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NUCLEAR REGULATORY COMMISSION

10 CFR PART 51

RIN 3150-AD63

**License Renewal for Nuclear Power Plants:
Scope of Environmental Effects**

AGENCY: Nuclear Regulatory Commission.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The U. S. Nuclear Regulatory Commission (NRC) is considering an amendment to its regulations that would add provisions concerning the scope of environmental effects which would be addressed by the Commission in conjunction with applications for license renewal for nuclear power plants. This advance notice of proposed rulemaking is being issued to inform interested parties of the NRC's intent to address environmental issues associated with license renewal of individual nuclear power plants and to solicit timely comments on the scope of the environmental issues to be covered.

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DATES: Written comments on matters covered by this notice received by [add date 90 days from date of publication] will be considered in developing the generic environmental impact statement, a proposed rule change, and a draft regulatory guide on the preparation of environmental reports for nuclear power stations. Comments received after this date will be considered if it is practical to do so, but the NRC is able to assure consideration only for comments received on or before this date.

ADDRESSES: Send written comments on this notice to: The Secretary of the Commission, Washington, DC 20555, Attention: Docketing and Service Branch. Deliver comments to: 11555 Rockville Pike, Rockville, MD, between 7:45 am and 4:15 pm on Federal workdays. Copies of comments received by the Commission may be examined at the NRC Public Document Room, 2120 L Street, NW (Lower Level), Washington, DC.

FOR FURTHER INFORMATION CONTACT: Donald P. Cleary, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3936.

SUPPLEMENTARY INFORMATION:**Introduction**

The U.S. Nuclear Regulatory Commission (NRC) is considering developing regulations under 10 CFR Part 51 which will address the scope of environmental effects which need to be addressed by the Commission in conjunction with applications for license renewal for nuclear power plants under the proposed Part 54 to Title 10 of the Code of Federal Regulations. Changes to 10 CFR Part 51 will be based on the findings of a generic environmental impact statement (GEIS). The NRC is publishing this notice in order to inform the public, industry and other government agencies of the NRC's intent to address environmental issues associated with license renewals of individual nuclear power plants and to prepare a GEIS to support such a rulemaking; to solicit timely comments on the scope of environmental issues to be covered in the rulemaking and GEIS; and to address the ways of incorporating results of the GEIS into the rulemaking on Part 51. A notice of intent (NOI) to develop a generic environmental impact statement supporting this rulemaking is being published simultaneously in the notice section of this Federal Register issue. This advance notice of proposed rulemaking and the notice of intent begin the formal scoping process required for environmental impact statements under 10 CFR Sections 51.28 and 51.29.

As noted above, the proposed rule (10 CFR Part 54) on the health and safety requirements for renewal of operating licenses for nuclear power plants was published for public comment in the Federal Register. The Part 54 proposed rule is being supported by a separate environmental analysis (EA) (NUREG-1398), which is available by writing to the U.S. Nuclear Regulatory Commission, ATTN: Distribution Section, Room P-130A, Washington, DC 20555.

A significant number of the licenses for the existing operating nuclear power plants are due to expire in the early part of the twenty-first century. The NRC understands that the first two applications for license renewal will be submitted in 1991 and anticipates that a significant percentage of existing plants will submit applications for renewal of their operating license 10 to 20 years prior to their expiration. The NRC will shortly issue a proposed rule, 10 CFR Part 54, Requirements for Renewal of Operating Licenses for Nuclear Power Plants, that establishes the requirements that an applicant for renewal of a nuclear power plant operating license must meet, the information that must be submitted to the NRC for review so that the agency can determine whether these requirements have in fact been met, and the application procedures.

