



March 26, 1993

POLICY ISSUE
(Notation Vote)

SECY-92-287A

FOR: The Commissioners
FROM: James M. Taylor
Executive Director for Operations
SUBJECT: FORM AND CONTENT FOR A DESIGN CERTIFICATION RULE

Purpose:

To provide the Commission with the staff's response to the staff requirements memorandum (SRM) 920908 and the subject memorandum from Commissioner Curtiss dated September 9, 1992.

Background:

On September 8, 1992, the staff briefed the Commission on SECY-92-287, "Form and Content for a Design Certification Rule, dated August 18, 1992." In response to that briefing, the Commission issued an SRM, on September 30, 1992. In that SRM, the Commission asked the staff to make recommendations on specified issues related to the form and content of a design certification rule under 10 CFR Part 52. In addition, Commissioner Curtiss asked the staff, in a memorandum of September 9, 1992, to respond to a list of questions related to matters that were addressed at the September 8, 1992, Commission briefing. This memorandum responds to both requests.

Discussion:

SRM 920908 directed the staff to recommend a resolution to the apparent inconsistencies between the staff's proposed change process for Tier 2

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information in SECY-92-287, and the Commission's SRM on SECY-90-377, "Requirements for Design Certification under 10 CFR Part 52," dated February 15, 1991. The staff discussed in detail its proposed change process for the so-called two-tier certification rule in Enclosures 5, 6, and 7 of SECY-92-287. The staff proposed a new change process for a rule certifying a standard design in order to accommodate the two-tiered concept that was not envisioned when the Commission issued Part 52. In preparing the proposed change process in SECY-92-287, the staff inadvertently neglected to request Commission reconsideration of certain proposals on the Tier 2 change process that conflicted with Commission guidance in its SRM on SECY-90-377, "Requirements for Design Certification Under 10 CFR Part 52." The discussion in Enclosure 1 to this memorandum summarizes the evolution of the staff's views regarding the two-tier change process and the bases for its proposals in SECY-92-287. The pros and cons of providing a separate appendix to Part 52 for generic requirements applicable to all design certification applicants is also discussed in Enclosure 1. The staff's responses to the questions from Commissioner Curtiss appear in Enclosure 2 to this memorandum.

After it receives the Commission's final comments or preliminary conclusions on the requested recommendations and responses, the staff will revise SECY-92-287 and publish the proposed certification rule in the Federal Register for public comment. The staff will use the comments generated by the Federal Register notice in its preparation of the proposed rule for the first standard design that receives a final design approval for certification.

Recommendation:

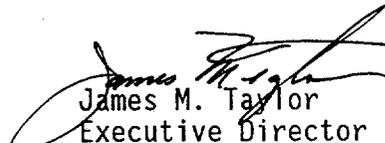
On the basis of the discussions in Enclosures 1 and 2 and the evolution of the development of Tier 2 information, the staff requests that the Commission reconsider its previous guidance on the change process for Tier 2 information. The staff recommends that the Commission

- (1) Approve the use of the backfit standard in Section 50.109(a)(3) for rulemaking changes to Tier 2 information.
- (2) Extend the use of the change process set forth in Section A.15(e) of Enclosure 1 to SECY-92-287 to applicants that reference a certified design.
- (3) Defer the decision on whether or not selected requirements from the first rule certifying a standard design would apply to all subsequent certification rules.

- (4) Add an exemption to the Tier 2 change process. If approved, the staff will develop the Tier 2 exemption process during the public comment period.

Coordination:

The Office of the General Counsel concurs in this paper.


James M. Taylor
Executive Director
for Operations

Enclosures:

1. Responses to SRM
dated 9/30/92
2. Questions on
SECY-92-287

Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB Friday, April 9, 1993.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Friday, April 2, 1993, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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RESPONSES TO STAFF REQUIREMENTS MEMORANDUM (SRM)
DATED SEPTEMBER 30, 1992

The following discussion summarizes the background and bases for the staff's proposals in SECY-92-287, "Form and Content for a Design Certification Rule," that differed from the Commission's guidance on the standard and timing for Tier 2 changes. It also discusses the pros and cons of providing a separate appendix for generic requirements applicable to all design certification applicants as opposed to incorporating all the requirements for each applicant in a single appendix.

