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

November 13, 1992

NRC INFORMATION NOTICE 92-76:

ISSUANCE OF SUPPLEMENT 1 TO NUREG-1358,
"LESSONS LEARNED FROM THE SPECIAL INSPECTION
PROGRAM FOR EMERGENCY OPERATING PROCEDURES
(CONDUCTED OCTOBER 1988 - SEPTEMBER 1991)"

<u>Addressees</u>

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

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to alert addressees to the findings from the third phase of the special inspection program for emergency operating procedures (EOP-3) and additional EOP followup inspections conducted from October 1988 through September 1991. In conducting these inspections, the staff found continuing deficiencies in the EOP programs at a number of plants. 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 are not NRC requirements; therefore, no specific action or written response is required.

Background

The NRC began its EOP inspection program to determine if licensees were meeting the requirements of Three Mile Island (TMI) Action Plan, Item I.C.1, "Guidance for the Evaluation and Development of Procedures for Transients and Accidents," (NUREG-0737, "Clarification of TMI Action Plan Requirements," and Supplement 1 to NUREG-0737). During the pilot phase (EOP-1) and second phase (EOP-2) of the program, the NRC staff found concerns with the industry's methods for developing and implementing EOPs. In April 1989, the staff issued NUREG-1358, "Lessons Learned From the Special Inspection Program for Emergency Operating Procedures, Conducted March - October 1988," to reiterate the critical elements for preparing effective EOPs described in NUREG-0899, "Guidelines for the Preparation of Emergency Operating Procedures," August 1982.

Description of Circumstances

In October 1988, the staff began the third phase of the EOP inspection effort to determine the effectiveness of industry initiatives to improve the EOPs and address previously found deficiencies. Upon completing EOP-3, the staff noted:

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continuing areas of deficiency in industry EOPs since NUREG-1358 was issued. Some licensees had addressed the concerns raised in NUREG-1358 and had effectively incorporated the standards for developing EOPs described in NUREG-0899. However, in conducting most of the EOP-3 inspections, the staff continued to find technical concerns with licensee methods for developing and implementing EOPs. Specifically, many licensee EOP programs were found to have one or more of the following weaknesses:

- 1. inadequate documentation of deviations from the NRC-approved generic technical guidelines
- 2. inadequate implementation of the EOP writer's guide or inadequate guidance provided in the writer's guide
- 3. inadequate verification and validation of the EOPs and EOP support procedures
- 4. inadequate training and evaluation of the operating staff with regard to the use of the upgraded EOPs or inadequately defined or implemented EOP usage guidance
- 5. failure to adequately control the EOP revision process
- 6. inadequate commitment of resources to develop and maintain the EOPs

These programmatic weaknesses have led to errors and inadequacles in EOPs and EOP support procedures including:

- 1. lack of appropriate instruments to conduct the actions specified in the EOPs and EOP support procedures
- 2. incorrect, unnecessary, or incomplete procedural steps
- 3. references to actions that cannot be accomplished because of environmental conditions or equipment failures during transients
- 4. inaccessible or unstaged equipment required to perform EOP actions
- 5. overly complex procedural steps or misleading logic
- 6. lack of consistent procedural format or terminology
- 7. excessive or incorrect transitions between EOPs and additional support procedures
- 8. lack of adequate procedural guidance for certain critical operator actions (e.g., bypassing or defeating interlocks of isolations)

The inability of operators to implement appropriate mitigation strategies because of weaknesses in the EOPs could directly and adversely affect response to events at nuclear power plants. Deficiencies in EOPs have also been a factor in unsatisfactory operator performance during requalification examinations. The staff published Supplement 1 to NUREG-1358 in September 1992 to inform the industry of the results of the EOP-3 inspections and continuing EOP followup inspections. In addition to the findings discussed above, the staff described, in Supplement 1 to NUREG-1358, some good practices observed in EOP programs and included additional information which may aid in detection and correction of weaknesses in EOP programs. However, Supplement 1 to NUREG-1358 does not impose any new requirements with respect to EOPs.

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 Office of Nuclear Reactor Regulation (NRR) project manager.

Brian K. Grimes, Director

Division of Operating Reactor Support Office of Nuclear Reactor Regulation

Technical contact: Greg S. Galletti, NRR

(301) 504-1831

Attachment:

List of Recently Issued NRC Information Notices

LIST OF RECENTLY ISSUED

Attachment IN 92-76 November 13, 1992

| Information Notice No | Subject | Date of Issuance | Issued to |
|--------------------------|--|---------------------|---|
| 92-75 | Unplanned Intakes of Airborne Radioactive Material by Individuals at Nuclear Power Plants | 11/12/92 | All holders of OLs or CPs for nuclear power reactors |
| 92-74 | Power Oscillations at Mashington Muclear Power Unit 2 | 11/10/92 | All holders of OLs or CPs for nuclear power reactors |
| 92-61, Supp 1 | Loss of High Head Safety Injection | 11/06/92 | All holders of OLs or CPs for nuclear power reactors |
| 92-73 | Removal of A Fuel Element from A Re- search Reactor Core While Critical | 11-04/92 | All holders of OLs or CPs for nuclear power reactors |
| 92-59, Rev 1 | Horizontally-Installed Motor-Operated Gate Valves | 11/04/92 | All holders of OLs or CPs for nuclear power reactors |
| 92-72 | Employee Training and Shipper Registration Requirements for Trans- porting Radioactive Materials | 10/28/92 | All U.S. Nuclear Regulatory Commission Licensees |
| 91-64, Supp 1 | Site Area Emergency Resulting from A Loss of Non-Class It Uninterruptible Power Supplies | 10/07/92 | All holders of OLs or CPs for nuclear power reactors |
| 92-71 | Partial Plugging of Suppression Pool Strainers At A Foreign BWR | 09/30/92 | All holders of OLs or CPs for nuclear power reactors |
| 92-70 | Westinghouse Motor-Operated Valve Performance Data Supplied to Nuclear Power Plant Licensees | 09/25/92 | All holders of OLs or CPs for nuclear power reactors |

OL - Operating License CP - Construction Permit

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> Original signed by Brian K. Grimes

Brian K. Grimes, Director Division of Operating Reactor Support Office of Nuclear Reactor Regulation

Technical contact: Greg S. Galletti, NRR

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Document Name: 92-76.IN *SEE PREVIOUS CONCURRENCES

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*C/OGCB:DORS:NRR

GHMarcus BABoger 10/21/92 10/21/92

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JWRoe 09/23/92

*D/DLPQ:NRR *RPB:ADM TechEd 09/18/92

The inability of operators to implement appropriate mitigation strategies because of weaknesses in the EOPs could directly and adversely affect response to events at nuclear power plants. Deficiencies in EOPs have also been a factor in unsatisfactory operator performance during requalification examinations. The staff published Supplement 1 to NUREG-1358 in September 1992 to inform the industry of the results of the EOP-3 inspections and continuing EOP followup inspections. In addition to the findings discussed above, the staff described, in Supplement 1 to NUREG-1358, some good practices observed in EOP programs and included additional information which may aid in detection and correction of weaknesses in EOP programs. However, Supplement 1 to NUREG-1358 does not impose any new requirements with respect to EOPs.

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

Technical contact: Greg S. Galletti, NRR

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Attachment:

 Supplement 1 to NUREG-1358, "Lessons Learned from the Special Inspection Program for Emergency Operating Procedures (Conducted October 1988 - September 1991)"

2. List of Recently Issued NRC Information Notices

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OGCB:DOEA:NRR LHFB:DLPQ:NRR C/LHFB:DLPQ:NRR RJKiessel GSGalletti JSWermiel

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Deficiencies in the EOPs could cause safety-significant consequences. Therefore, the staff prepared Supplement 1 to NUREG-1358 to notify the industry of the results of the EOP-3 inspections, including continuing EOP followup inspections, and to further clarify the NRC's expectations for EOP programs. Where appropriate, the staff described in Supplement 1 to NUREG-1358 some good practices observed in EOP programs, and included additional information to aid the nuclear power industry in finding and correcting weaknesses in their EOP programs. The staff also described methods to aid licensees in preparing explicit criteria for evaluating their EOP programs. The staff will revise NRC Inspection Manual Inspection Procedure 42001, "Emergency Operating Procedures," to incorporate Supplement 1 to NUREG-1358 as a reference, and will continue to inspect the licensees' EOP programs in accordance with the inspection procedure. Licensees are reminded of their commitments to the requirements of Item I.C.1 of NUREG-0737 and Supplement 1 to NUREG-0737. Supplement 1 to NUREG-1358 includes further information to enable the licensee to better comply with these commitments. However, Supplement 1 to NUREG-1358 does not impose any new requirements for upgrading EOPs. The staff will consider enforcing orders imposing the requirements of the TMI Action Plan as appropriate in accordance with 10 CFR Part 2, Appendix C, "General Statements of Policy and Procedure for NRC Enforcement Actions."

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Deficiencies in the EOPs could cause safety-significant consequences. The inability of operators to implement appropriate mitigation strategies because of weaknesses in the EOPs could directly affect operations at nuclear power plants. Deficiencies in EOPs have also been a factor in unsatisfactory operator performance during requalification examinations. Therefore, the staff prepared Supplement 1 to NUREG-1358 to inform the industry of the results of the EOP-3 inspections and continuing EOP followup inspections. Where appropriate, the staff described in Supplement 1 to NUREG-1358 some good practices observed in EOP programs and included additional information to aid the nuclear power industry in finding and correcting weaknesses in their EOP programs. However, Supplement 1 to NUREG-1358 does not impose any new requirements for upgrading EOPs.

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