

LICENSEE EVENT REPORT

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

0 1 V A S I P S 2 0 0 - 0 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5
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LICENSEE CODE LICENSE NUMBER LICENSE TYPE JO CAT 58

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REPORT SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 A routine sample of the EDG fuel oil storage tanks revealed water in tank 1-EE-TK-2A.
0 3 The fuel oil transfer pumps were placed under administrative control and the water was
0 4 drained. This event is contrary to T.S. 3.16.A.5 and is reportable in accordance with
0 5 T.S. 6.6.2.b.(2). The redundant fuel oil pumps remained operable; therefore, the health
0 6 and safety of the public were not affected.
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0 9

0 9 E E 11 D 12 Z 13 Z Z Z Z Z Z 14 Z 15 Z 16
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE
17 LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.
X 18 G 19 Z 20 Z 21 0 0 0 0 22 Y 23 N 24 Z 25 2 9 9 9 26
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NRC-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The cause of this event has been determined to be inadequate procedures for removing
1 1 water from the above ground storage tank and preventing its entry into the underground
1 2 tanks. The water was drained via the transfer pump suction strainer drains.
1 3 Subsequently, all tanks were sampled and the water content was within allowable limits.
1 4

1 5 E 28 1 0 0 29 NA 30 A 31 Operator observation 32
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION
ACTIVITY ACTION RELEASED OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE
Z 33 Z 34 NA 35 NA 36

1 7 0 0 0 37 Z 38 NA 39
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION

1 8 0 0 0 40 NA 41
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
PERSONNEL INJURIES NUMBER DESCRIPTION

1 9 Z 42 NA 43
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION

2 0 N 44 NA 45
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
PUBLICITY ISSUED DESCRIPTION
NRC USE ONLY

NAME OF PREPARED J. L. Wilson

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ATTACHMENT 1 (PAGE 1 OF 2)
SURRY POWER STATION, UNIT 2
DOCKET NO: 50-281
REPORT NO: 81-033/03L-0
EVENT DATE: 05-28-81

TITLE OF THE EVENT: WATER IN TANK 1-EE-TK-2A

1. DESCRIPTION OF THE EVENT:

On May 10, 1981, fire water was used to leak test the reactor lower internals shield tank prior to installation. An open valve from the fire main to the fire protection foam system allowed water to enter the above ground fuel oil storage tank, 1-HS-TK-1. The tank was isolated and an estimated 4000 gallons of water drained. Samples were taken from the instrument connection, for 1-HS-TK-1, and found to be free of water. The outlet to the underground tanks were verified closed and as a precaution, the valves were tagged closed.

The samples that were taken from the instrument connection on 1-HS-TK-1 were not representative. Although the instrument connection on this tank appears to be the lowest connection, both outlets are, in fact, lower. The outlet to the underground tank being 2 inches lower and the outlet to the hose connection 4" lower. During the week (May 10-15), the above ground tank was sampled for water, from the instrument connection, each day before verifying that the underground tanks were full. During this time, water apparently entered the 'A' underground tank.

A week later, while filling a vehicle from the hose connection, water was again discovered. The tank was then drained from the hose connection until all the water was removed.

At 0530 hrs. on May 28, 1981, a routine sample of the underground fuel oil tanks revealed water in tank 1-EE-TK-2A. The fuel oil transfer pumps, associated with tank 2A, were placed under administrative control and samples taken from the suction strainers showed that water had not reached the pumps. However, additional draining from this point and the underground tank's manometer connection did produce water at both of these locations.

The wall tanks, located in each EDG room, were sampled and no water was found. The wall tanks were partially drained and then refilled, from the underground tank 2A, several times. A small quantity of water was subsequently drained from the wall tanks.

At 1525 hrs., samples of the wall tanks, the underground tank make up line, and the transfer pump suctions were all free of water. The transfer pumps were returned to automatic and the 2A underground tank refilled.

After the underground tank was filled, additional water was drained from the manometer connection. To verify that the water level was below the transfer pump suction, 45 gallons of fuel oil was drained from 'A' pump and 10 gallons from 'B' & 'C' pumps. Samples taken from each pump were free of water. However, for the next three shifts, water was drained from the manometer connection.

This event is contrary to Tech. Spec. 3.16.A.5 and is reportable per Tech. Spec. 6.6.2.b.(2).

ATTACHMENT 1 (PAGE 2 OF 2)
SURRY POWER STATION, UNIT 2
DOCKET NO: 50-281
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EVENT DATE: 05-28-81

2. PROBABLE CONSEQUENCES AND STATUS OF REDUNDANT EQUIPMENT

The emergency diesel generators provide power to vital equipment in the event of a loss of normal power. The outlets of the fuel oil tanks are designed to allow for some accumulation of water. Between 5-10-81 and 5-28-81, the EDG's were operated intermittently for about 8 hrs. total without any problems. The redundant flow path from 2B underground tank was operable and free of water. Therefore, the health and safety of the public were not affected.

3. CAUSE:

The cause of this event has been determined to be inadequate procedures. Specifically, the lack of guidance for the sampling of fuel oil tanks.

4. IMMEDIATE CORRECTIVE ACTION:

The fuel oil transfer pumps in the affected train were placed under administrative control and the other train was verified free of water.

5. SUBSEQUENT CORRECTIVE ACTION:

The water was drained from the transfer pump suction, the wall tank drains and the manometer connection for '2A' underground tank.

6. ACTION TAKEN TO PREVENT RECURRENCE:

A sampling procedure will be developed and a sampling frequency established for the above ground tank.

7. GENERIC IMPLICATIONS:

None.