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## **RULEMAKING ISSUE**

February 2, 1989

**(Affirmation)**

SECY-89-036

**For:** The Commissioners

**From:** William C. Parler  
General Counsel

**Subject:** RULEMAKING ON EARLY SITE PERMITS, DESIGN  
CERTIFICATIONS, AND COMBINED LICENSES

**Purpose:** To discuss briefly some important aspects of  
the attached draft Federal Register notice of  
final rulemaking on standardization and  
combined licenses, and to recommend that the  
draft notice be published.

**Background:** Nearly a year and a half ago, the Commission  
issued a Policy Statement on Nuclear Power  
Plant Standardization (52 Fed. Reg. 34884,  
Sept 15, 1987), in which the Commission  
announced its intent to issue procedural  
regulations on early site permits, design  
certifications, and licenses which combine  
construction permits and conditional  
operating licenses. Last summer, the  
Commission published for comment a proposed  
Part 52 containing such procedural  
regulations (53 Fed. Reg. 32060, August 23,  
1988). There followed a 75-day comment  
period during which comments, many of them  
lengthy and highly detailed, were received  
from over 70 individuals and organizations,  
including industry groups, public interest  
groups, several state agencies, and the  
Department of Energy (DOE).

**Discussion:** While the broad outlines, and even many of  
the details, of the proposed rule remain  
unchanged in the final rule, few sections of

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the proposed rule have escaped revision in light of the comments. In particular, the sections on technical information required in applications for design certification (52.47) and hearings after construction under a combined license (52.103) have been thoroughly revised.

An overview of the comments and our responses to them may be found under the heading, "Summary of the Comments and the Commission's Responses", in Section I of the Supplementary Information in the attached draft Federal Register notice. Sections II and III of the Supplementary Information discuss the comments at length. Also attached is a comparative text which provides a complete record of the differences between the proposed rule and the draft final rule. In the remainder of this paper we briefly discuss the important differences between the proposed rule and the draft final rule, and some policy implications and potential impacts of the draft final rule.

First, the draft final rule is even more stringent than the proposed rule was on scope of design. Section 52.47, thoroughly revised, now requires full scope for certification of "evolutionary" light-water designs (General Electric's ABWR, Westinghouse's SP/90, and Combustion Engineering's System 80+). The staff believes that this requirement will have an impact on Combustion Engineering's plans, as the staff currently understand them. This section also requires full scope for certification of the more advanced designs such as the "passive" light-water designs (General Electric's SBWR and Westinghouse's AP600) and the DOE-sponsored advanced designs (General Electric's PRISM, Rockwell's SAFR, and General Atomic's MHTGR), unless the applicant can show, through prototype testing, that the non-certified portion of the design cannot significantly affect the safe operation of the plant. Section 52.47 also requires prototype testing for any design for which existing analyses and experience do not support certification.

The staff believes that the rule's provisions on scope will probably result in vendors' teaming up with architect/engineers to bring full-scope designs forward for certification. These arrangements will reduce the number of architect/engineers designing the balance of plant for a given nuclear island unless the same island is certified with several balances of plant. For a full discussion of the distinction between "evolutionary" and "advanced" designs and the requirements relating to scope of design and prototype testing, see Section I.1.c. of the Supplementary Information in the draft notice.

Second, the draft final rule (section 52.47(a)(1)), like the proposed rule, requires applications for certification to meet the severe accident criteria and procedural requirements set forth in Section B.2. of the Commission's Severe Accident Policy Statement, 50 Fed. Reg. 32138 (August 8, 1985). The staff is currently considering whether this section of Part 52 should be complemented by more detailed rules or guidance on severe accidents, and if so, what the scope and depth of the additional rules and/or guidance should be. A recommendation on this issue is due to the Commission later this month, by way of a revised SECY-88-248.

Third, the final rule makes it more difficult to amend a design certification. The proposed rule would have made it easier for designers to amend a design certification than for the Commission to backfit the design or the plants referencing it. In this way, the proposed rule only partly provided means for preserving the safety benefits of standardization. The final rule provides that no change, no matter who proposes it, will be made to a certification while it is in effect unless the change is necessary for compliance or adequate protection. The final rule thus provides greater assurance that standardization will be preserved. However, it should be noted that this provision would prevent design improvements for safety enhancement or economic reasons unless an

exemption from the certified design were granted to a specific plant. For a full discussion of finality, see Section I.1.h. of the Supplementary Information in the draft notice.

Fourth, section 52.103 of the final rule is more strict than the proposed rule was on what issues can be raised in a hearing after construction is complete. The final rule permits such a hearing only if the petitioner makes a prima facie showing that one or more of the acceptance criteria in the combined license have not been met, and only if the Commission determines that the issue raised is not exempt from adjudication under the provision in the Administrative Procedure Act which exempts from adjudication decisions which rest solely on the results of inspections, tests, or elections. Any claim that the terms of the license itself are inadequate will be processed under 10 CFR 2.206.

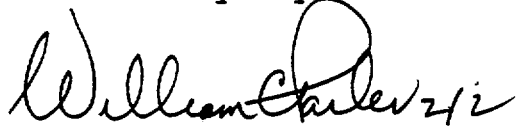
It is my judgment that complete assurance that there will be no hearing prior to operation can be provided only by legislation. We are preparing a legislative proposal to deal with that issue. Under existing authority, I believe that, if the Commission itself retains control of the issue, as I recommend in the proposed final rule, the chances for any prolonged hearing prior to operation should be minimal.

Coordination:

The CRGR and the ACRS have reviewed the draft rule, and many of their recommendations are incorporated in the attached draft notice. The CRGR recommends issuing the rule. The ACRS' January 19, 1989 letter on the draft rule is attached. The ACRS will review the attached draft notice on February 10, 1989. The EDO, RES, and NRR have concurred in the draft notice.

## Recommendation:

That the Commission publish the attached draft Federal Register notice as a final rule to become effective thirty days after publication.



William C. Parler  
General Counsel

## Attachments:

1. Draft Federal Register notice of final Part 52
2. Comparative text of Part 52
3. January 19, 1989 ACRS Letter

This paper is scheduled for discussion at an Open Meeting on Tuesday, February 21, 1989.

Commissioners' comments or consent should be provided directly to the Office of the Secretary by c.o.b. Tuesday, February 28, 1989.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Wednesday, February 15, 1989, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

This paper is tentatively scheduled for affirmation at an Open Meeting during the Week of March 6, 1989. Please refer to the appropriate Weekly Commission Schedule, when published, for a specific date and time.

## DISTRIBUTION:

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Attachment 1

Nuclear Regulatory Commission

10 CFR Part 52

Early Site Permits; Standard Design Certifications; and  
Combined Licenses for Nuclear Power Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: Having received and considered public comments on its proposed rule on standardization and licensing reform (53 FR 32060; August 23, 1988), the Nuclear Regulatory Commission is now adding a new part to its regulations which provides for issuance of early site permits, standard design certifications, and combined construction permits and conditional operating licenses for nuclear power reactors. The new part sets out the review procedures and licensing requirements for applications for these new licenses and certifications. The final action is intended to achieve the early resolution of licensing issues and enhance the safety and reliability of nuclear power plants. This notice contains the Commission's responses to comments on the proposed rule.

EFFECTIVE DATE: [30 days after publication in the FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Steven Crockett, Attorney, Office of the General Counsel, telephone (301) 492-1600, on procedural matters, or Jerry Wilson, Office of Nuclear Regulatory Research, telephone (301)

492-3729, on technical matters, U.S. Nuclear Regulatory Commission,  
Washington, D.C. 20555.

## SUPPLEMENTARY INFORMATION:

### I. Background

The Commission has long sought nuclear power plant standardization and the enhanced safety and licensing reform which standardization could make possible. For more than a decade, the Commission has been adding provisions to 10 CFR Part 50 and Part 2 that allow for limited degrees of standardization, and for as many years, the Commission has been proposing legislation to Congress on the subject. The Commission was frequently asked by Members of Congress to what extent legislation on the subject was necessary, and in doing the analysis necessary to reply to these questions, the Commission came to believe that much of what it sought could be accomplished within its current statutory authority. Thus the Commission embarked on standardization rulemaking.

The rulemaking process has been lengthy and highly public. A year and a half ago, the Commission announced its intent to pursue standardization rulemaking in its Policy Statement on Nuclear Power Plant Standardization (52 FR 34884; September 15, 1987). The Policy Statement set forth the principles that would guide the rulemaking and provided for a forty-five-day comment period on the Policy Statement. On October 20, 1987, about mid-way through the comment period, the NRC staff held a public workshop on the Policy Statement. During the Workshop, the staff presented a detailed outline of the proposed rule and answered preliminary questions about it. A transcript of the workshop may be found in the Commission's public document room, Gelman Building, 2120 L

Street, NW., Washington, D.C. After a lengthy internal consideration of the comments received on the Policy Statement and the outline of the rule presented at the Workshop, and after public briefings of the Commission and the Advisory Committee on Reactor Safeguards (ACRS), the Commission issued a proposed rule (53 FR 32060; August 23, 1988) and provided for a sixty-day comment period. The comment period was extended to 75 days on October 24, 1988 (53 FR 41609). Mid-way through that period also, the NRC staff again held a public workshop, this time on the text of the proposed rule.<sup>1</sup>

During the second, 75-day comment period, the Commission received over 70 sets of Comments, ranging from one-page letters to multi-paged documents, one of which included an annotated rewrite of the whole rule. The commenters included the Department of Energy (DOE), agencies and offices in the states of Connecticut, Indiana, New York, and North Carolina, the Nuclear Utility Management and Resources Council (NUMARC), the American Nuclear Energy Council, Westinghouse, General Electric, Combustion Engineering, Stone & Webster, the U.S. Chamber of Commerce, the Union of Concerned Scientists (UCS), the Nuclear Information and Resource Service (NIRS), the Ohio Citizens for Responsible Energy (OCRE), the Maryland Nuclear Safety Coalition, and several other utilities,

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<sup>1</sup>Given this lengthy and public process, the Commission is unpersuaded by commenters on the proposed rule who claim that the public was not given enough time to consider the rule. For example, the Nuclear Information Resource Service (NIRS) says that given the importance of the rule, one "would think that the NRC would encourage the widest possible public participation on this rule, perhaps even by making special efforts (Footnote Continued)

corporations, public interest groups, and individuals. All the comments may be viewed in the agency's public document room.

The Commission has carefully considered all the comments and wishes to express its sincere appreciation of the often considerable efforts of the commenters. While the broad outlines, and even many of the details, of the proposed rule remained unchanged in the final rule, few sections of the proposed rule have escaped revision in light of the comments, and some have been thoroughly revised. In the remainder of this Section of this notice, the Commission makes two general responses to comments and then summarizes both the comments and its responses to them. In Section II of this notice, the Commission responds to comments on the chief issues raised by the comments. While Section II often touches on the broad policies which lie behind the rule, readers wishing to know more about those broad policies may consult the statement of considerations which was published with the proposed rule. In Section III, which proceeds section-by-section through the final rule, the Commission notes minor changes and offers some minor clarifications of the meaning of some provisions. For a complete record of the differences between the proposed rule and the final rule, readers may consult the comparative text of the final rule, which is available in the agency's public document room.

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(Footnote Continued)  
to solicit comment."

That is, of course, precisely what the Commission did.

## Two General Responses to Comments

Before summing up the comments and the Commission's responses to them, the Commission wishes to make clear what it has not tried to do in this rulemaking. First, although this is an important rulemaking, it does not resolve all the safety, environmental, and political issues facing nuclear power. The Commission received from all sides urgings to undertake deep reforms before issuing this final rule. The Commission was, for instance, urged to streamline the hearing procedures in 10 CFR Part 2, Subpart G, restructure the utilities' liabilities under the Price-Anderson Act, decide once and for all what safety criteria shall be applied to all future plants, solve the problem of nuclear waste, turn all health and safety regulation -- not just the NRC's -- over to the states, reconsider whether economic considerations should ever enter into safety decisions, conduct local running referenda on whether a given nuclear power plant should be built, and have Congress directly review designs. In sum, the Commission was urged to do everything before it did anything.

However, the Commission has stuck to the simple aim of providing procedures for the standardization of nuclear power plants and more generally for the early resolution of safety and environmental issues in licensing proceedings. The Commission has declined to tie the fate of this rulemaking to the progress of the agency's many other ongoing efforts, such as revision of the agency's hearing procedures, implementation of the Policy Statement on Safety Goals (51 FR 30028; August 21, 1986), development of techniques of analysis of risk and cost,

and preparation for the licensing of a high-level waste repository. The final rule necessarily touches on substance whenever it sets forth requirements for the technical content of applications for early site permits, design certifications, or combined licenses, or discusses the applicability of existing standards to new designs and new situations. But even here, the Commission has, with very few exceptions, avoided establishing new safety or environmental standards. The Commission notes, however, in response to comments that it should develop new safety standards before it promulgates new licensing procedures, that under the final rule's provisions for design certifications, each certification, being a rule, will in fact be a large body of safety standards, many of them no doubt new. Here, at least, rather than standards having to precede procedure, procedures pave the way for new safety standards. In any event, the Commission may choose to adopt additional safety standards applicable to new designs prior to the advent of design certifications.

Second, many saw this rule as the occasion for arguments over the future viability of nuclear power in the United States. On the one hand, the Commission is vigorously accused of promoting the nuclear industry and shutting local governments and individual citizens out of the licensing process (such charges in one case came from a commenter who said also that casting aspersions on the motives of one's opponents was "repugnant"). On the other hand, the Commission is told that the licensing process is "the reason" for "the loss of the nuclear option", and that reform of that process is the "sine qua non" of the viability of that option.

Certainly, the Commission hopes that this rule will have a beneficial effect on the licensing process. In others words, the Commission hopes that effort has not been wasted on a rule which will never be used. But the Commission is not out to secure, single-handedly, the viability of the industry or to shut the general public out. The future of nuclear power depends not only on the licensing process but also on economic trends and events, the safety and reliability of the plants, political fortunes, and much else. The Commission aims only to have a sensible procedural framework in place for the consideration of designs of enhanced safety, and to make it possible to resolve safety and environmental issues before plants are built, rather than after.

#### Summary of the Comments and the Commission's Responses

The comments on the proposed rule are characterized both by their broad agreement that standardization and early resolution of licensing issues are desirable, and by their often deep differences on what kinds of designs should be certified, how they should be certified, and what consequences certification should have for the licensing process.

As to what kinds of designs should be certified, except for the very few who opposed any licensing of any nuclear power plant, no commenter opposes the certification of designs which differ significantly from the designs which have been built thus far; but some, UCS, for instance, say that only "advanced" designs should be certified, and many, including UCS, DOE, and Westinghouse, say that only designs for whole plants should be certified.

While not withholding certification from incomplete designs or designs which are not advanced, the final rule has moved a long way from the position the Commission took in the legislative proposal it made shortly before this rulemaking began. There, certification was held out only for evolutionary light water designs, but was permitted for the design of any "major portion" of a plant. The final rule provides for certification of advanced designs and permits certification of designs of less than full scope only in highly restricted circumstances.

As to how designs should be certified, most commenters think the Commission has authority to certify either by rule or by license. However, some commenters see advantages in certification by license. OCRE, for instance, says that certification by license is more appropriate, and some industry commenters think that more protections are available to the holder of a design license than are available to the "holder" of a design rule. Some commenters prefer certification by license because they believe that a hearing on a license has to be a formal adjudication.

The final rule reflects the Commission's long-standing preference for certification by rulemaking (see 10 CFR Part 50, Appendix O, paragraph 7), and for certification hearing procedures which, while they permit formal procedures when needed, do not assume that formal procedures are the best means for resolving every safety issue.

Finally, the deepest differences among the commenters concern the consequences of standardization and other devices for early resolution of

licensing issues for the licensing process. One commenter believes that, once a plant is built under a combined license, there need be no hearing at all before operation begins. Several of these commenters characterize the proposed rule's provision for an opportunity for a hearing just before operation as the old two-step licensing process under a different name. Others believe not only that there should be such a hearing but also that resolution of issues in earlier proceedings does not entail any restriction on the issues which may be raised in the hearing after construction. Many of these commenters attribute to the Commission an intent to do away with public participation in the licensing process.

The Commission has given more consideration to this controversy than to any other procedural question raised by the proposed rule. As a result, the proposed rule's provisions on hearings just before operation have been significantly revised in the final rule (the revised provisions are discussed in more detail below). However, the final rule still provides for an opportunity for a hearing on limited issues before operation under a combined license. But the mere fact of this opportunity does not mean that the rule is hiding the old two-step process under a different name. By far the greater part of the issues which in the past have been considered in operating license hearings would, under the new rule, be considered at the combined license stage or in a certification proceeding, including the bulk of emergency planning issues. Similarly, the mere fact that any hearing prior to operation would be limited does not mean that the Commission is attempting to remove the public from the licensing process. The rule does not prevent the public from participating in the resolution of any operating license

issue. It simply moves the bulk of the issues up front in the licensing process to the design certification, early site permit, and combined license parts of the process.

