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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, DC 20555

August 14, 1986

IE INFORMATION NOTICE NO. 86-64: DEFICIENCIES IN UPGRADE PROGRAMS FOR
PLANT EMERGENCY OPERATING PROCEDURES

Addressees:

All nuclear power reactor facilities holding an operating license or a construction permit.

Purpose:

This notice is to alert recipients to problems found in reviews and audits of Procedures Generation Packages (PGPs) and emergency procedures for operating reactors and license applicants. Indications are that many utilities have not appropriately developed or implemented upgraded emergency operating procedures (EOPs). Deficiencies have been identified in the development and implementation of each of the four major aspects of the upgrade programs for utility procedures.

It is expected that recipients will review the information for applicability to their facilities and consider actions, if appropriate, to preclude similar problems occurring at their facilities. However, suggestions contained in this notice do not constitute NRC requirements; therefore, no specific action or written response is required.

Background:

As required by the TMI Action Plan, NUREG-0737, the industry developed technical guidelines based on re-analysis of transients and accidents to support upgrading EOPs. In addition, the staff developed a long range program for upgrading EOPs in the industry. Development and implementation of upgraded EOPs were requested by the NRC staff in Generic Letter 82-33, (NUREG-0737, Supplement 1, Requirements for Emergency Response Capability), pursuant to 10 CFR 50.54f. "Guidelines for the Preparation of Emergency Operating Procedures" (NUREG-0899), was identified as the reference guidance document for the EOP upgrade effort.

NUREG-0737, Supplement 1, specifies submittal of a PGP that describes a licensee's program for upgrading and implementing EOPs by addressing four major areas: the technical bases of the procedures, the procedures writer's guide, the program for validation of the procedures, and the operator training program for the upgraded procedures. The NRC staff had planned to review and approve generic technical guidelines and plant-specific PGPs and had not planned to routinely review the EOPs. The PGP review may be performed after

an operating reactor has implemented its upgraded EOPs so as not to delay their implementation. PGPs for applicants are reviewed as part of their FSAR submittal before licensing. The PGP review for operating reactors and applicants is conducted in accordance with NUREG-0800, Standard Review Plan, Section 13.5.2, revised July 1985. PGPs for 89 plants have been received by the staff, 79 have been implemented by plants, and reviews of PGPs for 48 plants have been conducted.

Description of Circumstances:

The NRC staff has collected information on the quality of the upgraded EOPs throughout the industry. This information has come from several sources including: (1) in depth audits of EOP upgrade programs at four plants, (2) reviews of PGPs, (3) the review of procedures as a part of operating event analyses, (4) reviews of detailed control room design review program plans and summary reports, (5) examiners' experiences during operator license examinations, (6) industry comments on procedure-related research efforts, and (7) other interactions with licensees. The assessment of this information indicates that significant deficiencies in implementing the EOP upgrade programs exist. Specifically:


1. Licensees have not followed commitments they made in their PGPs. That is, the emergency operating procedures, the verification and validation program, and/or the operator training program was not found to adequately adhere to the PGP at any of the four plants audited.
2. Undocumented deviations from the Owners Groups' generic technical guidelines have been found at all four plants audited. Deviations are expected, but Generic Letter 82-33 requests that they be identified, and a technical justification provided in the PGP. In addition, programs have been found deficient where deviations were identified after the PGP had been submitted, reviewed and approved by the NRC. NUREG-0899 provides guidance in processing such deviations.
3. Failures to appropriately adapt the Owners Groups' generic technical guidelines have been found at some of the plants audited. There are also instances in which the generic technical guidelines are technically inappropriate to the particulars of individual plants so that deviations are necessary but have not been made in the emergency operating procedures and/or documented in the PGP or plant records. In addition, some licensees have neither adopted nor deviated from the generic technical guidelines, but have used them verbatim as emergency operating procedures. The NRC review and approval of the generic technical guidelines has been limited to assessing their suitability as technical guidelines; not as procedures for typical plants.
4. Failures to adhere to the PGP writer's guide have been found at all four plants audited. The purpose of following an approved writer's guide is to assure that potentially confusing or error-prone writing styles, nonmenclature, formats, conventions, or inconsistencies are avoided. Failure to adhere to the approved writer's guide in the PGP has resulted in instances of safety significant problems in the EOPs at some of the plants audited.

5. Failures to adhere to PGP commitments on the verification and validation (V&V) of emergency operating procedures have been found at all plants audited. The implementation of V&V programs has not been successful in identifying and correcting the types of deficiencies cited in this notice at any of the plants audited. Approved PGPs generally include commitments to use multidisciplinary teams in conducting the V&V programs. Single individuals rather than multidisciplinary teams performed the V&V function at most plants audited.
6. Training programs at some plants audited have been found deficient in areas such as (a) providing adequate instruction in the philosophy behind the function orientation of upgraded EOPs, (b) training all operators on all EOPs before they are implemented, and (c) evaluating operator knowledge and performance after they have received training on the upgraded EOPs.

Discussion:

While the above findings do not necessarily represent the situation at any single plant, their occurrence across the plants contacted suggests that the overall quality of EOPs may not meet the requirements of NUREG-0737, Supplement 1, and may need to be improved. To address these potentially safety significant deficiencies, the NRC staff is (1) issuing this information notice to alert licensees to the deficiencies, (2) continuing the audit program on a priority basis to determine the scope and safety significance of these deficiencies, and (3) planning inspections at all plants to evaluate the implementation of the licensees' commitments to develop and implement upgraded EOPs.

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


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Attachment: List of Recently Issued IE Information Notices

LIST OF RECENTLY ISSUED
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
86-63	Loss Of Safety Injection Capability	8/6/86	All PWR facilities holding an OL or CP
86-62	Potential Problems In West- inghouse Molded Case Circuit Breakers Equipped With A Shunt Trip	7/31/86	All power reactor facilities holding an OL or CP
86-61	Failure Of Auxiliary Feed- water Manual Isolated Valve	7/28/86	All power reactor facilities holding a CP
86-60	Unanalyzed Post-LOCA Release Paths	7/28/86	All power reactor facilities holding an OL or CP
86-31 Sup. 1	Unauthorized Transfer And Loss Of Control Of Industrial Nuclear Gauges	7/14/86	All NRC general licensees that possess and use industrial nuclear gauges
86-59	Increased Monitoring Of Certain Patients With Implanted Coratomic, Inc. Model C-100 and C-101 Nuclear-Powered Cardiac Pacemakers	7/14/86	All NRC licensees authorized to use nuclear-powered cardiac pacemakers
86-58	Dropped Fuel Assembly	7/11/86	All power reactor facilities holding an OL or CP
86-57	Operating Problems With Solenoid Operated Valves At Nuclear Power Plants	7/11/86	All power reactor facilities holding an OL or CP
86-56	Reliability Of Main Steam Safety Valves	7/10/86	All PWR facilities holding an OL or CP
86-55	Delayed Access To Safety- Related Areas And Equipment During Plant Emergencies	7/10/86	All power reactor facilities holding an OL or CP

OL = Operating License
CP = Construction Permit