The nuclear industry proposed a two-tiered structure for design certification rules in a letter from the Nuclear Management and Resources Council (NUMARC), dated August 31, 1990. This letter was submitted in response to the Commission's request for comments on SECY-90-241, "Level of Detail Required for Design Certification Under Part 52," dated July 11, 1990. NUMARC proposed the two-tiered structure to achieve greater flexibility in a rule certifying a standard design, while retaining the concept that design issues would not be relitigated on a license specific basis. Therefore, with the Commission's approval of a two-tiered structure for a design certification rule in its SRM of February 15, 1991, on SECY-90-377, "Requirements for Design Certification Under 10 CFR Part 52," the staff sought to achieve a two-tiered certification rule that has more flexibility than Part 52 originally provided.

One area where the staff proposed additional flexibility was the standard for generic changes to information in the standard safety analysis report (SSAR) that is approved by the rule (Tier 2 information). In its SRM on SECY-90-377, the Commission stated that "the staff should be held to the backfitting standards of 10 CFR 52.63 for all matters resolved in the design certification rulemaking (in both Tiers 1 and 2)." The staff presently views Tier 2 as more detailed descriptions of Tier 1 design information, including enveloping analyses to justify a particular acceptance criteria in Tier 1, and information that should have an easier change standard than Tier 1. While the concept of a Tier 2 is not inconsistent with Part 52, it must be implemented in a manner consistent with it. Tier 2 is not subject to the change process in 10 CFR 52.63 since it is not a "design certification" within the meaning of Part 52. However, Tier 2 is a rule and it would be binding on the Nuclear Regulatory Commission (NRC) staff and Commission absent "special circumstances" under 10 CFR 2.758 (rule challenge). Since Section 2.758 only applies to adjudicatory proceedings, the effect is that Tier 2 would be binding unless or until it is suspended or amended. This suggests that Tier 2 should not only include a 50.59-like change process for applicants and licensees but also a backfit standard and an exemption process for the NRC and for licensees when the 50.59-like process cannot be used.

In developing its proposed two-tiered rule in SECY-92-287, the staff also tried to achieve industry's objectives of issue preclusion and conformance with both tiers of the rule, while maintaining the Commission's goal of a more stable and predictable licensing process. This led to a proposed rule that certifies Tier 1 information and approves Tier 2 information, as explained in SECY-92-287. By referencing both tiers of information in the rule that certifies a design, an applicant referencing the certified design would have to conform with both tiers of information subject to the change process and would

achieve issue preclusion for every matter covered in either tier, including the determination of what information should be placed in each tier. However, approval of Tier 2 information by rule would mean that generic changes to Tier 2 information would require rulemaking and plant-specific changes to Tier 2 information that did not meet the "50.59-like" standards would also require rulemaking. Since the rulemaking standard for a Tier 1 change is adequate protection, as set forth in Section 52.63(a), the staff chose the backfit standard from Section 50.109 for rulemaking changes to Tier 2 to achieve the additional flexibility. Section 50.109 allows backfitting only when it is determined that there is a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation are justified in view of the increased protection. Although the backfit standard of Section 50.109 provides more flexibility than the adequate protection standard, it is still a very difficult standard to meet.

The rationale for the restrictive change standard of Section 52.63 for Tier 1, which was to provide a more stable and predictable licensing process and to achieve the benefits of standardization, does not apply to Tier 2. The reason is that there are no standardization constraints on licensee changes to Tier 2 under the 50.59-like process. A rationale for using Section 52.63 would need to be developed. Also, the backfit rule would probably need to be amended to avoid inconsistencies between NRC changes before the combined license (COL) issuance (52.63 applies) and changes after COL issuance (50.109 applies).

