UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

February 8, 1979

IE Bulletin No. 79-01

ENVIRONMENTAL QUALIFICATION OF CLASS IE EQUIPMENT

Description of Circumstances:

The intent of IE Circular 78-08 was to highlight to all licensees important lessons learned from environmental qualification deficiencies reported by individual licensees. In this regard, licensees were requested to examine installed safety-related electrical equipment and determine that proper documentation existed which provided assurance that this equipment would function under postulated accident conditions. The scope of IE Circular 78-08 was much broader than other previously issued Bulletins and Circulars (such as IEB 78-04 and IEB 78-02) which addressed specific component failures. The intent of this Bulletin is to raise the threshold of IE Circular 78-08 to the level of a Bulletin; i.e., action requiring a licensee response.

Inspections conducted to date by the NRC of licensees' activities in response to IE Circular 78-08 have identified one component which licensees have found to be unqualified for service within the LOCA environment. Specificially, unqualified stem mounted limit switches (SMLS), other than those identified in previously issued IE Bulletin 78-04, were found to be installed on safety-related valves inside containment at both Duane Arnold and Quad Cities 1 and 2 Nuclear Generating Stations. The unqualified switches are identified as NAMCO Models SL2-C-11, SLCML, SA1-31, SA1-32, D1200j, EA-700 and EA-770 switches. According to the manufacturer, these switches are designed only for general purpose applications and are not considered suitable devices for service in the LOCA environment. Consequently, switches are being replaced at the above power plants with qualified components.

Also, NRC inspection of component qualification has identified equipment which does not have documentation indicating it is qualified for the LOCA environment. The inspections have also identified that the licensees' re-review and resolution of problem areas are not receiving the level of attention from all licensees which the NRC believes is warranted. Because of the protracted schedule for completion of the re-review, we are now requesting the power reactor facilities with operating licenses to expedite completion of their re-review program originally requested by IE Circular 78-08 dated May 31, 1978.

Action to Be Taken By Licensees of All Power Reactor Facilities (Except Those 11 SEP Plants Listed on Enclosure 3) With An Operating License:

1. Complete the re-review program described in IE Circular 78-08 within 120 days of receipt of this Bulletin.

2. Determine if the types of stem mounted limit switches described above are being used or planned for use on safety-related valves which are located inside containment at your facility. If so, provide a written report to the NRC within the time frame specified and to the address specified in Item 4 below.

3. Provide written evidence of the qualification of electrical equipment required to function under accident conditions.* For those items not having complete qualification data available for review, identify your plans for determining qualification, either by testing or engineering analysis, or combination of these, or by replacement with qualified equipment. Include your schedule for completing these actions and your justification for continued operation.

   Submit this information to the Director, Division of Reactor Operations Inspection, Office of Inspection and Enforcement, Nuclear Regulatory Commission, Washington, D.C. 20555 with a copy to the appropriate NRC Regional Office within 120 days of receipt of this Bulletin.

4. Report any items which are identified as not meeting qualification requirements for service intended to the Director, Division of Operating Reactors, Office of Nuclear Reactor Regulation, Nuclear Regulatory Commission, Washington, D.C. 20555 with a copy to the appropriate NRC Regional Office within 24 hours of identification. If plant operation is to continue following identification, provide justification for such operation. Provide a detailed written report within 14 days of identification to NRR, with a copy to the appropriate NRC Regional Office.

* This written evidence should include: 1) component description; 2) description of the accident environment; 3) the environment to which the component or equipment is qualified; 4) the manner of qualification which should include test methods such as sequential, synergistic, etc., and 5) identification of the specific supporting qualification documentation.

No additional written response to this IE Bulletin is required other than those responses described above. NRC inspectors will continue to monitor the licensees' progress in completing the requested action described above. If additional information is required, contact the Director of the appropriate NRC Regional Office.

Approved by GAO B180225 (R0072); clearance expires 7/31/80. Approval was given under a blanket clearance specifically for identified generic problems.

IE Bulletin No. 79-01
February 8, 1979

LISTING OF IE BULLETINS
ISSUED IN LAST TWELVE MONTHS

Bulletin No.	Subject	Date Issued	Issued To
78-03	Potential Explosive Gas Mixture Accumulations Associated with BWR Offgas System Operations	2/8/78	All BWR Power Reactor Facilities with an OL or CP
78-04	Environmental Qualification of Certain Stem Mounted Limit Switches Inside Reactor Containment	2/21/78	All Power Reactor Facilities with an OL or CP
78-05	Malfunctioning of Circuit Breaker Auxiliary Contact Mechanism-General Model CR105X	4/14/78	All Power Reactor Facilities with an OL or CP
78-06	Defective Cutler-Hammer, Type M Relays With DC Coils	5/31/78	All Power Reactor Facilities with an OL or CP
78-07	Protection afforded by Air-Line Respirators and Supplied-Air Hoods	6/12/78	All Power Reactor Facilities with an OL, all class E and F Research Reactors with an OL, all Fuel Cycle Facilities with an OL, and all Priority 1 Material Licensees
78-08	Radiation Levels from Fuel Element Transfer Tubes	6/12/78	All Power and Research Reactor Facilities with a Fuel Element transfer tube and an OL.

IE Bulletin No. 79-01
February 8, 1979

LISTING OF IE BULLETINS ISSUED IN LAST TWELVE MONTHS

Bulletin No.	Subject	Date Issued	Issued To
78-09	BWR Drywell Leakage Paths Associated with Inadequate Drywell Closures	6/14/78	All BWR Power Reactor Facilities with an OL or CP
78-10	Bergen-Paterson Hydraulic Shock Suppressor Accumulator Spring Coils	6/27/78	All BWR Power Reactor Facilities with an OL or CP
78-11	Examination of Mark I Containment Torus Welds	7/21/78	BWR Power Reactor Facilities for action: Peach Bottom 2 and 3, Quad Cities 1 and 2, Hatch 1, Monticello and Vermont Yankee
78-12	Atypical Weld Material in Reactor Pressure Vessel Welds	9/29/78	All Power Reactor Facilities with an OL or CP
78-12A	Atypical Weld Material in Reactor Pressure Vessel Welds	11/24/78	All Power Reactor Facilities with an OL or CP
78-13	Failures In Source Heads of Kay-Ray, Inc., Gauges Models 7050, 7050B, 7051, 7051B, 7060, 7060B, 7061 and 7061B	10/27/78	All general and specific licensees with the subject Kay-Ray, Inc. gauges
78-14	Deterioration of Buna-N Components In ASCO Solenoids	12/19/78	All GE BWR facilities with an OL or CP

Enclosure No. 3

SEP Plants

Plant	Region
Dresden 1	III
Yankee Rowe	I
Big Rock Point	III
San Onofre 1	V
Haddam Neck	I
LaCrosse	III
Oyster Creek	I
R. E. Ginna	I
Dresden 2	III
Millstone	I
Palisades	III