

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, DC 20555-0001

November 5, 2015

**NRC REGULATORY ISSUE SUMMARY 2015-11
PROTECTIVE ACTION RECOMMENDATIONS FOR
MEMBERS OF THE PUBLIC ON BODIES OF WATER**

ADDRESSEES

All holders of a power reactor operating license under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities" that include bodies of water within their plume exposure pathway emergency planning zone (EPZ) in accordance with their licensing basis, except for those licensees that have certified that they have permanently ceased operations and fuel has been permanently removed from the reactor vessel.

All applicants for a power reactor operating license or construction permit under 10 CFR Part 50.

All holders of a power reactor early site permit or combined license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants" that include bodies of water within their plume exposure pathway EPZ in accordance with their licensing basis.

All applicants for an early site permit or combined license under 10 CFR Part 52.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to clarify its position concerning licensee compliance with 10 CFR 50.47(b)(10). Specifically, this RIS addresses the development of protective action recommendations (PARs) for members of the public who are on bodies of water within the plume exposure pathway EPZ. Regulations in 10 CFR 50.47(b)(10) require, in part: "A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public." This regulation requires the licensee to develop PARs for all members of the public, and the regulation does not exclude those members of the public who would be on bodies of water within the EPZ. This RIS requires no action or written response on the part of an addressee.

BACKGROUND INFORMATION

Regulations in 10 CFR 50.47, "Emergency Plans," provide the primary standards for emergency preparedness with which the licensee must comply. The following details relevant portions of 10 CFR 50.47:

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Section 50.47(a)(1)(i) states in relevant part: “Except as provided in paragraph (d) of this section, no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.”

Section 50.47(b)(10) states in relevant part: “A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public... Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.”

In addition to the requirements above, Appendix E, “Emergency Planning and Preparedness for Production and Utilization Facilities,” to 10 CFR Part 50, further establishes requirements for PAR development by a licensee to facilitate offsite response organizations’ (ORO) implementation of protective measures. Section IV.D.1 of Appendix E to 10 CFR Part 50 is detailed below:

Administrative and physical means for notifying local, State, and Federal officials and agencies and agreements reached with these officials and agencies for the prompt notification of the public and for public evacuation or other protective measures, should they become necessary, shall be described. This description shall include identification of the appropriate officials, by title and agency, of the State and local government agencies within the EPZs.

Guidance found in NUREG-0654 / FEMA-REP-1 (NUREG-0654), “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” reinforces that PAR development and notification of OROs are licensee responsibilities. Relevant portions of NUREG-0654 are detailed below:

Section II.B.2 states, “Each licensee shall designate an individual as emergency coordinator who shall be on shift at all times and who shall have the authority and responsibility to immediately and unilaterally initiate any emergency actions, including providing protective action recommendations to authorities responsible for implementing offsite emergency measures.”

Section II.B.4 states in relevant part: “...Among the responsibilities which may not be delegated shall be the decision to notify and to recommend protective actions to authorities responsible for offsite emergency measures.”

Section II.J.7 states in relevant part: “Each licensee shall establish a mechanism for recommending protective actions to the appropriate State and local authorities... Prompt notification shall be made directly to the offsite authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone.”

NRC staff completed a review of all relevant regulations and guidance pertaining to the development and issuance of PARs since the regulations became effective on November 3, 1980 (45 FR 55402). The staff has determined that since 1980 neither regulations (including statements of consideration for rulemaking) nor guidance have ever excluded bodies of water from the plume exposure pathway EPZ, or from associated PAR development strategies.

SUMMARY OF ISSUE

Licensees typically convey the area subject to a PAR in one of two ways. Some licensees provide PARs for areas defined by geographic or political boundaries. These areas may be referred to as emergency response planning areas (ERPAs), or other site-specific terminology. Other licensees provide PARs based on compass sectors and radii. Bodies of water located in an existing planning area or sector need not be separately identified in the PAR made to offsite authorities, but must be considered in the development of protective action strategies.

The NRC has identified an issue related to licensee interpretation of the requirements inherent to 10 CFR 50.47(b)(10). The NRC inspectors, during EP inspections, have identified where licensee emergency plans and implementing procedures did not provide for the development of PARs for the members of the public on bodies of water within the plume exposure pathway EPZ during a general emergency.

In one instance, the NRC determined that because of a change to the licensee's emergency plan, the licensee (who used an ERPA model that did not include all areas over water) would not develop PARs for all members of the public within the plume exposure pathway EPZ. The NRC issued a violation, and the licensee subsequently corrected its non-compliance.

Compliance with 10 CFR 50.47(b)(10), requires that PAR development strategies are in place for all areas within the plume exposure pathway EPZ, and that the capability exists for PARs to be made, in the event of an emergency, to protect the health and safety of all members of the public within the plume exposure pathway EPZ. Because the NRC's regulations and guidance have never excluded bodies of water within the plume exposure pathway EPZ from PAR development, bodies of water within the plume exposure pathway EPZ are required to be included in PAR development.

The NRC has determined that the requirement to include bodies of water in PAR strategies may not be clearly understood by all licensees. The NRC is issuing this RIS to remind addressees to establish and maintain PAR strategies for all areas within the plume exposure pathway EPZ in accordance with the regulation and their licensing basis.

BACKFITTING AND ISSUE FINALITY DISCUSSION

This RIS is a review of the NRC staff's positions on the applicable NRC regulatory requirements and guidance with respect to PARS within the licensee's plume exposure pathway EPZ. These positions do not represent new or changed staff positions. In addition, this RIS does not require any action or written response on the part of any licensee or design certification applicant. Accordingly, issuance of this RIS in final form would not represent backfitting as defined in 10 CFR 50.109(a)(1), or be inconsistent with any applicable issue finality provision in 10 CFR Part 52. Therefore, the NRC did not prepare a backfit analysis for this RIS or further address the issue finality criteria in Part 52.

FEDERAL REGISTER NOTIFICATION

The NRC published a notice of opportunity for public comment on this draft RIS in the *Federal Register* (80 FR 30095) on May 26, 2015. The agency received comments from four commenters. The staff considered all comments, which resulted in minor clarifications to the

RIS. The evaluation of these comments and the resulting changes to the RIS are discussed in a publicly available memorandum which is in ADAMS under Accession No. ML15216A354.

CONGRESSIONAL REVIEW ACT

This is not a rule as defined in the Congressional Review Act (5 U.S.C. §§ 801-808).

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not contain new or amended information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget (OMB), approval number 3150-0011.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a current valid OMB control number.

CONTACT

Please direct any questions about this matter to the technical contact listed below, or to the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

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Note: NRC generic communications may be found on the NRC public Web site, <http://www.nrc.gov>, under NRC Library/Document Collections.

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