The staff's proposal in SECY-92-287 for rulemaking changes to Tier 2 is consistent with the proposal in NUMARC's letter of August 31, 1990, and NUMARC's revised letter of September 10, 1990. Specifically, NUMARC stated that "NRC backfits involving matters described in the first tier would be governed by the provisions of Section 52.63, whereas Section 50.109 would govern backfitting as respects the second tier." However, in its letter of October 5, 1992, on SECY-92-287, NUMARC now states that "To achieve the Part 52 goals of standardization and licensing predictability and stability, we urge the NRC staff to adhere to the earlier SRM guidance...." The ACRS recommended, in its letter of October 16, 1992, that "the staff adhere to the Commission guidance in this regard, and apply the 'adequate protection' standard to such changes." The staff believes that rulemaking with the backfit standard of Section 50.109 provides the appropriate balance between stability and flexibility. Also, as discussed in the response to Question 2 of Enclosure 2, Section 52.63 cannot be applied to non-certified information, such as Tier 2.

Since the issuance of SECY-92-287, the staff has recognized that an applicant or licensee seeking a plant-specific Tier 2 change that did not meet the "50.59-like" change standard would have to petition for rulemaking in accordance with Section 2.802 and meet the backfit standard of Section 50.109. The staff is concerned about the effects of this additional restriction on the flexibility of Tier 2 information. A solution to this concern would be to add an exemption process, similar to 10 CFR 50.12, to the Tier 2 change process. The staff recommends that a Tier 2 exemption process be added to the proposed rule that is issued for public comment.

Another area in which the staff proposed more flexibility for the Tier 2 change process is in the timing for a plant-specific change. Specifically, the staff proposed in SECY-92-287 that the "50.59-like" change process be applicable to both applicants and licensees that reference a certified design. In its SRM on SECY-90-377, the Commission stated that it had "no objection to a process similar to 10 CFR 50.59 for making changes to Tier 2 information between COL [combined license] issuance and authorization for operation, recognizing of course, that such changes open the possibility for challenge in a hearing." The Commission's guidance appears to restrict the use of the "50.59-like" change process to licensees. The staff believes that the identification of the need for changes to Tier 2 information will begin during the preparation of an application for a COL. That is when an applicant will identify the need to change analytical methodologies for design acceptance criteria, editions of codes and standards, etc. If these changes do not meet the standards of Section A.15(e) of Enclosure 1 to SECY-92-287 for a "50.59-like" process, then the staff can review these changes as part of its review of the COL application. If we follow the Commission's guidance, then the changes and review requests will be deferred until after the COL is issued, thereby degrading the predictability and stability of the COL.

NUMARC stated in its letter of August 31, 1990, and its subsequent revision of September 10, 1990, that "We understand the staff is investigating the potential use of 50.59 for COL applicants. We think this makes functional sense and encourage the staff to pursue this latitude for COL applicants within the confines to Part 52." NUMARC's letter of October 5, 1992, stated that "NUMARC is in general agreement with...extending the availability of the 10 CFR 50.59 process for Tier 2 changes to COL applicants." The ACRS recommended in its letter of December 10, 1990, that a process similar to 10 CFR 50.59 for making changes to Tier 2 information be permitted for the period beginning after design certification. The staff believes that extending the use of the "50.59-like" change process to an applicant that references a certified design will provide necessary flexibility at the appropriate time in the licensing process and will result in a COL with more predictability and greater stability.

The Commission also asked the staff to review the pros and cons of providing a separate appendix for generic requirements applicable to all design certification applicants as opposed to incorporating all the requirements for each applicant in a single appendix. In SECY-92-287, the staff proposed that the rule that certified a particular design be an appendix to Part 52, and provided an example certification rule in Enclosure 1 in SECY-92-287. Some requirements in that certification rule may be applicable to multiple standard designs. A possible benefit to grouping these requirements into a separate appendix would be to eliminate the need to restate the same requirements in each certification rule. However, the creation of such an appendix would constitute, for all practical purposes, a revision to Subpart B of Part 52. The staff believes that it is premature to consider revisions to Part 52 because of the limited experience in implementing Subpart B of Part 52. It is also premature to decide which portions of a certification rule would apply to multiple standard designs.

