



Northern States Power Company

Monticello Nuclear Generating Plant
2807 West Hwy 75
Monticello, Minnesota 55362-9637

May 24, 1996

Bulletin 95-02

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

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

Final Response to Bulletin 95-02, "Unexpected Clogging Of A Residual Heat Removal (RHR) Pump Strainer While Operating In Suppression Pool Cooling Mode" (TAC 93873)

Bulletin 95-02 was issued to obtain information needed to assess compliance with requirements and commitments regarding suppression pool cleanliness in view of certain concerns raised in the staff's review of the unexpected clogging of a RHR pump strainer for the Limerick Unit 1 Nuclear Power Station. The Bulletin required a written response within 30 days which was provided by our November 16, 1995 letter.

Our November 16, 1995 letter contained three NRC commitments. The first commitment, to run one or more ECCS pumps for approximately 6 hours and monitor pump inlet pressure, was closed by our February 14, 1996 letter. The second commitment, with regard to suction strainer/suppression chamber inspection and water/sediment analysis, is discussed and closed out by Attachment 1 to this letter. A trending program of the inlet pressure for the Core Spray pumps has been established, which satisfies the third commitment.

Thus this letter documents that all the commitments made in our November 16, 1995 letter have been fulfilled and all required actions by Bulletin 95-02 have been satisfied.

Please contact Mel Opstad at (612) 295-1653 or Pat T... at (612) 295-1296 if you require further information.

William J Hill
Plant Manager
Monticello Nuclear Generating Plant

9605310147 960524
PDR ADOCK 05000263
Q PDR

JE44 1/1

USNRC
May 24, 1996
Page 2

NORTHERN STATES POWER COMPANY

c: Regional Administrator - III, NRC
NRR Project Manager, NRC
Sr Resident Inspector, NRC
State of Minnesota, Attn: Kris Sanda

Attachments:

Affidavit to the US Nuclear Regulatory Commission

Attachment 1 Response to Bulletin 95-02 Commitment To Inspect ECCS Suction
Strainers/Suppression Chamber and Analyze Water and Sediment

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

Final Response to Bulletin 95-02, "Unexpected Clogging Of A Residual Heat
Removal (RHR) Pump Strainer While Operating In Suppression Pool Cooling Mode"

Northern States Power Company, a Minnesota corporation, by this letter dated May 24, 1996 hereby submits information required by Bulletin 95-02 for the Monticello Nuclear Generating Plant.

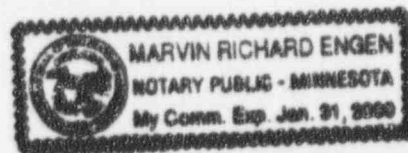
This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By William J Hill
William J Hill
Plant Manager
Monticello Nuclear Generating Plant

On this 24th day of May 1996 before me a notary public in and for said County, personally appeared, William J Hill, Plant Manager, Monticello Nuclear Generating Plant, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof, and that to the best of his knowledge, information, and belief the statements made in it are true and that it is not interposed for delay.

Marvin R Engen
Marvin R Engen
Notary Public - Minnesota
Sherburne County
My Commission Expires January 31, 2000



Attachment 1

Response to Bulletin 95-02 Commitment To Inspect ECCS Suction Strainers/Suppression Chamber and Analyze Water and Sediment

In our November 16, 1995 response to the 30 day report request of Bulletin 95-02, "Unexpected Clogging of A Residual Heat Removal (RHR) Pump Strainer while Operating in Suppression Pool Cooling Mode" we made the following commitment:

"During the April 1996 outage the strainers and suppression chamber will be visually inspected and samples of the suppression chamber water and sediment will be analyzed for fibers or other material that could contribute to ECCS strainer plugging. If the inspection indicates suppression chamber cleaning is required, the suppression chamber will be cleaned. Final results will be reported within 10 days of completion of all confirmatory testing."

As part of the 1996 refueling outage, the suppression chamber water level was lowered to the bottom of the suction strainers. Ninety percent of surface area of the four suction strainers was above water and available for visual inspection. The suction strainers were found to be in good condition and only incidental accumulation of debris. The total debris found would have covered approximately 0.04 square feet of the 20.64 square feet of total surface area of the four suction strainers. The remaining suction strainer surface area was free of debris and unobstructed. The minor quantity of debris found on the suction strainers consisted of pieces of tape material, paint chips, wood chips, glass wool material and string like material. The amount of material found was considered to be insignificant since it covered only 0.2% of the total suction strainer surface area. Monticello's design consists of 4 suction strainers connected to a common ring header. ECCS pump suction lines draw suction from the ring header. The design NPSH analyses for the ECCS pumps assume complete blockage of one suction strainer, i.e. 25% of the total suction strainer surface area.

In addition to the strainer inspection, water with materials suspended during the drain down of the suppression chamber was collected and the bottom of one bay of the suppression chamber was vacuumed to collect sediment and debris. Analysis of the water sample identified fibers, but all were microscopic in size and were not considered to represent fibrous material capable of contributing to plugging the one-eighth inch (1/8") diameter openings in the suction strainers. Vacuuming of one bay of the suppression chamber collected the sediment that has been accumulating since the last cleaning of the suppression chamber in 1993. Evaluation of the sediment collected determined that there was approximately 320 pounds (moist weight) of sediment in the entire suppression chamber and the sediment was accumulating at a rate of approximately 110 pounds per year. In addition to the sediment a piece of tape and a few paint chips were also vacuumed up in the one bay. The accumulation rate for sediment was very close to that reported by other BWR units and is not a concern since significant quantities of fibrous material were not identified as being present.

Evaluation of inspection, sampling and vacuuming results determined that the suppression chamber cleanliness was acceptable and additional cleaning was not required. The quantity

and type of materials identified in the suppression chamber would not be sufficient to block an appreciable portion of even one of the four suction strainers. Since the design basis for the ECCS pump NPSH analyses assume complete blockage of one suction strainer, the small amount of debris does not represent a challenge to any of the ECCS pumps drawing suction from the suppression chamber pool.