



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

MAR 13 1987

TO: All Holders of Operating Licenses

Gentlemen:

SUBJECT: PERIODIC VERIFICATION OF LEAK TIGHT INTEGRITY OF PRESSURE ISOLATION VALVES (GENERIC LETTER 87-06)

Pursuant to 10 CFR 50.54(f), NRC is seeking to verify the methods, if any, by which each operating reactor licensee is assuring the leak-tight integrity of all pressure isolation valves as independent barriers against abnormal leakage, rapidly propagating failure, and gross rupture of the reactor coolant pressure boundary.

Pressure isolation valves (PIVs) are defined for each interface as any two valves in series within the reactor coolant pressure boundary which separate the high pressure reactor coolant system (RCS) from an attached low pressure system. These valves are normally closed during power operation. The reactor coolant pressure boundary (RCPB) is defined in 10 CFR 50.2 and generally includes all PIVs.

Periodic tests or verifications of the leak tight integrity of all pressure isolation valves are necessary in order to assure the integrity of the RCPB in accordance with 10 CFR 50, Appendices A and B. General Design Criterion (GDC) 14 of 10 CFR 50, Appendix A requires that "The reactor coolant pressure boundary shall be designed, fabricated, erected and tested so as to have an extremely low probability of abnormal leakage, of rapidly propagating failure and of gross rupture." GDC 30 requires that "The reactor coolant pressure boundary shall be designed, fabricated, erected, and tested to the highest quality standards practical . . ." GDC 32 states that "Components which are part of the reactor coolant pressure boundary shall be designed to permit (1) periodic inspection and testing of important areas and features to assess their structural and leak tight integrity . . ." Further, as outlined in Appendix B to 10 CFR 50, each licensee's quality assurance program must include planned and systematic actions which will provide adequate confidence that these components will perform satisfactorily in service.

All plants licensed since 1979 have all PIVs listed in the Technical Specifications along with testing intervals, acceptance criteria and limiting conditions for operation. Certain older plants were required to periodically leak test, on an individual basis, only those PIVs which were listed in an order dated April 20, 1981 (Event V Order). That order was sent to 32 operating PWR's and 2 operating BWR's. Other older plants have had no specific requirements imposed to individually leak test any of their PIVs.

A number of events have occurred in LWRs involving leakage past pressure isolation valves, failures of the valves, inadvertent actuation of the valves, or mispositioning of the valves. NRC is therefore seeking assurances that the RCPB is being protected.

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Accordingly, you are requested to submit a list of all pressure isolation valves in your plant. For each valve, describe the periodic tests or other measures performed to assure the integrity of the valve as an independent barrier at the RCPB along with the acceptance criteria for leakage, if any, operational limits, if any, and frequency of test performance. This information is required to be submitted within 90 days of this letter. If current plant Technical Specifications require leak rate testing of all of the PIVs in the plant, your reply to that effect will be sufficient.

This request is covered by Office of Management and Budget Clearance Number 3150-0111 which expires September 30, 1989. Comments on burden and duplication may be directed to the Office of Management and Budget, Room 3208, New Executive Office Building, Washington, DC 20503.

Our review of your submittal of information in response to this letter is not subject to fees under the provision of 10CFR170.

Sincerely,

*Frank J. Muraglia*

for Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

*Computer Printout. See Jacket*

# LIST OF RECENTLY ISSUED GENERIC LETTERS

Generic Letter No.	Subject	Date of Issuance	Issued To
GL 87-05	REQUEST FOR ADDITIONAL INFORMATION-ASSESSMENT OF LICENSEE MEASURES TO MITIGATE AND/OR IDENTIFY POTENTIAL DEGRADATION MK1	03/12/87	LICENSEES OF DR'S, APPLICANTS FOR DL'S, AND HOLDERS OF CP'S FOR BWR MARK I CONTAINMENTS
GL 87-04	TEMPORARY EXEMPTION FROM PROVISIONS OF THE FBI CRIMINAL HISTORY RULE FOR TEMPORARY WORKERS	03/06/87	ALL POWER REACTOR LICENCES
GL 87-03	VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS, USI A-46	02/26/87	ALL LICENSEES NOT SUBJECT TO USI A-46 REQUIREMENTS
GL 87-02	VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS (USI A-46)	02/19/87	ALL HOLDERS OF OPERATING LICENSES NOT REVIEWED TO CURRENT LICENSING CRITERIA ON SEISMIC QUALIFICATION OF EQUIPMENT
GL 87-01	PUBLIC AVAILABILITY OF THE NRC OPERATOR LICENSING EXAMINATION QUESTION BANK	01/08/87	ALL POWER REACTOR LICENSEES AND APPLICANTS FOR AN OPERATING LICENSE
GL 86-17	AVAILABILITY OF NUREG-1169, "TECHNICAL FINDINGS RELATED TO GENERIC ISSUE C-8 BWR MSIC LEAKAGE AND LEAKAGE CONTROL SYSTEM	10/17/86	ALL LICENSEES OF BOILING WATER REACTORS
GL 86-16	WESTINGHOUSE ECCS EVALUATION MODELS	10/22/86	ALL PRESSURIZED WATER REACTOR APPLICANTS AND LICENSEES
GL 86-15	INFORMATION RELATING TO COMPLIANCE WITH 10 CFR 50.49, "EQ OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY"	09/22/86	ALL LICENSEES AND HOLDERS OF AN APPLICATION FOR AN OPERATING LICENSE