## II. The Principal Issues

### 1. Requirements for Applications for Design Certification

Because design certification is the key procedural device in Part 52 for bringing about enhanced safety and early resolution of licensing issues, the Commission begins its discussion of the principal issues with responses to comments on the proposed rule's requirements for applications for certification.

#### a. "Advanced" Designs

The proposed rule provided for certification both of evolutionary light-water designs, that is, improved versions of the light-water designs now in operation, and of "advanced" designs, that is, designs which differ significantly from the evolutionary light-water designs, or which incorporate, to a greater extent than evolutionary light-water designs do, simplified, inherent, passive, or other innovative means to accomplish their safety functions (the distinction between evolutionary light-water designs and advanced designs is discussed at greater length below). The proposed rule required that some advanced designs could not be certified until full-scale prototypes of them were built and tested. While agreeing with the requirement for prototype testing of some

advanced designs, several commenters, UCS prominent among them, say that certification should be held out only to advanced designs. UCS argues that without such a limitation on the designs which could be offered up for certification, the proposed rule would discriminate against the development of advanced designs of greater safety, because, given the choice between seeking certification of a familiar design and seeking certification of a design which the Commission might require to be tested in a full-scale prototype, an applicant would choose to avoid having to build a prototype.

As is noted above, the rule, unlike the legislative proposals which preceded it, provides for certification of advanced designs. However, it also provides for certification of evolutionary light-water designs. The Commission's legislative proposals on standardization have always focused on these designs, on the grounds that the light-water designs now in operation provide a high degree of protection to public health and safety. Moreover, the Commission does not believe that the requirement in some cases for a prototype is such a burden. Whatever burden having to test a prototype may be, the burden may be lessened by agreements of cost-sharing among utilities and other organizations, and by licensing the prototype for commercial operation. It is well to remember also that, under the rule, prototype testing is required only for certification, if at all. No prototype is required for a final design approval under 10 CFR Part 52, Appendix O (formerly in Part 50), although the approval may contain conditions requiring prototype testing for certification. See 10 CFR Part 52, Appendix O, paragraph 5. Moreover, a licensed prototype may be replicated.

b. Requirement to Address Unresolved Safety Issues and Safety Goals

Several commenters object to the proposed rule's requirement that applicants for certification propose technical resolutions of Unresolved Safety Issues and high- and medium-priority Generic Safety Issues. This requirement, and similar ones relating to probabilistic risk assessments and the Commission's Three Mile Island requirements for new plants, 10 CFR 50.34(f), were announced in the Commission's Severe Accident Policy Statement (50 FR 32138; August 8, 1985) and in the Commission's Policy Statement on Standardization (52 FR 34884; September 15, 1987). Some commenters call it "inappropriate" to impose this burden on applicants. Others say that no resolution of one of these issues should be imposed on a design unless the resolution had passed a cost-benefit test.

The Commission believes that it is not inappropriate to require that an applicant for certification show either that a particular issue is not relevant to the design proffered in the application, or that the applicant has in hand a design-specific resolution of the issue (the applicant is of course not required to propose a generic resolution of the issue). As to cost-benefit tests, the Commission will of course apply them to the resolution of safety issues where the resolutions are being imposed on existing plants and adequate protection is already secured. See 10 CFR 50.109 and *UCS v. NRC*, 824 F.2d 108 (D.C. Cir. 1987). However, initial certification does not involve backfitting. Designers will, of course, strive for a cost-effective design, but the declines to incorporate a cost-benefit test in the standards for certification.

c. Requirements on Scope of Design and on Prototypes

In the statement of considerations accompanying the proposed rule, the Commission noted that the proposed rule permitted certification of incomplete designs only in limited cases, while the legislation the Commission had proposed to the 100th Congress had been less stringent about scope of design. The Commission invited comment on whether the final rule should return to the policy reflected in the proposed legislation. DOE, Westinghouse, and UCS, among others, argue that only designs of complete power plants -- excluding site-specific elements of course -- should be certified. NUMARC, however, advocates a return to the policy of the legislation proposed to the 100th Congress. One engineering firm argues that requiring complete designs would limit market forces that could contribute to standardization.

The final rule is even more stringent about completeness of design than the proposed rule was. The final rule's provisions on scope, see § 52.47, reflect a policy that certain designs, especially designs which are evolutions of light-water designs now in operation, should not be certified unless they include all of a plant except its site-specific elements. See § 52.47(b). Examples of designs which are evolutions of currently operating light-water designs are General Electric's ABWR, Westinghouse's SP/90, and Combustion Engineering's System 80+. Full-scope may also be required of certain advanced designs, namely, the "passive" light-water designs such as General Electric's SBWR and Westinghouse's AP600. Considerations of safety, not market forces, constitute the basis for the final rule's requirement that these designs

be full-scope designs. Long experience with operating light-water designs more than adequately demonstrates the adverse safety impact which the balance of plant can have on the nuclear island. Given this experience, certification of these designs must be based on a full consideration of the whole plant, or else the certifications of those designs will lack that degree of finality which should be the mark of certification.

However, the Commission has not adopted UCS's position that no design of incomplete scope could ever be certified. There is no reason to conclude that there could never be a design which protects the nuclear island against adverse effects caused by events in the balance of plant. The final rule therefore provides the opportunity for certification of designs of less than complete scope, if they belong to the class of advanced designs. See § 52.47(b). Examples of designs in this class include the passive light-water designs mentioned above and non-light-water designs such as General Electric's PRISM, Rockwell's SAFR, and General Atomic's MHTGR. But here too the rule sets a high standard: Certification of an advanced design of incomplete scope will be given only after a showing, using a full-scale prototype, that the balance of plant cannot significantly affect the safe operation of the plant. See *id.*

Standardization along these lines may indeed limit some market forces, particularly those which encourage a highly differentiated range of products. However, the final rule's requirements on scope in no way

limit innovative arrangements among vendors and architect-engineers for bringing new designs before the Commission.

The final rule is clearer than the proposed rule was in identifying those designs which cannot be certified without a program of testing. For purposes of determining which designs must undergo a testing program to be certified, the rule distinguishes between all advanced designs -- be they passive light-water or non-light-water -- and evolutionary light-water designs. Some testing may be required of all advanced designs. Passive light-water designs are to some extent also evolutions of the light-water designs now licensed, but they have design features which are not present on plants licensed and operating in the United States. Therefore the rule requires that the maturity of the passive light-water designs be demonstrated through appropriate tests or analyses, but most likely not through prototype testing. See § 52.47(b). However, prototype testing is likely to be required for certification of advanced non-light-water designs because these revolutionary designs use innovative means to accomplish their safety functions, such as passive decay heat removal and reactivity control, and have not been licensed and operated in the United States. See *id.*

#### d. Certification by Rulemaking

The proposed rule provided for design certification by rulemaking. Here the proposed rule was in accord with the old 10 CFR Part 50, Appendix O, paragraph 7 (this paragraph is now being replaced by Subpart B of Part 52). However, in the notice of proposed rulemaking, the

Commission invited comments on whether certification should be by license rather than rule. Although the Commission expressed some doubts on the matter, commenters generally agree that the Commission has the authority to license designs. Some industry commenters and some public interest groups alike go further and argue that certification by license is preferable. Industry commenters arguing this position believe that the rights and obligations which attach to a license are clearer than those which attach to a rule. For instance, a license is possessed by some entity and, under Commission law, cannot be transferred without that entity's consent. Some public interest groups prefer certification by license because they believe that the hearing on a license would have to be a formal adjudication.

The Commission continues to believe that certification by rule is preferable to certification by license. As DOE says, a design certification will, like a rule, have generic application. Moreover, certification by rulemaking leaves the Commission free to adapt hearing procedures to the requirements of the subject matter, rather than possibly constrained to use formal adjudicatory devices even when they are not useful (hearing procedures are more fully discussed below).

For the reasons just given, the final rule retains provisions for certification by rulemaking. Westinghouse suggests also adding provisions for certification by license, leaving it to the applicant to choose between certification by license and certification by rulemaking. The Commission, however, prefers rulemaking and sees no advantage to providing such an option.

NUMARC, while supporting certification by rule, suggests adding provisions analogous to existing provisions in 10 CFR Part 50 for transfer or revocation of a license. See 10 CFR 50.80 and 50.100. However, a rule certifying a design does not, strictly speaking, belong to the designer. Therefore, such a rule cannot be transferred or revoked by adjudicatory enforcement. Applying § 50.80, in particular, to a rule certifying a design would be akin to giving the vendor of the design a patent, but the Commission has no authority to issue patents.

Nonetheless, the vendor whose design is certified by rule is not without protection. The Administrative Procedure Act and, ultimately, judicial review protect the vendor against arbitrary amendment or rescission of the certification rule, and the law of patents and trade secrets protects the vendor against unlawful use of the design. In order to give the vendor more opportunity to treat elements of the design as trade secrets, the final rule provides that proprietary information contained in an application for design certification shall be given the same treatment that such information would be given in a proceeding on an application for a construction permit or an operating license under 10 CFR Part 50. See § 52.51.

#### e. Applicability of Existing Standards

With one exception, the proposed rule did not say what safety standards would be applied to a design proffered for certification, or

even precisely what existing information requirements applicants would have to meet.<sup>2</sup> In its lengthy and highly detailed comments, NUMARC proposes adding to the rule a large number of highly specific cross-references to other safety regulations.

The final rule incorporates only a few of NUMARC's suggested cross-references. The Commission's aim throughout this rulemaking has been to write a rule which is directed primarily at procedures and information needs, and to leave the question of what safety standards should apply to new designs to other Commission activities -- new rulemakings and guidance documents -- and to the certification rulemakings themselves. It remains to be seen whether, for instance, the standards in Part 50 are the standards by which the new designs on the horizon should be judged. It may well sometimes happen in a certification rulemaking that even a Part 50 standard which is technically relevant to a design being considered for certification should be set aside in favor of a new standard. Indeed, one advantage to certification by rulemaking is that the proffered design becomes the occasion for setting new standards. The Commission's existing safety standards, even the more generic among them, have arisen in large part after careful consideration of particular designs. The rule permits the same process to continue with respect to future designs.

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<sup>2</sup>The proposed rule did state that an application for certification would have to demonstrate that the design complied with the technically relevant portions of the Commission's Three Mile Island requirements set forth in 10 CFR 50.34(f). See § 52.47(a), 53 FR at 32073 (proposed rule).

#### f. Hearings on Applications for Design Certifications

Like the proposed rule, the final rule provides for notice and comment rulemaking on an application for a design certification, together with an opportunity for an informal hearing on an application for a design certification. The rule also permits the use of more formal procedures where they are the only procedures available for resolving a given issue properly. See § 52.51. UCS and others argue that any hearing on certification should be a formal adjudication. In particular, UCS argues that the certification proceeding will be dealing with adjudicative, as opposed to legislative, facts and therefore should be fully adjudicatory. UCS characterizes adjudicative facts as "uniquely related to activities of the parties that are at issue" and legislative facts as "facts about industry practices, economic impact, scientific data, and other information about which the parties have no special information."

UCS' argument proves too much: If the facts to be considered in a certification proceeding are wholly adjudicative, then, since those facts are like the facts considered in any rulemaking on safety issues, every such rulemaking must be a formal adjudication; but this conclusion is clearly not the law; therefore, the facts in a certification proceeding are not wholly adjudicatory. Moreover, if such facts must be categorized at all, they are more "legislative" than "adjudicative", as UCS defines those terms, for while they are "related to activities of the parties", they are not uniquely so, and they are facts about "industry practices, scientific data", engineering principles, and the like.

Several commenters also argue that the certification proceeding should be a formal adjudication because cross-examination is an unsurpassed means for discovering the truth. Again, the argument proves too much, namely, that every rulemaking, indeed every species of lawmaking, should be formal adjudication. Part 52 does not assume the superiority, or even the usefulness, of formal procedures for resolving every issue; but it does provide for their use where they are the only means available for resolving an issue properly.

g. Fees for Review of Applications

The final rule adheres to the fee policy embodied in the proposed rule. An applicant for design certification does not have to pay an application fee, but the applicant will have to pay the full cost of the NRC review of the application, although not until the certification is referenced in an application for a construction permit or combined license, or, failing that, not until the certification expires. The details of the scheme of deferral of the fees appear in conforming amendments to the recently revised 10 CFR 170.

UCS asserts that the provision for deferral of fees for NRC review is "unconscionable". To the contrary, the Commission believes that there is nothing "unconscionable" about deferral of fees for a program whose aim is to enhance safety.

Some industry commenters assert that the requirement for payment of the full cost of NRC review presents an "insurmountable disincentive" to

the development of certified designs. Some industry commenters propose putting a ceiling on fees for certification review, in order to help vendors better estimate the costs of developing and certifying a design. The Commission fully recognizes that it will be difficult for a vendor to estimate the costs of taking a design through to certification. However, a ceiling on fees only displaces the burden of that uncertainty from the vendor to the public. In recent years, the NRC has been obliged by statute to charge fees which return to the Federal Treasury an ever increasing portion of the costs incurred in regulation. Deferral of fees is more in line with the policies behind those statutes than is putting the burden of uncertainty on the public.

#### h. Finality

Standardization has the double aim of enhancing safety and making it possible to resolve design issues before construction. Of these two aims, enhanced safety is the chief, because pre-construction resolution of design issues could be achieved simply through combined construction permits and conditional operating licenses. Achievement of the enhanced safety which standardization makes possible will be frustrated if too frequent changes to either a certified design or the plants referencing it are permitted.

The proposed rule put forward principally three means of preventing a continual regression from standardization. First, the proposed rule required that any amendment proffered by the "holder" of a certification be considered in a notice and comment rulemaking and granted if the

amendment complied with the Atomic Energy Act and the Commission's regulations. Second, the proposed rule prohibited the licensee of a plant built according to a certified design from making any change to any part of the plant which was described in the certification unless the licensee had been granted an exemption under 10 CFR 50.12 from the rule certifying the design. Third, the proposed rule stated that the Commission would not backfit a certified design or the plants built according to it unless a backfit were necessary to assure compliance with the applicable regulations or to assure adequate protection of public health and safety. See § 52.63 of the proposed rule, 53 FR at 32074, col. 3, to 32075, col. 2. The Commission invited comment on whether the amendment and exemption standards were stringent enough, and on whether the backfitting standard gave certifications a reasonable degree of finality. See 53 FR at 32067, col. 2.

The comments focus on the standard for amending the certification, one group of comments wanting to make it harder for the "holder" of a certification to get an amendment, and another group wanting to make it easier. Several commenters say that the proposed rule wrongly makes it easier for the designer to amend the certified design than it is for the Commission to backfit the design. To correct this perceived imbalance, UCS, among others, proposes that no amendment be granted unless it constitutes a safety enhancement, and that any amendment granted be backfitted on all plants built according to the design being amended. OCRE proposes that, at a minimum, no amendment should be granted which would entail a decrease in safety. On the other side, NUMARC proposes virtually the same standard as a maximum: Any amendment which has no

safety impact should be granted. DOE in effect argues that the Commission does not have authority to ask for more than OCRE's minimum, because such amendments would be proposed for economic, plant efficiency, or other business reasons and the NRC has no expertise or authority in areas involving business judgments. The law firm of Bishop, Cook, Purcell, and Reynolds, representing several utilities, proposes a backfitting standard more stringent than the one in the proposed rule: The Commission should not impose backfits on a design for the sake of compliance with applicable regulations unless the lack of compliance has an adverse impact on safety. Going even further in the same vein, the U.S. Chamber of Commerce proposes that even where the lack of compliance has an adverse impact on safety, the backfit should have to pass muster under a cost-benefit analysis.

The final rule places a designer on the same footing as the Commission or any other interested member of the public: No matter who proposes it, a change will not be made to a design certification while it is in effect unless the change is necessary to bring the certification into compliance with Commission regulations applicable and in effect when the certification was issued (or renewed), or to assure adequate protection of public health and safety. See § 52.63(a)(1). Thus, the final rule cannot be said to make it easier for a designer to amend a certification than for the Commission to backfit the design. But more important, the final rule thus provides greater assurance that standardization and the concomitant safety benefits will be preserved.

The Commission is not adopting Bishop, Cook's suggestion that compliance be required only when non-compliance would not have an adverse impact on safety. Licensees seeking relief from a design certification, who believe that non-compliance would have no adverse impact on safety, should request an exemption under 10 CFR 50.12. Neither is the Commission adopting the suggestion of the U.S. Chamber of Commerce that cost-benefit analysis be used to determine whether to impose backfits on designs to bring them into compliance with applicable regulations. The Atomic Energy Act allows the Commission to consider costs only in deciding whether to establish or whether to enforce through backfitting safety requirements that are not necessary to provide adequate protection. See *UCS v. NRC*, 824 F.2d 108, 120 (1987).

