PRELIMINARY VALUE-IMPACT ASSESSMENT

ON PROPOSED AMENDMENT TO 10 CFR PARTS 50 & 70

I. The Proposed Action

A. Discussion

10 CFR Part 50

The Commission's interest in emergency planning is focused primarily on situations that may cause or may threaten to cause radiological risks affecting the health and safety of the workers or the public or that may result in damage to property. The Commission and the public have recognized the increasing importance of emergency planning. Emergency plans should be directed toward mitigating the consequences of emergencies and should provide reasonable assurance that appropriate measures can and will be taken to protect health and safety and prevent damage to property in the event of an emergency. Although it is not practicable to develop a completely detailed plan encompassing every conceivable type of emergency situation, advance planning can create a high order of preparedness, including provisions of necessary equipment, supplies, and services, and ensure an orderly and timely decisionmaking process at times of stress.

Specifically, in January 1971, Section 50.34 to 10 CFR Part 50 was modified to require submittal of the licensees emergency plans with Construction Permit and Operating License applications. Appendix E to Part 50 specifies items to be included in the emergency plans. This revision to our regulations

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has been implemented by the staff for all power and test reactor licenses. While Appendix E did not, strictly speaking, apply to facilities licensed prior to January 1971, the staff, nevertheless, requested the older power and test reactor licensees to meet the terms of Appendix E. All power and test reactor licensees have emergency plans which conform to 10 CFR Part 50, Appendix E. For research reactors, however, the staff is presently requesting that licensees comply with Appendix E when they apply for a renewal of their operating license. While § 50.90 would likely provide a regulatory basis for requiring compliance with Appendix E at the time of a license renewal, this proposed rule change would accelerate that process. It is the staff's intention to use Regulatory Guide 2.6 ("Emergency Planning for Research Reactors") to aid licensees in complying with the proposed rule change.

After careful consideration, the staff recommends promulgating a rule change that would specifically require research reactor facility licensees with an authorized power level greater than 500 kW thermal, to submit within one year from the effective date of this rule, emergency plans for NRC review and approval. For all other research reactors, emergency plans shall be submitted within two years from the effective date of this rule. All other production and utilization facility licensees will be legally required to submit emergency plans for NRC review and approval within 120 days from the effective date of this amendment, if they have not done so previously.

Likewise, it is the staff's judgment that proper execution of the responsibilities of the licensee requires accurate up-to-date information as a basis for action. Emergency plans are required as a condition of an application (§ 50.34 and § 70.22(i)) and are submitted as part of the FSAR or final license

application to address the elements existing in 10 CFR Part 50, Appendix E. Some of the items addressed in the emergency plans are: (1) means for determining the magnitude of a release of radioactive material; (2) criteria for determining the need for notification and participation of local and State agencies; (3) criteria for determining when protective measures should be considered within and outside the site boundary; (4) onsite decontamination facilities and supplies, and (5) arrangements for services of qualified medical personnel to handle radiation emergencies.

In approving the emergency plans, the staff concludes that the licensee plans conform to the requirements of 10 CFR Part 50, Appendix E, and that the emergency plans provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety and prevent damage to property. Once this finding is made, the requirements for maintaining the emergency plan up to date is limited. As the plant gets older, the licensee may make unilateral changes to the emergency plans, such as changing the decontamination facility into a storeroom or changing the criteria in determining the need for notification and participation of local and State agencies, without approval or even notification of NRC. However, Appendix E does provide for the maintenance and inspection of the implementing procedures of the emergency plans.

At this point, a distinction should be made between the licensee emergency plans and the implementation procedures of the licensee emergency plans. As previously stated, an emergency plan must be written by the applicant and approved by the NRC before an operating license can be received. A set of implementing procedures must also be written to transfer the descriptions in the plan into detailed step-by-step instructions for plant personnel. In

10 CFR Part 50, Appendix E, Section IV, Paragraph E, the regulations require "Provisions for maintaining up to date: (1) The organization for coping with emergencies, (2) the procedures for use in emergencies, and (3) the lists of persons with special qualifications for coping with emergency conditions." The details of this information are usually in the licensee's implementation procedures and not in the emergency plans. Thus, the regulations do require that the implementation procedures be maintained up to date and are, in fact, inspected by the Office of Inspection and Enforcement periodically. However, there is no specific requirement in the Commission's regulations for licensees to maintain their emergency plans and their effectiveness up to date, and this lack of regulations could be detrimental to the public health and safety in the event of an emergency situation. Therefore, the thrust of this part of the rule change is not directed to the implementing procedures but to the licensee emergency plans (as submitted in the FSAR). The effect will be on all licensees of production and utilization facilities. All of the above provides the basis of why the staff recommends that licensees of production and utilization facilities be required to maintain the emergency plans and their effectiveness up to date.

