Dr. Robert C. Mecredy
Vice President, Nuclear Operations
Rochester Gas and Electric Corporation
89 East Avenue
Rochester, NY 14649

June 26, 1998

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) RELATED TO THE ANALYSIS TO EVALUATE THE EFFECTS OF ONE SERVICE WATER PUMP AVAILABLE - POST-LOSS-OF-COOLANT ACCIDENT (TAC NO. M84947)

Dear Dr. Mecredy:

We have reinitiated the review of the subject issue and have determine the need for additional information to continue the review. The enclosed request for additional information (RAI) identifies the information needed.

In order to complete our review of this issue, we request a response within 30 days of your receipt of the enclosed RAI.

Sincerely,

Original Signed by:

Guy S. Vissing, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosure: Request for Additional Information

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 26, 1998

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Rochester Gas and Electric Corporation
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Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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cc:

Peter D. Drysdale, Sr. Resident Inspector
R.E. Ginna Plant
U.S. Nuclear Regulatory Commission
1503 Lake Road
Ontario, NY 14519

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. F. William Valentino, President
New York State Energy, Research,
and Development Authority
Corporate Plaza West
286 Washington Avenue Extension
Albany, NY 12203-6399

Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Lalw
120 Broadway
New York, NY 10271

Nicholas S. Reynolds
Winston & Strawn
1400 S Street N.W.
Washington, DC 20005-3502

Ms. Thelma Wideman, Director
Wayne County Emergency Management
Office
Wayne County Emergency Operations Center
7336 Route 31
Lyons, NY 14489

Ms. Mary Louise Meisenzahl
Administrator, Monroe County
Office of Emergency Preparedness
111 West Falls Road, Room 11
Rochester, NY 14620

Mr. Paul Eddy
New York State Department of
Public Service
3 Empire State Plaza, 10th Floor
Albany, NY 12223

REQUEST FOR ADDITIONAL INFORMATION

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATING TO SERVICE WATER SYSTEM

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1. The bounding maximum flow case for single service water (SW) pump operation has not been clearly defined. What is the maximum flow case for one SW pump?

   a. Describe the maximum flow case. This case is not limited to Chapter 15 events.

   b. State all assumptions and conditions used. Include in your discussion (but do not limit your discussion to) the consideration of pump degradation and ultimate heat sink temperature and level. State whether each condition or assumption used is conservative and why.

   c. What components are required (or desired) to be available?

   d. What are the controls to isolate all other components? Provide the procedure or reference.

   e. For each functioning component, what is the minimum flow required for adequate cooling?

   f. Demonstrate quantitatively that the flow through each functioning component, given the maximum load expected, is adequate for cooling.

2. Provide the vendor's pump curves for each SW pump and any vendor information regarding the operability range for each pump.

3. In your letter dated March 30, 1994, you state that the pump flowrate of 7632 gpm (a flowrate near the pump runout flow) is acceptable for short tem, non-continuous operation. Explain and/or quantify terms "non-continuous" and "short-term" as you expect to use the one SW pump in this case or in your most limiting case. Additionally, provide vendor concurrence regarding the pump's capabilities.

4. In the response to Question 1, Part 3, dated July 27, 1993, you state that SW flows assumed in the analysis were those itemized in updated final safety analysis report (UFSAR) Table 9.2-2. You further state that, with the exception of the containment recirculation fan coolers, the flows in this table can be achieved under either one or two pump operation.

   In the UFSAR Table 9.2-2, dated December 1992, the design-basis accident nominal flow for recirculation phase is 11, 635 gpm. This value can be lowered to 10, 269 gpm because of the isolation of the spent fuel pool heat exchanger by procedure ES-1.3, Revision 15, and

Enclosure

the removal of cooling to the SI and containment spray area coolers. Demonstrate how one SW pump can supply this amount or clarify your previous statements from July 27, 1993 and March 30, 1994 (from Question 3).

5. In the current UFSAR, you state that two component cooling water (CCW) heat exchangers are expected to receive SW flow in the post-LOCA recirculation phase. However, procedure ES-1.3, Revision 15, instructs operators to isolate one CCW heat exchanger and have both CCW pumps operating. Quantitatively compare the cases when both heat exchangers are operating and when one CCW heat exchanger with two CCW pumps is operating. Provide any necessary documentation to demonstrate adequate heat removal from the containment sump to the SW system.

6. State whether all the valves assumed to be operable in the analysis are accessible in the post-LOCA environment. Provide an explanation, if necessary, of your response.

7. In endnote "m" in the current UFSAR Table 9.2-2, dated December 1996, you state the number of SW pumps in operation while the plant is at power is dependent on lake temperature and pump header pressure. Provide the information or table that determines the number of pumps. If not done in Question 1.B, state the conditions used for Question 1.

8. Procedure ES-1.3, Revision 15, does not provide success criteria for adequate SW flow from one SW pump. Explain what controls are in place to ensure adequate SW flow.

An alternative to responding to these requests for additional information, the licensee may submit a technical specification change for three SW pump operation.