The final rule, like the proposed rule, permits applicants for combined licenses issued under the rule, and licensees of a plant built according to a certified design, to request an exemption under 10 CFR 50.12 from a rule certifying a design. Among the comments on the appropriateness of using § 50.12 in the standardization context were NIRS' comment that § 50.12 permitted exemptions at a "whim" and DOE's suggestion that no exemptions should be granted at all. Out of respect for the unforeseen, the Commission has decided to adhere to § 50.12, but the final rule does require that, before an exemption can be granted, the effect which the exemption might have on standardization and its safety benefits must be considered.

As a further guard against a loss of standardization, the final rule, again like the proposed rule, also prohibits a licensee of a plant

built according to a certified design from making any change to any part of the plant which is described in the certification unless the licensee has been granted an exemption under 10 CFR 50.12 from the rule certifying the design. Because the certification is a rule, 10 CFR 50.12, not 50.59, is the standard for determining whether the licensee may make changes to the design of the plant without prior approval from the NRC. NUMARC says that, given the practicalities of construction and the limited resources of the NRC staff, licensees need the flexibility afforded by § 50.59. However, the Commission believes that the certifications themselves and § 50.12 will provide the necessary flexibility, or at least as much flexibility as is consistent with achieving the safety benefits of standardization. How much flexibility there will be depends in large part on how much detail is present in a design certification, and just how much is present will be an issue which will have to be resolved in each certification rulemaking. The Commission does expect, however, that there will be less detail in a certification than in an application for certification, and that a rule certifying a design is likely to encompass roughly the same design features that § 50.59 prohibits changing without prior NRC approval. Moreover, the level of design detail in certifications should afford licensees an opportunity to take advantage of improvements in equipment.

The comments on the proposed rule raise two other important finality issues, both connected with backfitting. The first bears on the criteria for renewal of a design certification. The proposed rule provided that the Commission would grant a request for renewal of a design certification if the design complied with regulations in effect at

renewal and any more stringent safety requirements which would bring about a substantial increase in safety at a cost justified by the increase (strictly speaking, the backfit rule would not apply at renewal, but the proposal nonetheless incorporated the backfit rule's cost-benefit standards). See § 52.59(a), 53 FR at 32074, col. 3. Bishop, Cook, among others, proposes that the standard for renewal be compliance with regulations in effect not at renewal but rather at the time the certification was originally issued, together with any other more stringent requirements which are justified under the backfit rule. However, the proposed rule's criteria were in fact equivalent to Bishop, Cook's in their impact on a given design certification, but they differed in their impact on the timing of some backfit analyses, the proposed rule providing that some would be done in rulemakings while the given certification was in effect. The final rule retains the substance of the proposed rule's provisions on renewal, in part because they reduce the number of issues which would have to be considered in a renewal proceeding.

The second of the other important finality issues raised by the comments concerns the finality of 10 CFR Part 52, Appendix O (formerly in Part 50) final design approvals (FDAs) already in effect on the effective date of this rule. Section 52.47(a)(2) of the proposed rule stated that holders of FDAs in effect on the effective date of the rule might have to submit more information to the staff in connection with the review for certification. NUMARC proposes adding a "grandfather" clause which would prohibit the Commission from imposing, during the certification proceeding, any change on that part of the design which is covered by an

already effective FDA unless the change meets the criteria of the backfit rule.

Adoption of NUMARC's proposal would not only entail a significant change in the force of an FDA, it would also extend the range of application of the backfit rule. Under existing NRC regulations, an FDA binds the staff in a licensing proceeding but not in a certification proceeding; and even in a licensing proceeding, the staff may, on the grounds of significant new information or other good cause, reconsider an earlier determination. See 10 CFR Part 52, Appendix O, paragraph 5. Moreover, the FDA does not bind the Commission or the Commission's adjudicatory panels. *Id.* at paragraph 6. The backfit rule applies to any proposal which would require the holder of an FDA to meet a new standard in order to remain in possession of the FDA, see 10 CFR 50.109(a)(1), but the backfit rule does not change the force an FDA has in a licensing proceeding or certification proceeding.

NUMARC's proposal, however, would bind both the staff and the Commission in a certification proceeding and would add a cost-benefit test to the tests which must be met before a determination made in an FDA could be reconsidered. NUMARC's proposal thus would effectively amend both the backfit rule and the cited paragraphs of Appendix O: It would, in effect, turn any existing FDA into a partial certification. Here the Commission would rather adhere to the finality provisions in the existing regulations, including Appendix O and the backfit rule. The Commission believes that, in this situation, these provisions adequately balance the

need for finality with the need for flexibility to deal with unforeseen safety advances or risks.

## 2. Early Site Permits

What design certification is to the early resolution of design issues, the early site permit is to the early resolution of site-related issues. Both the certification and the permit make it possible to resolve important licensing issues before a construction permit proceeding. They in effect make possible the banking of designs and sites, thereby making the licensing of a given plant more efficient. However, some commenters question whether the Commission should issue early site permits. The Attorney General of New York, for instance, sees no need for early site permits and questions whether there could be grounds adequate to support approval of a site for twenty years, the term of early site permits under the proposed rule (the final rule provides that permits will have terms of between ten and twenty years). He points out that under the NRC's current regulations, NRC early decisions on site suitability issues raised in connection with a construction permit generally remain effective for only five years. See 10 CFR 2.606 and 10 CFR Part 52, App. Q (formerly in Part 50), paragraph 5. The Connecticut Siting Council strongly suggests that the State of Connecticut would be unable to participate in an NRC hearing on an application for an early site permit unless the application proposed a "specific" nuclear power plant. Finally, one commenter is concerned that land approved under an early site permit might never be used for a nuclear power plant, and thus

development of the land for a non-nuclear use would have been needlessly delayed.

The Commission believes that early site permits can usefully serve as vehicles for resolving most site issues before large commitments of resources are made. Moreover, the Commission believes that a term of ten to twenty years for early site permits will make early site permits more useful for early resolution of site issues than would the five-year term in 10 CFR 2.606 and 10 CFR Part 52, App. Q, because the longer term will require less frequent reassessments of issues than would the shorter term. The five-year term is a function not of the reliability of the information available to make the decisions, but rather of the fact that the decisions made under those provisions may only resolve isolated site issues<sup>3</sup> and anticipate site utilization in the very near term. The Commission is confident that there will be information adequate to support site approvals lasting up to 20 years. After all, the Commission licenses plants and their sites for operation for periods of up to twice twenty years. Where adequate information is not available, early site permits will not be issued.

The Commission is also confident that enough information on reactor design will be available in an early site permit proceeding to permit sound judgments about environmental impacts and thus to enable state and

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<sup>3</sup>Thus, the Commission declines to follow the suggestion of the engineering firm of Stone & Webster that partial early site permits be issued. It is not likely that resolutions of isolated site issues could have the degree of finality which a permit lasting ten to twenty years must have.

local agencies such as the Connecticut Siting Council to participate effectively in an early site permit proceeding. The Council says that for it to meaningfully participate in a decision on an application for an early site permit, the application would have to contain "projected emission, discharges, site impacts, safety factors, and exact operational parameters ... proposed for a site". It is just such information which both the proposed rule and the final rule would require of applicants for early site permits. See § 52.17(a).

Last, although the Commission acknowledges the possibility that non-nuclear development of a site would be postponed when a site is reserved for a nuclear plant and then a plant never built there, the Commission believes that such a possibility does not loom very large. Persons are not likely to go to the expense of applying for an early site permit unless there is a good prospect that the site will be used for a nuclear power plant. Moreover, it may be that many of the sites for which early site permits might be sought are already set aside for use by utilities; thus, even though non-nuclear development of the site might be postponed, non-utility uses of the site would not be. Last, even during the period in which an early site permit is in effect, non-nuclear uses of the site are not prohibited altogether. See § 52.35.

The comments on the proposed rule raise two other important issues concerning the rule's provisions on early site permits. The first issue concerns the division of authority between the federal government and local governments over the siting of nuclear power facilities. The New York State Energy Office is concerned that the proposed rule leaves the

impression that only an early site permit from the NRC is necessary to set aside land for a nuclear power plant. To the contrary, the rule does not, indeed, could not, change the division of authority between the federal government and the states over the siting of nuclear plants. An early site permit constitutes approval of a site only under the federal statutes and regulations administered by the Commission, not under any other applicable laws.

The last important issue raised by the comments on early site permits concerns the proposed rule's requirement that the application contain a plan for redress of the site in the event that the site preparation work and similar work allowed by 10 CFR 50.10(e)(1) is performed and the site permit expires before it is referenced in an application for a construction permit or combined license issued under the rule. The proposed rule required that the plan provide reasonable assurance that redress carried out under the plan would achieve a "self-maintaining, environmentally stable, and aesthetically acceptable site" which conformed to local zoning laws. The only important difference between the proposed and final rules on this subject is that the final rule requires such a plan only of applicants who wish to perform the activities allowed by 10 CFR 50.10(e)(1). NUMARC says that this requirement is "inherently unworkable" and would involve the Commission in matching redress against a variety of local zoning laws.

To the contrary, the rule's provisions on site redress, including the provision on zoning, are modeled on the fully litigated redress requirements imposed on the Clinch River Breeder Reactor project. See In

the Matter of the U.S. Department of Energy, et al. (Clinch River Breeder Reactor Plant), LBP-85-7, 21 NRC 507 (1985). Moreover, the Commission has long required that applicants' environmental reports discuss compliance with local laws, including zoning laws. See 10 CFR 51.45(d). Apparently, NUMARC is not opposed to redress per se, for NUMARC's proposed revision of § 52.25 of the proposed rule speaks of the possibility that redress of adverse environmental impacts might be necessary. The Commission is only requiring that such redress follow the precedent established at Clinch River and proceed according to a plan incorporated in the early site permit. Containing a redress plan, the permit itself will constitute assurance that, if site preparation activities are carried out but the site never used for a nuclear power plant, the site will not be left in an unacceptable condition.

### 3. Combined Licenses

#### a. The Commission's Authority to Issue Combined Licenses

There are two important questions in connection with the proposed rule's provisions on combined construction permits and conditional operating licenses. The first is whether the Commission has the authority to issue such combined licenses. The second is whether, in cases where all design issues are resolved before construction begins, there should be a hearing after construction is complete, and if so, what issues should be considered at the hearing.

Comments on whether the Commission has the authority to issue combined licenses tend to mirror the commenters' views on what kind of hearing should be held after construction is complete. In other words, the discussion of this issue tends to be result-oriented. Thus, many who believe that there should be a hearing after construction, and that it should be as full a hearing as operating license hearings often are, argue that the Commission has no authority to issue combined licenses. They claim that Section 185 of the Atomic Energy Act mandates a two-step licensing process (for the text of Section 185, see below). They often cite *Power Reactor Development Co. v. International Union of Electrical Workers*, 367 U.S. 396 (1961) as support for this interpretation of Section 185. To these arguments, those who believe that there should be no hearing, or else only a highly restricted hearing, after construction is complete reply that Section 161h of the Atomic Energy Act gives the Commission authority to combine a construction permit and an operating license (some believe it is not necessary to call the operating license "conditional") in a single license (for the text of Section 161h, see below).

A closer look at Section 161h and 185 shows that Section 161h clearly gives the Commission authority to combine a construction permit and operating license in a single license and that Section 185 is not inconsistent with Section 161h. Section 161h says, in pertinent part, that the Commission has the authority to "consider in a single application one or more of the activities for which a license is required by this Act, [and] combine in a single license one or more of such activities ..." 42 U.S.C. 2201. The plain language of this section

clearly applies to the combining of construction permits and operating licenses, for both construction and operation of nuclear power facilities are "activities for which a license is required by this Act", namely by Sections 101 and 185 of the Act, see 42 U.S.C. §§ 2231 and 2235, and Section 103a of the Act makes any license to operate a commercial nuclear power facility "subject to such conditions as the Commission may by rule or regulation establish ..." See 42 U.S.C. 2233. Had Congress intended that construction permits and operating licenses for commercial nuclear power plants be excluded from the language of Section 161h, surely Congress would have said so right in that section, for the plain language of that section invites their inclusion, and they are the most important licenses issued under the Act.

Section 185 is not to the contrary. Section 185 says, in pertinent part,

CONSTRUCTION PERMITS.--All applicants for licenses to construct ... utilization facilities shall ... be initially granted a construction permit. ... Upon the completion of the construction ... of the facility, upon the filing of any additional information needed to bring the original application up to date, and upon finding that the facility authorized has been constructed and will operate in conformity with the application as amended and in conformity with the provisions of this Act and of the rules and regulations of the Commission, and in the absence of any good cause being shown to the Commission why the granting of a license would not be in accordance with the provisions of this Act, the Commission shall thereupon issue a license to the applicant. ...

42 U.S.C. 2235. To be sure, the section speaks in terms of a construction permit's being issued first, and then a license (presumably an operating license). However, the contrast between the two licenses is not fundamental to the section. The substance of the section is clearly indicated by the title of the section and by the list of findings the

Commission must make. The section may be paraphrased thus: A construction permit is not a grant of authority to operate once construction is complete; before operation begins, the original application must be brought up to date, and the Commission must make certain affirmative findings. Thus the critical matter is not the separation of the two licenses, but the need for specific findings before operation. With this substance, both the proposed rule and the final rule are entirely in accord (the pertinent provisions of the final rule will be described in more detail below).

Moreover, in differentiating between a "construction permit" and a later "license", Section 185 is not taking exception to Section 161h. Section 185 does not say, for instance, "Notwithstanding anything in Section 161h to the contrary, applicants shall be granted initially only a construction permit." By speaking of a separate issuance of a license after completion of construction, Section 185 simply conforms itself to the simplest case, in which the licenses are in their elementary, uncombined states, and avoids having to make an already long section longer in order to acknowledge the case which Section 161h makes possible. Moreover, Section 185 acknowledges Section 161h implicitly when it speaks not of a separate application for an operating license but simply of an updating of the original application. Therefore, neither the proposed rule nor the final rule can be faulted for not providing for a separate issuance of an operating license.

This interpretation of Section 185 is confirmed by the legislative history of the section. In 1954, when Congress was considering proposed

amendments to the Atomic Energy Act of 1946, representatives of the industry complained that the proposed Section 185 required that construction of a facility be completed "under a mere construction permit, without any assurance at that stage that there will be issued any license to ... operate it after it has met all the specifications of the construction permit." Atomic Energy Act of 1954: Hearings on S. 3323 and H.R. 8862 Before the Joint Committee on Atomic Energy, 83rd Congress, 2d Session, 113 (May 10, 1954). These representatives proposed instead that power facility applicants should be able to obtain a single license covering all aspects of their activities -- construction, possession of fuel, and operation -- and that the license should contain the conditions the applicant would have to meet before operation of a constructed facility could begin. *Id.* at 113 and 118. On this proposal, the following colloquy took place:

Representative HINSHAW. That seems to me to be reasonable, that you should put all the conditions into 1 license that can be put into 1 license. That would be fair enough.

Chairman COLE. Would you mind my interruption? Why cannot that be done under the terms of the bill as it is now?

Mr. McQUILLEN [representing Detroit Edison]. I think it undoubtedly would be so operated.

Chairman COLE. Of course it would.

*Id.* at 119. Chairman Cole said this even though neither of the draft bills before the Committee contained the text of what is now Section 161h. Twelve days later, as if to put the matter beyond all doubt, the Committee incorporated the present text of Section 161h into both bills. The final rule provides for just such a single, conditional, license as was discussed in this colloquy.

Power Reactor Development Co. v. Electrical Workers, 367 U.S. 396 (1961), is not to the contrary. The issue in that case was not whether the Commission had the authority to combine a construction permit with a conditional operating license, but whether the Commission could postpone the ultimate safety findings until construction was complete. The Court ruled that the Commission could, and found support for its conclusion in Section 185, which showed, the Court said, that "Congress contemplated a step-by-step procedure." 367 U.S. at 405. But the Court did not say, "Section 185 mandates a separate issuance of an operating license, notwithstanding Section 161h." The interpretation of Section 161h of the Act was not at issue.

b. Hearings After Construction is Complete

The first issue concerning hearings after completion of construction under a combined license is whether there should be such hearings at all. Most commenters, whatever their affiliation, believe that there should be the opportunity for such hearings. They disagree only over how limited the hearings should be. Only DOE argues that there should be no such hearings at all. As the principal support for its argument, DOE cites the section of the Administrative Procedure Act (APA) which says, in effect, that adjudication is not required in cases in which the agency decision rests "solely on inspections, tests, or elections". See 5 U.S.C. 554(a)(3). Under Part 52's provisions on combined licenses, a combined license will contain the tests, inspection, and analyses, and acceptance criteria therefor, which are necessary and sufficient to provide reasonable assurance that the facility has been constructed and

will operate in conformity with the license and the Act. See § 52.97. DOE's argument amounts to the claim that the kind of tests and inspections spoken of in Part 52 is the same as the kind of tests and inspections spoken of in the APA.

