



Northern States Power Company

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February 26, 1992

Report Required by  
Technical Specification  
Sections 6.7.A.1.a, 6.7.A.1.b  
and 6.7.A.1.c

US Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
Docket No. 50-282 License No. DPR-42  
50-203 DPR-60

Annual Report of Occupational Radiation Exposure and  
Safety and Relief Valve Failures and Challenges  
January 1 - December 31, 1991

Attached are three reports for 1991:

- 1) Annual Report of Occupational Exposure  
(Required by Technical Specification 6.7.A.1.a)
- 2) Annual Report of Safety Valve and Relief Valve Failures and Challenges  
(Required by Technical Specification 6.7.A.1.b and NUREG-0737 Item  
II.K.3.3)
- 3) Annual Primary Coolant Iodine Spike Report  
(Required by Technical Specification 6.7.A.1.c)

Please contact us if you have any questions regarding these reports.

Thomas M Parker  
Manager  
Nuclear Support Services

c: Regional Administrator-III, NRC  
NR: Project Manager, NRC  
NR: Resident Inspector, NRC  
J E Silberg

Attachments: 1. Occupational Exposure Report  
2. Report of Safety/Relief Valve Failures and Challenges  
3. Primary Coolant Spike Report

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TEST 1

ATTACHMENT 1

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

ANNUAL REPORT OCCUPATIONAL EXPOSURE

1991

NORTHERN STATES POWER COMPANY  
Prairie Island Nuclear Generating Plant  
1717 Wakonade Drive East  
Welch, MN 55089

License No. DPR-42/DPR-60 (Unit 1 and Unit 2)

Number of Personnel and Man-Rem by Work and Job Function  
1991

| Work & Job Function | Number of Persons > 0.100 |         |          | Total Man-Rem |         |          |
|---------------------|---------------------------|---------|----------|---------------|---------|----------|
|                     | Station                   | Utility | Contract | Station       | Utility | Contract |
| Reactor Ops & Surv  |                           |         |          |               |         |          |
| Operators           | 11                        | 0       | 0        | 3.326         | 0.0     | 0.0      |
| Maintenance         | 1                         | 0       | 0        | 1.567         | 0.350   | 0.018    |
| Supv & Engr         | 1                         | 1       | 1        | 0.574         | 0.433   | 0.307    |
| Health Physics      | 8                         | 0       | 2        | 2.096         | 0.001   | 0.739    |
| Instr & Control     | 0                         | 0       | 0        | 0.338         | 0.0     | 0.0      |
| Security            | 0                         | 0       | 0        | 0.0           | 0.0     | 0.024    |
| Routine Maintenance |                           |         |          |               |         |          |
| Operators           | 0                         | 0       | 0        | 0.011         | 0.0     | 0.0      |
| Maintenance         | 4                         | 5       | 0        | 1.392         | 2.539   | 0.014    |
| Supv & Engr         | 1                         | 0       | 0        | 0.692         | 0.033   | 0.102    |
| Health Physics      | 0                         | 0       | 0        | 0.029         | 0.0     | 0.016    |
| Instr & Control     | 2                         | 0       | 0        | 0.786         | 0.193   | 0.010    |
| Security            | 0                         | 0       | 0        | 0.0           | 0.0     | 0.0      |
| Special Maintenance |                           |         |          |               |         |          |
| Operators           | 4                         | 0       | 0        | 1.396         | 0.0     | 0.0      |
| Maintenance         | 15                        | 48      | 11       | 4.121         | 19.007  | 3.743    |
| Supv & Engr         | 2                         | 2       | 4        | 1.008         | 0.770   | 1.855    |
| Health Physics      | 6                         | 0       | 18       | 1.948         | 0.027   | 5.400    |
| Instr & Control     | 2                         | 0       | 0        | 0.520         | 0.0     | 0.081    |
| Security            | 0                         | 0       | 0        | 0.0           | 0.0     | 0.0      |
| Waste Processing    |                           |         |          |               |         |          |
| Operators           | 0                         | 0       | 0        | 0.124         | 0.0     | 0.0      |
| Maintenance         | 6                         | 0       | 0        | 1.980         | 0.099   | 0.0      |
| Supv & Engr         | 0                         | 0       | 0        | 0.0           | 0.024   | 0.0      |
| Health Physics      | 1                         | 0       | 0        | 1.324         | 0.0     | 0.082    |
| Instr & Control     | 0                         | 0       | 0        | 0.0           | 0.0     | 0.0      |
| Security            | 0                         | 0       | 0        | 0.0           | 0.0     | 0.0      |
| Refueling           |                           |         |          |               |         |          |
| Operators           | 1                         | 0       | 0        | 0.782         | 0.0     | 0.0      |
| Maintenance         | 25                        | 22      | 0        | 6.536         | 5.213   | 0.003    |
| Supv & Engr         | 2                         | 0       | 0        | 0.825         | 0.019   | 0.054    |
| Health Physics      | 0                         | 0       | 1        | 0.035         | 0.001   | 0.370    |
| Instr & Control     | 0                         | 0       | 0        | 0.0           | 0.0     | 0.0      |
| Security            | 0                         | 0       | 0        | 0.0           | 0.0     | 0.0      |

# Inservice Inspection

|                 |   |    |    |       |        |       |
|-----------------|---|----|----|-------|--------|-------|
| Operators       | 0 | 0  | 0  | 0.007 | 0.0    | 0.0   |
| Maintenance     | 2 | 31 | 11 | 0.624 | 11.010 | 2.356 |
| Supv & Engr     | 1 | 1  | 21 | 0.194 | 0.201  | 6.479 |
| Health Physics  | 0 | 0  | 9  | 0.014 | 0.028  | 1.841 |
| Instr & Control | 0 | 0  | 12 | 0.0   | 0.0    | 2.857 |
| Security        | 0 | 0  | 0  | 0.0   | 0.0    | 0.0   |

## Unassigned Exposure

0.041

## Sub totals

|                 |    |     |    |        |        |       |
|-----------------|----|-----|----|--------|--------|-------|
| Operators       | 16 | 0   | 0  | 5.646  | 0.0    | 0.0   |
| Maintenance     | 53 | 106 | 22 | 16.220 | 37.944 | 6.134 |
| Supv & Engr     | 7  | 4   | 26 | 3.293  | 1.480  | 8.797 |
| Health Physics  | 15 | 0   | 30 | 5.487  | 0.057  | 8.448 |
| Instr & Control | 4  | 0   | 12 | 1.644  | 0.193  | 2.948 |
| Security        | 0  | 0   | 0  | 0.0    | 0.0    | 0.024 |

## Grand Total

95

110

90

32.290

39.674

26.351

Total Dose 98.315

ATTACHMENT 2

PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
SAFETY/RELIEF VALVE FAILURES AND CHALLENGES

1991

This report is made in accordance with NUREG-0737, Item II.K.3.3 and Prairie Island Technical Specification 6.7.A.1.b and covers the period of January 1, 1991 through December 31, 1991.

Unit 1 - No failures or challenges

Unit 2 - No failures or challenges

ATTACHMENT 3

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

PRIMARY COOLANT IODINE SPIKE REPORT

1991

This report is made in accordance with Prairie Island Technical Specification 6.7.A.1.c and covers the period of January 1, 1991 through December 31, 1991.

Prairie Island Technical Specification 3.1.D.1 was not exceeded during 1991.