

UNITED STATES  
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OFFICE OF INSPECTION AND ENFORCEMENT  
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IE Information Notice No. 80-13

GENERAL ELECTRIC TYPE SBM CONTROL SWITCHES DEFECTIVE CAM FOLLOWERS

Description of Circumstances:

This Information Notice alerts licensees and holders of construction permits of a potential defect in the cam followers of General Electric (GE) Type SBM control switches. Based on preliminary information, it appears that the defect is limited to switches manufactured prior to 1976 with cam followers of polycarbonate material, such as Lexan. In brief, the problem is initiated by exposing such polycarbonate material to hydrocarbons. Such exposure leads to severe cracking having a rock salt appearance which ultimately could progress to mechanical failure. It has been determined that such exposure has occurred during fabrication and could occur while performing maintenance (e.g. cleaning the contacts).

On February 22 and March 10, 1980 we were informed that SBM switches with defective cam followers had been found at Diablo Canyon Unit 1 and at the Cooper Station, respectively. Although the information was preliminary and sketchy, the problem is a long-standing one for which GE has issued "Service Information Letters" to its BWR customers. The problems associated with such switches, however, are not restricted to GE customers as evidenced by the Diablo Canyon case. Furthermore, these switches have a broad range of application. For example, the defective switches at the Cooper Station were used principally as hand control switches, most of which were located in the control room. In contrast, those at Diablo Canyon Unit 1 were used as auxiliary contacts on the 4KV and 12KV "Magna Blast" circuit breakers, with three SBM switches used per breaker: (1) a breaker mounted auxiliary switch, (2) a cell mounted auxiliary switch, and (3) a cell interlock switch.

This information is provided as notification of a possible significant matter that is still under review by the NRC staff. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If you have questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

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Enclosure

RECENTLY ISSUED  
IE INFORMATION NOTICES

Information Notice No.	Subject	Date Issued	Issued To
80-13	General Electric Type SBM Control Switches - Defective Cam Followers	4/2/80	All holders of Power Reactor OLs and CPs
80-12	Instrument Failure Causes Opening of PORV and Block Valve	3/31/80	All holders of Power Reactor OLs and CPs
80-11	General Problems with ASCO Valves in Nuclear Application Including Fire Protection Systems	3/14/80	All holders of Reactor OL, CP, fuel fabrication and processing facilities
80-10	Partial Loss of Non-Nuclear Instrument System Power Supply During Operation	3/7/80	All power reactor facilities holding OLs and CPs
80-09	Possible Occupational Health Hazard Associated with Closed Cooling Systems	3/7/80	All holders of power reactor OLs and near term CPs
80-08	The States Company Sliding Link Electrical Terminal Block	3/7/80	All power reactor facilities with an OL or a CP
80-07	Pump Shaft Fatigue Cracking	2/29/80	All Light Water Reactor Facilities holder power reactor OLs and CPs
80-06	Notification of Significant Events	2/27/80	All holders of Reactor OLs and to near term OL applicants
80-05	Chloride Contamination of Safety Related Piping	2/8/80	All licensees of nuclear power reactor facilities and applicants and holders of nuclear power reactor CPs
80-04	BWR Fuel Exposure in Excess of Limits	2/4/80	All BWR's holding a power reactor OL or CP
80-03	Main Turbine Electro-Hydraulic Control System	1/31/80	All holders of power reactor OLs and CPs
80-02	8X8R Water Rod Lower End Plug Wear	1/25/80	All BWR Facilities holder power reactor OLs or CPs