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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

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IE Bulletin No. 79-18

AUDIBILITY PROBLEMS ENCOUNTERED ON EVACUATION OF PERSONNEL FROM HIGH-NOISE AREAS

Description of Circumstances:

In January 1979, a number of licensee personnel were engaged in routine activities in the auxiliary building at the Florida Power Corporation, Crystal River Unit 3 nuclear plant. While these individuals were working in the auxiliary building, in a high-noise (fan) area, an unplanned release of radioactive noble gases was detected by building monitors within the auxiliary building at concentrations which caused the licensee to initiate the facility emergency plan auxiliary building evacuation procedure. The facility Emergency Officer (Shift Supervisor) assessed the monitor readings and initiated an auxiliary building evacuation. The evacuation announcement, made over the licensee's PA system, was not heard by the personnel working in the high-noise area. Licensee personnel did evacuate the auxiliary building upon observing that other personnel had left, and after calling the control room to inquire if an evacuation had been initiated. During these occurrences, licensee personnel were not exposed to quantities of radionuclides above regulatory guidance. However, the potential existed for inadvertent unnecessary exposure of individuals to radioactive materials.

Subsequent to the NRC followup inspection of this occurrence, Florida Power Corporation initiated an assessment of this situation and performed an engineering evaluation and identified several plant areas where the annunciator system needed audibility improvement. The licensee has installed a new auxiliary building evacuation tone signal and may add visual alarm indicators in areas of very high-noise.

Action to be Taken by the Licensees:

For all power reactor facilities with an operating license:

1. Determine whether current alarm systems and evacuation announcement systems are clearly audible or visible throughout all plant areas with emphasis on high-noise areas. Determination in high noise areas must be made with the maximum anticipated noise level.

2. Determine what corrective action is necessary to assure that areas identified as inaudible areas in (1) above, will receive adequate audible/visual evacuation signals. In areas where adequate audible/visual evacuation signals cannot be assured by hardware changes, determine what additional administrative measures are necessary to assure personnel evacuation.

3. Submit within 45 days of the date of issuance of this Bulletin, a written report of the findings on item (1), and delineate completed or proposed corrective actions per item (2). For operating facilities in a refueling or extended outage, the written report must be submitted within 30 days after plant startup following the outage.

4. For accessible areas, all corrective actions determined per item (2) must be completed within 120 days of the date of issuance of this Bulletin. For inaccessible areas, the written report must include a time schedule for completion of corrective actions in this area.

Reports should be submitted to the Director of the appropriate NRC Regional Office and a copy should be forwarded to the NRC Office of Inspection and Enforcement, Division of Reactor Operations Inspection, Washington, D.C. 20555.

For all power reactor facilities with a construction permit, this Bulletin is for information only and no written response is required.

Approved by GAO, B180225 (R0072); clearance expires 7/31/80. Approval was given under a blanket clearance specifically for identified generic problems.

Enclosure:
LIST OF IE Bulletins Issued
in Last 6 Months

LISTING OF IE BULLETINS
ISSUED IN LAST SIX MONTHS

Bulletin No.	Subject	Date Issued	Issued To
79-17	Pipe Cracks in Stagnant Borated Water Systems at PWR Plants	7/26/79	All PWR's with operating license
79-16	Vital Area Access Controls	7/26/79	All Holders of and applicants for Power Reactor Operating Licenses who anticipate loading fuel prior to 1981
79-15	Deep Draft Pump Deficiencies	7/11/79	All Power Reactor Licensees with a CP and/or OL
79-14	Seismic Analyses for As-Built Safety-Related Piping System	6/2/79	All Power Reactor facilities with an OL or a CP
79-13	Cracking in Feedwater System Piping	6/25/79	All PWRs with an OL for action. All BWRs with a CP for information.
79-02 (Rev. 1)	Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts	6/21/79	All Power Reactor Facilities with an OL or a CP
79-12	Short Period Scrams at BWR Facilities	5/31/79	All GE BWR Facilities with an OL
79-11	Faulty Overcurrent Trip Device in Circuit Breakers for Engineered Safety Systems	5/22/79	All Power Reactor Facilities with an OL or a CP
79-10	Requalification Training Program Statistics	5/11/79	All Power Reactor Facilities with an OL

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ISSUED IN LAST SIX MONTHS

Bulletin No.	Subject	Date Issued	Issued To
79-09	Failures of GE Type AK-2 Circuit Breaker in Safety Related Systems	4/17/79	All Power Reactor Facilities with an OL or CP
79-08	Events Relevant to BWR Reactors Identified During Three Mile Island Incident	4/14/79	All BWR Power Reactor Facilities with an OL
79-07	Seismic Stress Analysis of Safety-Related Piping	4/14/79	All Power Reactor Facilities with an OL or CP
79-05C&06C	Nuclear Incident at Three Mile Island - Supplement	7/26/79	To all PWR Power Reactor Facilities with an OL
79-06B	Review of Operational Errors and System Misalignments Identified During the Three Mile Island Incident	4/14/79	All Combustion Engineering Designed Pressurized Water Power Reactor Facilities with an Operating License
79-06A (Rev 1)	Review of Operational Errors and System Misalignments Identified During the Three Mile Island Incident	4/18/79	All Pressurized Water Power Reactor Facilities of Westinghouse Design with an OL
79-06A	Review of Operational Errors and System Misalignments Identified During the Three Mile Island Incident	4/14/79	All Pressurized Water Power Reactor Facilities of Westinghouse Design with an OL
79-06	Review of Operational Errors and System Misalignments Identified During the Three Mile Island Incident	4/11/79	All Pressurized Water Power Reactors with an OL except B&W facilities

LISTING OF IE BULLETINS
ISSUED IN LAST SIX MONTHS

Bulletin No.	Subject	Date Issued	Issued To
79-05B	Nuclear Incident at Three Mile Island	5/21/79	All B&W Power Reactor Facilities with an OL
79-05A	Nuclear Incident at Three Mile Island	4/5/79	All B&W Power Reactor Facilities with an OL
79-05	Nuclear Incident at Three Mile Island	4/2/79	All Power Reactor Facilities with an OL and CP
79-04	Incorrect Weights for Swing Check Valves Manufactured by Velan Engineering Corporation	3/30/79	All Power Reactor Facilities with an OL or CP
78-12B	Atypical Weld Material in Reactor Pressure Vessel Welds	3/19/79	All Power Reactor Facilities with an OL or CP
79-03	Longitudinal Welds Defects In ASME SA-312 Type 304 Stainless Steel Pipe Spools Manufactured by Youngstown Welding and Engineering Co.	3/12/79	All Power Reactor Facilities with an OL or CP
79-01A	Environmental Qualification of Class 1E Equipment (Deficiencies in the Environmental Qualification of ASCO Solenoid Valves)	6/6/79	All Power Reactor Facilities with an OL or CP