10 CFR Part 70

On March 31, 1977, paragraphs 70.22(i) and 70.23(a)(11) of 10 CFR Part 70 became effective and require that each application for a license to possess and use special nuclear material for processing and fuel fabrication, scrap recovery, or conversion of uranium hexafluoride shall contain plans for coping with radiological emergencies. Prior to this date, licensees developed plans for coping with radiological emergencies based on the requirements imposed as

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a license condition. The March 31, 1977 rule changes specify that the emergency plans shall contain the elements that are listed in Section IV, "Content of Emergency Plans," of Appendix E to 10 CFR Part 50. However, these rule changes do not require the licensee to maintain the emergency plans up to date. It is the staff's judgment that the licensee emergency plans should be kept up to date in order to prevent potential problems resulting from the use of outdated information.

B. Description

The proposed action will: (a) require all production and utilization facility licensees (Part 50) to maintain emergency plans up to date; (b) require certain special nuclear material facility licensees (Part 70) to maintain emergency plans up to date; and (c) require those production and utilization facility licensees (Part 50) who have thus far not been required by our regulations to establish and submit for NRC review and approval emergency plans, be required to do so.

C. Need for the Proposed Action

The Commission's interest in emergency planning is focused primarily on situations that may cause or may threaten to cause radiological hazards affecting the health and safety of workers or the public or that may result in damage to property. Emergency plans should be directed toward mitigating the consequences of emergencies and should provide reasonable assurance that appropriate measures can and will be taken to protect health and safety and prevent damage to property in the event of an emergency. Although it is not practicable to develop a completely detailed plan encompassing every conceivable type of emergency situation, advance planning can create a high order of preparedness, including provision of necessary equipment, supplies, and services, and ensure an orderly and timely decisionmaking process at times of stress.

Likewise, it is the staff's judgment that proper execution of the responsibilities of the licensee requires accurate up-to-date information as a basis for action.

D. Value/Impact of the Proposed Action

1. NRC

The proposed action will provide a regulatory basis for implementing Regulatory Guide 2.6 (Emergency Planning for Research Reactors). Since the proposed action will implement the Regulatory Guide within two years and not as it is now being implemented, there will be additional impact on the NRC staff as a result of the proposed rule change. It is estimated that this will require approximately 4 man years of additional NRC staff manpower. NRC staff manpower will also be required to review and file the updated portions of licensee emergency plans that will be required to be maintained up to date. It is estimated that this will require 1 man-month per year of additional NRC staff manpower.

The value of implementing the proposed actions will be the elimination of potential problems arising from using outdated information in the existing emergency plans. Likewise, not permitting research reactors to operate without having NRC staff reviewed emergency plans.

2. Other Governmental Agencies

Not applicable unless the government agency is an applicant, such as TVA.

3. Industry

The major objective and impact of the proposed action is to require Part 50 and certain Part 70 licensees to maintain their emergency plans up to date. It is estimated that this will require the use of 3 man-days per

licensee per year of operation. An additional objective and corollary effect is on most nonpower reactors licensed prior to the effective date of 10 CFR Part 50, Appendix E (January 1971), who would be required for the first time to submit their emergency plans to NRC for review, as well as maintain them in the future. The staff believes that this will have additional impact on licensees because the proposed rule change will implement Regulatory Guide 2.6 ("Emergency Planning for Research Reactors", within two years and not as it is already being implemented. It is estimated that this will require 3 man months per license of additional manpower.

4. Workers

Adequate emergency plans would ensure prompt and effective action during an emergency, thus minimizing the consequences to the licensee's employees.

5. Public

No direct impact on the public can be foreseen other than the assurance that all nonpower reactors will have NRC reviewed emergency plans and that all Part 50 and certain Part 70 licensees will be maintaining their emergency plans up to date. Indirect impact on the public is foreseen in that adequate emergency plans would ensure prompt and effective action during an emergency, thus enhancing public health and safety.

E. Decision on the Proposed Action

A cohesive and explicit policy concerning the submittal and maintenance of emergency plans for production and utilization facilities as well as for special nuclear material facility licensees should be clearly stated by NRC.

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II. Technical Approach

In requiring NRC's licensees to submit and maintain emergency plans, there exists no technical alternatives since the proposed action is entirely procedural.

III. Procedural Approach

A. Procedural Alternatives

Potential SD procedures that may be used to promulgate the proposed action and technical approach include the following:

- Regulation
- Regulatory Guide
- ANSI Standard, endorsed by a Regulatory Guide
- Branch Position
- NUREG

B. Value/Impact of Procedural Alternatives

A regulatory guide, ANSI Standard, Branch Position or a NUREG are not viable alternatives because requirements are being placed on licensees. Therefore, a change to our regulations should be issued.

IV. Statutory Considerations

A. NRC Authority

This rule change would fall under the authority and safety requirements of the Atomic Energy Act.

B. Need for NEPA Assessment

The proposed action is not a major action, as defined by 10 CFR 51.5(a)(10), and does not require an environmental impact statement.

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V. Relationship to Other Existing or Proposed Regulations or Policies

The proposed rule changes have no major relationship with other existing or proposed regulations or policies.

VI. Summary and Conclusion

Proposed amendments to 10 CFR Part 50 will require production and utilization facility licensees to submit emergency plans, for NRC review and approval, and will require that they be maintained up to date. Also a proposed amendment to 10 CFR Part 70 should be promulgated to require certain special nuclear material licensees to maintain their emergency plans up to date.

References

None.

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