

Washington Public Power Supply System

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Responds to: -
Response required by: -

REGION V

Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Attention: Mr. D.M. Sternberg, Chief
Reactor Projects Branch No. 1

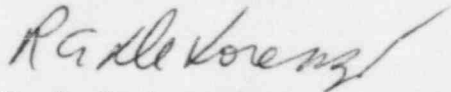
Subject: NUCLEAR PROJECTS NO. 1 AND 4
DOCKET NOS. 50-460 AND 50-513
10CFR50.55(e) REPORTABLE CONDITION
NAMCO LIMIT SWITCH GASKETS

Reference: Telecon, CR Edwards, Supply System to Jo Elin, Region V, Nuclear
Regulatory Commission, June 2, 1983.

Per the reference, the Supply System informed your office of a reportable
deficiency in accordance with the requirements of 10CFR50.55(e).

Attachment A includes a brief description of the identified deficiency and
the Project's planned corrective action. Due to the construction delay, the
required corrective action will not be implemented until sometime after
construction restart; therefore, we will provide you with a status update
prior to restart of construction.

If you have any questions or desire further information, please advise.



R. A. De Lorenzo,
Program Director, WNP-1/4

RAD:LCO:pp

cc: TA Mangelsdorf, Bechtel (860)
V. Mani, United Engineers (897)
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V. Stello, Deputy Executive Director, NRC
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ATTACHMENT A

WNP-1/4

DOCKET NOS. 50-460 AND 50-513
REPORTABLE CONDITION PER 10CFR50.55(e)
NAMCO LIMIT SWITCH GASKETS

BACKGROUND

The NRC issued IE Bulletin 79-28 on December 7, 1979 notifying Licensees and Construction Permit holders of a problem with the top cover gaskets on NAMCO Model EA180 series switches. The Supply System responded to the IE Bulletin in February 1980 informing the NRC that EA180 series switches have been specified for use at WNP-1/4 that all contractors would be requested to determine compliance with the NAMCO recommendations and that the field contractors would be requested to replace any defective gaskets.

As part of this effort, 20 of 23 contractors have replied indicating that either the correct gasket material was used or no affected switches were supplied. One contractor, Anchor Darling, has indicated that deficient gasket material was provided for the NAMCO limit switches provided on the Main Steam and Feedwater Isolation Valves (ten valves per plant). This deficiency has been identified on NCR's for tracking purposes (1-BNCR-87-02 and 4-BNCR-87-02).

DESCRIPTION OF THE DEFICIENCY (Per IE Bulletin 79-28)

The NRC was advised through a 10CFR Part 21 report from NAMCO Controls that a malfunction of a NAMCO Model EA180 stem mounted limit switch (SMLC) 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.

SAFETY IMPLICATIONS

The Main Steam and Feedwater Isolation Valves utilize NAMCO EA180 limit switches for indication and travel. Failure of these switches may prevent valve operation or affect the operator's ability to determine the position of the valve. Some of these valves perform a containment isolation function and failure to operate may allow radiation release.

CORRECTIVE ACTION

Although the limit switch failure occurs only when there is a sustained ambient temperature of greater than 175°F, all limit switches with the defective gasket material will have the gaskets replaced.

Two prepurchase valve vendors have not yet responded. When their response is received, nonconformance reports will be generated to assure tracking of the deficiencies if the defective gasket material was used.

Replacement gaskets, as recommended by NAMCO, for the twenty Anchor Darling valves have been shipped to the site but will not be installed until construction restart.

We will provide you with a status update on this deficiency prior to restart of construction.