

# NSP

NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

January 14, 1976

Mr Victor Stello, Director  
Division of Operating Reactors  
U S Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr Stello:

MONTICELLO NUCLEAR GENERATING PLANT  
Docket No. 50-263 License No. DPR-22

Annual Report of Primary Coolant  
Leakage to Drywell

This report is submitted in accordance with Section 6.7.C of Appendix A, Technical Specifications, of the Provisional Operating License for the Monticello Nuclear Generating Plant. It is a summary of coolant leakage to the drywell measurements for the period of January 1 through December 31, 1975.

Drywell leakage is broadly classified as being from identified or unidentified sources. Identified leakage is piped from the recirculation pump seals, various valve stem leak-offs, the reactor vessel flange leak-off, bulkhead drains, and vent cooler drains to the drywell closed radwaste sump. All other leakage is collected in the drywell open radwaste sump and classified as unidentified leakage. Drywell leakage is calculated daily using flow integrators installed in the pump discharge line of each sump. Accuracy of measurement is better than  $\pm 3\%$ . Drywell leakage is also continuously monitored by detecting changes in open and closed drywell radwaste sump level sensed by special level transmitters installed for that purpose. Sensitivity of this system to coolant leakage changes is better than 0.4 GPM with a response time of one minute.

Table I is a summary of drywell coolant leakage measurements for 1975. As noted in the Table, all leakage remained well below the Technical Specification Limits of 5 GPM for unidentified leakage and 25 GPM for total leakage.

Yours very truly,

*L. O. Mayer*

L O Mayer, PE  
Manager of Nuclear Support Services

LOM/DMM/ak

cc: J G Keppler  
G Charnoff  
Minnesota Pollution Control Agency  
Attn: J W Ferman

Attachment

9102120530 760114  
PDR ADDCK 05000263  
R PDR

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Table I Summary of Coolant Leakage to Drywell during Power Operation - 1975

| Month | Leakage from Known Sources (GPM) |        |      | Leakage from Unknown Sources (GPM) |        |        | Total Leakage (GPM) |        |        | Remarks                          |
|-------|----------------------------------|--------|------|------------------------------------|--------|--------|---------------------|--------|--------|----------------------------------|
|       | Highest                          | Lowest | Avg  | Highest                            | Lowest | Avg    | Highest             | Lowest | Avg    |                                  |
| Jan   | 1.37                             | 1.16   | 1.23 | 0.21                               | 0.0    | 0.05   | 1.58                | 1.16   | 1.28   | Shut down Jan 10 through Feb 6   |
| Feb   | 1.70                             | 0.60   | 1.23 | 0.23                               | 0.0    | 0.05   | 1.70                | 0.60   | 1.28   |                                  |
| Mar   | 1.34                             | 1.03   | 1.24 | 0.31                               | 0.0    | 0.07   | 1.61                | 1.03   | 1.31   |                                  |
| Apr   | 1.37                             | 1.19   | 1.23 | 0.25                               | 0.0    | 0.07   | 1.55                | 1.19   | 1.30   |                                  |
| May   | 1.38                             | 1.06   | 1.22 | 0.38                               | 0.0    | 0.20   | 1.65                | 1.20   | 1.42   | Shut down May 16-17              |
| Jun   | 1.38                             | 1.15   | 1.24 | 0.27                               | 0.0    | 0.09   | 1.55                | 1.17   | 1.33   |                                  |
| Jul   | 1.88                             | 1.07   | 1.26 | 0.27                               | 0.0    | 0.07   | 1.88                | 1.07   | 1.33   |                                  |
| Aug   | 1.88                             | 1.04   | 1.21 | 0.31                               | 0.0    | 0.11   | 1.88                | 1.04   | 1.32   |                                  |
| Sep   | 2.22                             | 1.04   | 1.25 | 0.42                               | 0.0    | 0.24   | 2.64                | 1.19   | 1.49   | Shut down Sept 12 through Nov 18 |
| Oct   | -                                | -      | -    | -                                  | -      | -      | -                   | -      | -      |                                  |
| Nov   | 1.49                             | 1.17   | 1.29 | 0.12                               | 0.0    | 0.08   | 1.60                | 1.17   | 1.37   |                                  |
| Dec   | 1.85                             | 1.35   | 1.64 | 0.19                               | 0.0    | 0.09   | 1.96                | 1.50   | 1.73   |                                  |
| Year  | 2.22                             | 0.60   | 1.28 | 0.42                               | 0.0    | 0.10   | 2.64                | 0.60   | 1.38   |                                  |
|       |                                  |        |      | (8.4*)                             |        | (2.0*) | (10.6*)             |        | (5.5*) |                                  |

\*Percentage of Technical Specification Limit

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