



Northern States Power Company

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April 19, 1994

NRCB 93-02 Supp 1

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

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

Initial (60 day) Response to NRC Bulletin 93-02 Supplement 1,
"Debris Plugging of Emergency Core Cooling Suction Strainers"

The purpose of this letter is to provide our initial (60 day) response to NRC Bulletin 93-02 Supplement 1, dated February 18, 1994. The bulletin describes staff concerns related to the potential loss of Emergency Core Cooling Systems (ECCS) due to the possibility of suction strainer plugging and requests that licensees implement certain interim actions until the issue is resolved.

Reporting Requirement No. 1 of the bulletin supplement required that all action addressees submit, within 60 days of the date of the bulletin supplement, a written report indicating whether or not the addressee intends to comply with the actions requested therein, a description of the planned actions, and the schedule for completing them.

We have completed our review and assessment of the bulletin and will commit to comply with the interim actions contained therein pending final resolution of this issue. Details concerning specific planned actions and the schedule for those actions are provided as Attachment 2 to this letter. As suggested in the bulletin, we are working with the BWROG to obtain a final resolution of this issue.

This letter (including Attachment 2) contains the following new NRC commitments:

1. We will comply with the interim actions requested in NRC Bulletin 93-02 Supplement 1 pending final resolution of this issue.
2. The EOP contingency procedures will be revised to add a caution statement regarding the use of containment sprays to address the potential for wash down of post-LOCA debris. This action will be completed by May 19, 1994.
3. A new procedure is being developed to formally document our normal inspection of the drywell for foreign materials prior to startup. This

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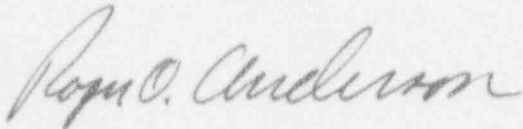
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procedure will be available for use by May 19, 1994.

4. Operator training on the new abnormal procedure ("ECCS Suction Control During LOCA") will be completed by May 19, 1994.

Please contact Terry Coss, Sr Licensing Engineer, at (612) 295-1449 if you require any additional information concerning this submittal.



Roger O Anderson
Director
Licensing and Management Issues

cc: Regional Administrator-III, NRC
NRR Project Manager, NRC
Resident Inspector, NRC
State of Minnesota,
Attn: Kris Sanda
J Silberg

Attachment (1): Affidavit to the US Nuclear Regulatory Commission

Attachment (2): Monticello 60 Day Response to NRCB 93-02 Supplement 1

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

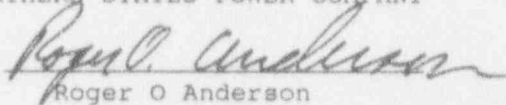
Initial (60 day) Response to NRC Bulletin 93-02 Supplement 1,
"Debris Plugging of Emergency Core Cooling Suction Strainers"

Northern States Power Company, a Minnesota corporation, hereby provides the 60 day response information required by NRC Bulletin 93-02 Supplement 1.

This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By

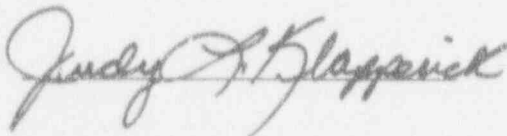


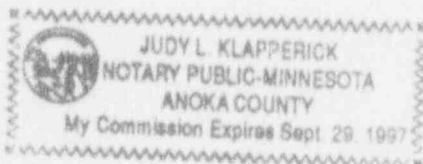
Roger O Anderson

Director

Licensing and Management Issues

On this 19 day of April 1994 before me a notary public in and for said County, personally appeared Roger O Anderson, Director, Licensing and Management Issues, 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.





Attachment 2

Monticello 60 Day Response to NRCB 93-02 Supplement 1

The following is the 60-day Monticello response to NRC Bulletin 93-02, Supplement 1.

Action Requested

"Provide training and briefings to apprise operators and other appropriate emergency response personnel of the information contained herein and in the referenced information notices regarding the potential for suppression pool strainer clogging."

Monticello Response

A shift seminar was held to inform Operations personnel and emergency response personnel of concerns with potential ECCS suction strainer plugging. This training included a requirement to read NRCB 93-02 and Supplement 1, as well as NRC Information Notices 88-28, 90-07, 92-71 and 93-34, to assure personnel were familiarized with industry events related to the suction strainer clogging concern.

Action Requested

"Assure that the emergency operating procedures (EOPs) make the operator aware of possible indications of ECCS strainer clogging and provide guidance on mitigation."

