



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 08 1988

TO ALL HOLDERS OF OPERATING LICENSES OR  
CONSTRUCTION PERMITS FOR NUCLEAR POWER REACTORS

SUBJECT: INSTRUMENT AIR SUPPLY SYSTEM PROBLEMS AFFECTING SAFETY-RELATED  
EQUIPMENT (GENERIC LETTER 88-14)

The NRC has been studying the 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 caused by instrument air system failures, were most recently identified in NRC Information Notice 87-28, Supplement 1, dated December 28, 1987. This information notice transmitted to all licensees and applicants a report that addresses these concerns, NUREG-1275, Volume 2 "Operating Experience Feedback Report-Air Systems Problems." This report indicates that the performance of the air-operated safety-related components may not be in accordance with their intended safety function because of inadequacies in the design, installation, and maintenance of the instrument air system. The report also indicates that anticipated transient and system recovery procedures are frequently inadequate and that operators are not well trained for coping with loss of instrument air conditions.

The purpose of this generic letter is to request that each licensee/applicant review NUREG-1275, Volume 2, and perform a design and operations verification of the instrument air system.

This verification should include:

1. Verification by test that actual instrument air quality is consistent with the manufacturer's recommendations for individual components served.
2. Verification that maintenance practices, emergency procedures, and training are adequate to ensure that safety-related equipment will function as intended on loss of instrument air.
3. Verification that the design of the entire instrument air system including air or other pneumatic accumulators is in accordance with its intended function, including verification by test that air-operated safety-related components will perform as expected in accordance with all design-basis events, including a loss of the normal instrument air system. This design verification should include an analysis of current air operated component failure positions to verify that they are correct for assuring required safety functions.

In addition to the above, each licensee/applicant should provide a discussion of their program for maintaining proper instrument air quality.

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The NRC staff requires each licensee/applicant to provide a response to the staff within 180 days that confirms that verification as described above has been performed. The staff recognizes that some instrument air system testing as indicated in Item 3 above may have potentially adverse consequences on plant power operation, and therefore, such testing should be performed at a refueling or other scheduled outage in order to avoid adverse system interactions. If instrument air system testing cannot be completed within 180 days, it may be deferred until the next scheduled outage. However, the licensee/applicant should indicate in its response those tests which have been completed and those which will be completed at a subsequent outage.

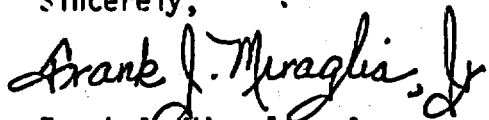
In accordance with the provisions of 10 CFR 50.54(f), the response should consist of a submittal signed under oath or affirmation which indicates that the above actions have been completed or that the licensee's plan/schedule has been provided. The submittal should also identify any components that cannot accomplish their intended safety function, and state the corrective action taken or to be taken. When all requirements of this generic letter have been implemented, a written notification should be provided stating that all actions are complete. Each licensee/applicant should retain the documentation assembled for this verification for future audit by the staff. This documentation should be maintained for a minimum of two years from the date of the licensee's/applicant's submittal.

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This request is covered by the Office of Management and Budget Clearance Number 3150-0011, which expires December 31, 1989. Comments on burden and duplication may be directed to the Office of Management and Budget, Reports Management, Room 3208, New Executive Office Building, Washington, D.C. 20503.

Any questions regarding this letter should be directed to William LeFave, U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Washington, D.C. 20555, (301) 492-0862.

Sincerely,



Frank J. Miraglia, Jr.  
Associate Director for Projects  
Office of Nuclear Reactor Regulation