The Commission agrees that findings which rest solely on the results of tests and inspections should not be adjudicated, and the final rule so provides. See § 52.103. However, not every finding the Commission must make before operation begins under a combined license will necessarily always be wholly self-implementing and encompassed within the APA exception. For instance, it is a matter of law that findings based on the results of emergency preparedness exercises do not fall under the APA exception. *UCS v. NRC*, 735 F.2d 1437, 1449-51 (D.C. Cir. 1984). DOE claims that the Commission could satisfy the requirements of this judicial decision simply by incorporating a description of the emergency preparedness exercises, and the acceptance criteria for them, into the combined license. The Commission agrees that this could be true theoretically, if the acceptance criteria were highly detailed and entailed little judgment and discretion in their application. But this may not always be possible. For example, under current regulations, the results of an emergency planning exercise are litigable to determine if the exercise reveals any "fundamental flaws" in the emergency plan. Application of an emergency planning exercise acceptance criterion that the exercise show no "fundamental flaw" would entail considerable discretion and judgment and would clearly be litigable under *UCS v. NRC*.

Moreover, setting the subject of emergency planning aside, the Commission does not believe that it is prudent to decide now, before the Commission has even once gone through the process of judging whether a plant built under a combined license is ready to operate, that every finding the Commission will have to make at that point will be cut-and-dried -- proceeding according to "objective criteria" and not involving questions of "credibility, conflicts, and sufficiency", questions which the UCS Court held were marks of issues which should be litigated at least under the facts of that case. Indeed, trying to assure that the tests, inspections, and related acceptance criteria in the combined license are wholly self-implementing may well only succeed in introducing inordinate delay into the hearing on the application for a combined license.

Thus, the question becomes whether the rule must provide an opportunity for a post-construction hearing on the issues which are not excepted from adjudication by the APA. Every commenter who believes there should be such an opportunity also believes that an issue in the hearing should be whether construction has been completed in accord with the terms of the combined license, and the final rule so provides. Also, under Section 185 of the Atomic Energy Act, the Commission must find, prior to facility operation, that the facility has been constructed and will operate in conformity with the application and the rules and regulations of the Commission. This statutory finding, in the context of Subpart C of this rule, translates into two separate but related regulatory findings: that compliance with the acceptance criteria in the combined license will provide reasonable assurance that the facility has

been constructed and will operate in accordance with the Commission's requirements, and that the acceptance criteria have in fact been satisfied. The former finding will be made prior to issuance of the combined license, and will necessarily be the subject of any combined license hearing under Section 189a of the Act. The latter finding cannot by its nature be made until later, after construction is substantially complete, and therefore cannot by its nature be the subject of any hearing prior to issuance of the combined license. It follows that a limited opportunity for hearing, confined to the single issue that cannot have been litigated earlier -- whether the acceptance criteria are satisfied -- should be afforded prior to operation. No commenter as offered any legal argument to the contrary.<sup>4</sup>

Commenters disagree greatly on whether any other issue should be considered in a hearing. The proposed rule provided that intervenors could contend that significant new information showed that some modification to the site or the design was necessary to assure adequate protection. To this, NUMARC responds that "no one could seriously consider ordering a new plant with the licensing uncertainties it would face." NUMARC proposes a complete rewrite of § 52.103, elements of which are discussed below. Several industry commenters point to the "added burdens" that applicants would be assuming under the proposed rule as grounds for severely limiting the issues for hearing. Rockwell

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<sup>4</sup>Section 185 also says that, prior to operation, there must be an "absence of good cause being shown to the Commission why the granting of the license would not be in accordance with the provisions of the Act." We think that this implicit opportunity to show "good cause" is satisfied (Footnote Continued)

International, for instance, claims that, with the hearing under § 52.103, there will be four public hearings for each plant.

Public interest groups also take a dim view of the proposed rule's limitations on the hearing, though their reasons are not the industry's. UCS says that a licensing proceeding without uncertainty is a sham. OCRE goes further and asserts that the uncertainty should be distributed equally: "In a perfectly fair proceeding, [the] chance [of winning] would be 50%." The Maryland Nuclear Safety Coalition counts only two hearings for each plant. NIRS says that many problems with the current generation of reactors were cured under the full two-step licensing process. OCRE also regards the whole rule as "merely a clever exploitation of human nature, which is such that most people are not motivated to act until an immediate, direct, and tangible threat is perceived to exist."

This latter group of commenters appears to be opposed to any limitation on the post-construction hearing, for not one of them proposes a concrete alternative to the proposed rule's provisions on the hearing. UCS does say that the hearing should encompass "all issues that are material to the NRC's approval of an operating license for the plant", but that statement is either so general as to be just another way to put the question of what issues should be encompassed, or it is the claim that, when it comes time to determine whether the plant has been built in

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(Footnote Continued)

by affording an opportunity for hearing on all findings that will be made prior to facility operation.

conformity with the terms of the combined license, all the operating license issues resolved before construction should be treated as if they had never been resolved. Many commenters do in fact seem to be making such a claim, for they contend against any limits on the post-construction hearing at the same time that they support the idea that design issues should be resolved before construction.

There have to be substantial limits on the issues that can be raised after construction. A licensing proceeding without any uncertainty in result may be a sham, but the bulk of the uncertainty should be addressed and resolved prior to, not after, construction. Part 52 does not remove uncertainty, it simply reallocates it to the beginning of the licensing process. The alternative, apparently offered by opponents of limits on the post-construction hearing is, in effect, to double the uncertainty by considering every design issue twice.<sup>5</sup> To the extent that these commenters offer any practical arguments in favor of this approach, they are not persuasive. Rockwell International may engage in some double-counting when it asserts that there are four public hearings for each plant, but when the Maryland Nuclear Safety Coalition says that the public can debate licensing issues only in an early site permit hearing and after construction, and therefore needs another hearing on design

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<sup>5</sup>Even according to OCRE's notion of a "perfectly fair" proceeding, in which perfect fairness could be achieved by replacing judges with tosses of coins, design issues should not be resolved twice. If they were, intervenors would have two 50% chances to win -- that is, to prevent operation of the plant -- on design issues. But two even chances are equivalent to a 75% chance overall (e.g., the chance of coming up heads once in two tosses of a coin is 3 out of 4), and a proceeding in which one party has a 75% chance of winning is not, according to OCRE, "perfectly fair".

issues, it inexplicably simply ignores the mandatory public hearing on the application for the combined license and the opportunity for a public hearing on an application for a design certification. Moreover, contrary to NIRS, shortcomings in certain plants were not discovered because the licensing proceedings consisted of two steps but rather because design issues had to be resolved and construction made to conform to design before operation began. Part 52 provides for no less. Finally, OCRE's claim that it is human nature not to act until immediately and tangibly threatened is no argument in favor of two-step licensing. However, it is also human nature to debate important actions fully before taking them.

The final rule adopts a straight-forward approach to limiting the issues in any post-construction hearing on a combined license. As a matter of logic, every conceivable contention which could be raised at that stage would necessarily take one of two general forms. It would allege either that construction had not been completed -- and the plant would not operate -- in conformity with the terms of the combined license, or that those terms were themselves not in conformity with the Atomic Energy Act and pertinent Commission requirements. The final rule makes issues of conformity with the terms of the combined license part of any post-construction hearing, unless those issues are excepted from adjudication by the APA exception for findings which are based solely on the results of tests and inspections. The final rule does not attempt to say in advance what issues might fall under that exception. The comments are nearly unanimous in the opinion that issues of conformity with the combined license are properly encompassed in any post-construction hearing. Moreover, this limited opportunity for hearing is consistent

with the Commission's belief that, even if Section 185 did not speak at all the need for a conformity finding, the Commission itself would need to make such a finding prior to operation in order to conclude, in the language of Section 103, that operation is not inimical to the health and safety of the public. The final rule also provides that issues of whether the terms of the combined license are themselves inadequate are to be brought before the Commission under the provisions of 10 CFR 2.206. This approach to issues concerning the inadequacy of the combined license is well-founded in the discretion afforded the Commission under Section 185 of the Act to determine what constitutes "good cause" for not permitting operation, and in the analogy which this approach has with the way construction permits are treated in operating license proceedings. Contentions alleging inadequacies in a construction permit are not admissible in an operating license proceeding. Similarly, under the final rule, contentions alleging inadequacies in a combined license are not admissible in a post-construction hearing. Moreover, as we have noted, this approach fully satisfies applicable law.

### III. Other Issues

These are taken up section by section. Not discussed are most of the many changes made to the proposed rule for the sake of clarity, brevity, consistency, specificity, and the like. Worth noting, however, is that this Federal Register notice moves Appendices M, N, O, and Q of Part 50 to Part 52, so that, except for Subpart F of 10 CFR Part 2, all of the Commission's regulations on standardization and early resolution of licensing issues will be in one part of 10 CFR Chapter I. Readers are reminded that a comparative text showing all deletions from, and

additions to, the proposed rule is available in the NRC's public document room.

## 1. Early Site Permits

At the suggestion of NUMARC and others, § 52.17 now gives applicants for early site permits the option of submitting emergency planning "parameters", or even complete emergency plans, for final approval. Also, the section requires a redress plan only of applicants who wish to be able to perform the site preparation work and similar work allowed under 10 CFR 50.10(e)(1). Last, incorporating suggestions by UCS and others, the section says what factors should be considered in determining whether the area surrounding the site is "amenable" to emergency planning.

Section 52.18 now makes clear that need for power is not a consideration at the early site permit stage.

In a number of places -- §§ 52.23, 52.53, 52.87, and portions of other sections -- the rule provides explicitly for ACRS review of issues to make clear that, even though the Atomic Energy Act does not, in terms, give the ACRS a role in the granting of early site permits, design certifications, or combined licenses, the ACRS is to have the same role with respect to these devices that it does with respect to construction permits, operating licenses, and the like. Wherever the ACRS is spoken of in Part 52, the intention is that the ACRS review the pertinent issues according to the standards specified therein.

As in the proposed rule, § 52.25 provides that the holder of an early site permit which contains a site redress plan, or the applicant for a construction permit or combined license which references such an early site permit, may perform the activities at the site allowed by 10 CFR 50.10(e)(1) without first obtaining the separate authorization required by § 50.10. The New York State Energy Office appears to take this to mean that the holder of the permit may perform such work without NRC approval. To the contrary, the early site permit which contains a redress plan is itself such approval. The law firm of LeBoeuf, Lamb, Leiby & MacRae, representing several utilities, argues that recent case law, especially *NRDC v. EPA*, 859 F.2d 156 (D.C. Cir. 1988), calls into question the Commission's limitations on non-safety related construction before issuance of a permit. LeBoeuf, Lamb concludes that § 52.25 and related portions of Part 52 should be deleted and the limitations in § 50.10 reviewed in the light of the case law. The Office of the General Counsel is undertaking such a review and will recommend to the Commission if any changes to these sections are warranted. In the meantime, the Commission has decided to keep Part 52's provisions on site work intact and consistent with the related provisions in Part 50.

Section 52.27 now contains some of the material which appeared in § 52.29 of the proposed rule. OCRE objects to the provision in § 52.27 which treats an early site permit as valid beyond the date of expiration in proceedings based on applications which have referenced the early site permit. OCRE argues that this provision allows clever applicants to avoid new site requirements by referencing an early site permit just before it expires. At bottom, this is really an argument that early site

permits should have shorter durations. The Commission is confident that the agency will be able to make site judgments which will retain their validity for the durations provided for in the final rule. However, the final rule does provide that the duration of an original permit can be fixed at a term shorter than twenty years. See § 52.27(a).

In its comment on § 52.31, LeBoeuf, Lamb suggests that at renewal, the burden should be on the Commission to show why an early site permit should not be renewed, but that a given permit should be renewed only once, and for not more than ten years. The final rule retains the provisions of the proposed rule, because they provide more flexibility to both the Commission and holders of permits.

Much of the discussion in Section II.1.f. and II.3.b. above on the finality of design certifications and hearings after construction is relevant to the provisions in § 52.39 on the finality of early site permits. Section 52.39 now states that, except in certain limited circumstances, issues resolved in a proceeding on an early site permit shall be treated as resolved in any later proceeding on an application which references the early site permit. One of the circumstances involves petitions under 10 CFR 2.206 that the terms of the early site permit should be modified; section 52.39(a)(2)(iii) assumes that the Director shall resolve the issues raised by the petition in accordance with the standard in paragraph (a)(1) of the same section.

## 2. Design Certifications

In the proposed rule, § 52.45 contained material on scope of design and testing of prototypes. This material now appears, in modified form, in § 52.47.

In § 52.47, the provisions on testing of prototypes have been reworded to avoid suggesting a presumption that designs of the affected class could be certified only after successful testing of a prototype. One individual and the U. S. Metric Association urged that the rule require that technical information in applications be in metric units. The NRC staff believes there is much merit in this proposal, but because the public has not had an opportunity to comment on it, it is not incorporated in the final rule. The NRC staff is considering proposing an amendment to Part 52 on the subject for Commission review.

On §§ 52.53, 52.54, 52.55, and 52.63, see the remarks in Section III.1. above on §§ 52.23, 52.24, 52.27, and 52.39, respectively.

## 3. Combined Licenses

The last sentence of § 52.75 of the proposed rule now appears in § 52.79 of the final rule.

DOE proposes redrafting § 52.79 to require that no application for a combined license be considered unless it references a certified design. The final rule does not contain this restriction because there may be

circumstances in which a combined license would properly utilize a non-standard design, and because such a restriction would mean, among other things, that every prototype would have to be licensed in a fully two-step process. In connection with § 52.79's provisions on submission of complete emergency plans, NIRS somehow concludes that Subpart C's provisions on emergency planning "extend", to the detriment of state and local governments, the "realism" doctrine set forth in 10 CFR 50.47 and recently affirmed in *Commonwealth of Massachusetts v. NRC*, 856 F.2d 378 (1st Cir. 1988). Apparently, NIRS believes that to settle emergency planning issues before construction is to "extend" the doctrine. To the contrary, although Subpart C assumes the "realism" doctrine, as it is entitled to do, it does not extend it. The doctrine remains precisely what it is in § 50.47. Moreover, the Commission's aim in drafting Subpart C's provisions on emergency planning has been to follow to the maximum feasible extent the National Governors' Association's Recommendation, at its 79th annual meeting, in 1987, that "... emergency plans should be approved by the NRC before it issues the construction permit for any new nuclear power plant."

Section 52.83 now provides that the initial term of a combined license shall not exceed forty years from the date on which the Commission makes the findings required by § 52.103(c).

On § 52.87, see the discussion in Section III.1. on § 52.23.

NUMARC proposed removing from § 52.89 any reference to design certifications, on the grounds that environmental impact statements

should not be prepared in connection with certification rulemakings. The references in this section to design certifications are not meant to imply that environmental impact statements must be prepared in connection with design certifications.

Section 52.99 has been reworded to reflect more clearly that the inspection carried out during construction under a combined license will be based on the tests, inspections, analyses, and related acceptance criteria contained in the combined license. Several industry commenters proposed adding to this section a requirement that the staff prepare an inspection plan in connection with each combined license. However, such a requirement would be largely duplicative of a long-standing staff practice under which the staff prepares an annual inspection plan which allocates resources according to the priorities among all pending inspection tasks. The annual plan should assure the timeliness of inspections of construction under a combined license. Section 52.99 envisions a "sign-as-you-go" process in which the staff signs off on inspection units and notice of the staff's sign-off is published in the Federal Register. UCS says that it is "totally inappropriate" for the Commission, while construction is going on, to sign off on inspections and thus put matters beyond dispute which might otherwise be raised after construction is complete. However, UCS has misunderstood the Commission's role in the inspection process. While construction is going on, only the staff signs off on inspections. The Commission makes no findings with respect to construction until construction is complete. Section 52.99 has been modified to make this point more clearly.

UCS and other commenters object to the section in § 52.103 of the proposed rule which provided interested persons thirty days after notice of proposed authorization of operation in which to request a hearing on the specified grounds. Yet the thirty-day requirement was drawn from section 189a of the Act. Neither the Act nor Part 52 imagine that it would be acceptable for interested persons to wait until notice is received before they examine the record of construction. Such time periods are like the sixty-day limit in the Hobbs Act, 28 U.S.C. 2344, for petitions for direct judicial review of an agency rule. These limits assume that the petitioner is familiar with the fundamentals of the record before the limited period begins. The limited period is then provided for consideration of options, consultation with other interested persons, and drafting of pleadings. In any event, the final rule provides sixty days, in consideration of the pleading standard § 52.103 imposes on petitioners. Moreover, as noted above, to assist interested persons in becoming familiar with the construction record, § 52.99 now provides that notice of staff approvals of construction will be published periodically in the Federal Register. Finally, Urenco, Inc., is concerned that the last subsection of § 52.103 not be taken to suggest that the Commission would have to make separate findings for each of the numerous "modules" of a gaseous diffusion facility. The issue of how the modules of a gaseous diffusion facility should be licensed is beyond the scope of this rulemaking and therefore cannot suggest that the Commission would have to make separate findings for each of the modules of such a facility.