In preparing the example rule in Enclosure 1 to SECY-92-287, the staff restated some of the regulations from Subpart B to Part 52 for illustrative purposes. In the actual certification rule, the staff proposes to reference these sections of Subpart B rather than restate the requirement. Other parts of the example certification rule that appear to be generic are related to the use of Tier 2 information. The change process for Tier 2 information is still in a developmental stage. When sufficient experience has been obtained in identifying and using Tier 2 information, the staff could propose necessary changes to Subpart B of Part 52 to incorporate the two-tiered concept. The remainder of the rule will be specific to a particular design, such as the list of technical positions that will become "applicable regulations" for that particular design and the list of selected staff positions from the final safety evaluation report that will be treated as "unreviewed safety questions" for purposes of the "50.59-like" change process. Therefore, the staff believes that it would not be appropriate to have a separate appendix for apparent generic requirements. A better approach would be to propose amendments to Part 52 after sufficient experience has been gained in implementing it. The staff believes that it is premature to decide which requirements from the proposed certification rule are truly generic.

QUESTIONS ON SECY-92-287

In a memorandum dated September 9, 1992, Commissioner Curtiss asked the staff and the Office of the General Counsel (OGC) to respond to the following questions related to the September 8, 1992, Commission briefing on SECY-92-287, "Form and Content for a Design Certification Rule." The answers to the questions are identified with an "A" preceding the question number.

Q1 In Enclosure 1 to SECY-92-287, Section A.9(d) of the proposed design certification rule provides that ...

Q1(a) Please explain in detail the purpose of this provision. Why is this provision necessary?

A1(a) In the staff requirements memorandum (SRM) pertaining to SECY-91-262, "Resolution of Selected Technical and Severe Accident Issues for Evolutionary Light Water Reactor Designs," the Commission approved the staff's recommendation to proceed with design-specific rulemakings through individual design certifications to resolve selected technical and severe-accident issues for the GE ABWR and ABB/CE System 80+ designs. The purpose of Section A.9(d) of the proposed design certification rule is to identify the staff positions that deviate from or are not embodied in current regulations, but were approved by the Commission, such as SECY-90-016, "Evolutionary Light Water Reactor (LWR) Certification Issues and their Relationship to Current Regulatory Requirements." These staff positions will then become "applicable regulations" via the certification rulemaking that will be added to the list of regulations in Sections 52.48 and 52.54 that were used to approve the design to be certified. Rather than reference these proposed regulations, as was done in Enclosure 1 to SECY-92-287, the staff now plans to list these proposed regulations in the design certification rule. These proposed regulations would be stated broadly, similar to the general design criteria, and would become part of the Commission's baseline of regulations that were "applicable and in effect at the time the certification was issued." Without this baseline of applicable regulations, the staff could not perform reviews in accordance with Sections 52.59 and 52.63.

The reference to Section 52.48 is also necessary for two other reasons. First, it serves as a basis for obtaining public comment on the proposed adoption of the staff positions as "applicable requirements." Second, it provides confirmation that the staff positions are being adopted by the Commission as "applicable requirements" under Section 52.54 for the design certification being approved. Absent a provision such as Section A.9, a design certification applicant could argue that the Commission cannot lawfully condition approval of the design certification on compliance with the staff positions used during the review. This is because the staff positions, without further Commission action, are not "applicable standards and requirements of the...Commission's regulations" under Sections 52.48 and 52.54.

After further consideration of Section A.9, OGC recognized that it should be modified to also reference Section 52.59, to make it clear

that for the purposes of renewal of a design certification under Section 52.59, the staff positions are part of the applicable regulations in effect at the time that the design certification was first issued.

