Docket No. 50-263

Northern States Power Company
ATTN: Mr. Arthur V. Dienhart
Vice President, Engineering
414 Nicollet Mall
Minneapolis, Minnesota 55401

## Gentlemen:

It has been of interest in the nuclear industry that in some reactors fueled with UO<sub>2</sub>, power changes may be followed by an increase in the iodine content in the primary coolant. Data taken at the Tsuruga power reactor from April to May 1970 indicate that following shutdown of the reactor, the I-131 concentration in the primary coolant increased by a factor of 10<sup>2</sup> to 10<sup>3</sup>. We understand that the increase of iodine content after a scram has also been observed at Monticello. We do not know the reason for this phenomenon. In order to gain an understanding of this anomaly, we would appreciate your taking some data at the Monticello reactor. The data would consist of taking primary coolant samples at a frequency consistent with changing operating parameters, i.e., variation in power level and primary coolant cleanup. Samples taken from just before shutdown until the iodine content in the primary system levels off would also be important.

We would like to discuss this matter with you at your convenience to get your views on taking these data.

Sincerely,

Original signed by Peter A. Morris

Peter A. Morris, Director Division of Reactor Licensing

cc: Mr. Gerald Charnoff
Shaw, Pittman, Potts,
Trowbridge & Madden
910 17th Street, N. W.
Washington, D. C. 20006

(See attached for distribution)

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