

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

RIN: 3150-AF20

Production and Utilization Facilities;

Emergency Planning and Preparedness Exercise Requirements

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is revising its emergency planning regulations. This amendment allows greater flexibility in the licensee's emergency preparedness training activities in the 2-year period between biennial full-participation exercises. The amendment (a) preserves the requirement that each licensee, at each site, conduct an emergency preparedness exercise biennially, with full participation by State and local governments that are within the plume exposure pathway emergency planning zone (EPZ); (b) reduces the required frequency of exercising the licensee's onsite emergency plan from annual to biennial; (c) requires licensees to ensure that adequate emergency response capabilities are maintained between biennial exercises by conducting drills, at least one of which must involve some of the principal

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functional areas of the licensee's onsite emergency response capabilities; and (d) requires licensees to continue enabling State and local governments that are in the plume exposure pathway emergency planning zones (EPZs) to participate in drills. With this amendment, the Commission is granting, in part, a petition for rulemaking submitted by the Virginia Electric Power Company on December 9, 1992 (PRM-50-58).

EFFECTIVE DATE: (30 days after publication in the Federal Register.)

FOR FURTHER INFORMATION: Michael T. Jamgochian, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 (301-415-6534); E-mail MTJ1@nrc.gov.

SUPPLEMENTARY INFORMATION:

#### Background

The NRC received a petition for rulemaking submitted on December 9, 1992, by the Virginia Electric Power Company that was assigned Docket No. PRM-50-58. The petitioner requested that the NRC amend, Section IV.F.2., of 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to change the requirement

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that each site exercise its emergency plan biennially rather than annually. The petitioner's proposed amendment would have required each licensee to conduct a biennial full participation exercise of the emergency plan at each site and to take actions necessary to ensure that its emergency response capability is maintained during the 2-year interval. The petitioner believes that the annual graded exercise is but one of many indicators designed to provide reasonable assurance that actions can and will be taken during an emergency situation that will provide for the health and safety of the public. The NRC published a notice of receipt for the petition on March 4, 1993 (58 FR 12341). A total of 32 comment letters were received and considered when developing a proposed rule concerning the issues raised by the petitions.

A notice of proposed rulemaking was published in the Federal Register on April 14, 1995 (60 FR 19002). Public comments were requested by July 13, 1995. A total of 18 comment letters were received, of which 12 utilities, two State emergency management agencies, and the Nuclear Energy Institute (NEI) supported the proposed rule change. One State emergency management agency and an environmental group opposed the proposed rule change. One letter received from a State emergency management agency had no comment on the proposed rule change.

#### NRC Response to Public Comments

The comment letters that were received provided many thought-provoking and constructive comments. The Commission's evaluation of and response to these comments is

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presented in the following section.

Issue 1. While the biennial exercise provides the opportunity for broad based State and local participation in exercising offsite plans and procedures, the annual graded utility exercises enhance the biennial exercise process by providing State liaison personnel and their utility counterparts the opportunity to remain proficient. A 2-year gap will lessen proficiency.

Response. It is clearly not the Commission's intent to lessen the proficiency at any level of the emergency planning organization (onsite or offsite) with the rule change. The Commission believes that interaction and training problems that might arise as a result of deleting the annual onsite exercise would be resolved by requiring licensees to enable any State or local Government to participate in the licensee's drills when requested by the State or local Government. The Commission is confident that, if a State governmental emergency response agency feels the need to participate in a drill that would require specific offsite interaction and decisionmaking capability, the licensee would accommodate the State agency's request within the framework of the drills that the licensee conducts throughout the 2-year period between the biennial full participation exercise. In fact, a State who was originally against granting the petition for rulemaking because of similar concerns stated the following in their comment on the proposed rule.

“We were among those initially opposed to the Virginia Electric Power Company petition that prompted this rule change, primarily because of a perceived potential for a diminution of emergency preparedness capability on the part of licensees. However, we acknowledge that the compromise

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embodied in the Commission's proposed rule change offers adequate assurance that ongoing licensee emergency preparedness activities will continue at a reasonable level. Because of the number of licensees and the capacity of the State's emergency response organizations, when appropriate (this State) will invoke the language of the proposed rule change that requires licensees to '... enable any State or local government located within the plume exposure pathway EPZ to participate in the licensee's drills when requested by such State or local government.'"

Issue 2. County, State, and utility emergency preparedness will degrade under a biennial schedule. Mini-drills will not take the place of annual exercises as now constituted. Further, States have been encouraging more Federal exercise participation by the Federal Emergency Management Agency (FEMA) and NRC. The proposed change would cut back on the opportunities to test current personnel and train new personnel.