The reference to Section 52.63 is necessary to make it clear that the Commission has a right under Sections 53.63(a)(1) and (3) to require a modification to Tier 1 of the design certification or issue a plant-specific order, respectively, to ensure that the design certification or plant complies with the staff's positions that the Commission adopted as binding requirements in Section A.9 of the design certification rule. Otherwise, the Commission could not, without re-reviewing the merits of each position, require a change to Tier 1 of the design certification, nor could it issue a plant-specific order requiring a change to Tier 1 merely because the modification was necessary for compliance with a matter involving these staff positions.

Q1(b) Does this provision mean that the staff's technical positions at the referenced FSER pages would be given the force and effect of regulations?

A1(b) Yes, but the technical positions that are deemed "applicable regulations" in Section A.9 of the certification rule would have the force and effect of regulations only for those applications or licenses that reference that certified design. In addition, the staff's technical positions would be considered "applicable regulations" for purposes of the design certification rule in which they are included, and for applying the backfitting requirements of 52.63. However, the staff positions would not be "regulations" in the sense of "generally applicable" requirements that all design certification applicants must comply with, e.g., Section 50.48. Each design certification for which the Commission wishes to make the staff positions applicable must specify the staff positions as "applicable regulations."

Q1(c) Would a COL applicant have to get an exemption or file a petition for rulemaking in order to deviate from the staff technical position at the referenced FSER pages? If so, shouldn't the referenced FSER pages be part of Tier 1 of the design certification rule?

A1(c) Yes. An applicant or licensee would have to request an exemption or petition for rulemaking in order to deviate from a staff position that was deemed an "applicable regulation" in the certification rule.

No. The "applicable regulations" should not be in Tier 1 of the design certification rule. The staff does not consider the technical positions themselves to be either "Tier 1" or "Tier 2," since from a legal standpoint they are requirements that a design must meet, rather than the actual design information. The staff will incorporate into Tier 1 the key features of the design resulting from these regulations. A deviation from a staff technical position (applicable regulation) could affect Tier 1 or Tier 2 information; and any changes to Tier 1 or

Tier 2 must involve either exemption, rulemaking, or a determination under the "50.59-like" process. Therefore, an exemption or a rule-making amendment may be required in order to deviate from the staff technical position. As stated earlier, the staff has decided to list these "applicable regulations" in the rule that certifies the design rather than reference the FSER pages.

Q2 In the SRM on SECY-90-377, "Requirements for Design Certification Under 10 CFR Part 52," the Commission indicated that it ...

Q2(a) How would the change process in Section A.15 be modified in order to conform it to the Commission's direction in the SRM on SECY-90-377?

A2(a) Sections 52.63(a) and (b)(1) apply only to certified information (Tier 1). However, one possibility would be to revise Sections A.15(d) and (e) to read as follows:

A.15(d)(1) The Commission may not modify, rescind, or impose new requirements on Tier 2 information, 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 Tier 2 information or the referencing plants into compliance with the Commission's regulations applicable and in effect at the time this certification was issued, or to ensure 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 this certification to request an informal hearing which uses the procedures described in Section 52.51.

(2) Any modification the NRC imposes under paragraph (d)(1) of this section will be applied to all plants referencing this certified design, except those to which the modification has been rendered technically irrelevant by action taken under paragraphs (d)(3) or (e) of this section.

(3) 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 ensure 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 the Tier 2 information of a specific plant referencing this design certification. In addition to the factors listed in Section 50.12(a), the Commission shall consider whether the special circumstances which Section 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.

(e) A licensee that references this standard design certification may make changes to the Tier 2 information, without prior NRC approval,

unless the change involves a change to the certified standard design (Tier 1), the technical specifications, or an "unreviewed safety question" as defined in 10 CFR 50.59 or specified in the FSER. The Tier 2 changes will no longer be considered "matters resolved in connection with the issuance or renewal of a design certification" within the meaning of 10 CFR 52.63 (a)(4).

