



Pacific Northwest Laboratories
P.O. Box 999
Richland, Washington U.S.A. 99352
Telephone (509) 376-5417
Telex 15-2874

March 25, 1982

L. G. Hulman, Chief
Accident Evaluation Branch
Division of Systems Integration
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Hulman:

FIN NO. B2323
TMI ACTION PLAN: III.D.3.4
CONTROL ROOM HABITABILITY EVALUATION
MONTICELLO NUCLEAR GENERATING PLANT
NORTHERN STATES POWER COMPANY
DOCKET NO. 50-263

Based upon PNL review of the information submitted by the licensee in response to NUREG-0660, NUREG-0737, and other NRC Guidance, the control room meets the requirements of SRP 2.2.1 - 2.2.2, 2.2.3, and 6.4; and therefore meets the requirements of General Design Criteria (GDC) 4 and 19. The conclusions are based on the present plant system and presumes implementation of effective modifications addressed by the licensee and incorporation of the recommendations of this evaluation.

The licensee study concluded that ammonia, hydrochloric acid and hydrogen sulfide represent the primary off-site threat, and chlorine represents the only on-site hazard to control room habitability. Section 7.0 RECOMMENDATIONS of the study indicates the need to monitor these chemicals and to provide control room isolation such that isolation time will allow at least two minutes until the Short Term Exposure Limit (STEL) values are reached. This indicates that control room personnel would need to don Self-Contained Breathing Apparati (SCBA) in order to maintain the control room. SCBA units should be available for each person required in the control room and, to meet single failure criteria, one additional unit is needed for every three SCBA's needed.

The DBA-radiation doses were based on HVAC system changes and modifications. The calculated values were within the GDC-19 guidelines. The monitoring for airborne radiation in the outside make-up air should be performed to enable the operators to make necessary decisions concerning HVAC operation modes.

Therefore, based on the submittal, and implementation of the proposed modifications, and incorporation of the above recommendations, we conclude that the control room habitability system is adequate to provide safe, habitable

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conditions within the control room under both normal and accident conditions, including loss-of-coolant accidents, and that occupancy can be maintained under accident conditions. Therefore, the applicant's proposed program meets the criteria identified in Item No. III.D.3.4, "Control Room Habitability" of NUREG-0737 and is, therefore, acceptable.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Dennis W. Murphy".

Dennis W. Murphy, Ph.D.
Senior Research Scientist
Dosimetry Technology Section

DWM/lrb

cc: H.E.P. Krug, NRC
T.R. Quay, NRC