

LICENSEE EVENT REPORT

CONTROL BLOCK: 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 C T M N S 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5
9 14 15 25 26 30 37 CAT 38

DON'T

0 1 REPORT SOURCE L 6 0 5 0 0 0 3 3 6 7 0 3 1 4 7 9 8 0 4 1 2 7 9 9
60 61 68 69 74 75 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

0 2 Steam generator (SG) eddy current testing in progress, plant in Mode 5, SG primary
0 3 side manways open, RCS on shutdown cooling (SDC) with RCS level at hot leg center line.
0 4 A loss of SDC was experienced due to LPSI suction air binding. Recovery was
0 5 accomplished by floodup of the RCS from the RWST. Prior to restoring full SDC flow,
0 6 RCS temperature reached 208 degrees F, resulting in entry to Mode 4. RCS temperature
0 7 was subsequently lowered to 120 degrees F.

0 8

0 9 SYSTEM CODE C F 11 CAUSE CODE D 12 CAUSE SUBCODE Z 13 COMPONENT CODE P U M P I X X 14 COMP. SUBCODE B 15 VALVE SUBCODE Z 16
17 LER/RO REPORT NUMBER 7 9 21 22 SEQUENTIAL REPORT NO. 0 0 8 24 26 OCCURRENCE CODE 0 3 28 29 REPORT TYPE L 30 REVISION NO. 0 32
ACTION TAKEN X 18 FUTURE ACTION G 19 EFFECT ON PLANT Z 20 SHUTDOWN METHOD Z 21 HOURS 0 0 0 0 22 ATTACHMENT SUBMITTED Y 23 NPD-4 FORM SUB. N 24 PRIME COMP. SUPPLIER N 25 COMPONENT MANUFACTURER I 0 7 5 25
33 34 35 36 37 40 41 42 43 44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

0 0 Lost LPSI suction loop seal prime during initial RCS draindown. Partial flow
0 1 restored on RCS floodup from RWST and full flow restored by vacuum priming suction
0 2 loop seal. Compliance with all Mode 4 LCO's was verified and containment purge
0 3 valves were shut. Procedures were changed to provide adequate priming and
0 4 operator responses.

5 FACILITY STATUS H 28 % POWER 0 0 0 0 29 OTHER STATUS NA 30 METHOD OF DISCOVERY A 31 DISCOVERY DESCRIPTION Operator observation 32
8 9 10 12 13 44 45 46 80

6 ACTIVITY CONTENT RELEASED C RELEASE Z 33 Z 34 AMOUNT OF ACTIVITY NA 35 LOCATION OF RELEASE NA 36
8 9 10 11 44 45 80

7 PERSONNEL EXPOSURES NUMBER 0 0 0 37 TYPE Z 38 DESCRIPTION NA 39
8 9 10 11 12 13 44 45 80

8 PERSONNEL INJURIES NUMBER 0 0 0 40 DESCRIPTION NA 41
8 9 10 11 12 13 44 45 80

9 LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 DESCRIPTION NA 43
8 9 10 11 12 13 44 45 80

0 PUBLICITY ISSUED Z 44 DESCRIPTION NA 45
8 9 10 11 12 13 44 45 80

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NRC USE ONLY

ATTACHMENT

LER 79-08/3L-0
Millstone Unit 2
Docket No. 50-336

Event Description

Prior to commencing refueling operations, the RCS was drained down to the hot leg center line, the steam generator (SG) primary manways were removed for SG tube eddy current testing and the plant was in Mode 5. RCS cooling was via the Shutdown Cooling (SDC) System with one LPSI pump maintaining RCS temperature at 150°F. Difficulty was being experienced in achieving normal SDC flow rates, which was partially attributable to problems determining an RCS hot leg level of sufficient accuracy to prevent overflow to the SG plenums. The LPSI pump experienced a loss of suction pressure and subsequent cavitation, necessitating securing the pump. Attempts at pump venting and transfer to the alternate pump were unsuccessful. RCS temperature was increasing and at approximately 190°F, the LPSI suction from the RWST was opened to prime the pump suction. This action restored flow, but resulted in RCS floodup and spillover of approximately 15,000 gallons of water through the open SG manway to the containment.

Prior to this action, containment integrity had been established and no personnel were in the containment. SDC flow was stabilized and the RCS temperature, which reached 208°F during the transient, was restored to normal.

This occurrence, thus, resulted in entering Mode 4 inadvertently. The containment purge valves were closed, containment integrity was verified and compliance with all necessary Mode 4 LCO action statements was verified.

Cause Description

The loss of SDC flow was due to a loss of prime of the SDC System suction loop seal off the RCS hot leg. This condition was aggravated during the RCS drain-down to relatively low levels in the hot leg to ensure no water in the SG plenums. Following SDC restoration by RCS floodup, the suction loop seal was vacuum primed and full LPSI pump flow restored.

The permanent corrective action for this occurrence includes procedure changes to specify additional operator actions to ensure SDC suction priming with a variety of methods at specified action points. In addition, the use of SDC suction vacuum priming has been incorporated in procedures and will be routinely used during subsequent RCS draindowns. Finally, action was already in progress to provide permanently installed remote refueling level instrumentation to provide better indication of draindown levels.

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