## REPLICATE PLANT CONCEPT

In the notice of proposed rulemaking, the Commission published a revised policy statement on replication of plants and invited comment on the revised policy. See 53 FR 32067, col. 3, to 32068, col. 1. Several industry commenters remarked that the statement's requirement that the application for replication be submitted within five years of the date of issuance of the staff safety evaluation report for the base plant effectively made replication unavailable for the short term. They recommended removing the restriction, or at least lengthening it. The Commission has decided to retain this restriction. The five-year figure is in fact already a lengthening of the analogous figure in the immediately preceding version of the policy statement. The restriction is a reflection of the Commission's belief that applications which reach back further than a given number years probably ought to be considered as custom-plant applications.

## Policy on Replication

The replicate plant concept involves an application by a utility for a license to construct or operate one or more nuclear power plants of essentially the same design as one already licensed.

The design of the plant already licensed (termed the base plant design) may be replicated at both the construction permit and operating license stages, and in applications for combined construction permits and operating licenses in a one-step licensing process. Replication of an approved base plant design at the construction permit stage is a

prerequisite for its replication at the operating license stage.

Although replication of the base plant design at the operating license stage is not mandatory, that is, the operating license application may be submitted as a custom plant application, it is strongly recommended.

An application for a replicate plant must demonstrate compliance with the four licensing requirements for new plant designs as set forth in the Commission's Severe Accident Policy Statement (50 Fed. Reg. 32138; August 8, 1985).

Each application proposing to replicate a previously licensed plant will be subjected to a qualification review to determine the acceptability of the base plant for replication and to define specific matters that must be addressed in the application for the replicate plant. A further requirement for qualification is that the application for a replicate plant must be submitted within five years of the date of issuance of the staff safety evaluation report for the base plant. The qualification review will consider the following information:

- (1) The arrangement made with the developers of the base plant design for its replication;
- (2) The compatibility of the base plant design with the characteristics of the site proposed for the replicate plant;
- (3) A description of any changes to the base plant design, with justification for the changes;
- (4) The status of any matters identified for the base plant design in the safety evaluation report, or subsequently identified by the ACRS or during the public hearings on the base plant application as requiring later resolution;

(5) Identification of the major contractors, with justification for the acceptability of any that are different than those used by the base plant applicant; and

(6) A discussion of how the replicate plant design will conform to any changes to the Commission's regulations which have become effective since the issuance of the license for the base plant.

#### ENVIRONMENTAL IMPACT -- CATEGORICAL EXCLUSION

The final rules amend the procedures currently found in Part 50 and its appendices for the filing and reviewing of applications for construction permits, operating licenses, early site reviews, and standard design approvals. As such they meet the eligibility criteria for the categorical exclusion set forth in 10 CFR 51.22(c)(3). That section applies to "[a]mendments to ... Part[] 50 ... which relate to (i) procedures for filing and reviewing applications for licenses or construction permits or other forms of permission ... ." As the Commission explained in promulgating this exclusion, "[a]lthough amendments of this type affect substantive parts of the Commission's regulations, the amendments themselves relate solely to matters of procedure. [They] ... do not have an effect on the environment." 49 Fed. Reg. 9352, 9371, col. 3 (March 12, 1984) (final environmental protection regulations).<sup>6</sup> Accordingly, pursuant to 10 CFR § 51.22(b), no

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<sup>6</sup>It makes no substantive difference for the purpose of the categorical exclusion that the amendments are in a new Part 52 rather than in Part 50. The amendments are, in fact, amendments to the Part 50 procedures and could have been placed in that part.

environmental impact statement or environmental assessment need be prepared in connection with these final rules.<sup>7</sup>

#### PAPERWORK REDUCTION ACT STATEMENT

The final rule contains information requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. § 3501 et seq.). These requirements have been approved by the Office of Management and Budget under control number 3150(b)----.

#### REGULATORY ANALYSIS

As presently constituted, the American population of nuclear power reactors consists largely of one-of-a-kind designs. Experience has shown that the highly individualistic character of this population has consumed enormous resources in the processes of design, construction, and

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<sup>7</sup>The requirements concerning testing of full-size prototypes of advanced reactors, see § 52.47, may appear not to fit into the category excluded by § 51.22(c)(3), since to comply with the requirements, an applicant may have to build and test a prototype plant, an act clearly with an environmental impact. Nonetheless, § 52.47 is eligible for exclusion under § 51.22(c)(3). Unlike, for instance, the promulgation of a safety rule which applies to operating plants, the formal action of promulgating § 52.47 has only a potential impact on the environment. That impact becomes actual only if a designer chooses to pursue certification of a certain kind of advanced design. Under the present circumstances, no meaningful environmental assessment or impact statement can be made. Cf. 49 FR at 9372, cols. 2-3 (entering into an agreement with a State under Section 274 of the Atomic Energy Act has no immediate or measurable environmental impact and therefore warrants a categorical exclusion). The issuance of the construction permit and operating license for a prototype plant would, of course, be a major federal action with a significant impact on the environment, and would entail the preparation of an environmental impact statement. Cf. *id.*, col. 3 (the

(Footnote Continued)

safety review. Since, typically, design of a plant was not complete when construction of it began, many safety questions were not resolved until late in the licensing proceeding for that plant. Such late resolution of questions introduced great uncertainty into proceedings, since the process of resolution often entailed lengthy safety reviews, construction delays, and backfits. Moreover, the low incidence of duplication among designs has meant that experience gained in the construction and operation of a given plant has often not been useful in the construction and operation of any other plant, and has made the generic resolution of continuing safety issues more complicated.

In the face of this experience with a population of unique plants, there have long been fundamentally only three alternatives for Commission action, the last two of them not mutually exclusive: either make no effort to bring about an increased degree of standardization, or propose legislation on standardization, or enact by rulemaking as much of a scheme for promoting standardization as the Commission's current statutory authority permits. The Commission has for some time concluded against the first alternative, having decided that a substantial increase in standardization would enhance the safety and reliability of nuclear power plants and require fewer resources in safety reviews of plants, and that the Commission should have in place provisions for the review of standardized designs and other devices for assuring early resolution of safety questions. The Commission has therefore pursued standardization

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(Footnote Continued)

States must prepare detailed environmental analyses before they license certain activities).

both by proposing legislation -- without success -- and by promulgating rules, in particular Appendices M, N, and O to Part 50 (now Part 52) of 10 CFR. Lacking legislation on standardization, the Commission believes that the most suitable alternative for encouraging further standardization is to fill out and expand the Commission's regulatory scheme for standardization and early resolution of safety issues.

Therefore, the Commission now promulgates a new set of regulations, to be placed in a new part in 10 CFR, Part 52. This new part facilitates the early resolution of safety issues by providing for pre-construction-permit approval of power plant sites, Commission certification of standardized designs, and the issuance of licenses which combine permission to construct a plant with a conditional permission to operate it once construction of it has been successfully completed. Ideally, a future applicant will reference an approved site and a certified design in an application for a combined license, thus obviating the need for an extensive review of the application and construction. The provision in Part 52 for Commission certification of designs has the additional objective of encouraging the use of standardized designs, thereby adding to the benefits of early resolution the safety benefits of accumulated experience and the economic benefits of economies of scale and transferable experience.

Quantification of the costs and benefits of this rulemaking is probably not possible. Much depends on the extent to which the industry pursues standardization. Clearly, if the Commission and the industry spend the resources necessary to certify a score of designs and then no

applicant references any of them, those resources will have been largely wasted. On the other hand, it is just as clear that if a score of plants uses a single certified design, there will have been a great saving of the resources of the industry, the agency, and the interested public alike. To be added to the uncertainties surrounding the industry's response, there are also uncertainties concerning the costs of the certification process, and the costs of developing the designs themselves, especially the advanced designs, which may require testing of prototypes. However, if the industry finds it in its interest to proceed with the development of nuclear power, there is every reason to expect that the safety and economic benefits of standardization will far outweigh the upfront costs of design and Commission certification: Review time for applications for licenses will be drastically reduced, the public brought into the process before construction, construction times shortened, economies of scale created, reliability of plant performance increased, maintenance made easier, qualified vendor support made easier to maintain, and, most important, safety enhanced.

Thus, the rationale for proceeding with this rulemaking: There is no absolute assurance that certified designs will in fact be used by the utilities; however, it is certain that if the reasonably expected benefits of standardization are to be gained, then the Commission must have the procedural mechanisms in place for review of applications for early site approvals, design certifications, and combined licenses. The most fundamental choice is, of course, the industry's, to proceed or not with standardization, according to its own weighing of costs and

benefits. But the Commission must be ready to perform its review responsibilities if the industry chooses standardization.

#### REGULATORY FLEXIBILITY ACT CERTIFICATION

The final rule will not have a significant impact on a substantial number of small entities. The final rule will reduce the procedural burden on NRC licensees by improving the reactor licensing process. Nuclear power plant licensees do not fall within the definition of small businesses in Section 3 of the Small Business Act, 15 U.S.C. § 632, the Small Business Size Standards of the Small Business Administration in 13 CFR Part 121, or the Commission's Size Standards published at 50 FR 50241 (Dec. 9, 1985). The impact on intervenors or potential intervenors will be neutral. For the most part, the final rule will affect the timing of hearings rather than the scope of issues to be heard. For example, many site and design issues will be considered earlier, in connection with the issuance of an early site permit or standard design certification, rather than later, in connection with a facility licensing proceeding. Similarly, a combined license proceeding will include consideration of many of the issues that would ordinarily be deferred until the operating license proceeding. Thus, the timing rather than the cost of participating in NRC licensing proceedings will be affected. Intervenors may experience some increased preparation costs if they seek to reopen previously decided issues because of the increased showing that will be required. Once a hearing commences, however, an intervenor's costs should be decreased because the issues will be more clearly defined than under existing practice. Therefore, in accordance with the

Regulatory Flexibility Act of 1980, 5 U.S.C. § 605(b), the Commission hereby certifies that the final rule will not have a significant economic impact on a substantial number of small entities and that, therefore, a regulatory flexibility analysis need not be prepared.

#### BACKFIT ANALYSIS

This rule does not modify or add to the systems, structures, components, or design of a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to construct or operate a facility. However, it could be argued that this rule modifies and adds to the procedures or organization required to design a facility, since the rule adds to, or else at least spells out, the requirements for applicants for design certifications. Moreover, the rule, at the very least, substantially modifies the expectations of anyone who had hoped to apply for a design certification under the previously existing section 7 of Appendix 0, particularly of any such who presently hold preliminary or final design approvals under that Appendix.

Nonetheless, the Commission believes that the backfit rule does not apply to this rule and, therefore, that no backfit analysis pursuant to 10 CFR § 50.109(c) is required for this rule. The backfit rule was not intended to apply to every action which substantially changes settled expectations. Clearly, the backfit rule would not apply to a rule which would impose more stringent requirements on all future applicants for construction permits, even though such a rule arguably might have an

adverse impact on a person who was considering applying for a permit but had not done so yet. In this latter case, the backfit rule protects the construction permit holder, not the prospective applicant, or even the present applicant. The final rule below is of the character of such a hypothetical rule. The final rule arguably imposes more stringent requirements for design certification and thereby may have an adverse impact on some persons. However, the effects of the final rule will be largely prospective, and the rule does not require any present holder of a design approval (no person holds a design certification) to meet new standards in order to remain in possession of such an approval.

#### LIST OF SUBJECTS IN 10 CFR PART 52

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

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. § 553, the Commission is adding to 10 CFR Chapter I a new Part 52:

PART 52 - EARLY SITE PERMITS; STANDARD DESIGN CERTIFICATIONS;  
AND COMBINED LICENSES FOR NUCLEAR POWER PLANTS

General Provisions

- Sec.  
52.1 Scope.  
52.3 Definitions.  
52.5 Interpretations.  
52.8 Information collection requirements: OMB approval.

Subpart A - Early Site Permits

- 52.11 Scope of subpart.  
52.13 Relationship to Subpart F of 10 CFR Part 2 and Appendix Q of this part.  
52.15 Filing of applications.  
52.17 Contents of applications.  
52.18 Standards for review of applications.  
52.19 Permit and renewal fees.  
52.21 Hearings.  
52.23 Referral to the ACRS.  
52.24 Issuance of early site permit.  
52.25 Extent of activities permitted.  
52.27 Duration of permit.  
52.29 Application for renewal.  
52.31 Criteria for renewal.  
52.33 Duration of renewal.  
52.35 Use of site for other purposes.  
52.37 Reporting of defects and noncompliance; revocation, suspension, modification of permits for cause.  
52.39 Finality of early site permit determinations.

Subpart B - Standard Design Certifications

- 52.41 Scope of subpart.  
52.43 Relationship to Appendices M, N, and O of this part.  
52.45 Filing of applications.  
52.47 Contents of applications.  
52.49 Design certification and renewal fees.  
52.51 Administrative review of applications.  
52.53 Referral to the ACRS.  
52.54 Issuance of standard design certification.  
52.55 Duration of certification.  
52.57 Application for renewal.  
52.59 Criteria for renewal.  
52.61 Duration of renewal.  
52.63 Finality of standard design certifications.

### Subpart C - Combined Licenses

- 52.71 Scope of subpart.
- 52.73 Relationship to Subparts A and B.
- 52.75 Filing of applications.
- 52.77 Contents of applications; general information.
- 52.79 Contents of applications; technical information.
- 52.81 Standards for review of applications.
- 52.83 Applicability of Part 50 provisions.
- 52.85 Administrative review of applications.
- 52.87 Referral to the ACRS.
- 52.89 Environmental review.
- 52.91 Authorization to conduct site activities.
- 52.93 Exemptions and variances.
- 52.97 Issuance of combined licenses.
- 52.99 Inspection during construction.
- 52.101 Pre-operational antitrust review.
- 52.103 Operation under a combined license.

Authority: Secs. 103, 161, 182, 183, 186, 189, 68 Stat. 936, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2133, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, 202, 206, 88 Stat. 1242, 1244, 1246, as amended (42 U.S.C. 5841, 5842, 5846).

## GENERAL PROVISIONS

## § 52.1 Scope.

This part governs the issuance of early site permits, standard design certifications, and combined construction permits and conditional operating 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).

## § 52.3 Definitions.

As used in this part,

(a) "Combined license" means a combined construction permit and conditional operating license 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.

#### § 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.

#### § 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 of 1980 (44 U.S.C. 3501, et seq.). OMB has approved the information collection requirements contained in this part under control number 3150(b)---.

(b) The approved information collection requirements contained in this part appear in §§ 52.15, 52.17, 52.29, 52.45, 52.47, 52.57, 52.75, 52.77, and 52.79.

## SUBPART A - EARLY SITE PERMITS

## § 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.

## § 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 Subparts 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.

§ 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).

§ 52.17 Contents of applications.

(a)(1) The application must contain the information required by 10 CFR 50.33(a)-(d), the first three sentences of 50.34(a)(1), and, to the extent approval of emergency plans is sought under paragraph (b)(2)(ii) below, the information required by 50.33(g) and (j), and 50.34(b)(6)(v). In particular, 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 (see Appendix A to 10 CFR Part 100);

(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) A complete environmental report as required by 10 CFR 51.45 and 51.50 shall be included in the application, provided, however, that such environmental report shall 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 shall include an evaluation of alternative sites to determine whether there is any obviously superior alternative to the site proposed.

(b)(1) The application must provide information sufficient to show that the area surrounding the site is amenable to emergency planning which would provide reasonable assurance that adequate protective measures could be taken in the event of a radiological emergency at the site, given the characteristics of the site and the probable emergency planning zones surrounding the site; such characteristics include, but in particular cases would not necessarily be limited to, the topography

and meteorology of the planning zones; the projected future population profile of the planning zones; land use inside the planning zones; the sheltering capacity and sheltering effectiveness of buildings in the plume emergency planning zone; and potential routes for evacuation out of the plume emergency planning zone.

(2) The application may also either

(i) Propose emergency planning parameters for review and approval by the NRC and the Federal Emergency Management Agency; the parameters may include such matters as the exact size and shape of the emergency planning zones, or the resources required for sheltering or evacuation; conformance with these parameters by the emergency plans submitted by an applicant for a combined license or an operating license will be sufficient to show the acceptability of the plans with respect to the emergency planning requirements reflected in the parameters; or

(ii) Propose complete emergency plans for review and approval by the NRC and the Federal Emergency Management Agency, in accord with the applicable provisions of 10 CFR 50.47.

Under paragraphs (1) and (2)(i) of this subsection, the application must include a description of any contacts and arrangements made with local, state, and federal governmental agencies with emergency planning responsibilities. Under the option set forth in paragraph (2)(ii) of this subsection, the applicant shall make good faith efforts to obtain from the same governmental agencies certifications (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 measures can and will be taken in the event of a radiological emergency at the site.

(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 application must propose, for inclusion in the early site permit, a plan for redress of the site in the event that such 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 in effect at permit expiration.