Response. The Commission disagrees. The rule change does not require "mini-drills" to replace annual exercises. The rule change does require that "the licensee shall take actions necessary to ensure that adequate emergency response capabilities are maintained... by conducting drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities." (10 CFR Part 50, Appendix E, IV.F.2.b.)

Additionally, the opportunity to test and train new personnel is provided by requiring that "Licensees shall enable any State or local Government ... to participate in the licensee's drills" (Id at IV.F.2.e.)

Issue 3. There is a need for clarity regarding State and local participation in the exercises

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and drills that are proposed to replace the annual NRC graded exercise. At 60 FR 19002; dated April 14, 1995, licensees are charged to "enable" States and local governments to participate in these exercises and drills, but at 60 FR 19006, activating all response facilities (Technical Support Center, (TSC); Operations Support Center (OSC), and the Emergency Operations Facility (EOF) is not necessary. Because State and local governments coordinate interaction through the EOF and Media Centers, clarification is required. For example, perhaps the utility would be charged with exercising the EOF and Media Centers as a part of at least one exercise and/or drill each year.

Response. Based on the extensive coordination and cooperation between licensees and State and local governments over the last 15 years, the Commission is confident that, if a State or local governmental emergency response agency felt the need to participate in a drill that included interaction at the EOF and Media Centers, the licensee would accommodate the request within the framework of the drills that the licensee conducts throughout the 2-year period between the biennial full participation exercises.

Issue 4. Rather than eliminating any requirements, it is suggested that each site initially be granted a waiver for "off-year" integrated exercises. The waiver would be effective only as long as an acceptable level of emergency response capability is maintained.

Response. The Commission disagrees. The Commission believes that the proposed rule would accomplish the commenter's objective without the extensive NRC resources that implementing the commenter's suggestion would require.

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Issue 5. The Commission does not appear to have addressed the quantitative question about expected turnover rates that would be important in determining whether biennial exercises could substantially reduce local team skills.

Response. Please see the response to Issue 1. Additionally, the Commission has always been and continues to be committed to the principle that there exists "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency." If, this finding is jeopardized either at the State or local governmental level, additional training would be warranted and would be provided by participating in the drills the licensee conducts between biennial exercises.

Issue 6. The Commission has not adequately addressed local Government comments on the importance of regular exercises for improving coordination and communication.

Response. The Commission did not receive any comments from local governments relating to this petition for rulemaking. Nonetheless, the Commission is confident that if a local Government wished to improve its coordination and communication capabilities, licensees would welcome its participation in one or more of the onsite drills that will be conducted between the biennial exercises.

Issue 7. The Commission has not addressed the FEMA concern that regular cooperation with offsite teams may play a critical role in their preparedness, which may be especially

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important in view of the potential role such teams may play as first responders in actual emergencies.

Response. Prior to publishing the proposed rule, the Commission received FEMA's assurance that their concerns with the petition for rulemaking had been resolved. Nonetheless, regular cooperation between offsite and licensee emergency response teams will be ensured by the requirement that licensees enable any state or local Government within the plume exposure pathway emergency planning zone to participate in the licensee's drills upon request.

#### Issues Raised by Petitioner

The petitioner characterizes the present requirement as one that is resource intensive but of marginal importance to safety. The petitioner has identified grounds for change for a number of issues associated with the current requirement to conduct an emergency plan exercise annually. The issues presented by the petitioner follow:

- (1) The requirement to conduct an integrated annual exercise is not clearly defined.

Therefore, the regulation should be clarified.

- (2) The existing regulation, 10 CFR Part 50, Appendix E, is inconsistent with other regulations that govern the frequency of offsite response organization integrated exercises (i.e., 44 CFR Part 350).

- (3) The performance of offsite response organizations during biennial exercises has confirmed that a biennial frequency is sufficient to provide the reasonable assurance finding.

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(4) The existing regulation, 10 CFR 50.54(t), provides for an independent review of the adequacy of the program.

(5) The existing requirement to conduct an annual exercise is not necessary to achieve the underlying purpose of the rule. A biennial exercise is sufficient to provide an acceptable formal confirmation of capability.

(6) Reconsideration of the requirement is warranted in light of the completion and implementation of enhanced emergency preparedness facilities, the current level of industry proficiency and performance, and the increased industry sensitivity to emergency preparedness.

(7) Personnel could be utilized more effectively in their normal professional function rather than by participating in a resource-intensive integrated test that only serves to confirm the already existing level of the response capability.

(8) Emergency planning resources could be utilized more effectively to further the development and maintenance of emergency preparedness activities.