Apart from this Part 54 procedural and technical rulemaking, the NRC believes as a matter of sound policy that a rulemaking on

10 CFR Part 51 might be pursued to generically address potential environmental impacts from relicensing and extended operation and, thereby, define the potential environmental impacts which need to be reviewed as part of the relicensing of individual nuclear power plants. The NRC is, therefore, undertaking a study to assess which environmental impacts may occur, under what circumstances, and their possible level of significance. The study and resulting changes to Part 51 will also provide the basis for developing a license renewal supplement to Regulatory Guide 4.2, "Preparation of Environmental Reports for Nuclear Power Stations." The NRC believes that there has been sufficient experience with nuclear power plant operation, maintenance, refurbishment and associated environmental impacts to predict with some confidence the types and magnitude of environmental effects which may arise from renewal of operating licenses and resulting extended plant operation.

Form of Changes to 10 CFR Part 51

Changes to Part 51 which will generically address various potential environmental impacts may take a variety of forms. For some set of potential environmental impacts it may be possible to demonstrate that the impacts will be nonexistent or insignificant. Other types of impacts may be nonexistent or insignificant where certain conditions are met. Some types of impacts may be described and enveloped generically. The NRC is seeking the

views of the public on the alternative approaches available for codifying these generic findings. Part 51 already has several alternative methods for consideration of specific types of environmental impacts. Under one alternative, the Commission can make a finding in the rule itself that an environmental subject need not be addressed by the applicant in an ER or by the NRC in an EA or EIS. An example of this alternative is §51.23, Temporary storage of spent fuel after cessation of reactor operation-generic determination of no significant environmental impact. Alternatively, the Commission could require that certain information, set forth in the rule itself, be incorporated into an applicant's ER. The drawback is that this approach does not explicitly address the NRC's responsibilities in the individual license proceeding, and does not explicitly remove the subject from potential litigation. Another alternative is to set forth information which must be included in an ER (or EA or EIS), together with the criteria under which an individual, plant-specific analysis must be done in lieu of incorporation of the information contained in the rule. Paragraph 51.52, Environmental effects of transportation of fuel and waste-Table S-4, is an example of a generic determination of the environmental impacts of certain activities, which can be adopted if specific conditions set out in the paragraph are met. A final approach is to categorically eliminate the need for both the applicant and the NRC to address an issue. Under this approach, the subject being categorically excluded would not be

subject to litigation in individual license proceedings. The basis for the conclusion is actually set out in the statement of considerations accompanying the rule change (as opposed to the first option discussed above, in which the "finding" is actually part of the rule itself). Sections 51.53, Supplement to environmental report, and 51.95, Supplement to final environmental impact statement, which eliminate the need to consider need for power, alternative energy sources, and negate the need to consider, at the operating licensing stage, any aspect of the storage of spent fuel after cessation of reactor operation, are examples of this approach.

Generic Environmental Impact Statement

By means of the generic environmental impact statement, the NRC intends to identify the types of environmental impacts which may occur due to renewal of an individual nuclear power plant operating license, to assess if and under what conditions each type of impact would be significant, and to summarize these findings in a manner which can be codified in the agency's environmental protection regulations. Thus, at least part of the considerations involved in the decision whether to renew the license of an individual nuclear power plant would be reviewed generically. The analysis will encompass all operating light water power reactors, and for each type of environmental impact it will attempt to establish generic findings covering as many

plants as possible. While plant and site specific information will be used in developing the generic findings, the NRC does not intend for the GEIS to be a compilation of individual plant environmental impact statements. Generic findings for each type of impact are expected to provide the basis for how that impact will be handled in the rule. When postulated impacts are determined to have no possibility of occurring or of being significant, they may be categorically excluded from consideration in the renewal of any operating license. Some impacts may be found to be insignificant whenever a specified set of plant and site parameters fall within certain values. Other impacts may be generically determined to be significant but, because they are anticipated and well understood, it is reasonable to adopt the generic findings in individual environmental impact statements without further analysis. Other approaches to codification will be explored as the generic environmental impact statement develops.