#### § 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 shall 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 shall 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 the area surrounding the site is amenable to emergency planning which would provide reasonable assurance that adequate protective measures could be taken in the event of a radiological emergency at the site, whether any emergency planning parameters submitted by the applicant under § 52.17(b)(2)(i) are sufficient to determine the adequacy of any portion of an emergency plan which conforms to the parameters, 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.

§ 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, together with a schedule for their deferred recovery. There is no application fee.

#### § 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 shall 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.

#### § 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.

§ 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 such form and containing such conditions and limitations, as the Commission deems appropriate and necessary.

§ 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 such 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 shall

remain in effect solely for the purpose of site redress, and the holder of the permit must 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.

§ 52.27 Duration of permit.

(a) Except as provided in subsection (b) of this section, an early site permit issued under this subpart shall 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.

§ 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) of this subpart.

(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 of this subpart.

§ 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 of the renewal, 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.

#### § 52.33 Duration of renewal.

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

#### § 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 of this part. 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.

§ 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.

§ 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 of this subpart, 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 shall be referred to an Atomic Safety and Licensing Board for further proceedings in accord with Subpart G of Part 2.

(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. The Director shall grant or deny the petition before construction commences. If the petition is granted, then an order to modify the early site permit will be issued pursuant to 10 CFR 2.204. Construction under the construction permit or combined license will not be affected by the granting of the petition unless the order to modify is made immediately effective pursuant to 10 CFR 2.204.

(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 shall 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

## § 52.41 Scope of subpart.

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

## § 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 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.

§ 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 a prerequisite for certification of a standard design, a person who seeks such a certification and does not hold, or has not applied 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 paragraph (6); (c); and (e).

#### § 52.47 Contents of applications.

(a) The requirements of this subsection 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 or 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 the design receives a final design approval 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 (1)(v) of this subsection;

(viii) Justification that compliance with the interface requirements of paragraph (1)(vii) of this subsection 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 (1)(vi) of this subsection; 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 (1)(v) of this subsection, and to permit assessment of the adequacy of the interface requirements called for by paragraph (1)(vii) of this subsection.

(2) The application must contain a level of design information equivalent to that required for a final design approval under Appendix O of this part. 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 and construction specifications by an applicant for a construction permit or a combined license. The information must be sufficient to enable the Commission ultimately 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.

(3) The staff shall advise the applicant on whether any technical information beyond that required by this section must be submitted.

(b) The paragraphs of this subsection apply, according to their 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 the complete scope of the 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 (i)(A)(4) of this subsection 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 paragraphs (i)(A)(1) through (i)(A)(4) of this subsection. 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.

#### § 52.49 Fees for reviews 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, together with a schedule for their deferred recovery. There is no application fee.

#### § 52.51 Administrative review of applications.

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. 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. Notwithstanding anything in 10 CFR 2.790 to the contrary, during the rulemaking, the treatment of proprietary information will be governed by the same criteria which govern the treatment of 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. 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.

§ 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.

§ 52.54 Issuance of standard design certification.

After conducting a rulemaking proceeding under § 52.51 of this part 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 of this part, 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.

§ 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 ten 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 of this part 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.

§ 52.57 Application for renewal.

(a) Not less than twelve nor more than thirty-six months prior to expiration of the initial ten-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. Notice and comment procedures shall 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 of this subpart.

(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 of this subpart.

§ 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 of the renewal, 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.

(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.

§ 52.61 Duration of renewal.

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

§ 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 of this subpart, the Commission may not 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 notice and comment 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.

(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 paragraph (3) or paragraph (4) of this subsection, or subsection (b) of this section.

(3) While a design certification is in effect under § 52.55 or § 52.61 of this subpart, unless special circumstances as defined in 10 CFR 50.12(a) are present, the Commission will 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.

(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 of this part, the Commission shall treat as

resolved those matters resolved in connection with the issuance or renewal of a design certification.

(b)(1) An applicant for an operating license, or combined license, or a licensee whose license references a standard design issued under this subpart, 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 shall be subject to litigation in the same manner as other issues in the operating license or combined license hearing.

(2) The licensee of a plant built according to a standardized design may make a change to the standardized portion of the plant, without prior Commission approval, only if the change does not involve changes to the design as described in the rule certifying the design.

## SUBPART C - COMBINED LICENSES

## § 52.71 Scope of subpart.

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

## § 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.

## § 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), 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.

§ 52.77 Contents of applications; general information.

The application shall contain all of the information required by 10 CFR 50.33, as that section would apply to an applicant for a construction permit or an operating license, 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.

§ 52.79 Contents of applications; technical information.

(a)(1) In general, if the application references an early site permit, the application need not contain such information or analyses as have been submitted to the Commission in connection with the early site permit, but shall 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) of this

part, 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 shall contain the information required by § 52.17(c) of this part.

(b) The application must contain the technically relevant information required of applicants for an operating license by 10 CFR 50.34. The final safety analysis report and other required information may incorporate by reference the final safety analysis report for a certified standard design. In particular, an application referencing a certified design 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 must also demonstrate compliance with the interface requirements established for the design under § 52.47(a)(1) of this part. If the application does not reference a certified design, the application must comply with the requirements of § 52.47(a)(2) of this part 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).

(c) The application for a combined license must include the proposed tests, inspections, and analyses which the licensee shall perform and the acceptance criteria therefor which are necessary and sufficient to provide reasonable assurance that, if the tests, inspections and analyses are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the combined license. Where the application references a certified standard design, the test, inspections, analyses and acceptance criteria

contained in the certified design shall apply to those portions of the facility design which are covered by the design certification.

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

(3) If the application references an early site permit which contains emergency planning parameters, the parameters shall apply.

§ 52.81 Standards for review of applications.

Applications filed under this subpart will be reviewed according to the standards set out in 10 CFR Part 50 and its appendices and Part 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.

§ 52.83 Applicability of Part 50 provisions.

Unless otherwise specifically provided in this subpart, all provisions of 10 CFR Part 50 and its appendices applicable to holders of construction permits for nuclear power reactors also apply to holders of combined licenses issued under this subpart. Similarly, all provisions of 10 CFR Part 50 and its appendices 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 § 52.103 of this subpart, provided that, as applied to a combined license, 10 CFR 50.51 shall require that the initial duration of the license shall not exceed 40 years from the date on which the Commission makes the findings required under § 52.103 of this subpart. However, any limitations contained in Part 50 regarding applicability of the provisions to certain classes of facilities continue to apply.

§ 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.

§ 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 of this subpart, in accordance with the finality provisions of this part.

§ 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 shall be followed, including the issuance of a final

environmental impact statement, but excluding the issuance of a supplement under § 51.95(a).

§ 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) of this part, the applicant is authorized by § 52.25 of this part 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 such a redress plan, the applicant may not perform the site preparation activities allowed by § 50.10(e)(1) without first submitting a site redress plan in accord with § 52.79(a)(3) of this subpart and obtaining the separate authorization required by § 50.10(e)(1). Such authorization shall be granted only after the presiding officer in the proceeding on the application has made the findings and determination required by § 50.10(e)(2) and has determined that the site redress plan meets the criteria in § 52.17(c) of this part.

(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 subsection (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.

§ 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).

(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 shall be subject to litigation during the combined license proceeding in the same manner as other issues material to that proceeding.

§ 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 §§ 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) The Commission shall identify in the license the tests, inspections, and analyses that the licensee shall perform and the acceptance criteria therefor which are necessary and sufficient to provide reasonable assurance that, if the tests, inspections, and analyses are performed and the acceptance criteria met, 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 regulations.

§ 52.99 Inspection during construction.

After issuance of a combined license, the NRC staff shall assure that the required inspections, tests, and analyses are performed and that the prescribed acceptance criteria are met. Holders of combined licenses shall comply with the provisions of §§ 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.

§ 52.101 Pre-operational antitrust review.

If, before the Commission makes the findings required under § 52.103 of this subpart, the Commission, after consultation with the Attorney General, determines that significant changes in the licensee's activities or proposed activities have occurred subsequent to the previous review by the Attorney General and the Commission in connection with the issuance of the combined license, the antitrust review required by Section 105c(2) of the Atomic Energy Act must be completed prior to commencement of commercial operation of the facility. Upon completion of this review, the Director of Nuclear Reactor Regulation may impose any additional license conditions as authorized by Section 105c of the Atomic Energy Act.

§ 52.103 Operation under a combined license.

(a) Not less than 180 days before loading of fuel into the reactor, the holder of the combined license shall, in writing, notify the Commission of the expected dates of both fuel loading and criticality. The Commission shall publish notice of these dates in the Federal Register. The Federal Register notice shall also advise persons whose interests may be affected by facility operation of their rights under subsection (b) of this section.

(b)(1) Not later than 60 days after publication of the notice required by subsection (a), any person whose interest may be affected by facility operation may file one or both of the following in writing:

(i) A petition which shows, prima facie, that one or more of the acceptance criteria in the combined license have not been met and, as a result, there is good cause to modify or prohibit operation; or

(ii) A petition to modify the terms and conditions of the combined license.

(2)(i) A good cause petition filed under paragraph (b)(1)(i) will be granted by the Commission only if it includes, or clearly references, official NRC documents, documents prepared by or for the combined license 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 combined license 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 raised by the petition 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 shall be resolved in accordance with 5 U.S.C. 554, 556, and 557. In such cases, the notice of hearing from the Commission shall specify the procedures to be followed, which may, but need not, include some or all of the procedures in Subpart G of Part 2. Matters exempt from adjudication under 5 U.S.C. 554(a)(3) may be decided by the Commission solely on the basis of the showing of good cause and any responsive pleadings.

(ii) A petition to modify the terms and conditions of the combined license will be processed in accord with 10 CFR 2.206. The Director shall grant or deny the petition before the licensed activity allegedly affected by the petition (fuel loading, low power testing, etc.) commences. If the petition is granted, then an order to modify the combined license will be issued pursuant to 10 CFR 2.204. Fuel loading and operation under the combined license will not be affected by the granting of the petition unless the order to modify is made immediately effective pursuant to 10 CFR 2.204.

(c) Prior to fuel loading, the Commission shall find that the acceptance criteria in the combined license have been met and that, accordingly, the facility has been constructed and will operate in conformity with the Atomic Energy Act and the Commission's regulations. If the combined license is for a modular design, each reactor module may require a separate finding as construction proceeds. If appropriate, the Commission may also make separate findings for purposes of fuel loading, criticality, low power testing, or any other discrete phase of reactor operation.

Attachment 2

PART 52 - EARLY SITE PERMITS; STANDARD DESIGN CERTIFICATIONS;  
AND COMBINED LICENSES FOR NUCLEAR POWER PLANTS

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- 52.99 Inspection during construction.
- 52.101 Pre-operational antitrust review.
- 52.103 Authorization to operate under a combined license.

Authority: Secs. 103, 161, 182, 183, 186, 189, 68 Stat. 936, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2133, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, 202, 206, 88 Stat. 1242, 1244, 1246, as amended (42 U.S.C. 5841, 5842, 5846).

## GENERAL PROVISIONS

Sec. 52.1 Scope.

This part governs the issuance of early site permits, standard design certifications, and combined construction permits and conditional operating licenses for nuclear power facilities licensed under Section 103 or 104b of under the Atomic Energy Act of 1954, as amended (68 Stat. 919), and Title II of the Energy Reorganization Act of 1974 (88 Stat. 1242).

Sec. 52.3 Definitions.

As used in this part,

(a) "Combined license" means a combined construction permit and conditional operating license 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, licensing-of-a-nuclear-power-facility-or approval-of-a-major-portion-of-such-a-facility-when-referenced-in an-application-for-a-construction-permit,-combined-construction

~~permit-and-conditional-operating-license,-or-standard-design~~  
~~certification,-as-appropriate,~~ 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,~~-or-a-major-portion-of-such-a-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.

#### Sec. 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.

#### Sec. 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 of 1980 (44 U.S.C. 3501, et seq.). OMB has approved the information collection requirements contained in this part under control number 3150(b)---

(b) The approved information collection requirements contained in this part appear in \_\_ 52.15, 52.17, 52.29, 52.45, 52.47, 52.57, 52.75, 52.77, and 52.79.

## SUBPART A - EARLY SITE PERMITS

Sec. 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 ~~and-prior-to~~ the filing of an application for a construction permit or combined license for such a facility.

Sec. 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 ~~a-furthercoming~~ 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 Subparts F or G of 10 CFR Part 2. This sSubpart 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 ~~and prior~~ to an application for a construction permit or a combined license for a facility. ~~This subpart may not be used once an application has been docketed pursuant to 10 CFR 2.603.~~

Sec. 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 sec. 50.4, which is referenced by 50.30(a)(1), are applicable: paragraphs (a), (b)(1)-(3), (c), (d), and (e).

Sec. 52.17 Contents of applications.

(a)(1) The application must contain the information required by 10 CFR 50.33(a)-(d), and the first three sentences of 50.34(a)(1), and, to the extent approval of emergency plans is sought under paragraph (b)(2)(ii) below, the information required by 50.33(g) and (j), and 50.34(b)(6)(v). In particular, 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 (see Appendix A to 10 CFR Part 100);

(vii) the location and description of any nearby industrial, military, or transportation facilities and routes; and

~~(viii)~~ (viii) the existing and projected future population profile of the area surrounding the site.

(2) A complete environmental report as required by 10 CFR 51.45 and 51.50 shall be included in the application, provided, however, that such environmental report shall 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 shall include an evaluation of alternative sites to determine whether there is any obviously superior alternative to the site proposed.

(b)(1) The application must demonstrate provide information sufficient to show that the area surrounding the site is amenable to emergency planning which would provide reasonable assurance that adequate protective measures could be taken in the event of a radiological emergency at the site, given the characteristics of the site and the probable emergency planning zones surrounding the site; such characteristics include, but in particular cases would not necessarily be limited to, the topography and meteorology of the planning zones; the projected future population profile of the planning zones; land use inside the planning zones; the sheltering capacity and sheltering effectiveness of buildings in the plume emergency planning zone; and potential routes for evacuation out of the plume emergency planning zone.

(2) The application may also either

(i) Propose emergency planning parameters for review and approval by the NRC and the Federal Emergency Management Agency; the parameters may include such matters as the exact size and shape of the emergency planning zones, or the resources required for sheltering or evacuation; conformance with these parameters by the emergency plans submitted by an applicant for a combined license or an operating license will be sufficient to show the acceptability of the plans with respect to the emergency planning requirements reflected in the parameters; or

(ii) Propose complete emergency plans for review and approval by the NRC and the Federal Emergency Management Agency, in accord with the applicable provisions of 10 CFR 50.47.

Under paragraphs (1) and (2)(i) of this subsection, The application must include a description of any contacts and arrangements made with local, state, and federal governmental agencies with emergency planning responsibilities. ~~for coping with emergencies.~~ Under the option set forth in paragraph (2)(ii) of this subsection, the applicant shall make good faith efforts to obtain from the same governmental agencies, certifications (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 measures can and will be taken in the event of a radiological emergency at the site.

(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 application must propose, for inclusion in the early site permit, a plan for redress of the site in the event that the such activities permitted-by-sec--52-25(a) 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 self-maintaining, environmentally stable, and aesthetically acceptable site suitable for whatever non-nuclear use may conform with local zoning laws in effect at permit expiration.

Sec. 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 shall 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 shall include an evaluation of alternative sites to determine whether there is any obviously superior alternative to the site proposed. ~~and-~~ The Commission shall determine, after consultation with the Federal Emergency Management Agency, ~~in accord with the applicable portions of 10 CFR-50.47(a)(2),~~ whether the information required of the applicant by sec. 52.17(b)(1) ~~demonstrates~~ shows that the area surrounding the site is amenable to emergency planning which would provide reasonable assurance that adequate protective measures could be taken in the event of a radiological emergency

at the site, whether any emergency planning parameters submitted by the applicant under sec. 52.17(b)(2)(i) are sufficient to determine the adequacy of any portion of an emergency plan which conforms to the parameter, and whether any emergency plans submitted by the applicant under sec. 52.17(b)(2)(ii) provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Sec. 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 ~~those for special projects, as defined in 10 CFR 170.3 and~~ set forth in 10 CFR 170.21, together with a schedule for their deferred recovery. There is no application fee. ~~All fees for the review of an application are deferred as follows:~~

~~(a) -- If an application is filed for a construction permit or combined license for a facility to be located at a site for which an early site permit has been issued, the permit holder shall pay the applicable fees for the permit at the time the facility application referencing the early site permit is filed. -- If, at the end of the initial period of the permit, no facility application referencing the early site permit has been docketed, the permit holder shall pay any outstanding fees for the permit.~~

~~(b)--If the permit is renewed, the permit holder shall pay any outstanding fees for the renewal at the time a facility application referencing the early site permit is filed.--If, at the end of the renewal period, no facility application referencing the permit has been filed, the permit holder shall pay any outstanding fees for the renewal.~~

~~(c)--If an application for the issuance or renewal of an early site permit is denied or withdrawn, any outstanding fees associated with the review of the application are due immediately and payable by the applicant for the permit or renewal.~~

#### Sec. 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 secs. 2.101(a)(1)-(4), and the requirements for issuance of a notice of hearing in secs. 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 shall 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.