Monticello Response

A combination of existing plant procedures, training, and a new event-based abnormal operating procedure (titled "ECCS Suction Control During LOCA") satisfies this requested action. The new abnormal operating procedure, used in conjunction with the EOPs, gives the operator clear direction if clogging of the ECCS strainers is thought to have occurred. An abnormal procedure is the appropriate means to address strainer clogging because abnormal procedures are event based rather than symptom based as is the case for the EOPs. This abnormal procedure has been implemented and Operator training on the new procedure will be completed by May 19, 1994.

Action Requested

"Institute procedures and other measures to provide compensatory action to prevent, delay or mitigate a loss of available NPSH margin under LOCA conditions. Such measures should be consistent with providing the design basis emergency system functions for core and containment"

cooling. Actions to assure sufficient core and containment cooling may include:

- *"Reduction of flow (consistent with delivering the required ECCS flow) through the strainers to reduce head loss and extend the time for debris deposition."*

Monticello Response

Current procedures allow ECCS pumps to be throttled or secured if reactor water level reaches the desired band, and allow the operator to ignore NPSH limits if level is below the top of active fuel (TAF). The new abnormal operating procedure will instruct operators to throttle the in service ECCS division as needed to meet demand. These actions will help reduce entrainment of debris and deposition on the suction strainers, thus prolonging the operability of the in service ECCS division.

- *"Operator realignment of existing systems to allow back flushing of clogged strainers."*

Monticello Response

A review by Monticello Operations and Engineering personnel indicates there is no existing back flushing capability which would be effective following a LOCA.

- *"Operator realignment of existing systems to allow injection to the core from water sources other than the suppression pool."*

Monticello Response

Presently, the EOPs provide guidance regarding the allowed injection sources into the Reactor Pressure Vessel. Many of the available preferred injection systems have pump suction sources other than the suppression pool (e.g. CRD, condensate/feedwater, HPCI, RCIC, and Core Spray). HPCI, RCIC and Core Spray are capable of taking a suction from either the Condensate Storage Tanks (CSTs) or the suppression pool. The normal and preferred suction source for HPCI and RCIC is the CSTs. The EOPs address overriding automatic suction transfer signals when necessary so

that HPCI and RCIC remain aligned to the CSTs. The EOPs also allow manually aligning Core Spray suction to the CSTs. If these preferred injection systems are inadequate or unavailable, alternate injection systems would then be used for vessel level control. For example:

- RHR Service Water (via RHR-RHRSW cross tie),
- Fire Water (via Fire Water-RHR cross tie),
- Service Water (to Condenser via SW emergency makeup connection, then to Reactor Vessel via Condensate and Feedwater system)

Other possible methods that are not specifically addressed by the EOPs but are addressed by other plant procedures are:

- Service water to Condenser via SW emergency makeup connection, then Condensate and Feedwater to CSTs, then to Reactor Vessel using ECCS pumps,
- Fill CSTs from local fire hose stations, inject into Reactor Vessel using ECCS pumps,
- Fill CSTs using fire pumper truck, inject into reactor Vessel using ECCS pumps.

- *"Intermittent operation of the containment sprays, when possible, to reduce the transport of debris to the strainers."*

Monticello Response

The EOP contingency procedures will be revised to add a caution statement regarding the use of containment sprays to address the potential for wash down of post LOCA debris. This action will be completed by May 19, 1994.

- *"Other plant-specific measures which assure availability of sufficient core and containment cooling to meet the design basis of the plant."*

Monticello Response

Monticello has many normal and alternate methods of core cooling. These plant-specific methods are reflected in existing procedures, training, and the new abnormal operating procedure as discussed above. The following additional actions have already been taken

or will be taken by the indicated date:

- A precaution has been added to the RHR and Core Spray Operations Manuals to remind operators of the ECCS suction strainer plugging concern. The Operations Manual revisions have been issued and this action is complete.
- A new procedure is being developed to formally document our normal inspection of the drywell for foreign materials. The procedure will require the removal of such materials prior to sealing of the drywell and plant start-up. Review and approval of this procedure is nearly complete and it will be available for use by May 19, 1994.
- The procedure that controls and documents the internal inspection of the suppression chamber specifically addresses inspection of the suction strainers, including cleaning if required. The procedure, as written, adequately addresses the concerns of NRCB 93-02 Supplement 1 and does not require revision.
- The primary containment hatch closure procedure specifically calls for a cleanliness inspection of the torus interior prior to closure. The procedure, as written, adequately addresses the concerns of NRCB 93-02 Supplement 1 and does not require revision.