

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

November 1, 1991

**NRC INFORMATION NOTICE 91-69: ERRORS IN MAIN STEAM LINE BREAK ANALYSES  
FOR DETERMINING CONTAINMENT PARAMETERS**

Addressees

All holders of operating licenses or construction permits for pressurized water reactors (PWRs).

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to alert addressees to a safety problem that may result from not considering the possibility that feedwater could continue to flow following a main steam line break (MSLB) inside the containment. This problem is applicable to plants equipped with feedwater isolation susceptible to single failure. 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.

Description of Circumstances

On October 18, 1991, the Northeast Nuclear Energy Company notified the NRC of a problem at the Millstone Nuclear Power Station, Unit 2, that could cause the facility to exceed containment design limits. The licensee found this concern during MSLB analyses for the forthcoming replacement of the steam generators. In performing the analyses, the licensee identified that during full power operation, with a break on a main steam line, and with offsite power available, a single failure of a feedwater control valve to close could result in higher peak containment temperature and pressure than the design limits. The containment design limits for temperature and pressure were 289°F and 54 psig; the new analysis shows preliminary values of 420°F and 68 psig, respectively. Previously, the licensee's worst case analysis assumed loss of offsite power with a MSLB.

Discussion

NRC Bulletin No. 80-04, "Analysis of a PWR Main Steam Line Break with Continued Feedwater Addition" and Standard Review Plan (NUREG 800) Section 6.2.1.4 provide guidance for assuming a single failure of any active component, with and without offsite power available, and discuss the effect of such a failure on the ability to ensure containment integrity following a MSLB. The Bulletin also addresses the possibility of the reactor returning to power. Offsite power remaining available could be more limiting for containment parameters.

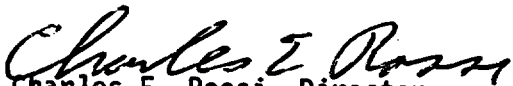
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updated on 11/15/91

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This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

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

Technical contacts: Thomas Koshy, NRR  
(301) 492-1176

William LeFave, NRR  
(301) 492-2385

Attachment: List of Recently Issued NRC Information Notices

LIST OF RECENTLY ISSUED  
NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
91-68	Careful Planning Significantly Reduces the Potential Adverse Impacts of Loss of Offsite Power Events During Shutdown	10/28/91	All holders of OLs or CPs for nuclear power reactors.
90-51, Supp. 1	Failures of Voltage-Dropping Resistors in the Power Supply Circuitry of Electric Governor Systems	10/24/91	All holders of OLs or CPs for nuclear power reactors.
91-67	Problems With the Reliable Detection of Intergranular Attack (IGA) of Steam Generator Tubing	10/21/91	All holders of OLs or CPs for pressurized-water reactors.
91-66	(1) Erroneous Data in "Nuclear Safety Guide, TID-7016, Revision 2," (NUREG/CR-0095, ORNL/NUREG/CSD-6 (1978)) and (2) Thermal Scattering Data Limitation in the Cross-Section Sets Provided with the KENO and SCALE Codes	10/18/91	All fuel cycle licensees, critical mass licensees, interim spent fuel storage licensees, and all holders of operating licenses or construction permits for test, research, and nuclear power reactors.
91-65	Emergency Access to Low-Level Radioactive Waste Disposal Facilities	10/16/91	All NRC licensees.
91-64	Site Area Emergency Resulting From a Loss of Non-Class 1E Uninterruptible Power Supplies	10/09/91	All holders of OLs or CPs for nuclear power reactors.
91-63	Natural Gas Hazards at Fort St. Vrain Nuclear Generating Station	10/03/91	All holders of OLs or CPs for nuclear power reactors.

OL = Operating License  
CP = Construction Permit

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NAME	:TKoshy*	:JMain*	:DFischer*	:CMcCracken*	:AChaffee*	:CBerlinger*	:CRossi
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The NRC IE Bulletin 80-04, "Analysis of a PWR Main Steam Line Break with Continued Feed Water Addition," provides specific instances of inadequate MSLB analyses and the actions to be taken.

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*NO TECHNICAL  
OBJECTIONS*

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