CENTRAL FILES

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

Docket No. 50-272

DEC 07 1979

Public Service Electric and Gas Company
ATTN: Mr. F. W. Schneider
Vice President - Production
80 Park Place
Newark, New Jersey 07101

Gentlemen:

The enclosed IE Bulletin No. 79-28, is forwarded for action. A written response is required. If you desire additional information regarding this matter, please contact this office.

Sincerely,

for Boyce H. Grier
Director

Enclosures:
1. IE Bulletin No. 79-28
2. List of Recently Issued IE Bulletins

CONTACT: S. D. Ebneter
(215-337-5296)

cc w/encls:
F. P. Librizzi, General Manager - Electric Production
E. N. Schwalje, Manager - Quality Assurance
R. L. Mittl, General Manager - Licensing and Environment
H. J. Midura, Manager - Salem Generating Station

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ENCLOSURE 1

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

SSINS No.: 6820
Accession No.:
7910250505

IE Bulletin No. 79-28
Date: December 7, 1979

POSSIBLE MALFUNCTION OF NAMCO MODEL EA180 LIMIT SWITCHES AT ELEVATED TEMPERATURES

Description of Circumstances:

The NRC has been recently advised through a 10 CFR 21 report from NAMCO Controls that a malfunction of a NAMCO Model EA180 stem mounted limit switch (SMLS) occurred at the Cooper Nuclear Station. Investigation into the switch failure by the licensee revealed yellow and brown "crystal-like" resin deposits on the internal components of the switch. The affected switch is located inside the drywell containment at this facility and was being used as the replacement switch for an unqualified SMLS previously identified in IE Bulletin Nos. 78-04 and 79-01.

According to the manufacturer, the problem was traced to a batch of top cover gaskets of which some were over-impregnated and insufficiently heat cured. It has been determined that this condition can leave an uncured residue of "Loctite" in the gasket, which vaporizes at sustained temperatures above 175°F. To correct the problem, the manufacturer has revised production techniques beginning September 1979 in order to better control the impregnation process and to properly heat cure the gaskets following impregnation. This problem is unique to all NAMCO Model EA180 series switches received by licensees after March 1, 1979. According to the manufacturer, the suspect switches can be identified by checking the date code which is a 4 digit number stamped on the conduit boss of the switch housing. NAMCO recommends that any EA180 series switch with a date code between 02-79 through 08-79 should have its top cover gasket replaced. Also, licensees should request from their suppliers of equipment on which NAMCO EA180 series switches are used that they check their inventory and replace top cover gaskets on switches date coded between 02-79 through 08-79.

The enclosed letter from NAMCO further describes the high-temperature environmental problem with the top cover gaskets used in their EA180 switches and provides recommendations to correct the problem. According to NAMCO, this letter has been sent to each customer who was shipped EA180 switches between February 21, 1979, and August 24, 1979.

Action to be Taken by Licensees of Power Reactor Operating Facilities and Holders of Construction Permits:

1. Determine if your facility has installed or plans to install NAMCO EA180 switches in any safety-related equipment located inside or outside containment, including valve position indicating circuitry related to containment isolation valves.

2. If such switches are identified, examine the four digit number stamped on the conduit boss of the switch housing. If this number falls between 02-79 and 08-79, replace the top gasket of the switch in accordance with the manufacturer's recommendations provided in the enclosed letter.

3. Submit your plans and programs, including schedules for corrective action, regarding your findings in response to Items 1 and 2 above.

4. Provide the response in writing within 30 days for facilities holding an operating license and within 60 days for those holders of construction permits. Reports should be submitted to the Director of the appropriate NRC Regional Office and a copy should be forwarded to the U. S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Division of Reactor Operations Inspection, Washington, D.C. 20555.

Approved by GAO, B180225 (R0072); clearance expires July 31, 1980. Approval was given under a blanket clearance specifically for identified generic problems.

Attachment:
Extract of NAMCO Controls
Letter dated 8/30/79

Attachment to IE Bulletin No. 79-28

EXTRACT

N A M C O C O N T R O L S

August 30, 1979

Attention:

Subject: Possible malfunction of Namco Model EA180 limit switches at elevated ambient temperatures

Gentlemen:

Namco Controls has determined that the EA180 series limit switches shipped against you purchase order(s) #_____ may have top cover gaskets which will emit a resin vapor at temperatures above 175°F. This vapor could condense into deposits on the normally open contacts, possibly causing a switch malfunction.

We have reported this situation to the NRC, and we are contacting each customer who has received switches with gaskets from the questionable production lot, with the following recommendations:

a) If the switches have not been put into service, and the ultimate ambient temperatures are unknown, the top cover gasket should be replaced.

b) If the switches are in service and are subjected to a continuous ambient temperature of more than 175°F, they should be inspected for deposits, the contacts cleaned if necessary, and have the top cover gasket replaced.

c) If the switches are in service, (or scheduled for service) in a continuous ambient temperature of 175°F or less, no action is necessary.

We will provide you with whatever number of new top cover gaskets you may require, free of charge. Or, if you prefer, we will accept switches returned to our Jefferson plant freight collect, for gasket replacement and/or cleaning.

We sincerely regret any inconvenience this remedy may cause. If you have any questions, please contact either Robert H. Kantner, 216-268-4200 or John R. Bendokaitis, 216-576-4070.

ENCLOSURE 2

IE Bulletin No. 79-28
Date: December 7, 1979

RECENTLY ISSUED IE BULLETINS

Bulletin No.	Subject	Date Issued	Issued To
79-23	Potential Failure of Emergency Diesel Generator Field Exciter Transformer	9/12/79	All Power Reactor Facilities with an OL or CP
79-24	Frozen Lines	9/27/79	All Power Reactor Facilities which have either OLs or CPs and are in late stage of construction
79-13 (Rev. 2)	Cracking in Feedwater System Piping	10/17/79	All PWRs with an OL and Designated Applicants (for Action), All Other Power Reactor Facilities with an OL or CP (for Information)
79-17 (Rev. 1)	Pipe Cracks in Stagnant Borated Water Systems at PWR Plants	10/29/79	All PWRs with an OL (for Action). All other Power Reactor Facilities with an OL or CP (for Information)
79-25	Failures of Westinghouse BFD Relays in Safety-Related Systems	11/2/79	All Power Reactor Facilities with an OL or CP (for Action)
79-02 (Rev. 2)	Pipe Base Plate Designs Using Concrete Expansion Bolts	11/8/79	All Power Reactor Facilities with an OL or CP
79-26	Boron Loss From BWR Control Blades	11/20/79	All BWR Power Reactor Facilities with an OL
79-27	Loss of Non-Class-1-E Instrumentation and Control Power System Bus During Operation	11/30/79	All Power Reactor Facilities with an OL and those nearing Licensing (for Action) All Power Reactor Facilities with a CP (for Information).