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H. D. Thornburg, Chief, Field Support and Enforcement Branch
Regulatory Operations, Headquarters

NORTHERN STATES POWER COMPANY (MONTICELLO)

As a result of our inspection 050-263/74-04, the licensee was cited for inadequate calibration of the liquid radwaste monitor. In a response letter dated June 11, 1974, the licensee maintains that quarterly surveillance tests utilizing a variety of external check sources satisfy the technical specification calibration requirement.

We do not disapprove of the practice of calibrating process liquid monitors with a liquid source and then routinely verifying that calibration with a secondary source. However, this method has limitations which appear not to have been properly considered at the Monticello plant.

One such limitation, which W. L. Fisher of this office discussed by telephone with L. Eliason of the Monticello plant on February 7, 1972, is the possibility of changes in energy response. The original calibration, performed in August 1970, utilized a cesium 137 solution and a cobalt 60 secondary source. To our knowledge, the relative response of the liquid radwaste effluent monitor to these radionuclides has not been measured since the original calibration.

As noted in our inspection report No. 73-06, check sources of various strengths and unidentified type have been used to verify the calibration. Differences among check sources could cause apparent calibration changes. For example, the measured response to a source on February 28, 1974, was fifty to seventy percent of the response to two different sources used during the original calibration. Whether this apparent calibration change is real or is the result of using an improper source, in our judgment the source check performed on February 28 cannot be considered a calibration.

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Recognizing that the Monticello Plant has released no radioactive effluents since January 4, 1972, Mr. Hueter of this office attempted on May 13, 1974, to resolve the calibration problem by obtaining from Mr. Larson a commitment to recalibrate the monitor before making any future releases. Mr. Larson declined to make such a commitment, so the citation was issued.

Having been unable to satisfactorily resolve this matter, we are referring it to Regulatory Operations Headquarters for further evaluation.

James M. Allan, Chief
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Protection Branch

cc: Mr. J. Keppler
Mr. G. Fiorelli
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RO Files