

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
WASHINGTON, D.C. 20555

October 23, 1987

**NRC INFORMATION NOTICE NO. 87-54: EMERGENCY RESPONSE EXERCISES**

Addressees:

All holders of operating licenses or construction permits for nuclear power reactors.

Purpose:

This information notice is being provided to remind addressees of flexibility that exists in certain requirements contained in emergency planning rules. It is expected that recipients will review the information for applicability to their program. However, suggestions contained in this information notice do not constitute NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances:

To satisfy the current requirements of 10 CFR 50.47 and 10 CFR Part 50, Appendix E, each licensee must annually exercise its emergency plan. In addition, each licensee is required to exercise with offsite authorities such that the State and local government emergency plans are exercised biennially. Currently there are no specific requirements which address whether each exercise scenario must lead to the declaration of a General Emergency. However, perhaps as a carryover from the previous requirements for annual State and local exercises, almost all exercise scenarios are planned to progress to a General Emergency condition.

Discussion:

While it may be appropriate for biennial offsite exercises to proceed to a General Emergency declaration, exercises other than biennial offsite exercises (off-year exercises) are not required to proceed to severe core damage. Such exercises can provide an opportunity for more realistic emergency response training and evaluation of licensee staff. For example, before severe core damage would be expected to occur, the operating staff may be given the opportunity to diagnose and attempt to correct the problem through an interactive scenario. In addition, some exercise scenarios may be designed with initiating events at the Alert or Site Area Emergency classification. Since actual events may go directly to these higher level classifications without sequencing

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through each emergency class, advance opportunity to activate response facilities may not occur. The flexibility within the requirements allows for the development of other realistic scenarios which, in turn, can improve emergency response capability.

10 CFR Part 50, Appendix E, Section IV.F.3.f, states that "licensees shall enable any State or local government located within the plume exposure pathway EPZ to participate in annual exercises when requested by such State or local government." To satisfy this requirement, it may be necessary for licensees to develop an exercise scenario which provides opportunities to test the appropriate aspects of the offsite response plan. Such participation may need to be negotiated between the licensee and the offsite authorities.

Licensees that have conducted realistic and interactive exercises have identified and corrected weaknesses in their ability to respond to such simulated onsite events as fire, loss of electrical power, and equipment failure. The response of personnel and availability and utilization of alternate equipment to mitigate simulated severe off-normal plant conditions have been challenging and have led some licensees to conduct further training and provide added procedures and support equipment. In addition, interactive exercises can provide a training opportunity for personnel that would be called upon to make strategic decisions in areas that are not addressed by existing procedures.

~~Licensees and applicants may wish to consider incorporating these concepts in planning and conducting off-year emergency response exercises.~~

The revision to the exercise frequency requirements of 10 CFR Part 50, Appendix E has been previously discussed in IE Information Notice 85-55, "Revised Emergency Exercise Frequency Rule."

No specific action or written response is required by this information notice. If you have any questions about this matter, please contact the technical contact listed below or the Regional Administrator of the appropriate regional office.

*Charles E. Rossi*  
Charles E. Rossi, Director  
Division of Operational Events Assessment  
Office of Nuclear Reactor Regulation

Technical Contact: Cheryl A. Sakenas, AEOD  
(301) 492-9004

Attachment: List of Recently Issued NRC Information Notices

Attachment  
IN 87-54  
October 23, 1987

LIST OF RECENTLY ISSUED  
INFORMATION NOTICES 1987

| Information Notice No. | Subject   | Date of Issuance | Issued to  |
|------------------------|---|------------------|--|
| 87-53                  | Auxiliary Feedwater Pump Trips Resulting from Low Suction Pressure                                      | 10/20/87         | All holders of OLs or CPs for nuclear power reactors.  |
| 87-52                  | Insulation Breakdown of Silicone Rubber-Insulated Single Conductor Cables During High Potential Testing | 10/16/87         | All holders of OLs or CPs for nuclear power reactors.  |
| 87-51                  | Failure of Low Pressure Safety Injection Pump Due to Seal Problems                                      | 10/13/87         | All nuclear power reactor facilities holding an OL or CP.  |
| 87-50                  | Potential LOCA at High- and Low-Pressure Interfaces from Fire Damage                                    | 10/9/87          | All nuclear power reactor facilities holding an OL or CP.  |
| 87-49                  | Deficiencies in Outside Containment Flooding Protection   | 10/9/87          | All nuclear power reactor facilities holding an OL or CP.  |
| 87-48                  | Information Concerning the Use of Anaerobic Adhesive/ Sealants  | 10/9/87          | All nuclear power reactor facilities holding an OL or CP.  |
| 87-47                  | Transportation of Radiography Devices   | 10/5/87          | All NRC licensees authorized to manufacture, distribute and/or operate radiographic exposure devices and/or source changers. |
| 87-46                  | Undetected Loss of Reactor Coolant  | 9/30/87          | All PWR facilities holding on OL or CP.  |
| 87-45                  | Recent Safety-Related Violations of NRC Requirements by Industrial Radiography Licensees                | 9/25/87          | All NRC licensees authorized to possess and use sealed sources for industrial radiography.                                   |

