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March 23, 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

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HEP Knyg

Dear Mr. Hulman:

FIN NO. B2323 TMI ACTION PLAN: III.D.3.4 CONTROL ROOM HABITABILITY EVALUATION R.E. GINNA NUCLEAR POWER PLANT ROCHESTER GAS & ELECTRIC CORPORATION DOCKET NO. 50-244

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 HVAC modifications addressed by the licensee and incorporation of the recommendations of this evaluation.

The licensee has identified two chemicals, ammonia and chlorine, which under present conditions could result in unacceptable concentrations in the control room. The licensee has committed to installing detectors for these two chemicals at the control building air intake (in the case of ammonia, location of the detector at the source is being investigated) which will automatically isolate the control room ventilation system in the event of high concentrations of these chemicals. Further, they are investigating other measures which would reduce the ammonia hazard including moving the ammonia tanks.

In normal circumstances, the cadre of control room operators is 3 and therefore the 6 self-contained breathing apparti available to the operators appear to meet the single failure criteria of Regulatory Guide 1.78.

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The licensee has proposed modifications to the control room HVAC System which include installation of a radiation detector near the ventilation air intake and restricting the air intake flow rate. Redundant dampers should be placed on air intake and exhaust ductwork which has direct access to the atmosphere to ensure that single failure criterion is met. The calculated doses to control room habitants are within the guidelines of GDC 19.

Therefore, based on the submittal, and the implementation of the proposed modifications, we conclude that the control room habitability system is adequate to provide safe, habitable 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 without personnel receiving radiation exposures in excess of 5 rem whole body, or its equivalent to any part of the body, for the duration of an accident. 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,

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

DWM/jkr

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