Enclosure

LIST OF RECENTLY ISSUED GENERIC LETTERS

Generic Letter No.	Subject	Date of Issuance	Issued To
88-13	OPERATOR LICENSING EXAMINATIONS	08/08/88	ALL POWER REACTOR LICENSEES AND APPLICANTS FOR AN OPERATING LICENSE.
88-12	REMOVAL OF FIRE PROTECTION REQUIREMENTS FROM TECHNICAL SPECIFICATIONS	08/02/88	ALL POWER REACTOR LICENSEES AND APPLICANTS
88-11	NRC POSITION ON RADIATION EMBRITTLEMENT OF REACTOR VESSEL MATERIALS AND ITS IMPACT ON PLANT OPERATIONS	07/12/88	ALL LICENSEES OF OPERATING REACTORS AND HOLDERS OF CONSTRUCTION PERMITS
88-10	PURCHASE OF GSA APPROVED SECURITY CONTAINERS	07/01/88	ALL POWER REACTOR LICENSEES AND HOLDERS OF PART 95 APPROVALS
88-09	PILOT TESTING OF FUNDAMENTALS EXAMINATION	05/17/88	ALL LICENSEES OF ALL BOILING WATER REACTORS AND APPLICANTS FOR A BOILING WATER REACTOR OPERATOR'S LICENSE UNDER 10 CFR PART 55
88-08	MAIL SENT OR DELIVERED TO THE OFFICE OF NUCLEAR REACTOR REGULATION	05/03/88	ALL LICENSEES FOR POWER AND NON-POWER REACTORS AND HOLDERS OF CONSTRUCTION PERMITS FOR NUCLEAR POWER REACTORS
88-07	MODIFIED ENFORCEMENT POLICY RELATING TO 10 CFR 50.49, "ENVIRONMENTAL QUALIFICATION OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY FOR NUCLEAR POWER PLANTS"	04/07/88	ALL POWER REACTOR LICENSEES AND APPLICANTS
88-06	REMOVAL OF ORGANIZATION CHARTS FROM TECHNICAL SPECIFICATION ADMINISTRATIVE CONTROL REQUIREMENTS	03/22/88	ALL POWER REACTOR LICENSEES AND APPLICANTS

AUG 08 1988

MEMORANDUM FOR: All Project Managers

FROM: Frank J. Miraglia, Associate Director  
for Projects, NRR

SUBJECT: GENERIC LETTER 88-14

Enclosed is Generic Letter 88-14 which asks all licensees/applicants to perform a design and operations verification of the instrument air system in order to ensure that it will function in accordance with its intended design. This generic letter was discussed during the CRGR meeting on July 14, 1988 and was approved for issuance at that time. The minor modifications to the letter requested at that meeting have been incorporated, and the letter will be issued to all licensees/applicants shortly.

Licensees and applicants are requested to respond to the generic letter within 180 days indicating that they have accomplished the indicated actions or providing a schedule when those actions will be completed. Each licensing project manager is requested to note that a response has been received from their licensee/applicant and confirm that the response addresses the points stated in the generic letter. Specific review of responses by the Plant Systems Branch (SPLB) will only be performed in special cases where the response warrants it as agreed between the PM and SPLB Branch Chief. The staff will conduct post implementation audit inspections to verify the adequacy of licensee efforts in performing the requested instrument air system design/operational verification.

Implementation of the generic letter will be tracked by an entry in the Safety Issues Management System. When licensees and applicants have implemented all requirements of the generic letter, they are requested to notify the staff in writing that they have completed all work related to this generic letter. Project managers can then use this information to close the issue and update SIMS. The lead project manager for this letter is Gordon Edison. The primary technical contact is William LeFave, SPLB.

Original signed by  
Frank J. Miraglia  
Frank J. Miraglia, Associate Director  
for Projects, NRR

Enclosure: As stated

cc w/enclosure:

L. Shao  
A. Thadani  
C. Berlinger  
J. Craig  
J. Wermiel  
G. Edison  
G. Barber  
W. LeFave

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DISTRIBUTION  
Central File  
PDRs

CONTACTS:

W. LeFave, SPLB, X20862  
G. Edison, PDII2, X21471

\*SEE PREVIOUS WHITE FOR CONCURRENCES.

PSB:DEST PSB:DEST

JWermiel;cf\*  
7/22/88

JCraig\*  
7/25/88

SAD:DEST  
ATHadani\*  
7/27/88

OGCB:NRR  
CBerlinger\*  
7/29/88

PDII-2  
GEdison\*  
7/30/88

NRR:ADT  
TMacIn  
8/8/88

ADD:MM  
FMiraglia  
8/1/88

MEMORANDUM FOR: All Project Managers

FROM: Frank J. Miraglia, Associate Director  
for Projects, NRR

SUBJECT: GENERIC LETTER 88-XX

Enclosed is Generic Letter 88-XX which asks all licensees/applicants to perform a design and operations verification of the instrument air system in order to ensure that it will function in accordance with its intended design. This generic letter was discussed during the CRGR meeting on July 14, 1988 and was approved for issuance at that time. The minor modifications to the letter requested at that meeting have been incorporated, and the letter will be issued to all licensees/applicants shortly.

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Original signed by  
Frank J. Miraglia  
Frank J. Miraglia, Associate Director  
for Projects, NRR

Enclosure: As stated

cc w/enclosure:

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A. Thadani  
C. Berlinger  
J. Craig  
J. Wermiel  
G. Edison  
G. Barber  
W. LeFave

CONTACTS:

W. LeFave, SPLB, X20862  
G. Edison, PDII-2, X21471

*WJ*  
PSB:DEST  
JWermiel;cf  
7/22/88

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JCraig  
7/25/88

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ATHadani  
7/27/88

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CBerlinger  
7/29/88

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