The above modification to the change process in Section A.15 would conform with the intent of the Commission's direction in the SRM on SECY-90-377, but it would restrict the flexibility of the Tier 2 information that the staff believes is necessary, as described in Enclosure 1 to this memorandum. The staff's proposal was intended to provide the necessary balance between flexibility and stability.

- Q2(b) Should the "50.59-type" change process for Tier 2 also apply for COL applicants after the filing of the COL application but before issuance of the COL (as proposed by the staff in Section A.15(e))?
- A2(b) Yes. The staff did not investigate whether a COL applicant should be allowed to make "50.59-like" changes in advance of COL issuance in SECY-90-377. Therefore, the staff raised that policy issue in SECY-92-287 but neglected to request that the Commission reconsider its apparent guidance in the SRM for SECY-90-377. There does not appear to be any reason to prevent the use of the "50.59-like" change process during both the preparation and review of a COL application. Rather, the staff recommends that the Commission extend the use of the "50.59-like" change process to an applicant that references a certified design as explained in SECY-92-287. This would facilitate the preparation and review of a COL application and would result in a more robust combined license.
- Q2(c) How can the Commission legally limit staff, design certification holder, or public-requested Tier 2 changes to changes made pursuant to the processes in 10 CFR 52.63 (or 10 CFR 2.758)? Must these limitations be imposed by provisions in the design certification rule itself or by modifications to Part 52, or can they be made legally binding by a simple Commission declaration?
- A2(c) The Commission's direction in the SRM on SECY-90-377 goes beyond Part 52, in that Section 52.63(a) only applies to certified design information (Tier 1). In both SECY-90-377 and SECY-92-287, the staff proposed that Tier 2 information not be certified. The Commission could impose such restrictions on individual design certifications by including provisions in the rule itself (see A2(a) above). However, such a constraint on staff initiated changes to Tier 2 would not be a part of the body of general principles of Part 52, but specific to each design certification and subject to comment and hearing in each certification rulemaking hearing. It would seem that in proposing any change to Tier 2, a change could be proposed to the change standard as well. Thus, it is not clear that a Section 52.63 constraint on staff initiated changes would be fully effective. While the same would be true with

regard to applying the backfit rule to NRC initiated changes to Tier 2 before COL issuance, this limited use of backfit rule concept would seem to have more permanence because it has a logical effect of harmonizing constraints on staff initiated changes before and after COL issuance. As noted before, a rationale would need to be developed to apply Section 52.63 to Tier 2.

Q3 10 CFR 52.97(b) provides that ...

Q3(a) Apart from ITAAC, to what extent will the certified design be incorporated into the COL? Will Tier 2 of the certified design be "identified in the license?"

A3(a) All of the Tier 1 information, including ITAAC, will be incorporated into the COL. The Tier 2 information and the remainder of the COL application will not be incorporated into the COL, but it will be identified. This is similar to the Part 50 licensing process, where the construction permit or operating license does not actually incorporate the PSAR or FSAR, respectively.

Q3(b) If Tier 2 of the certified design is incorporated in the COL:

Q3(b)(i) Will licensee-initiated changes to Tier 2 require license amendments that must be processed in accordance with Section 52.97(b)?

A3(b)(i) If Tier 2 information is "incorporated" (not simply "identified") into the COL, so that it becomes part of the COL, as technical specifications are incorporated into an operating license, then licensee-initiated changes would require license amendments under Section 52.97.

Q3(b)(ii) How would the proposed "50.59-type" process be used to change Tier 2 aspects of the design that are contained in the COL? Would the licensee be able to use the proposed "50.59-type" process to modify Tier 2 without prior NRC approval or the amendments required by Section 52.97(b)?

A3(b)(ii) Yes. A licensee would be able to make changes to Tier 2 information without prior NRC approval or COL amendments otherwise required by Section 52.97(b) if all of the prerequisites of Section A.15(e) of Enclosure 1 to SECY-92-287 are satisfied. The staff plans to add selected technical positions from the FSER to Section A.15(e) to be treated as additional "unreviewed safety questions," as described in Enclosure 6 to SECY-92-287.