Any other party may file a response thereto. If, on the basis of the petition and any response, the presiding officer determines that a sufficient showing has been made, the

presiding officer shall certify the matter directly to the Commission for determination of the admissibility of the contention. All other issues with respect to the plant-specific technical specifications or other operational requirements are subject to a hearing as part of the license proceeding.

6. After issuance of a license, the generic technical specifications have no further effect on the plant-specific technical specifications and changes to the plant-specific technical specifications will be treated as license amendments under 10 CFR 50.90.

IX. Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)

A.

1. An applicant or licensee who references this appendix shall perform and demonstrate conformance with the ITAAC before fuel load. With respect to activities subject to an ITAAC, an applicant for a license may proceed at its own risk with design and procurement activities, and a licensee may proceed at its own risk with design, procurement, construction, and preoperational activities, even though the NRC may not have found that any particular ITAAC has been satisfied.
2. The licensee who references this appendix shall notify the NRC that the required inspections, tests, and analyses in the ITAAC have been successfully completed and that the corresponding acceptance criteria have been met.
3. In the event that an activity is subject to an ITAAC, and the applicant or licensee who references this appendix has not demonstrated that the ITAAC has been satisfied, the applicant or licensee may either take corrective actions to successfully complete that ITAAC, request an exemption from the ITAAC in accordance with Section VIII of this appendix and 10 CFR 52.97(b), or petition for rulemaking to amend this appendix by changing the requirements of the ITAAC, under 10 CFR 2.802 and 52.97(b). Such rulemaking changes to the ITAAC must meet the requirements of paragraph VIII.A.1 of this appendix.

B.

1. The NRC shall ensure that the required inspections, tests, and analyses in the ITAAC are performed. The NRC shall verify that the inspections, tests, and analyses referenced by the licensee have been successfully completed and, based solely thereon, find the prescribed acceptance criteria have been met. At appropriate intervals during construction, the NRC shall publish notices of the successful completion of ITAAC in the Federal Register.

2. In accordance with 10 CFR 52.99 and 52.103(g), the Commission shall find that the acceptance criteria in the ITAAC for the license are met before fuel load.
3. After the Commission has made the finding required by 10 CFR 52.103(g), the ITAAC do not, by virtue of their inclusion within the DCD, constitute regulatory requirements either for licensees or for renewal of the license; except for specific ITAAC, which are the subject of a Section 103(a) hearing, their expiration will occur upon final Commission action in such proceeding. However, subsequent modifications must comply with the Tier 1 and Tier 2 design descriptions in the plant-specific DCD unless the licensee has complied with the applicable requirements of 10 CFR 52.97 and Section VIII of this appendix.

X. Records and Reporting

A. Records.

1. The applicant for this appendix shall maintain a copy of the generic DCD that includes all generic changes to Tier 1 and Tier 2. The applicant shall maintain the proprietary and safeguards information referenced in the generic DCD for the period that this appendix may be referenced, as specified in Section VII of this appendix.
2. An applicant or licensee who references this appendix shall maintain the plant-specific DCD to accurately reflect both generic changes to the generic DCD and plant-specific departures made pursuant to Section VIII of this appendix throughout the period of application and for the term of the license (including any period of renewal).
3. An applicant or licensee who references this appendix shall prepare and maintain written safety evaluations which provide the bases for the determinations required by Section VIII of this appendix. These evaluations must be retained throughout the period of application and for the term of the license (including any period of renewal).

B. Reporting.

1. An applicant or licensee who references this appendix shall submit a report to the NRC containing a brief description of any departures from the plant-specific DCD, including a summary of the safety evaluation of each. This report must be filed in accordance with the filing requirements applicable to reports in 10 CFR 50.4.
2. An applicant or licensee who references this appendix shall submit updates to its plant-specific DCD, which reflect the generic changes to the

generic DCD and the plant-specific departures made pursuant to Section VIII of this appendix. These updates shall be filed in accordance with the filing requirements applicable to final safety analysis report updates in 10 CFR 50.4 and 50.71(e).