Sec. 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.

Sec. 52.24 Issuance of early site permit.

After conducting a hearing under sec. 52.21 of this subpart and receiving the report to be submitted by the Advisory Committee on Reactor Safeguards under sec. 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 such form and containing such conditions and limitations, as the Commission deems appropriate and necessary.

Sec. 52.25 Extent of activities permitted.

(a) If an early site permit contains a site redress plan, the holder of an-early-site 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 such 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 a-given any site for which an early site permit has been granted, and the permit-is-not-renewed-for-that site-and-not 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 shall remains in effect solely for the purpose of site redress, and the holder of the permit must redress the site in accordance with the terms of the site redress plan required by sec. 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.

Sec. 52.27 Duration of permit.

(a) Except as provided in subsection (b) of this section,  
~~An~~ early site permit issued under this subpart ~~is~~ shall be valid  
 for not less than ten nor more than twenty years from the date of  
 issuance.

[from 52.29 in the proposed rule (PR):]

(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.

[also from 52.29, with part removed:]

(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  
sec. 52.103 of this part before operation begins under a combined  
license which references the early site permit. ~~and-was-docketed~~  
~~either-before-the-date-of-expiration-of-the-early-site-permit,~~  
~~or,-if-a-timely-application-for-renewal-of-the-permit-was-filed,~~  
~~before-the-Commission-determined-whether-to-renew-the-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.

Sec. 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 sec. 52.27(b) of this subpart. ~~on-an-application-for-a-construction permit-or-combined-license-referencing-the-permit-and-docketed~~

before-the-end-of-the-initial-period-of-the-permit, or a later renewal period. -- An unrenewed permit also continues to be valid in proceedings on an application for an operating license which is based on a construction permit referencing the permit and docketed prior to expiration of the permit or renewal.

(d) The Commission shall refer a copy of the application for renewal must be forwarded to the Advisory Committee on Reactor Safeguards (ACRS), which shall review the application and report its findings and recommendations to the Commission. The ACRS need not reconsider issues on which it has made findings and recommendations in any earlier review of the site which is the subject of the application. The ACRS shall report on those portions of the application which concern safety and shall apply the criteria set forth in sec. 52.31 of this subpart.

Sec. 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 of the renewal, and any more-stringent 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 more-stringent 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.

Sec. 52.33 Duration of renewal.

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

Sec. 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.

~~non-nuclear-activities-for-which-the-site-is-to-be-used.~~ 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 sec. 52.39 of this part. 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. ~~If the Director finds that a particular non-nuclear use may have a significant adverse effect on the suitability of the site for the purposes described in the early site permit, the Director may issue an order to show cause why the permit should not be revoked or modified.~~

Sec. 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.

Sec. 52.39 Finality of early site permit determinations.

(a)(1) Notwithstanding any provision in 10 CFR 50.109, ~~during the initial period in which a permit issued under this subpart~~ while an early site permit is in effect under sec. 52.27 or 52.33 of this subpart, the Commission may not impose ~~more stringent new~~ requirements, including ~~more stringent new~~ emergency planning requirements, on the early site permit or the

site for which it was issued, unless the Commission determines either that

~~(i)-Significant-new-information-shows-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

~~(ii)--A-modification-is-necessary~~ to assure adequate protection of the public health and safety or the common defense and security.

~~(2)--Similarly, notwithstanding any provisions in 10 CFR 50.109, during any renewal period in which an early site permit issued under this subpart is in effect, the Commission may not impose more stringent requirements, including more stringent emergency planning requirements, on the permit or the site for which it was issued, unless the Commission determines either that~~

~~(i)-Significant-new-information-shows-that-a-modification-is necessary-to-bring-the-permit-or-the-site-into-compliance-with the-Commission's-regulations-and-orders-in-effect-at-the-time-the permit-was-renewed, or~~

~~(ii)-A-modification-is-necessary-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 sec. 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 shall be referred to an Atomic Safety and Licensing Board for further proceedings in accord with Subpart G of Part 2.

(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. The Director shall grant or deny the petition before construction commences. If the petition is granted, then an order to modify the early site permit will be issued pursuant to 10 CFR 2.204. Construction under the construction permit or combined license will not be affected by the granting of the petition unless the order to modify is made immediately effective pursuant to 10 CFR 2.204.

(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, ~~or any amendment to this type of 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 shall 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. ~~be-guided-by-the-considerations-set-forth-in 10-CFR-50.92, which guide the Commission's determinations on applications for amendments to construction permits.~~

## SUBPART B - STANDARD DESIGN CERTIFICATIONS

Sec. 52.41 Scope of subpart.

This subpart sets out the requirements and procedures applicable to Commission issuance of rules granting standard design certifications for nuclear power facilities, ~~or major portions thereof~~, separate from the filing of an application for a construction permit or combined license for such a facility.

Sec. 52.43 Relationship to Appendices M, N and O of this part.

(a) Appendix M to this part ~~10-CFR-Part-50~~ 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. ~~These designs may be challenged in individual licensing proceedings.~~ 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. This-subpart Subpart B of Part 52 governs Commission approval, or certification, of standard designs by rulemaking,--as-set-forth-in-paragraph-7-of-Appendix-0.

(c) A final design approval under Appendix O is 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 10-CFR-Chapter-I, Part 52, Subpart B, particularly secs. 52.45 and 52.47.

Sec. 52.45 Filing of applications.

(a)(1) Any person may seek a standard design certification for an essentially complete nuclear power facility,--or-a-major portion-of-such-a-facility- 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. ~~Applications-for-certification-of-less-than-a-complete facility-must-meet-the-criteria-set-forth-in-paragraph-(d)-of this-section-~~

~~(2)(c)(1)~~ Because a final design approval under Appendix O of ~~10-CFR-Part-50~~ this part is a prerequisite for certification of a standard design, a person ~~which~~ who seeks such a certification and does not hold, or has not applied for, a final design approval, shall file with the Director of Nuclear Reactor Regulation an application for ~~certification~~ 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.

~~(b)(d)~~ The applicant ~~shall~~ 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 sec. 50.4, which is referenced by sec. 50.30(a)(1), are applicable to the extent technically relevant: paragraphs (a); (b), except for paragraph (6); (c); and (e).

[52.47 has undergone considerable redrafting. It incorporates much that was in 52.45 in the PR, and material that was in 52.47 in the PR appears below in a different order. The section as a whole now proceeds from requirements all applications must meet to requirements only certain applications must meet. In the text below, we try to indicate where material appeared in the PR.]

Sec. 52.47 Contents of applications.

(a) The requirements of this subsection apply to all applications for design certification. The

(1) An application for design certification must contain:

(i) The technical information which is required of applicants for construction permits or 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; or-irrelevant-to-the-design-for-which-the applicant-is-seeking-certification---In-particular,-the

application-must-demonstrate-compliance-with-any-applicable portions-of-the-Three-Mile-Island-requirements-set-forth-in-10-CFR 50.34(f).--The-staff-shall-advise-the-prospective-applicant-for certification-on-whether-the-information-required-by-the-listed portions-of-10-CFR-Chapter-I-is-appropriate-to-the-staff's consideration-of-the-application,-and-on-whether-any-additional technical-information-on-the-design-is-required. [A truncated version of this last sentence appears as the last paragraph of this subsection. The reference to 50.34(f) reappears as the next item on the list.]

(b)--The-application-must-also-include

(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 the those Unresolved Safety Issues and medium- and high-priority Generic Safety Issues applicable which are identified in the version of NUREG-0933 current on the date the design receives a final design approval and which are technically relevant to the design;

(v) A design-specific probabilistic risk assessment and-a realistic-assessment-of-the-degree-to-which-the-design-conforms to-the-Commission's-Safety-Goals-for-plant-operations; and

(4vi) Proposed tests, analyses, 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 operated within the specifications of in accordance with the design certification.

~~(d) -- An application for a design certification must meet the following criteria:~~

(1vii) The application must contain 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 (1)(by) of this subsection;

(2viii) The application must demonstrate Justification that compliance with these interface requirements of paragraph vii is verifiable through inspection, testing (either in the plant or elsewhere), ~~previous experience~~, 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 (1)(vi) of this subsection; and Compliance with interface requirements dealing with reliability of components must be verifiable through previous experience or testing.

(3ix) ~~The application must also contain a~~ A representative conceptual design for those portions of the plant for which the application does not seek certification. ~~The representative design must illustrate how the interface requirements can be met,~~ so as to aid the staff in its review of the final safety analysis and probabilistic risk assessment required by paragraph (1)(by) of this subsection, and to permit assessment of the adequacy of the interface requirements called for by paragraph (1)(vii) of this subsection.

(2) [This was the 1st parag. of 52.47 in the PR.] The application must contain a level of design information equivalent to that required for a final design approval under Appendix O to 10 CFR Part 50. The information submitted for a design certification must include performance requirements and design specifications information sufficiently detailed to permit the preparation of procurement specifications and acceptance and inspection requirements by the NRC, and procurement and construction specifications by an applicant for a construction permit or a combined license. The information must ~~also~~ be sufficient to enable the ~~staff~~ Commission ultimately to judge the applicant's proposed means of assuring that construction conforms to the design and to reach an final conclusion on the results of all research and development and all matters safety questions associated with the design which must be decided before the certification ~~can be~~ is granted. In particular,

(3) [This was part of the first paragraph of 52.47(a) in the PR.] The staff shall advise the applicant on whether any additional technical information on-the-design beyond that required by this section must be submitted is-required.

(b) The paragraphs of this subsection apply, according to their 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 the complete scope of the design except for site-specific elements such as the service water intake structure and the ultimate heat sink.

[Much of paragraph (2) and its subparagraphs comes from 52.45(c) in the PR.]

(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

(iA)(1\*) The performance of each safety feature of the design has been demonstrated through either analysis, appropriate test programs, previous experience, or a combination thereof; or full-scale-testing;

(ii2\*) Interdependent effects among the safety features of the plant design have been found acceptable by analysis, appropriate testing programs, or previous experience, or a combination thereof; and

(iii3\*) Sufficient data exist on ~~the-performance-of~~ the safety features of the design plant to assess the analytical tools used for safety analyses over a ~~full~~ sufficient range of normal operating conditions, transient conditions, and specified accident conditions sequences, including equilibrium core conditions; and and-the-response-of-the-safety-features-over-the-lifetime-of-the-plant-

(iv4\*) 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 (i)(A)(4\*) of this subsection 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 paragraphs (i)(A)(1\*) through (i)(A)(4\*) of this subsection. [The next sentence was 52.45(c)(2) in the PR.] The Appendix O final design approval of such a design must identify the specific testing required for certification of the design.

(e3) 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, ~~when necessary,~~ also take into account for differences among the various options, ~~and the analysis should set forth~~ 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 ~~on-line~~ operating.

Sec. 52.49 Fees for design-certification-and-certification renewal reviews 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 Part 170.21, together with a schedule for their phased deferred recovery, ~~as the certified standard design~~

is-referenced. There is no application fee. All-fees-for-review of-an-application-shall-be-deferred-as-follows:

(a)--Each-time-an-application-is-filed-for-a-construction permit-or-combined-license-for-a-facility-referencing-the-design for-which-a-standard-design-certification-has-been-issued,-the holder-of-the-design-certification-shall-pay-the-specified portion-of-the-applicable-fees-for-the-approval-at-the-time-the facility-application-referencing-the-certified-standard-design-is filed.--If,-at-the-end-of-the-initial-period-of-the certification,-no-facility-application-referencing-the-certified standard-design-has-been-filed,-the-holder-of-the-design certification-shall-pay-any-outstanding-fees-for-the certification-

(b)--If-the-standard-design-certification-is-renewed,-the holder-of-the-design-certification-shall-pay-the-specified portion-of-any-outstanding-fees-for-the-renewal-each-time-a facility-application-referencing-the-certified-standard-design-is filed.--If,-at-the-end-of-the-renewal-period,-no-facility application-referencing-the-certified-standard-design-has-been filed,-the-holder-of-the-design-certification-shall-pay-any outstanding-fees-for-the-renewal-

(c)--If-an-application-for-the-issuance-or-renewal-of-a certified-standard-design-is-denied-or-withdrawn,-any-fees associated-with-the-review-of-the-application-shall-be

~~immediately-due-and-payable-by-the-applicant-for-the-design certification-or-renewal-~~

Sec. 52.51 Administrative review of applications.

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 sec. 52.45(a) and shall specify ~~in-detail~~ the procedures to be used for the rulemaking. 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 discovery direct and cross examination by the parties, or may request that the Commission convene a formal adjudication hearing under Subpart G of 10 CFR Part 2 on ~~discrete~~

~~issues-involving~~ specific and substantial disputes of fact, necessary for the Commission's decision, that cannot be resolved with sufficient accuracy except in a formal adjudication hearing. The staff will be a party in the hearing. Notwithstanding anything in 10 CFR 2.790 to the contrary, During the rulemaking, the treatment of proprietary information will be governed by the same criteria which govern the treatment of 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. 10-CFR-2-790-and-applicable-Commission ~~case-law~~. 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.

Sec. 52.53 Referral to the ACRS.

The Commission shall ~~forward~~ refer a copy of the application to the Advisory Committee on Reactor Safeguards (ACRS). The ACRS shall review report on those portions of the application which concern safety. ~~and-report-its-findings-and-recommendations-to the-Commission---The-ACRS-need-not-reconsider-issues-on-which-it has-made-findings-and-recommendations-in-any-earlier-review-of the-design-which-is-the-subject-of-the-application-~~

Sec. 52.54 Issuance of standard design certification.

After conducting a rulemaking proceeding under sec. 52.51 of this part on an application for a standard design certification and receiving the report to be submitted by the Advisory Committee on Reactor Safeguards under sec. 52.53 of this part, 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.

Sec. 52.55 Duration of certification.

(a) Except as provided in paragraph (b) of this section, A a standard design certification issued pursuant to this subpart is valid for ten 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 sec. 52.103 of this part 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.

Sec. 52.57 Application for renewal.

(a) Not less than twelve nor more than thirty-six months prior to expiration of the initial ten-year period, or any later renewal period, ~~the-holder-of-the-design-certification~~ 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 Notice and comment procedures to shall~~ shall be used for a rulemaking proceeding on the application for renewal-~~must-be~~ those-required-by-sec.-52-51-for-rulemakings-on-applications-for initial-certification-of-a-design. 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 an timely application for renewal has been ~~timely~~ 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 sec. 52.55 of this subpart. ~~on-an-application for-a-construction-permit,-combined-license,-or-operating-license referencing-the-certified-design-and-docketed-prior-to-expiration of-the-certification-or-renewal-~~

(c) The Commission shall ~~forward~~ refer a copy of the application for renewal to the Advisory Committee on Reactor Safeguards (ACRS). ~~The-ACRS-shall-review-the-application-and report-its-findings-and-recommendations-to-the-Commission.--The ACRS-need-not-reconsider-issues-on-which-it-has-made-findings-and recommendations-in-any-earlier-review-of-the-design-which-is-the subject-of-the-application-~~ The ACRS shall report on those portions of the application which concern safety and shall apply the criteria set forth in sec. 52.59 of this subpart.

Sec. 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 and-orders applicable and in effect at the time of the renewal ~~and-technically-relevant to-the-design,~~ and any other requirements ~~more-stringent-safety~~

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 ~~more-stringent~~ new requirements and that the direct and indirect costs of implementation of those requirements are justified in view of this increased protection.

(b) Denial of renewal does not bar the ~~holder-of-the-design certification 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.

Sec. 52.61 Duration of renewal.

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

Sec. 52.63 Finality of standard design certifications.

(a)(1) Notwithstanding any provision in 10 CFR 50.109, ~~during-the-initial-period-in-which-a-design-certification-issued under-this-subpart~~ while a standard design certification is in effect under sec. 52.55 or 52.61 of this subpart, the Commission

may not impose ~~more-stringent-safety~~ 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 notice and comment rulemaking ~~either~~ that ~~significant-new information-shows-that~~ a modification is necessary either to bring the certification or the referencing plants into compliance with the Commission's regulations ~~and-orders~~ applicable and in effect at the time the certification was issued, or ~~that-a~~ modification-is-necessary to assure adequate protection of the public health and safety or the common defense and security.

~~{2}--Similarly, notwithstanding any provision in 10-CFR 50.109, during any renewal period in which a design certification issued under this Subpart is in effect, the Commission may not impose more stringent safety requirements on the certification unless the Commission determines in a rulemaking either that significant new information shows that a modification is necessary to bring the certification or the referencing plants into compliance with the Commission's regulations and orders in effect at the time the certification was renewed, or that a modification is necessary to assure adequate protection of the public health and safety or the common defense and security.~~

(32) Any modification the NRC imposes on a design certification rule under paragraphs (a)(1) and ~~{a}{2}~~ 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 paragraph (3) or (4) of this subsection, or subsection (b) of this section. only-in accordance-with-the-requirements-of-10-CFR-50.109.