## Commission Response

The Commission believes that it is important, in light of public comment, as well as the discussion provided in the petition, to clarify NRC's intent (under the existing rule) that licensees need not conduct annual exercises with scenarios that progress to severe core damage or result in offsite releases. Historically, these scenarios were used in both the biennial full-participation exercise of offsite emergency plans and the annual exercise of the licensee's onsite emergency

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plan; this is no longer necessary for the currently required annual exercises of the licensee's onsite emergency plan. Information Notice (IN) 87-54, "Emergency Response Exercises," was issued to clarify NRC intent in this regard and to provide detailed guidance, specifically on the types of "off-year" training activities that licensees can perform during the interval between the biennial full participation exercises to maintain adequate EP response capabilities and to satisfy the rule.

Some licensees have availed themselves of the flexibility afforded by the IN 87-54 guidance to conduct realistic, interactive "off-year" training activities that simulate less severe events, such as a minor fire, loss of electric power, or equipment failure, and focus on the capability of the onsite emergency response organization to diagnose problems and develop actions to successfully mitigate the scenario event. However, as noted in the petition, many licensees continue to employ severe accident scenarios in annual exercises of their onsite emergency plans.

Accordingly, the Commission is revising Section IV.F.2.b. of 10 CFR Part 50, Appendix E, to (1) reduce from annual to biennial the frequency of exercising the licensee's onsite emergency plan (which may be included in the biennial full participation exercise specified in IV.F.2.c.) and (2) require licensees to conduct training drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities. This drill would be conducted between biennial full participation exercises to ensure that adequate emergency response capabilities are maintained. The principal functional areas of emergency response include activities such as management and coordination of

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emergency response, accident assessment, protective action decisionmaking, and plant system repair and corrective actions.

This approach is consistent with a comment from one State that favored the petition for rulemaking but preferred that some guidelines be included in Appendix E requiring plant specific internal exercises during the "off-year" to ensure plant personnel familiarity with their response plans rather than the vague expectancy that this activity will be done. Furthermore, licensees would continue to enable State and local governments in the plume exposure pathway EPZs to participate in drills in the interval between exercises, thus, preserving their training opportunities.

The Commission believes that the final rule may result in the reallocation and more effective utilization of resources in some licensees' emergency preparedness (EP) programs as they further the development and maintenance of emergency preparedness capabilities during the "off-year" periods. However, it is not clear that these changes will result in significant overall cost savings. The Commission cautions specifically against expectations that the final rule will necessarily result in significant reductions in NRC inspection activity concerning licensees' "off-year" EP maintenance activities because they may be modified under the new rule. Also, licensees will, upon request, submit scenarios for NRC review as may be deemed necessary by NRC in support of future inspections.

Conclusion

Having considered the arguments presented by the petitioner as well as evaluating all public comments received, and based on a further understanding of the issues involved gained from 14 years of experience evaluating licensee emergency preparedness exercises, the Commission concludes that (1) the required frequency for exercising the licensee's onsite emergency plan should be reduced from annual to biennial, (2) the means by which licensees are expected to train and maintain their emergency response capabilities and readiness in the 2-year interval between evaluated exercises should be changed to require licensees to conduct drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities, and (3) opportunities for training of State and local Government personnel must be preserved.

The principal functional areas of emergency response include management and coordination of emergency response, accident assessment, protective action decisionmaking, and plant system repair and corrective actions.

During the specified drills, activation of all of the licensee's emergency response facilities (Technical Support Center (TSC), Operations Support Center (OSC); and the Emergency Operations Facility (EOF)) would not be necessary. Licensees would have the opportunity to consider accident management strategies, supervised instruction would be permitted, operating staff would have the opportunity to resolve problems (success paths) rather than have controllers intervene, and the drills could focus on onsite training objectives.

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The final rule relieves licensees from the current requirement to conduct a full formal exercise of the licensee's onsite emergency plan annually, and gives licensees the flexibility to choose the activities to be conducted in the 2-year period between biennial full-participation exercises in order to maintain their emergency response capabilities. Greater flexibility in the training of the onsite emergency response organization can provide significant benefits to some licensees. For example, licensees can eliminate the practice of developing scenarios that proceed to severe core damage, offsite releases, or to higher emergency classification levels. Licensees will have greater opportunity to conduct realistic emergency response training with supervised instruction that allows the operating staff to consider accident management strategies, diagnose problems, and be given credit for actions that would mitigate scenario events.

