



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ROCHESTER GAS AND ELECTRIC CORPORATION

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION

The Safety Evaluation Report (NUREG-0916) related to the restart of Ginna after the steam generator tube rupture (SGTR) incident on January 25, 1982 and specifically license conditions 2.C(9) 1 through 20 required that Rochester Gas and Electric Corporation (RG&E) address 20 long-term items. Item 2.C(9) 4 was concerned with the development of snow sampling procedures. Item 2.C(9) 5 was concerned with procedural changes designed to reduce or prevent ventilation intake of contaminated air during unplanned releases.

By letter dated November 22, 1982, RG&E responded to the two aforementioned items. The staff reviewed Procedure No. SC-452, "Sampling Snow, Grass, Soil and Vegetation", Revision 19 to Procedure E-1.4, "Steam Generator Tube Rupture", and Revision 5 to Procedure O-6.10 "Operation With a Steam Generator Tube Leak Indication".

2.0 BACKGROUND

2.1 Snow Sampling

During the steam generator tube rupture (SGTR) incident at Ginna on January 25, 1982, the licensee collected more than 100 snow samples from the ground, vehicles, and from buildings. Because of the wide variability in area, depth, density of the snow samples collected, and possible cross contamination of samples, measured concentrations of radioactive materials in snow could not be used to determine deposition



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quantitatively. However, a comparison of the relative concentrations for snow collected onsite and offsite indicated the distribution of radioactive materials.

The staff concluded that if the survey teams had established and implemented a uniform snow sampling procedure, an accurate assessment of the deposition of radioactive material could have been made. Consequently RG&E committed that prior to December 1, 1982, procedures for snow sampling would be developed.

2.2 VENTIATION PROCEDURES

During the SGTR incident, air contaminated by steam and/or water droplets released from the affected steam generator safety valve was pulled into the auxillary building through the ventilation intake. This was discussed in the licensee and staff reports following the accident, and was the subject of a Commission question. The staff recommended that the licensee consider a procedural change calling for closure of the ventilation intake ports when indicated, and that it consider potential interior doses from the safety/relief valve source, doses caused by disturbing ventilation flow paths, and potential short-term reductions in the cooling of safety-related equipment rooms. The licensee's submittal included two procedure changes (Rev. 19 to Procedure E-1.4, Jan. 18, 1983; and Rev. 5 to Procedure O-6.10, Oct. 19, 1982). No evaluation of doses or the effects on equipment were included.

3.0 EVALUATION

3.1 SNOW SAMPLING

Procedure No. SC-452 has been reviewed and found to be acceptable

subject to the following change. Item 6.3.5 should be changed to read as follows: "Measure the depth of snow collected in inches." This has been discussed with the licensee and the change will be made.

3.2 VENTILATION PROCEDURES

Based on a review of the procedural changes, the Ginna Final Description and Safety Analysis Report (FDSAR) and conversations with licensee employees, the staff finds the dose-related aspects of this topic to be acceptable. The procedure changes do not affect offsite doses. Building air monitors and ventilation outlet radiation monitors are present to alert operators of radioactivity ingress, and the procedure changes will help to direct the operators to 1) consider that the steam generator safety or relief valves may be a source of radioactivity, and 2) close the appropriate ventilation intake. The staff has determined that closing a normal ventilation intake will not result in air flow disturbances that would cause radioactivity from other sources to affect plant workers.

The staff also evaluated the impact of closure of ventilation intake ports on cooling of safety-related equipment rooms. The licensee's procedure indicates that if the building air monitoring system indicates that airborne contamination is entering the building, the supply air handling units are to be deenergized. For the engineered safety features pump motors (residual heat removal, safety injection and containment spray pumps) and the charging pumps, which are located in the auxiliary building, the Ginna FDSAR states that separate cooling and ventilation systems independent of the normal system are provided for

cooling the pump rooms. These systems maintain the temperature at or below 104°F. which is the pump motor qualification temperature.

Based on its review of the FDSAR and the licensee's ventilation procedures, the staff concludes that closing the normal ventilation intakes during unplanned releases will not affect the operation of safety-related equipment.

4.0 CONCLUSIONS

The staff concludes that with the modification to Procedure No. SC-452 discussed in 3.1 of this evaluation the licensee has acceptability fulfilled the commitments in Items 2.C(9) 4 and 2.C(9) 5.

5.0 ACKNOWLEDGMENTS

The following individuals contributed to this evaluation:

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