

SSINS No. 6835  
IN 85-93

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

December 6, 1985

IE INFORMATION NOTICE NO. 85-93: WESTINGHOUSE TYPE DS CIRCUIT BREAKERS,  
POTENTIAL FAILURE OF ELECTRIC CLOSING FEATURE  
BECAUSE OF BROKEN SPRING RELEASE LATCH LEVER

Addressees:

All nuclear power reactor facilities holding an operating license (OL) or a construction permit (CP).

Purpose:

This information notice is to alert licensees that the electric circuit breaker closing function of Westinghouse Type DS circuit breakers could possibly malfunction because of a broken spring release latch lever. It is expected that licensees will review the information for applicability to their facilities and if the defect exists, consider actions to determine safety significance and corrective action. However, suggestions contained in this information notice do not constitute NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances:

On April 14, 1985, the Westinghouse Nuclear Services Integration Division (NSID) issued Technical Bulletin No. NSID-TB-85-17 advising their customers of a potential malfunction in Westinghouse Type DS Class 1E circuit breakers because of broken spring release latch levers. These electrically operated type DS breakers will not close electrically when the spring release latch lever has been broken off. Twenty-five broken levers have been reported and evaluated. This evaluation shows concentrations of incidents traceable to manufacturing in the following periods of time: early 1975, April 1976, and early 1978.

This circuit breaker failure, as discussed, adversely affects the safety function (closing on demand) when the circuit breaker is used in the Engineered Safety Features Systems. However, this failure mode will not affect the safety trip function when it is used in the reactor protection system.

Discussion:

The April 14, 1985 Technical Bulletin recommends the following corrective actions for DS Class 1E circuit breakers: (1) advise the responsible personnel that the breaker may be closed manually using the operator on the front panel of the breaker cubicle, if electrical closing does not occur on demand; (2) for applications other than Westinghouse-designed reactor trip (RT) function, the

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user should evaluate the situation to determine if this condition could affect safety; and (3) inspect the latch lever during normal scheduled maintenance/inspection of the DS circuit breaker.

The DS Class 1E circuit breakers also are used in plants not designed by Westinghouse. Some of these facilities may not have received Technical Bulletin No. NSID-TB-85-17, therefore, it is suggested that these facilities contact Westinghouse NSID to obtain additional information on performing the inspections and corrective action.

No specific action or written response is required by this notice. If you have any questions regarding this notice, please contact the Regional Administrator of the appropriate NRC regional office or this office.



Edward L. Jordan, Director  
Division of Emergency Preparedness  
and Engineering Response  
Office of Inspection and Enforcement

Technical Contact: L. B. Parker, IE  
(301) 492-7190

Attachment: List of Recently Issued IE Information Notices

LIST OF RECENTLY ISSUED  
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
85-92	Surveys Of Wastes Before Disposal From Nuclear Reactor Facilities	12/2/85	All production and utilization facilities, power reactors, research and test reactors holding an OL or CP
85-91	Load Sequencers For Emergency Diesel Generators	11/27/85	All power reactor facilities holding OL or CP
85-58 Sup. 1	Failue Of A General Electric Type AK-2-25 Reactor Trip Breaker	11/19/85	All power reactor facilities designed by B&W and CE holding an OL or CP
85-90	Use Of Sealing Compounds In An Operating System	11/19/85	All power reactor facilities holding an OL or CP
85-89	Potential Loss Of Solid-State Instrumentation Following Failure Of Control Room Cooling	11/19/85	All power reactor facilities holding an OL or CP
85-88	Licensee Control Of Contracted Services Providing Training	11/18/85	All power reactor facilities holding an OL or CP
85-87	Hazards Of Inerting Atmospheres	11/18/85	All power reactor facilities holding an OL or CP; and fuel facilities
85-86	Lightning Strikes At Nuclear Power Generating Stations	11/5/85	All power reactor facilities holding an OL or CP

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OL = Operating License  
CP = Construction Permit