

**CORRESPONDENCE CONTINUED ON  
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THIS FOLDER DATED AFTER June 1981**



Northern States Power Company

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June 24, 1981

Director of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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

Resolution of Task A-31, "RHR Shutdown Requirements"

In our letter dated October 15, 1980 we stated that we would complete a detailed comparison of the Monticello facility to guide lines of Regulatory Guide 1.139. Following are the results of our comparison.

Redundant safety grade systems meeting the requirements of General Design Criteria 1 through 5 are available to bring the plant to cold shutdown within 36 hours and maintain cold shutdown using either on-site or off-site power. Availability of redundant systems assures that a single failure cannot prevent achieving these conditions.

Two methods available to depressurize and maintain coolant inventory are:

1. The High Pressure Coolant Injection System can accomplish this function by itself.
2. An alternate method is to depressurize using APRS and provide coolant using a low pressure coolant injection system (either LPCI or Core Spray).

Two methods available to maintain cold shutdown are:

1. The RHR Shutdown Cooling System can accomplish this function by itself.
2. An alternate method is to circulate water between the torus and the reactor vessel via a low pressure coolant injection system (Core Spray or LPCI) and main steam relief valves. Heat rejected to the torus is then removed using the torus cooling mode of RHR.

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The General Electric Company has completed evaluations, (see attached report) which show that:

1. Sufficient coolant inventory exists in the reactor to permit depressurizing (using APRS) so that low pressure systems can restore and maintain level. Initiation of APRS may be delayed up to ten minutes without exceeding design peak fuel temperature.
2. The reactor vessel stress report provides allowance for this event if the depressurization is terminated when low pressure systems gain control of level.
3. Requirements for decay heat removal can be met using relief valves (to return reactor coolant to the torus) in conjunction with low pressure injection systems and torus cooling mode of RHR.

This information indicates that the guidelines of Regulatory Guide 1.139 can be satisfied.



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Manager, Nuclear Support Services

LOM/bdz

cc: J G Keppler  
G Charnoff  
NRC Resident Inspector

Attachment