

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

May 10, 1990

NRC INFORMATION NOTICE NO. 90-34: RESPONSE TO FALSE SIREN ACTIVATIONS

Addressees:

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

Purpose:

This information notice is intended to alert addressees to potential problems resulting from lack of appropriate response to false alert and notification system (ANS) siren activations (false alarms). It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice do not constitute NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances:

Between January 1987 and December 1989, more than 20 false alarms of the ANS were reported to the NRC. These false alarms were attributed to such causes as inclement weather, mechanical failure, radio interference and personnel error. In many cases, licensees and local officials responded to these actuations inadequately with regard to reassuring the affected public.

For example, on June 2, 1989, at 4:49 a.m., spurious actuation of an emergency notification siren associated with the Diablo Canyon Nuclear Power Plant resulted in a high level of frustration and anxiety among members of the public when they were unable to confirm what action, if any, they should take. Again, on January 16, 1990, at 11:20 p.m., a 20-minute spurious activation of an emergency notification siren associated with the San Onofre Nuclear Generating Station caused a similar reaction.

In both cases, members of the public tuned their radios to the designated emergency broadcast station (EBS), which did not inform them that the alarm was false. Members of the public subsequently called the licensee's emergency phone number listed in their emergency information booklet, but received no response since that number is only activated in a real emergency. Members of the public then inundated their local 911 emergency number, overloading that system and frustrating local officials who also did not know what was

happening. Some individuals attempted to call the licensee directly and some called the NRC Operations Center, with nobody being able to provide factual information.

Licensees and local officials found, in one case, a failure to develop effective plans to respond to spurious activations and, in the other case, a failure by offsite organizations to implement planned responses.

Diablo Canyon completed a root-cause analysis of the occurrence and with local authorities developed the following corrective actions:

1. A new section titled "Accidental Siren Sounding" was added to the public's emergency notification booklet. This section includes a telephone number (manned by company employees 24 hours per day) that a member of the public can call if he or she hears a siren but can find no message on an EBS. The new section also asks the public to refrain from calling 911 when a siren sounds.
2. The licensee developed a training video tape for local officials and for personnel at all EBSs.
3. Local officials revised their procedures and retrained individuals responsible for activating the EBS.

In addition, because six spurious activations occurred since 1984, the licensee decided to upgrade the siren system. The licensee is replacing all transistors in the sirens because these have been the most frequent cause of false activations. The licensee is also modifying each siren to confirm activation if the siren sounds. This modification was considered necessary because citizens have occasionally confused police or fire sirens with activations of the plant's emergency notification system.

Discussion:

A similar information notice, Information Notice No. 81-34, "Accidental Actuation of Prompt Public Notification System," was issued on November 16, 1981. A siren, designed to warn of a nuclear emergency, sounding in the night would be expected to cause anxiety, which in turn leads to numerous unnecessary and burdensome calls to the local police, the licensee, and the NRC. Timely and appropriate response to false alarms can reduce the level of public anxiety. Failure to rapidly inform the affected public as to why the siren is sounding raises that anxiety. Local procedures for response to false alarms have not been established in all cases. Insufficient response may decrease public confidence that the ANS will perform its intended function during an emergency.

Addressees may wish to verify that plans are in place to respond effectively to spurious activation of emergency notification sirens associated with their facilities.

This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact the technical contact listed below or the appropriate NRR project manager.



Charles E. Rossi, Director
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Office of Nuclear Reactor Regulation

Technical Contact: G. P. Yuhas, RV
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Attachment: List of Recently Issued NRC Information Notices

LIST OF RECENTLY ISSUED
 NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
90-33	Sources of Unexpected Occupational Radiation Exposures at Spent Fuel Pools	5/9/90	All holders of OIs or CPs for nuclear power reactors.
90-32	Surface Crack and Subsurface Indications in the Weld of A Reactor Vessel Head	5/3/90	All holders of OIs or CPs for nuclear power reactors.
90-31	Update on Waste Form and High Integrity Container Topical Report Review Status, Identification of Problems with Cement Solidification, and Reporting of Waste Mishaps	5/4/90	All holders of OIs or CPs for nuclear power reactors, fuel cycle licenses, and certain by-product materials licenses.
90-30	Ultrasonic Inspection Techniques for Dissimilar Metal Welds	5/1/90	All holders of OIs or CPs for nuclear power reactors.
90-29	Cracking of Cladding and Its Heat-Affected Zone in the Base Metal of a Reactor Vessel Head	4/30/90	All holders of OIs or CPs for nuclear power reactors.
90-28	Potential Error in High Steamline Flow Setpoint	4/30/90	All holders of OIs or CPs for BWRs.
90-27	Clarification of the Recent Revisions to the Regulatory Requirements for Packaging of Uranium Hexafluoride (UF ₆) for Transportation	4/30/90	All uranium fuel fabrication and conversion facilities.
89-70, Supp. 1	Possible Indications of Misrepresented Vendor Products	4/26/90	All holders of OIs or CPs for nuclear power reactors.

OI = Operating License
 CP = Construction Permit

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