This approach is also responsive to public commenters who expressed concern about a possible decrease in licensee training and readiness in the period between biennial exercises. Under this approach, licensees will still be required to conduct emergency response training and drills of the onsite emergency response organization, as well as provide training opportunities to State and local Government personnel during the interval between biennial exercises. The final rule completes NRC action in response to PRM-50-58. The final rule grants the petitioner's request that the frequency of required onsite emergency response plan exercises be reduced from annual to biennial.

Additionally, 10 CFR 50.47(a)(1) is being revised in order to correct a typographical error that appeared in the 1993 edition of Title 10, Parts 0 to 50 of the Code of Federal Regulations. In the 1993 edition, the word "protection" was substituted for "protective measures" in 10 CFR

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50.47(a)(1). This action corrects this paragraph to read as follows: "...reasonable assurance that adequate protective measures can and will be taken..."

#### Finding of No Significant Environmental Impact: Availability

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in 10 CFR Part 51, Subpart A, that this rule is not a major Federal action significantly affecting the quality of the human environment and therefore, an environmental impact statement is not required. The rule will update and clarify the emergency planning regulations relating to exercises. It does not involve any modification to any plant or revise the need for or the standards for emergency plans. There is no adverse effect on the quality of the environment. The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC.

#### Paperwork Reduction Act Statement

This final rule does not contain a new or amended information collection requirement 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 approval Number 3150-0011.

#### Regulatory Analysis

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The Commission has prepared a regulatory analysis on this final regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. The analysis is available for inspection in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC. Single copies of the analysis may be obtained from Michael T. Jamgochian, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; Telephone: (301) 415-6534.

## Regulatory Flexibility Act Certification

The final rule does not have a significant impact on a substantial number of small entities. The final rule updates and clarifies the emergency planning regulations relating to exercises at nuclear power plants. Nuclear power plant licensees do not fall within the definition of small business in Section 3 of the Small Business Act (15 U.S.C. 632), the Small Business Size Standards of the Small Business Administration in 13 CFR Part 121, or the Commission's Size Standards published at 56 FR 56671 (November 6, 1991). As required by the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that the final rule will not have a significant economic impact on a substantial number of small entities. Therefore, a regulatory flexibility analysis is not required.

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## Backfit Analysis

The final rule clarifies the intent of the existing regulation and facilitates greater flexibility in licensees' conduct of "off-year" emergency response training activities. This action does not seek to impose any new or increased requirements in this area. The changes permit, but do not require, licensees to change their existing emergency plans and procedures to employ scenarios in "off-year" training or drills that do not go to severe core damage or result in offsite exposures. No backfitting is intended or approved in connection with this final rule change.

## List of Subjects

10 CFR Part 50

Antitrust, Classified information, Criminal penalties, Fire protection, Intergovernmental relations, Nuclear power plants and reactors, Penalty, Radiation protection, Reactor siting criteria, reporting and record keeping requirements.

For the reasons set out in the preamble, and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 553; the NRC is adopting the following amendments to 10 CFR Part 50.

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PART 50--DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows:

AUTHORITY: Secs. 102, 103, 104, 105, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 938, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2132, 2133, 2134, 2135, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

2. In Section 50.47, paragraph (a)(1) is revised to read as follows:

§ 50.47 Emergency plans.

(a)(1) 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. No finding under this section is necessary for issuance of a renewed nuclear power reactor operating license.

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3. Appendix E to Part 50 is amended by revising section IV, F. paragraphs 2.b., and e. to read as follows:

Appendix E -- Emergency Planning and Preparedness for Production and  
Utilization Facilities

IV. Content of Emergency Plans

F. Training

\* \* \* \* \*

2. \* \* \*

b. Each licensee at each site shall conduct an exercise of its emergency plan every two years. The exercise may be included in the full participation biennial exercise required by paragraph 2.c. of this section. In addition, the licensee shall take actions necessary to ensure that adequate emergency response capabilities are maintained during the interval between biennial exercises by conducting drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, protective action decisionmaking, and plant system repair and corrective actions. During these drills, activation of all of the licensee's emergency response facilities (Technical Support Center (TSC), Operations Support Center (OSC), and the Emergency Operations Facility (EOF)) would not be necessary, licensees would have the opportunity to consider accident management strategies, supervised instruction would be permitted, operating staff would have the opportunity to resolve problems (success paths) rather

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than have controllers intervene, and the drills could focus on onsite training objectives.

\* \* \* \* \*

e. Licensees shall enable any State or local Government located within the plume exposure pathway EPZ to participate in the licensee's drills when requested by such State or local Government.

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Dated at Rockville, Maryland, this \_\_\_ day of \_\_\_\_\_, 1996.

For the Nuclear Regulatory Commission.

\_\_\_\_\_  
John C. Hoyle,  
Secretary of the Commission.