

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

December 28, 1987

NRC INFORMATION NOTICE NO. 87-28, SUPPLEMENT 1: AIR SYSTEMS PROBLEMS AT  
U.S. LIGHT WATER REACTORS

Addressees:

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

Purpose:

This information notice supplements Information Notice 87-28, dated June 22, 1987 and provides recipients a copy of NUREG-1275, Vol. II, "Operating Experience Feedback Report-Air Systems Problems." 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.

Background:

The NRC staff has been studying problems associated with instrument air systems for a number of years. The results of these studies, including concerns relating to adverse effects on safety-related equipment from instrument air system failures, were recently identified in NRC Information Notice 87-28, dated June 22, 1987. This information notice identified the availability of a case study report entitled "Air Systems Problems at U.S. Light Water Reactors," AEOD/C701, dated March 1987. The report indicated that the performance of air operated safety-related components may not be in accordance with their intended safety function due to inadequacies in the design, installation, and maintenance of the instrument air system. The enclosed copy of the updated case study report incorporates additional incidents where instrument air system failures have adversely affected facility operations.

Discussion:

The NRC staff considers events in which plant safety has been adversely affected by degraded or malfunctioning air systems to be an indication that industry has not placed sufficient emphasis on the maintenance, design, and operation of air systems. The staff, therefore, is in the process of developing guidance to ensure that licensees meet the commitments in their Final Safety Analysis Reports with regard to air systems and is also in the process of developing guidance on improvements to air systems that may be

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necessary to reduce the frequency of challenges to plant safety. Appropriate regulatory actions will be taken either through interactions with industry to ensure comprehensive industry actions with respect to air systems or through the issuance of new regulatory requirements.

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

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

Technical Contact: Jared Wermiel, NRR  
(301) 492-9412

Attachment 1: NUREG-1275, Vol. II, "Operating  
Experience Feedback Report -  
Air Systems Problems"

Attachment 2: ~~List of Recently Issued NRC Information Notices~~

LIST OF RECENTLY ISSUED  
 NRC INFORMATION NOTICES 1987

Information Notice No.	Subject	Date of Issuance	Issued to
87-65	Plant Operation Beyond Analyzed Conditions	12/23/87	All holders of OLs or CPs for nuclear power reactors.
87-64	Conviction for Falsification of Security Training Records	12/22/87	All nuclear power reactor facilities holding an OL or CP and all major fuel facility licensees.
87-35, Supp. 1	Reactor Trip Breaker Westinghouse Model DS-416, Failed to Open on Manual Initiation From the Control Room	12/16/87	All holders of OLs or CPs for nuclear power reactors.
87-63	Inadequate Net Positive Suction Head in Low Pressure Safety Systems	12/9/87	All holders of OLs or CPs for nuclear power reactors.
87-62	Mechanical Failure of Indicating-Type Fuses	12/8/87	All holders of OLs or CPs for nuclear power reactors.
87-61	Failure of Westinghouse W-2-Type Circuit Breaker Cell Switches.	12/7/87	All holders of OLs or CPs for nuclear power reactors.
87-60	Depressurization of Reactor Coolant Systems in Pressurized-Water Reactors	12/4/87	All holders of OLs or CPs for PWRs.
86-108, Supp. 2	Degradation of Reactor Coolant System Pressure Boundary Resulting from Boric Acid Corrosion	11/19/87	All holders of OLs or CPs for nuclear power reactors.

OL = Operating License  
 CP = Construction Permit

necessary to reduce the frequency of challenges to plant safety. Appropriate regulatory actions will be taken either through interactions with industry to ensure comprehensive industry actions with respect to air systems or through the issuance of new regulatory requirements.

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This Information Notice was to be issued as a Generic Letter. The concurrence page from the draft Generic Letter is included for background information.

*JR*  
OGCB:DOEA  
JRamsley  
12/22/87

*CHB*  
C:OGCB:DOEA  
CHBerlinger  
12/23/87

*CEA*  
D:DOEA  
CERossi  
12/23/87