

ATTACHMENT 3
ENVIRONMENTAL ASSESSMENT

**ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT
FINAL RULE 10.CFR50.48**

The U.S. Nuclear Regulatory Commission (NRC) has evaluated the environmental impacts of a final rule revision to 10 CFR 50.48, "Fire protection" and determined that there is no significant environmental impact. In accordance with 10 CFR 51.21, the NRC prepared this environmental assessment documenting its finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Rule Action

The rule action permits nuclear power reactor licensees to voluntarily adopt the fire protection requirements contained in the national consensus standard promulgated by the National Fire Protection Association (NFPA) in Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition" (NFPA 805), with certain exceptions, as an alternative to the existing operating and/or decommissioning fire protection requirements of 10 CFR 50.48(b), existing license conditions or technical specifications, and 10 CFR 50.48(f).

The Need for the Rule Action

The rule action is needed to implement the Commission's goals of increasing regulatory efficiency and effectiveness, increasing public confidence, maintain safety, and reduce unnecessary regulatory burden. The rule action takes advantage of the knowledge and expertise of the NFPA, NRC, and industry by endorsing a national consensus standard which is in accordance with Public Law 104-113, "National Technology Advancement and Transfer Act of 1995."

Environmental Impacts of the Rule Action

Under NFPA 805, the environment would continue to be adequately protected because the methods used for fire detection, suppression, and mitigation are the same as those used under the existing fire protection requirements. Further there will be no change in the release of radiological or nonradiological effluents to the environment. This determination is based on the goals, objectives and performance criteria specified in Chapter 1 of NFPA 805 which provide for defense-in-depth to control fires; prevention of radioactive releases; and control of plant reactivity, inventory, and pressure, decay heat removal, vital auxiliaries, and process monitoring.

The rule action (incorporating by reference NFPA 805 into 10 CFR 50.48) will not have a significant radiological environmental impact for the following reasons:

- (1) The alternative set of fire-protection requirements will not significantly increase the probability or consequences of an accident, because fire events will continue to be

quickly detected and suppressed, and post-fire safe shutdown capability will remain available during and after fire events.

- (2) The alternative set of fire-protection requirements will not alter the types or quantities of radiological effluents, because the existence of any new fire protection systems, equipment, features, or procedures will not change the current radiological effluent production and flowpaths.
- (3) The alternative set of fire protection requirements will not significantly increase occupational or public radiation exposure because fire events will continue to be detected and suppressed, and post-fire safe shutdown capability will remain available during and after fire events.

The NRC also concludes that the rule action will not have a significant nonradiological impact for the following reasons:

- (1) The alternative set of fire-protection requirements does not have the potential to affect any historic sites because fire events will continue to be detected and suppressed, and post-fire safe shutdown capability will remain available during and after fire events.
- (2) The alternative set of fire-protection requirements will not significantly alter the types or quantities of nonradiological plant effluents because the existence of any new fire protection systems, equipment, features, or procedures will not change the current nonradiological effluent production and flowpaths.
- (3) The alternative set of fire-protection requirements will not significantly disrupt the environment because NFPA 805 requires that the public, plant personnel, and the environment be protected from the effects of a plant fire. As described in NFPA 805, fire protection is based on fire-protection defense-in-depth and requires that fire prevention, detection, control, suppression, and mitigation of consequences be provided. These actions, as detailed further in NFPA 805, are considered adequate to protect the environment from a significant nonradiological impact.

Accordingly, the NRC concludes that the rule action will not have any significant radiological or nonradiological environmental impacts.

Environmental Impacts of Alternatives to the Rule Action

The NRC considered the no-action alternative. Maintaining the status quo (not revising 10 CFR 50.48 to incorporate by reference NFPA 805) would result in no change in the current environmental impacts. The environmental impacts of the rule action would be similar to those associated with the no-action alternative because the methods for fire detection, suppression, and mitigation will not change significantly. Further, the goals, objectives, and performance criteria for defense-in-depth to control fires, plant reactivity, inventory, and pressure, decay heat removal, vital auxiliaries, and process monitoring to minimize the probability of radioactive releases to the environment is the same for both alternatives.

The NRC also considered the alternative of developing its own risk-informed standard. However, because the principles used to develop such a standard, as well as the expected outcomes, would be similar to those associated with NFPA 805, the NRC considers the environmental impact of that approach to be the same as that of the rule action.

Alternative Use of Resources

This action does not involve the use of any resources (i.e., land, water, or other physical materials) other than those considered in the current rule.

Agencies and Persons Consulted

The NRC sent a copy of the environmental assessment for the proposed rule to every State Liaison Officer and requested their comments on the environmental assessment. No comments were received.

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, the NRC has determined that this rule would not constitute a major Federal action that significantly affects the quality of the human environment; therefore, an environmental impact statement is not required.