

[illegible]

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REPORT SOURCE X 0 5 0 0 0 2 8 5 7 0 1 1 9 8 3 8 0 2 1 8 8 3 9

60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

2 During the refueling outage the pressurizer code safety relief valves were removed and  
3 sent to an outside laboratory for a check of the setpoint pressure with steam. The  
4 setpoint for one of the two safety valves was found to be beyond the Technical Speci-  
5 fication 2.1.6(1) limit of 2500 psia to 2545 psia + 1%. RC-141 actually lifted at  
6 2577 psia. The lift setpoint on the redundant valve RC-142 was within the specified  
7 tolerance.

|  |    |                       |                |                        |               |
|--|----|-----------------------|----------------|------------------------|---------------|
| 8  |    | 9                     |                | 80                     |               |
| SYSTEM CODE                              |    | CAUSE CODE            |                | CAUSE SUBCODE          |               |
| C  | B  | E                     | B              | V                      | A             |
| 11                                       | 12 | 13                    | COMPONENT CODE |                        | COMP. SUBCODE |
| VALVE SUBCODE                            |    | SEQUENTIAL REPORT NO. |                | OCCURRENCE CODE        |               |
| X  | B  | 0                     | 0              | 1                      | 0             |
| 15                                       | 16 | 17                    | 18             | 19                     | 20            |
| REPORT TYPE                              |    | REVISION NO.          |                | ACTION TAKEN           |               |
| L  | 0  | FUTURE ACTION         |                | EFFECT ON PLANT        |               |
| 21                                       |    | 22                    |                | 23                     |               |
| SHUTDOWN METHOD                          |    | HOURS                 |                | ATTACHMENT SUBMITTED   |               |
| Z  | 0  | 0                     | 0              | Y                      | N             |
| 24                                       | 25 | 26                    | 27             | 28                     | 29            |
| PRIME COMP. SUPPLIER                     |    | NPRD-4 FORM SUB.      |                | COMPONENT MANUFACTURER |               |
| N  | C  | 7                     | 1              | 0                      | 0             |
| 30                                       | 31 | 32                    | 33             | 34                     | 35            |
| CAUSE DESCRIPTION AND CORRECTIVE ACTIONS |    | 27                    |                | 28                     |               |

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

0 The subject valve is a Crosby nozzle type safety relief valve (3 x 6 inch, 2500 psia  
1 class). The valve was subsequently readjusted to within 1% of its required setpoint  
2 and satisfactorily retested. The District believes the cause is attributed to normal  
3 drift of the safety valve over an operational cycle.

|                 |   |         |    |    |    |                   |    |    |    |                           |    |    |    |                            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------|---|---------|----|----|----|-------------------|----|----|----|---------------------------|----|----|----|----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 4               |   |         |    |    |    |                   |    |    |    |                           |    |    |    |                            |    | 80 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 8               | 9 |         |    |    |    |                   |    |    |    |                           |    |    |    |                            |    |    | 80 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| FACILITY STATUS |   | % POWER |    |    |    | OTHER STATUS (30) |    |    |    | METHOD OF DISCOVERY       |    |    |    | DISCOVERY DESCRIPTION (32) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 5               | H | 28      | 0  | 0  | 0  | 29                | NA | 30 | 31 | Annual Recalibration Test |    |    |    | 32                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 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 |

ACTIVITY CONTENT  
RELEASED OF RELEASE

AMOUNT OF ACTIVITY (35)

LOCATION OF RELEASE (36)

| PERSONNEL EXPOSURES |   |   |      |             |      |    |  |  |  |
|---------------------|---|---|------|-------------|------|----|--|--|--|
| NUMBER              |   |   | TYPE | DESCRIPTION |      |    |  |  |  |
| 7                   | 0 | 0 | 0    | (37) Z      | (38) | NA |  |  |  |

| PERSONNEL INJURIES |             | DESCRIPTION |  |
|--------------------|-------------|-------------|--|
| NUMBER             | DESCRIPTION | 41          |  |
| 00040              | NA          |             |  |

| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|----|--|----|--|----|--|
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| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
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| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
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| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
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| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | 12 |  |
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8 9 10 80  
 PUBLICITY (45) 8302280385 830218  
 ISSUED DESCRIPTION NA PDR ADOCK 05000285 NRC USE ONLY  
 2 0 N (44) S PDR  
 8 9 10 68 69 80

NAME OF PREPARER Shannon L. Abel

PHONE: 402-426-4011

000 017-926

LER 83-001  
Omaha Public Power District  
Fort Calhoun Station Unit No. 1  
Docket No. 05000285

ATTACHMENT NO. 1

Safety Analysis

The pressurizer code safety valves are designed to provide over-pressure protection of the reactor coolant system. These safety valves are sized to pass sufficient pressurizer steam to limit the reactor coolant system (RCS) pressure to 110% of design pressure (2750 psia) following a complete loss of turbine generator load without simultaneous reactor trip while operating at 1500 Mwt. RC-142, the second code safety valve, was also tested and lifted within its specified limits of 2500 psia  $\pm$  1% and, therefore, would have provided sufficient relief capacity to ensure that RCS pressure remained well below 110% design pressure.

The code safety valves are the primary means of pressure relief to the reactor coolant system. However, although not credited in the safety analyses, the power-operated relief valves (PORV's) are set to open prior to the code safeties. Assuming that a reactor trip is effected on a high-pressure signal, the capacity of the power-operated relief valves would be sufficient to ensure that the code safety valves do not open.

LER 83-001  
Omaha Public Power District  
Fort Calhoun Station Unit No. 1  
Docket No. 05000285

ATTACHMENT NO. 2

Corrective Action

Technical Specification 2.1.6(1) requires the pressurizer code safety valves to have a setpoint of between 2500 psia and 2545 psia, with a tolerance of  $\pm 1\%$  of the nameplate setpoint values. Valve RC-141 was tested six times and had test data as follows:

- Test 1 - Lift Pressure = 2577 psia, the set point is  
7 psi above the  
required pressure
- Test 2 - Lift Pressure = 2563, within limits
- Test 3 - Lift Pressure = 2539, within limits
- Test 4 - Lift Pressure = 2521, within limits
- Test 5 - Lift Pressure = 2570, within limits
- Test 6 - Lift Pressure = 2523, within limits

No corrective action was required since the next 5 consecutive tests were within the specified limits. The District will continue to send both safety valves to outside laboratories for lift setpoint pressure calibration during refueling shutdowns to ensure proper operability of the system.

LER No. 83-001  
Omaha Public Power District  
Fort Calhoun Station Unit No. 1  
Docket No. 0500028

ATTACHMENT NO. 3

Failure Data

This is the third reportable occurrence of the Fort Calhoun Station pressurizer code safety valves exceeding the operability requirements of Technical Specification 2.1.6(1). See LER's 76-038 and 77-028.