OL = Operating License  
CP = Construction Permit

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Licensees that have conducted realistic and interactive exercises have identified and corrected weaknesses in their ability to respond to such simulated onsite events as fire, loss of electrical power, and equipment failure. The response of personnel and availability and utilization of alternate equipment to mitigate simulated severe off-normal plant conditions have been challenging and have led some licensees to conduct further training and provide added procedures and support equipment. In addition, interactive exercises can provide a training opportunity for personnel that would be called upon to make strategic decisions in areas that are not addressed by existing procedures.

Licensees and applicants may wish to consider incorporating these concepts in planning and conducting off-year emergency response exercises.

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\*PPMB:ARM  
TechEd  
09/29/87

OGCB:DOEA:NRR  
JERamsey  
10/ /87

D/DOEA:NRR  
CERossi  
10/19/87  
IRB:DOA:AEOD  
CASakenas  
10/ /87

C/OGCB:DOEA:NRR  
CHBerlinger  
10/ /87  
C/IRB:DOA:AEOD  
KEPerkins  
10/ /87

D/DREP:NRR  
FCongel  
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C/PEPB:DREP:NRR  
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Licensees and applicants may wish to consider incorporating these concepts in planning and conducting off-year emergency response exercises. ~~In addition, licensees may wish to consider either the results of a plant-specific PRA or generic PRA insights in selecting other realistic exercise scenarios.~~

Reference:

The revision to the exercise frequency requirements of 10 CFR Part 50, Appendix E has been previously discussed in IE Information Notice 85-55, "Revised Emergency Exercise Frequency Rule."

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*C1413*  
C/OGCB:DOEA:NRR  
CHBerlinger  
10/16/87  
C/IRB:DOA:AEOD  
KEPerkins  
10/14/87

D/DREP:NRR  
FCongel  
10/15/87  
C/PEPB:DREP  
DBMatthews  
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*As indicated above*

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Licensees that have conducted realistic and interactive exercises have identified and corrected weaknesses in their ability to respond to such simulated onsite events as fire, loss of electrical power, and equipment failure. The response of personnel and availability and utilization of alternate equipment to mitigate simulated severe off-normal plant conditions have been challenging and have led some licensees to conduct further training and provide added procedures and support equipment. In addition, interactive exercises can provide a training opportunity for personnel that would be called upon to make strategic decisions in areas that are not addressed by existing procedures.

Licensees and applicants may wish to consider incorporating these concepts in planning and conducting off-year emergency response exercises. In addition, licensees may wish to consider either the results of a plant specific PRA or generic PRA  
Reference: *insights in selecting other realistic exercise scenarios.*

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Licensees that have conducted realistic and interactive exercises have identified and corrected weaknesses in their ability to respond to such simulated onsite events as fire, loss of electrical power, and equipment failure. The response of personnel and availability and utilization of alternate equipment to mitigate simulated severe off-normal plant conditions have been challenging and have led some licensees to conduct further training and provide added procedures and support equipment. In addition, interactive exercises can provide a training opportunity for personnel that would be called upon to make strategic decisions in areas that are not addressed by existing procedures.

Licensees and applicants may wish to consider incorporating these concepts in planning and conducting off-year emergency response exercises. *In addition, licensees may wish to consider either the results of a plant specific PRA or Generic PRA insights in selecting other realistic exercise scenarios.*  
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| TechEd                     | JERamsey      | CASakenas       | KEPerkins       |
| 09/29/87                   | 10/ /87       | 10/ /87         | 10/ /87         |

through each emergency class, advance opportunity to activate response facilities, for example, may not occur. This flexibility allows for the development of more realistic scenarios which, in turn, can improve emergency response capability.

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Licensees that have conducted more realistic and interactive exercises have identified and corrected weaknesses in their ability to respond to such simulated onsite events as fire, loss of electrical power, and equipment failure. The response of personnel and availability and utilization of alternate equipment to mitigate simulated severe off-normal plant conditions have been challenging and have led some licensees to conduct further training and provide added procedures and support equipment.

Interactive exercises can provide a training opportunity for personnel that would be called upon to make strategic decisions should an actual event progress beyond existing procedures. Licensees and applicants may wish to consider incorporating these concepts in planning and conducting off-year emergency response exercises.

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