

Revision to Draft Responses to Letter from the Nuclear Energy Institute Dated May 3, 2006
(ADAMS Accession ML061250040), to the
U.S. Nuclear Regulatory Commission
Revised to Incorporate Comments from Public Meeting on June 9, 2006

- 1) The use of risk information can be used to support the deterministic basis of a licensee's exemption request for use of an operator manual action(s). For post-1979 plants that have the standard license condition, the use of risk information to justify changes to the fire protection program cannot be used without first submitting a license amendment.

U.S. Nuclear Regulatory Commission (NRC) Staff Response:

The methodology and assumptions of probabilistic risk assessments/individual plant examination of external events (PRA/IPEEEs) performed by different licensees (pre- or post-1979) who do not adopt the approved National Fire Protection Association Standard 805 (NFPA 805) vary from plant to plant. Therefore, prior review and approval is required to ensure that the risk analyses have been properly used to demonstrate that the ability to achieve and maintain safe shutdown is not adversely affected in accordance with the standard license condition.

The licensees who adopt NFPA 805 are able to use risk information without prior staff approval because they plan to perform fire PRAs that meet quality standards acceptable to the NRC.

- 2) A licensee can submit a license amendment request (LAR) to seek approval for applying analytical risk methods to fire protection program (FPP) changes in lieu of seeking specific exemptions, but that LAR would need to specifically define how and when the method would be applied.

NRC Staff Response:

A post-1979 licensee can submit a license amendment request to the staff requesting approval of a method to apply analytical risk methods to the fire protection program. However, the LAR would need to specifically define how and when the method would be applied. If the post-1979 licensee uses the approved method to situations beyond the one approved by the staff, the licensee must make sure that the method is applicable to those situations.

A pre-1979 licensee would still, after completion of the evaluation, require a plant-specific exemption. Licensees are required by Title 10 of the *Code of Federal Regulations*, Part 50.48(b) (10 CFR 50.48(b)) to implement Section III.G.2 of Appendix R. Where a low risk operator manual action (OMA) is used in lieu of a fire barrier, an exemption would still be required.

- 3) The NRC agreed to review the methodology precedent in the area of 10 CFR 50.59, which allows changes to be made, provided that the "plant B" licensee is similarly situated as the previously approved "plant A," and the method is used within the constraints and limitations identified in the safety evaluation report (SER) for the method (Nuclear Energy Institute (NEI) 96-07 R1, Section 4.3.8.2, Example 4).

NRC Staff Response:

Fire protection activities are not a 10 CFR 50.59 controlled activity, as the license condition also requires certain considerations. Fire protection programs, plant configurations, procedures, combustible loadings, suppression capabilities, ignition sources, risk assessment capabilities, etc., vary widely from plant to plant; considerations that may make a certain manual action acceptable at plant A will be different at plant B. For pre-1979 plants, as with post-1979 plants that use risk-informed methodology, prior approval is required. For post-1979 plants that use performance-based methodology, prior approval is not required. It is understood that the results of all analyses performed by the licensees are subject to NRC review requirements.

- 4) The Office of the General Council representative stated that they will consider the details related to the fact that a licensee's FPP had been previously reviewed and approved by the NRC, including circuit failure analysis methodology. This will be evaluated to determine if a backfit is to be applied with regard to the proposed generic letter.

NRC Staff Response:

The definition of current licensing basis is provided in 10 CFR 54.3(a). If the staff finds that a program does not meet the requirements of the fire protection rule (10 CFR 50.48(a)) in consistent with the approved licensing bases, regulations and exemptions, the staff will consider a backfit, in accordance with NRC regulations and policies.

- 5) Post-1979 plants may use the provisions of the standard license condition to determine if the proposed change (operator action) is adverse. If the licensee determines that the proposed action is not adverse, then the licensee may make the change, but they will be "at-risk" during future NRC inspections.

NRC Staff Response:

Post-1979 licensees have an operating license condition which states that, "The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire." This standard license condition and background information was provided in Generic Letter 86-10.

Past inspections have found some instances where the NRC inspectors determined that the licensee's evaluation and conclusion of "no adverse affect" was incorrect. When this happens, the licensee is "at risk" of enforcement action.

- 6) All operator manual actions (not approved by an exemption request) that are credited to address a non-compliance will be treated as "compensatory measures."