3. The reports and updates required by paragraphs B.1 and B.2 of this section must be submitted as follows:
  - a. On the date that an application for a license referencing this appendix is submitted, the application shall include the report and any updates to the plant-specific DCD.
  - b. During the interval from the date of application to the date of issuance of a license, the report and any updates to the plant-specific DCD must be submitted annually and may be submitted along with amendments to the application.
  - c. During the interval from the date of issuance of a license to the date the Commission makes its findings under 10 CFR 52.103(g), the report must be submitted quarterly. Updates to the plant-specific DCD must be submitted annually.
  - d. After the Commission has made its finding under 10 CFR 52.103(g), reports and updates to the plant-specific DCD may be submitted annually or along with updates to the site-specific portion of the final safety analysis report for the facility at the intervals required by 10 CFR 50.71(e), or at shorter intervals as specified in the license.

## **Appendix O to Part 52 -- Standardization of Design: Staff Review of Standard Designs**

This appendix sets out procedures for the filing, staff review and referral to the Advisory Committee on Reactor Safeguards of standard designs for a nuclear power reactor of the type described in §50.22 of this chapter or major portions thereof.

1. Any person may submit a proposed preliminary or final standard design for a nuclear power reactor of the type described in §50.22 to the regulatory staff for its review. Such a submittal may consist of either the preliminary or final design for the entire reactor facility or the preliminary or final design of major portions thereof.

2. The submittal for review of the standard design must be made in the same manner and in the same number of copies as provided in §§50.4 and 50.30 of this chapter for license applications.

3. The submittal for review of the standard design shall include the information described in §§50.33 (a) through (d) of this chapter and the applicable technical information required by §§50.34 (a) and (b), as appropriate, and 50.34a of this chapter (other than that required by §§50.34(a) (6) and (10), 50.34(b)(1), (6) (i), (ii), (iv), and (v) and 50.34(b) (7) and (8)). The submittal shall also include a description, analysis and evaluation of the interfaces between the submitted design and the balance of the nuclear power plant. With respect to the requirements of §50.34(a)(1) of this chapter, the submittal for review of a standard design shall include the site parameters postulated for the design, and an analysis and evaluation of the design in terms of such postulated site parameters. The information submitted pursuant to §50.34(a)(7) of this chapter, shall be ~~limited~~limited to the quality assurance program to be applied to the design, procurement and fabrication of the structures, systems, and components for which design review has been requested and the information submitted pursuant to §50.34(a)(9) of this chapter shall be limited to the qualifications of the person submitting the standard design to design the reactor or major portion thereof. The submittal shall also include information pertaining to design features that affect plans for coping with emergencies in the operation of the reactor or major portion thereof. The submittal may, but is not required to, include inspections, tests, analyses and acceptance criteria pursuant to § 52.47(a)(1)(vi).

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4. Once the regulatory staff has initiated a technical review of a submittal under this appendix, the submittal will be referred to the Advisory Committee on Reactor Safeguards (ACRS) for a review and report.

5. Upon completion of their review of a submittal under this appendix, the NRC regulatory staff shall publish in the Federal Register a determination as to whether or not the preliminary or final design is acceptable, subject to such conditions as may be appropriate, and make available at the NRC Web site, <http://www.nrc.gov>, an analysis of the design in the form of a report. An approved design shall be utilized by and relied upon by the regulatory staff and the ACRS in their review of any individual facility

license application which incorporates by reference a design approved in accordance with this paragraph unless there exists significant new information which substantially affects the earlier determination or other good cause. An approved design shall be effective for 15 years from the date of approval.

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6. The determination and report by the regulatory staff shall not constitute a commitment to issue a permit or license, or in any way affect the authority of the Commission, Atomic Safety and Licensing Appeal Panel, Atomic Safety and Licensing Board Panel, and other presiding officers in any proceeding under subpart G of part 2 of this chapter.

7. Information requests to the approval holder regarding an approved design shall be evaluated prior to issuance to ensure that the burden to be imposed on respondents is justified in view of the potential safety significance of the issue to be addressed in the requested information. Each such evaluation performed by the NRC staff shall be in accordance with 10 CFR 50.54(f) and shall be approved by the Executive Director for Operations or his or her designee prior to issuance of the request.