NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

01 | W I P B H 2 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 1 1 1 (4) | (5)
LICENSEE CODE — LICENSE NUMBER — LICENSE TYPE — CAT

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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 | During a staff review on 2-19-79, it was determined that the following
03 | was reportable. At 1152 hours, 12-9-78, with the unit off line and
04 | approximately 10% steam flow, both "A" and "B" main steam stop valves
05 | failed to close. The valves were closed with mechanical assistance at
06 | 1215 hours 12-9-78. Past experience indicates that the reverse type
07 | check valves would have closed in high steam flow conditions; therefore,
08 | the public health and safety was not affected.

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

(17) LER/RO REPORT NUMBER: EVENT YEAR 7 9 | — | SEQUENTIAL REPORT NO. 0 0 1 | / | OCCURRENCE CODE 0 1 | REPORT TYPE T | — | REVISION NO. 0

ACTION TAKEN E (18) | FUTURE ACTION F (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 N (25) | COMPONENT MANUFACTURER A 5 8 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 | The Atwood-Morrill reverse swing check valves failed to close due to
11 | buildup of deposits on the valve shafts and/or hardening of the gland
12 | packing. The valves were exercised and the packing was adjusted.
13 | Different packing types and valve operator modifications are being
14 | investigated.

15 | FACILITY STATUS G (28) | % POWER 0 1 0 (29) | OTHER STATUS (30) N/A | METHOD OF DISCOVERY A (31) | DISCOVERY DESCRIPTION (32) Operator observation

16 | ACTIVITY RELEASED Z (33) | CONTENT OF RELEASE Z (34) | AMOUNT OF ACTIVITY (35) N/A | LOCATION OF RELEASE (36) N/A

17 | PERSONNEL EXPOSURES NUMBER 0 0 0 (37) | TYPE Z (38) | DESCRIPTION (39) N/A

18 | PERSONNEL INJURIES NUMBER 0 0 0 (40) | DESCRIPTION (41) N/A

19 | LOSS OF OR DAMAGE TO FACILITY (43) TYPE Z (42) | DESCRIPTION N/A

20 | PUBLICITY ISSUED N (44) | DESCRIPTION (45) N/A

7903140 3/3

NRC USE ONLY

NAME OF PREPARER Sol Burstein PHONE: 414/277-2121

GPO 917-926

ATTACHMENT TO LICENSEE EVENT REPORT NO. 79-001/01T-0

Wisconsin Electric Power Company
Point Beach Nuclear Plant Unit 2
Docket No. 50-301

At 1152 hours on December 9, 1978, with Unit 2 off line for moisture separator reheater tube plugging, the reactor shutdown in hot standby, steam generator pressure at 830 psig, two condenser steam dump valves fully open and two partially open, and approximately 10% steam flow, both "A" and "B" main steam stop valves (CV-2017 and CV-2018) failed to leave the full open position upon the receipt of a close signal.

At 1215 hours, the valves were closed with mechanical assistance. The "A" main steam stop valve closed completely upon a tap with a pipe. The "B" main steam stop valve closed to approximately the 25% open position with a sharp rap using the pipe, but considerably more force (approximately 700 ft. lbs.) was required to close it completely.

Both valves were exercised several times to assure proper operation. The "A" valve had to be assisted open several times, but then cycled and functioned satisfactorily without assistance. The "B" valve opened, but required help in reclosing the last 25% of the stroke on several more occasions. Maintenance loosened and lubricated the packing. The valve then functioned satisfactorily, but remained somewhat tight during the last 25% of the stroke.

The subsequent proper functioning of the valve is attributed mostly to the exercising of the valve rather than the packing adjustment and lubrication. It is believed that the long steaming period (233 days) permitted deposits to buildup between the shafts and the stuffing box bushing, this increasing the friction coefficient of the sliding surfaces.

During the subsequent staff review of the event, it was the consensus of opinion that realistically the valves would have functioned in the unlikely event of a steam line break and the resulting high steam flow since the valve discs hang at three degrees into the steam flow and have closed on several instances in the past at 4×10^6 lbs./hour steam flow even without receiving a closing signal.

The staff has concluded, however, that lengthy successful runs of the unit with the attendant possibility of buildup of deposits on the shafts and/or hardening of the gland packing may require further attention and possible modifications to preclude this type of sticky valve operation

upon plant shutdown. Investigations into a different type of gland packing (Lubrite) is in progress and consideration to giving air assist to the closing action of the valves is being studied.

This event was originally written up as an in-plant significant operating event; however, in later discussions with the plant's chief NRC inspector, it was mutually agreed that the event was more properly reportable under Technical Specification licensee event reporting criteria.