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September 20, 1994

NRC Gen Ltr 94-03

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

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

Response to NRC Request for Additional Information  
Concerning Core Shroud Inspections at Monticello

The purpose of this letter is to provide NSP's response to your letter of September 15, 1994 requesting additional information concerning the specific details of the Monticello core shroud inspections planned for the 1994 refueling outage.

As indicated in our August 23, 1994 response to Generic Letter 94-03, the timing of our 1994 refueling outage mandated that planning for the Monticello core shroud inspection be performed in advance of the BWRVIP guidance being available. As a result, an inspection plan was developed that was believed to be conservative with respect to the anticipated BWRVIP guidance, yet recognized the possibility of unforeseen problems with inspection equipment or interferences that might preclude 100% inspection of all accessible portions of welds H1 through H9.

Since that time, the NRC Staff's position that 100% of the accessible portions of these welds should be inspected to establish a baseline for future evaluation has been communicated to both NSP and the BWRVIP. In recognition of the Staff's position, NSP will ensure that 100% of the accessible portions of welds H1 through H9 are inspected during the 1994 Monticello refueling outage.

The 1994 Monticello refueling outage is in progress as of this writing and the core shroud inspection effort has begun. It is appropriate to update some of the information provided in our August 23, 1994 submittal with new information and developments that have occurred since that time:

- Due to last minute delays in developing and qualifying the Eddy Current inspection equipment, this technique will not be available to augment our UT inspection as was originally described in our August 23, 1994 submittal. As a substitute, we plan to utilize a recently qualified surface wave UT method, referred to as the creeping wave method. This alternate UT method will augment the conventional UT inspections by

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providing the ability to detect cracks that may exist on the near surface (i.e., the outside diameter) of the core shroud. Qualification information concerning this technique has been provided to the NRC personnel currently on-site for Staff review.

- Now that the reactor vessel head, steam dryer, and steam separator have been removed and inspection work has begun, additional interferences have been identified that reduce the accessible percentages of some core shroud welds below what was estimated in our August 23, 1994 submittal. Updated estimates of this information are provided as Attachment 1.

This letter contains the following new NRC commitment:

NSP will ensure that 100% of the accessible portions of welds H1 through H9 are inspected during the 1994 Monticello refueling outage.

Please contact Terry Coss, Sr Licensing Engineer, at (612) 295-1449 if you require any additional information concerning this submittal. As communicated previously, NSP would welcome the opportunity to meet with the NRC staff as needed to resolve any remaining issues or concerns regarding our plans for conducting the Monticello core shroud inspections during the 1994 refueling outage.



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 (w/o enclosures)  
J Silberg (w/o enclosures)

Attachment 1: 1994 RFO Core Shroud Inspection Plan

## Attachment 1

### 1994 RFO Core Shroud Inspection Plan

| WELD | ROUGH ESTIMATE (See Note 1) OF % OF <u>TOTAL</u> WELD LENGTH ACCESSIBLE FOR INSPECTION | ROUGH ESTIMATE (See Note 2) OF % OF <u>ACCESSIBLE</u> WELD TO BE INSPECTED DURING 1994 RFO | INSPECTION METHOD (See Note 3) |
|------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------|
| H1   | 25%                                                                                    | 100%                                                                                       | UT & UT <sub>cw</sub>          |
| H2   | 75%                                                                                    | 100%                                                                                       | UT & UT <sub>cw</sub>          |
| H3   | 75%                                                                                    | 100%                                                                                       | UT & UT <sub>cw</sub>          |
| H4   | 75%                                                                                    | 100%                                                                                       | UT & UT <sub>cw</sub>          |
| H5   | 75%                                                                                    | 100%                                                                                       | UT & UT <sub>cw</sub>          |
| H6   | 15% ( 0° + 180° Azimuths)                                                              | 100%                                                                                       | UT & UT <sub>cw</sub>          |
| H7   | 15% ( 0° + 180° Azimuths)                                                              | 100%                                                                                       | UT & UT <sub>cw</sub>          |
| H8   | 15% ( 0° + 180° Azimuths)                                                              | 100%                                                                                       | VISUAL                         |
| H9   | 15% ( 0° + 180° Azimuths)                                                              | 100%                                                                                       | VISUAL                         |

#### Notes:

1. The estimated % of total weld length accessible was developed based on current knowledge of known interferences. The actual length accessible could be reduced by unforeseen interferences or equipment limitations.
2. The estimated % of accessible weld to be inspected is based on the assumption that no unforeseen inspection equipment or operational problems occur that prevent full and optimum utilization of inspection resources. Inspection of welds H3, H4 and H5 will be given priority since the probability and consequences of cracking at these locations is considered more significant than at other locations.
3. "UT<sub>cw</sub>" refers to the use of the creeping wave ultrasonic surface inspection technique to detect near surface indications.