(b)--The-holder-of-a-standard-design-certification-issued under-this-Subpart-may-file-a-request-for-an-amendment-to-the design-certification-by-way-of-notice-and-comment-rulemaking. 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.---The-amendment-will-be-applied-to-all plants-referencing-the-design-only-if-the-amendment-is-necessary for-adequate-protection-of-the-public-health-and-safety-or-the common-defense-and-security.---Any-other-amendment-will-apply-only to-plants-referencing-the-design-after-the-amendment-is-granted.

(3) While a design certification is in effect under sec. 52.55 or sec. 52.61 of this subpart, unless special circumstances as defined in 10 CFR 50.12(a) are present, the Commission will 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.

(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 sec. 52.103 of this part, the Commission shall treat as resolved those matters resolved in

connection with the issuance or renewal of a design certification.

(eb)(1) An applicant for an operating license, or combined license, or a licensee whose license references a ~~certified~~ standard design certification issued under this subpart, may request an exemption from one or more elements of the design certification. The Commission ~~shall~~ may grant such a request only if it determines that the exemption will comply with the ~~Atomic Energy Act, the Commission's regulations, and the~~ requirements of 10 CFR 50.12(a). In addition to the factors listed in sec. 50.12(a), the Commission shall consider whether the special circumstances which sec. 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 shall be subject to litigation in the same manner as other issues in the operating license or combined license hearing. Exemptions apply only to the license for which the exemption was requested.

(d2) The licensee of a plant built according to a standardized design may make a change to the standardized portion of the plant, without prior Commission approval, only if the change does not involve changes to the design as described in the rule certifying the design, or in the certifying rule together with any exemption which may have been granted the licensee under ~~sec. 52.63(e)~~ paragraph (1) of this subsection.

## SUBPART C - COMBINED LICENSES

Sec. 52.71 Scope of subpart.

This subpart sets out the requirements and procedures applicable to Commission issuance of combined ~~construction permits-and-conditional-operating~~ licenses  ~~("combined-licenses" )~~ for nuclear power facilities.

Sec. 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.

Sec. 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), 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. [The rest of this section now appears in 52.79(a).]

Sec. 52.77 Contents of applications; general information.

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

Sec. 52.79 Contents of applications; technical information.

(ea)(1) In general, if the application references an early site permit, the application must-demonstrate-the-suitability-of the-site-for-the-design-and-must-discuss need not contain such information or analyses as have been submitted to the Commission in connection with the early site permit, but shall 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) [The next two sentences are from 52.75 of the proposed rule:] 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. ~~with-the-application-if-it-does-not-reference-an early-site-permit.~~

(3) If the application does not reference an early site permit which contains a site redress plan as described in sec. 52.17(c) of this part, 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 shall contain the information required by sec. 52.17(c) of this part. ~~on-redress-of-the-site-in-the-event that-the-activities-permitted-by-sec.-52.91(a)-of-this-subpart are-performed.~~

(ab) The application must contain the technically relevant information required of applicants for an operating license final safety-analysis-report-required by 10 CFR 50.34(b). The final safety analysis report and other required information may incorporate by reference the final safety analysis report for a certified standard design. ~~7-but-must-be-supplemented-to include,as-appropriate,--the-information-required-of-applicants for-operating-licenses-by-10-CFR-Part-50.~~ In particular, an

application referencing a certified design must describe those portions of the design which are site-specific, such as the service water intake structure ~~or~~ and the ultimate heat sink. An application referencing a certified design must also demonstrate compliance with the interface requirements established for the design under sec. 52.47(~~da~~)(1) of this part. If the application does not reference a certified design, the application must comply with the requirements of sec. 52.47(a)(2) of this part for level of design information, and shall contain the technical information required by secs. 52.47(a)(1)(i), (ii), (iv), and (v), and (3), ~~52.47(b)(2) and (3)~~, and, if the design is modular, 52.47(~~cb~~)(3). ~~The application must also include proposed technical specifications prepared in accordance with the requirements of 10-CFR-Part-50.~~

(bc) The application for a combined license must include the proposed ~~inspections~~, tests, inspections, and analyses which the licensee shall perform and the acceptance criteria therefor which are necessary and sufficient to will provide reasonable assurance that, if the tests, inspections and analyses are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the combined license. ~~application, the provisions of the Atomic Energy Act, and the Commission's regulations.~~ Where the application references a certified standard design, the test, inspections, analyses and acceptance criteria contained in the certified design shall apply

to those portions of the facility design which are covered by the design certification.

(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 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, ~~{1}~~--~~T~~the applicant shall make good faith efforts to obtain certifications ~~by~~ from the responsible local and State governmental agencies with emergency planning responsibilities ~~that:~~ (i) that ~~T~~the proposed emergency plans are practicable~~;~~, (ii) that ~~T~~these agencies are committed to participating in any further development of the plans, including any required field demonstrations~~;~~, and (iii) that ~~T~~these agencies are committed to executing their responsibilities under the plans in the event of an emergency. ~~{2}~~ 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 demonstrate 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.

(3) If the application references an early site permit which contains emergency planning parameters, the parameters shall apply.

Sec. 52.81 Standards for review of applications.

Applications filed under this subpart will be reviewed according to ~~as appropriate~~, the pertinent standards set out in 10 CFR Part 50 and its appendices and Part 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.

Sec. 52.83 Applicability of Part 50 Provisions.

Unless otherwise specifically provided in this subpart, all provisions of 10 CFR Part 50 and its appendices applicable to holders of construction permits for nuclear power reactors also apply to holders of combined licenses issued under this subpart. Similarly, all provisions of 10 CFR Part 50 and its appendices 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 sec. 52.103 of

this subpart, who have to received written authorization for full-power operation under sec. 52.103 provided that, as applied to a combined license, 10 CFR 50.51 shall require that the initial duration of the license shall not exceed 40 years from the date on which the Commission makes the findings required under sec. 52.103 of this subpart. However, any limitations contained in Part 50 regarding applicability of the provisions to certain classes of facilities continue to apply.

Sec. 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 (sec. 2.101) and issuance of a notice of hearing (sec. 2.104). All hearings on combined licenses are governed by the procedures contained in Part 2, Subpart G.

Sec. 52.87 Referral to the ACRS.

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

provisions of this part. ~~and-report-its-findings-and recommendations-to-the-Commission.---The-AERS-need-not-reconsider issues-on-which-it-has-made-findings-and-recommendations-in-any earlier-review-of-the-site-or-the-design-which-is-the-subject-of the-application.~~

Sec. 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 ~~the-suitability-of-the-site for-the-design~~ and any other significant environmental issue not considered in any previous proceeding on the site or the design. ~~The-results-of-this-limited-review-must-be-presented-at-the hearing-on-the-application.---However, the-Commission-may-not modify-any-final-determination-on-an-issue-that-has-been considered-and-decided-in-any-earlier-proceeding-on-the referenced-site-or-design, except-as-provided-in-sec. sec. 52.39 and-52.63-regarding-finality-of-early-site-permit-determinations and-finality-of-standard-design-certifications, respectively.~~ If the application does not reference an early site permit or a certified standard design, ~~all-of~~ the environmental review procedures set out in 10 CFR Part 51 shall be followed, including

the issuance of a final environmental impact statement, but excluding the issuance of a supplement under sec. 51.95(a).

Sec. 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 sec. 52.17(c) of this part, the applicant is authorized by sec. 52.25 of this part to may perform the site preparation activities authorized-in sec--52-25 described in 10 CFR 50.10(e)(1). after-the application-for-a-combined-license-has-been-docketed-

(2) If the application does not reference an early site permit which contains such a redress plan, the applicant may not perform the site preparation activities allowed by sec. 50.10(e)(1) without first submitting a site redress plan in accord with sec. 52.79(a)(3) of this subpart and obtaining the separate authorization required by sec. 50.10(e)(1). Such authorization shall be granted only after the presiding officer in the proceeding on the application has made the findings and determination required by sec. 50.10(e)(2) and has determined that the site redress plan meets the criteria in sec. 52.17(c) of this part. Otherwise,-the-applicant-shall-request-authorization to-conduct-site-preparation-activities-pursuant-to-10-CFR 50-10(e)(1)-and-(2)-

~~(3) In either case, a~~ 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 subsection (a) of this section, the application for the license is withdrawn or denied, and the early site permit referenced by the application expires, ~~or the holder of the early site permit so requests,~~ then the applicant shall redress the site in accord with the terms of the site redress plan. ~~required by sec. 52.17(b).~~ 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.

#### Sec. 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 Atomic Energy Act, the Commission's regulations, and the~~  
requirements of 10 CFR 50.12(a).

(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 shall be subject to litigation during the combined license proceeding in the same manner as other issues material to that proceeding. ~~will be guided by the considerations set forth in 10 CFR 50.92, which guide the Commission's determinations on applications for amendments to construction permits.~~

Sec. 52.97 Issuance of combined licenses.

(a) The Commission ~~may~~ shall issue a combined license for a nuclear power facility upon finding that the applicable requirements of secs. 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) The Commission shall identify in the license the inspections, tests, inspections, and analyses that the licensee shall perform and the acceptance criteria therefor which are necessary and sufficient to provide reasonable assurance that, if the tests, inspections, and analyses are performed and the acceptance criteria met, 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 regulations.

Sec. 52.99 Inspection during construction.

After issuance of a combined license, the Commission NRC staff shall assure through that the required inspections, tests, and analyses are performed and that construction-of-the-facility is-completed-in-conformity-with-the-combined-license,-the provisions-of-the-Atomic-Energy-Act,-and-the-Commission's regulations- the prescribed acceptance criteria are met. The Commission-shall-apply-to-holders-of-combined-licenses-the-same inspection-program-applied-to-holders-of-nuclear-power-plant construction-permits. Holders of combined licenses shall comply with the provisions of secs. 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.

Sec. 52.101 Pre-operational antitrust review.

~~Prior-to-conversion-of-a-combined-license-to-an-operating license,~~ If, before the Commission makes the findings required under sec. 52.103 of this subpart, the Commission, after consultation with the Attorney General, ~~NRC-staff-shall-conduct an-antitrust-review-pursuant-to-sec.-50.42(b)-to~~ determines whether that significant changes in the licensee's activities or proposed activities have occurred subsequent to the previous review by the Attorney General and the Commission in connection with the issuance of the combined license,~~---If-the-Commission determines-that-significant-changes-have-occurred,~~ the antitrust review required by sSection 105c(12) of the Atomic Energy Act must be completed prior to commencement of commercial operation of the facility. Upon completion of this review,~~and-following receipt-of-the-advice-of-the-Attorney-General,~~ the Director of Nuclear Reactor Regulation may impose any additional license conditions ~~needed-to-avoid-creating-or-maintaining-a-situation inconsistent-with-the-antitrust-laws-as-specified-in~~ as authorized by sSection 105ac of the Atomic Energy Act.

Sec. 52.103 Authorization-to-Operateion under a combined license.

{a}--Before-the-facility-may-operate,-the-holder-of-the combined-license-must-apply-for-authorization-of-operation-under the-combined-license---If-the-combined-license-is-for-a-modular design,-each-module-is-the-subject-of-a-separate-authorization- The-Commission-shall-publish-a-notice-of-the-proposed authorization-in-the-Federal-Register-under-10-CFR-2.105---Within 30-days,-any-person-whose-interests-may-be-affected-may-request-a hearing-on-the-basis-either-(1)-that-there-has-been-a nonconformance-with-the-license,-the-licensee's-written commitments,-the-Atomic-Energy-Act,-or-the-Commission's regulations-and-orders,-which-has-not-been-corrected-and-which could-materially-and-adversely-affect-the-safe-operation-of-the facility,-or-(2)-that-significant-new-information-shows-that-some modification-to-the-site-or-the-design-is-necessary-to-assure adequate-protection-of-public-health-and-safety-or-the-common defense-and-security---The-petitioner-shall-set-forth-with reasonable-specificity-the-facts-and-arguments-which-form-the basis-for-the-request-

{b}--If-a-hearing-is-not-requested,-or-if-all-requests-are denied,-the-Commission-may-authorize-operation-under-the-combined license,-as-provided-in-sec.-50.56,-upon-making-the-findings-in sec.-50.57-

(a) Not less than 180 days before loading of fuel into the reactor, the holder of the combined license shall, in writing, notify the Commission of the expected dates of both fuel loading and criticality. The Commission shall publish notice of these dates in the Federal Register. The Federal Register notice shall also advise persons whose interests may be affected by facility operation of their rights under subsection (b) of this section.

(b)(1) Not later than 60 days after publication of the notice required by subsection (a), any person whose interest may be affected by facility operation may file one or both of the following in writing:

(i) A petition which shows, prima facie, that one or more of the acceptance criteria in the combined license have not been met and, as a result, there is good cause to modify or prohibit operation; or

(ii) A petition to modify the terms and conditions of the combined license.

(2)(i) A good cause petition filed under paragraph (b)(1)(i) will be granted by the Commission only if it includes, or clearly references, official NRC documents, documents prepared by or for the combined license 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 combined license 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 raised by the petition 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 shall be resolved in accordance with 5 U.S.C. 554, 556, and 557. In such cases, the notice of hearing from the Commission shall specify the procedures to be followed, which may, but need not, include some or all of the procedures in Subpart G of Part 2. Matters exempt from adjudication under 5 U.S.C. 554(a)(3) may be decided by the Commission solely on the basis of the showing of good cause and any responsive pleadings.

(ii) A petition to modify the terms and conditions of the combined license will be processed in accord with 10 CFR 2.206. The Director shall grant or deny the petition before the licensed activity allegedly affected by the petition (fuel loading, low power testing, etc.) commences. If the petition is granted, then an order to modify the combined license will be issued pursuant to 10 CFR 2.204. Fuel loading and operation under the combined license will not be affected by the granting of the petition unless the order to modify is made immediately effective pursuant to 10 CFR 2.204.

(c) Prior to fuel loading, the Commission shall find that the acceptance criteria in the combined license have been met and that, accordingly, the facility has been constructed and will operate in conformity with the Atomic Energy Act and the Commission's regulations. If the combined license is for a modular design, each reactor module may require a separate finding as construction proceeds. If appropriate, the Commission may also make separate findings for purposes of fuel loading, criticality, low power testing, or any other discrete phase of reactor operation.

Attachment 3



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D. C. 20555

January 19, 1989

S. Crockett

J. Zech  
10

The Honorable Lando W. Zech, Jr.  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Chairman Zech:

SUBJECT: DRAFT FINAL RULE ON STANDARDIZATION AND LICENSING REFORM,  
10 CFR PART 52, "EARLY SITE PERMITS; STANDARD DESIGN  
CERTIFICATIONS; AND COMBINED LICENSES FOR NUCLEAR  
POWER PLANTS"

During the 345th meeting of the Advisory Committee on Reactor Safeguards, January 12-14, 1989, we reviewed the Draft Final Rule on Standardization and Licensing Reform transmitted January 4, 1989, which would provide for early site permits, standard design certifications, and combined licenses for nuclear power plants. We had the benefit of briefings by the NRC staff during a meeting of our Subcommittee on Improved LWRs on January 10, 1989 and during the full Committee meeting. We also had the benefit of the document referenced. The ACRS provided comments on this subject in reports of August 12, 1986, October 15, 1986, and June 9, 1988.

Since we have not yet seen the final version of the Draft Final Rule, the public comments, or the Statement of Considerations, our comments below may be subject to revision or amplification after we have seen the final version of these documents.

We recommend that the various types of designs be named and defined more clearly than in the proposed rule. We suggest the following:

- Improved LWR Designs - for LWR plant designs that contain improvements beyond those designs of LWR plants licensed for construction prior to the effective date of this rule.
- Advanced LWR Designs - for LWR plant designs that differ significantly from improved LWR designs or use simplified inherent passive, or other innovative means to accomplish safety functions to an extent significantly greater than in improved LWR designs.
- Advanced Non-LWR Designs - for advanced plant designs using other than light water as moderator or coolant.

The information required for design certification is identified in Section 52.47(a)-(2). This section includes a requirement for the

January 19, 1989

submittal of information sufficiently detailed to permit the preparation of procurement specifications and construction and installation specifications. The staff's review of this material can be performed most efficiently and with greater understanding if this large body of information is available in final form, i.e., the procurement specifications and the construction and installation specifications. We recommend that the rule be expanded to require submittal of these documents.

The references in Part 52 to the responsibility of ACRS for review should be made consistent with the provisions of the Atomic Energy Act of 1954, as amended.

We will continue to follow and review the development of this rule along with the Statement of Considerations and advise you accordingly.

Sincerely,

  
Forrest J. Remick  
Chairman

Reference

Memorandum dated January 4, 1989 from Steven Crockett, Office of the General Counsel, NRC, to Herman Alderman, ACRS, transmitting Draft Final Rule on Standardization and Licensing Reform