NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

UPDATE REPORT
PREVIOUS REPORT DATE: 11/12/82

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | LICENSEE CODE: M D C C N 2 (2) | LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3) | LICENSE TYPE: 4 1 1 1 1 (4) | CAT (5)

CON'T 0 1 | REPORT SOURCE: L (6) | DOCKET NUMBER: 0 5 0 0 0 3 1 8 (7) | EVENT DATE: 1 0 1 7 8 2 (8) | REPORT DATE: 0 5 1 9 8 3 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During Mode 5 operation at 0105 while performing surveillance testing on
0 3 Main Steam Line Isolation Valves (MSIVs), No. 21 MSIV stroked shut in
0 4 12.72 seconds, exceeding the 3.6 second limit of T.S. 4.7.1.5. Although
0 5 T.S. 3.7.1.5 is not applicable in Mode 5, it is assumed that the valve
0 6 could have been slow to close, had it been stroked shut in Modes 1-3.
0 7 Similar event: 81-07.
0 8

0 9 | SYSTEM CODE: C D (11) | CAUSE CODE: B (12) | CAUSE SUBCODE: B (13) | COMPONENT CODE: V A L V E X (14) | COMP. SUBCODE: F (15) | VALVE SUBCODE: D (16)

(17) LER/RO REPORT NUMBER | EVENT YEAR: 8 2 | — | SEQUENTIAL REPORT NO.: 0 5 0 | / | OCCURRENCE CODE: 0 3 | REPORT TYPE: X | — | REVISION NO.: 1

ACTION TAKEN: A (18) | FUTURE ACTION: Z (19) | EFFECT ON PLANT: Z (20) | SHUTDOWN METHOD: Z (21) | HOURS (22): 0 0 0 0 | ATTACHMENT SUBMITTED: Y (23) | NPRD-4 FORM SUB.: Y (24) | PRIME COMP. SUPPLIER: A (25) | COMPONENT MANUFACTURER: R 3 4 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 During the most recent refueling outage, the valve packing junk ring was
1 1 discovered to have galled the stem. The ring was tested and found to be
1 2 an alloy instead of a mild steel. Being very close to the stem, the ring
1 3 was binding the stem, slowing valve closure. The ring was replaced with
1 4 a proper one, and the purchase spec. was revised to prevent recurrence.

1 5 | FACILITY STATUS: G (28) | % POWER: 0 0 0 (29) | OTHER STATUS (30): NA | METHOD OF DISCOVERY: B (31) | DISCOVERY DESCRIPTION (32): Surveillance Testing

1 6 | ACTIVITY RELEASED: Z (33) | CONTENT OF RELEASE: Z (34) | AMOUNT OF ACTIVITY (35): NA | LOCATION OF RELEASE (36): NA

PERSONNEL EXPOSURES
1 7 | NUMBER: 0 0 0 (37) | TYPE: Z (38) | DESCRIPTION (39): NA

PERSONNEL INJURIES
1 8 | NUMBER: 0 0 0 (40) | DESCRIPTION (41): NA

LOSS OF OR DAMAGE TO FACILITY (43)
1 9 | TYPE: Z (42) | DESCRIPTION: NA

PUBLICITY
2 0 | ISSUED: N (44) | DESCRIPTION (45): NA

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PDR ADOCK 05000318
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NRC USE ONLY

NAME OF PREPARER: R. L. Wenderlich/P. J. Weir
PHONE: 301-269-4776/4871

LER NO. 82-50/3X, Rev. 1
DOCKET NO. 50-318
LICENSE NO. DPR 69
EVENT DATE 10/17/82
REPORT DATE 5/19/83
ATTACHMENT

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS

During the most recent refueling outage, #21 MSIV was disassembled and overhauled. During disassembly, heavy stem galling was observed to have extended to the junk ring location inside the packing gland. Subsequent x-ray spectography indicated that the junk ring which was removed was composed of an alloy chemically similar to an AISI grade 4140 chromium molybdenum. The drawing of the valve calls for a AISI grade 1015-1025 mild carbon steel.

Upon each stroke of the MSIV, the junk ring is the closest stationary part to the valve stem (.005" clearance). Thus, it should be, as designed, a significantly softer steel than the stainless steel stem. If, as found, it is a steel similar in hardness to the stem, galling may and did occur. This tends to bind the stem, slowing valve closure.

Before reassembly, a junk ring made of the proper material was fabricated on site and installed in the valve.

The purchase specification by which replacement parts are obtained from the manufacturer has been changed to require documentation of proper junk ring material composition. The first junk rings procured since then have been tested by the licensee and determined to, in fact, be mild steel. Additionally, the valve overhaul procedure has been changed to make the final bonnet bolt torque pass after backseating the valve. This will result in a better alignment of the bonnet and its enclosed packing chamber parts (including the junk ring) with the valve stem.

BALTIMORE GAS AND ELECTRIC COMPANY

P.O. BOX 1475

BALTIMORE, MARYLAND 21203

NUCLEAR POWER DEPARTMENT
CALVERT CLIFFS NUCLEAR POWER PLANT
LUSBY, MARYLAND 20657

May 19, 1983

Mr. James M. Allan
Acting Regional Administrator
U. S. Nuclear Regulatory Commission
Region 1
631 Park Avenue
King of Prussia, PA 19406

Docket No. 50-318
License No. DPR 69

Dear Mr. Allan:

In accordance with Technical Specification 6.9 please find the attached follow-up report for LER 82-50/3X, Rev. 1.

Should you have any questions regarding this report, we would be pleased to discuss them with you.

Very truly yours,

John T. Carroll

for L. B. Russell
Plant Superintendent

LBR:PJW:bsb

cc: Director, Office of Management Information
and Program Control
Messrs: A. E. Lundvall, Jr.
J. A. Tiernan

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