NRC Staff Response:

No. Manual actions for fires in areas containing redundant safe shutdown systems exist because one of the separation criteria of Section III.G.2 of Appendix R was not met and is required to achieve and maintain safe shutdown. The “compensatory measures” manual operator actions apply only to situations where there is a degraded or missing fire barrier. Typically, a fire protection program requires a fire watch for a missing or degraded fire barrier. It is the staff’s opinion, that an OMA meeting the guidelines listed in the inspection procedure, (IP) 71111.05, dated March 2003, may be used in lieu of a fire watch to provide a better compensatory measure than a fire watch. Licensees may review Regulatory Information Summary (RIS) 05-007, concerning how to change the compensatory measure.

- 7) During a separate meeting in August 2005, it was stated that the new guidance for operator manual actions would be used going forward and would not be used to evaluate manual actions that have been already implemented. Existing manual actions would be evaluated using the existing inspection guidance. NRC comments and presentations during the March 1 meeting indicated otherwise.

NRC Staff Response:

Without knowing the specific NRC comment made on March 1, the staff cannot answer this question.

Meeting Note: NEI closed action.

- 8) NRC representatives stated that an SER may not be used to demonstrate compliance with NRC regulations. This led to a discussion on what constitutes “NRC approval.” This item is of paramount importance since the commitments and approvals documented in SERs represent a key element of the plant licensing basis.

NRC Staff Response:

The staff has included a paragraph in the draft RIS (ML061430404) to further clarify the staff’s position on this issue.

- 9) NRC representatives stated that acceptable guidance (acceptance criteria) for operator manual action exemption requests is provided in IP 71111.05, as well as the proposed rulemaking. This creates a significant amount of confusion, since the NRC also stated that the rulemaking activity will not proceed.

NRC Staff Response:

The term “acceptance criteria” should not be used. The guidance provided in IP 71111.05T should be considered in the context of compensatory measures only.

Even though the rulemaking was withdrawn, the content of the proposed rule and the draft regulatory guide reflected the staff views relating to operator manual actions.

- 10) The NRC indicated that industry should use the guidance found in Regulatory Guide (RG) 1.174 to apply risk insight in future exemption requests.

NRC Staff Response:

RG 1.174 provides guidance on the use of risk insights for certain license applications for exemptions or license amendments and should be used for these type submittals. If risk information is provided for such requests, it needs to provide the information and follow the guidance of RG 1.174. Not all exemption or license amendment requests are required to be "risk-informed."

- 11) The NRC stated that operator manual actions to address spurious actuation of a component in a non-protected safe-shutdown train are acceptable, as long as they are demonstrated to be feasible. In this respect, clarification is needed as to what constitutes an acceptable manual action.

NRC Staff Response:

The staff has documented its position in the draft RIS. The staff position will be further clarified using the answers, that the staff has prepared in response to a number of questions that we received from Engineering Planning and Management, Inc. (ML061250036). These draft answers are posted as an enclosure to the public meeting notice.

- 12) Industry presented the option of submitting an exemption request that would seek approval for an analytical method that would be used to address manual operator actions. Initial indication from the NRC is that they may be amenable to such an approach.

NRC Staff Response:

The quality of PRA/IPEEEs performed by different licensees (pre- or post-1979) who do not adopt NFPA 805 vary greatly. Prior approval is thus required to ensure that the risk analyses have been properly used to demonstrate the ability to achieve and maintain safe shutdown is not adversely affected in accordance with the standard license condition.

The licensees who adopt NFPA 805, are able to use risk information without prior staff approval because they plan to perform Fire PRAs that meet quality standards acceptable to NRC.

- 13) An action taken by the operator in the control room is acceptable and not considered a "manual action."

NRC Staff Response:

Yes. Licensed operators in the control room undergo extensive training and qualification in the manual operation of plant systems from the control room. Manual operation of the plant from the control room is considered a normal licensee activity. In

a fire scenario, adequate instrumentation and controls are necessary for an operator to operate a system manually in the control room. Any manual operation taken by operators at the dedicated shutdown panel, however, is considered a manual operator action.

- 14) A docketed methodology approved in an SER might stand, even if it conflicts with current staff position.

NRC Staff Response:

According to Generic Letter 88-12, a docketed methodology approved in an SER should be incorporated into the operating license condition for post-1979 plants. Pre-1979 licensees need, and normally have, an exemption accompanying the SER since they are required by regulation to implement Section III.G of Appendix R.