The NRC believes that all reasonable alternatives to the proposed action would be bounded by the action of denying the renewal application. Denial would lead to decommissioning of the nuclear systems of a plant and replacement of the generating capacity with either alternative generating capacity, alternative forms of energy or conservation. Decisions on these matters will be made by utilities on the basis of their understanding of future requirements for generating capacity and the economics of

technically viable alternatives. Alternative generating capacity, which will be considered in the generic environmental impact statement, includes conversion of a plant to an alternative fuel; replacement with nuclear plants of standardized or advanced design; replacement with coal, oil or gas fired capacity; and replacement with capacity using other forms of energy. Alternatives to replacing generating capacity, such as energy conservation, and load management, will be considered in assessing the need for generating capacity.

As environmental consequences are assessed, consideration will be given to the extent to which mitigating actions have been taken in the past and the extent to which there may be additional mitigating actions which might be taken in conjunction with license renewal.

The following proposed outline for the generic environmental impact statement reflects the current NRC staff view on the scope and major topics to be dealt with in this rulemaking.

Proposed Outline: Generic Environmental Impact Statement

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Executive Summary

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Plans and Schedule

The NRC has contracted with Oak Ridge National Laboratory (ORNL) to prepare the generic environmental impact statement and a supplement to Regulatory Guide 4.2, "Preparation of Environmental Reports for Nuclear Power Stations", addressing license renewal applications. The NRC has initiated consultations with the Council on Environmental Quality and other appropriate federal agencies. Discussions with several federal agencies involving their assuming cooperating agency status are underway. The Nuclear Utility Management and Resources Council (NUMARC) has volunteered to coordinate the gathering of information from

individual utilities. This effort is now in progress and will supplement the extensive data gathering effort by ORNL. The proposed rule, draft generic environmental impact statement and draft supplement to RG 4.2 are scheduled for publication in May, 1991. The comment period will be 90 days. The NRC is planning to conduct a workshop during the comment period. The final rule, final generic environmental impact statement and supplement to RG 4.2 are scheduled for publication in April, 1992.

Specific Considerations

Advice and recommendations on the proposed rulemaking are invited from all interested persons. Comments and supporting legal and technical reasons for the comments are particularly requested on the following questions:

1. Is a generic environmental impact statement, or an environmental assessment required by NEPA to support this proposed rulemaking, or can the rulemaking be supported by a technical study?

2. What alternative forms of codifying the findings of the generic environmental impact statement should be considered?

3. What activities associated with license renewal will lead to environmental impacts? By what mechanism will they lead

to impacts?

4. What topical areas should be covered in the generic environmental impact statement? Should the proposed outline be supplemented or restructured?

5. For each topical area what are the specific environmental issues that should be addressed?

6. For each topical area and each specific issue what information and data are required to perform generic analyses? Where do the information and data exist?

7. For each topical area and each specific issue what criteria should be used to judge the significance of the environmental impact?

8. For each topical area and each specific issue what is the potential for successful generic analysis?

9. What length of extended operating time can reasonably be addressed in the proposed rulemaking? To what extent is it possible to reach generic conclusions about the environmental impacts which would be applicable to plants having renewed operating licenses expiring in the year 2030, or 2040, or 2050?

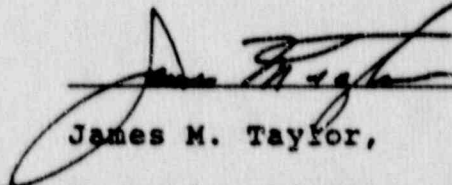
List of Subjects in 10 CFR Part 51

Administrative practice and procedure, Environmental impact statement, Nuclear Materials Nuclear Power Plant and Reactors, Reporting and Recordkeeping Requirements.

The authority citation for this document is: Sec. 161, Pub. L. 83-703, 68 Stat. 948, as amended (42 U.S.C. 2201); Sec. 201, Pub. L. 93-438, 88 Stat. 1242, as amended (42 U.S.C. 5841, 5842).

Dated at Rockville, Maryland, this 13th day of July, 1990.

For the Nuclear Regulatory Commission.



James M. Taylor,

Executive Director for Operations.