

June 9, 2004

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING R. E. GINNA
NUCLEAR POWER PLANT LICENSE AMENDMENT REQUEST RELATING TO
THE CONTROL ROOM EMERGENCY AIR TREATMENT SYSTEM
MODIFICATION (TAC NO. MB9123)

Dear Dr. Mecredy:

By letter dated May 21, 2003, as supplemented on December 1, 2003, (two letters), February 16, 2004, March 1, 2004, March 8, 2004, Rochester Gas & Electric Corporation submitted a request to revise the Ginna Station Improved Technical Specifications to reflect design modifications to the Control Room Emergency Air Treatment System, and elimination of the requirements for the Containment Post Accident Charcoal Filters. The proposed design modifications are based on the use of the alternate source term.

The Nuclear Regulatory Commission (NRC) staff has reviewed the information and based on our review, we have determined that additional information is required in order for the staff to complete its review. Enclosed is the NRC staff's request for additional information (RAI). This RAI was discussed with your staff on May 20, 2004, and it was agreed that your response would be provided 30 days from the date of this letter.

Sincerely,

/RA/

Robert Clark, Project Manager, Section 1
Project Directorate 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosure: RAI

cc w/encl: See next page

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R.E. Ginna Nuclear Power Plant

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REQUEST FOR ADDITIONAL INFORMATION

R. E. GINNA NUCLEAR POWER PLANT

CONTROL ROOM EMERGENCY AIR TREATMENT SYSTEM

Rochester Gas & Electric Corporation's proposed design modifications to the Control Room Emergency Air Treatment System, the Control Room Emergency Cooling System, and the Containment Post Accident Charcoal Filters are based on the full scope implementation of the alternate source term. The Nuclear Regulatory Commission staff has determined that the following additional information is needed to complete its review.

Meteorological Data

1. There are apparently a number of day-of-the-year and hour-of-the-day labeling discrepancies in the ARCON96 1999-2003 hourly meteorological data set. Examples of these day and hour labeling discrepancies for the year 1999 are provided in Table 1. Similar abnormalities exist for each of the other years in the data set. A precursory review of the data base also indicates that the data capture rate for each year is less than 100% (e.g., there are less than 8,760 hourly values for each year); yet, there are no hours in the data set that have been identified as having invalid data.

The day and hour labeling discrepancies should not have an impact on the ARCON96 results. However, in order to properly implement ARCON96's intended technical approach, the ARCON96 meteorological data input file should have one record for every hour in the year, even for those hours where there are no valid data. As explained in Subsection 3.8 of Revision 1 to NUREG/CR-6331, "Atmospheric Relative Concentrations in Building Wakes," ARCON96 uses time series of hourly meteorological data to properly account for the effects on wind direction persistence in reducing average relative concentrations for periods longer than 2 hours in duration. Missing data are treated by deleting hours with missing data from the calculation of the average relative concentrations used in determining the cumulative frequency distributions. Missing data tolerance criteria are used to determine when the number of hours of missing data make a specific average relative concentration unacceptable. The criterion for averaging 8 hours or less is zero missing data; for longer duration averages, up to 10% missing data is acceptable. Averages are not calculated for periods in which the number of hours of missing data exceed tolerance criteria.

2. There are nearly 700 consecutive hours in the 2003 data base (from day 197, hour 11 through day 227, hour 08) where nearly all of the lower level wind direction values are reported as "002." Likewise, there are 144 consecutive hours in the 2002 data base (from day 253, hour 08 through day 259, hour 07) where nearly all of the lower level wind direction values are also reported as "002." These are most likely invalid data values which should be reset to "999."

Enclosure

Control Room Atmospheric Dispersion Factors

3. There are apparently three ARCON96 files (CASE1A.log, CASE2A.log, and CASE2TA.log) related to determining control room CHI/Q values for a containment leakage release. Which one of these three runs is being considered for use in the dose assessment analyses and why?
4. There are apparently two ARCON96 files (CASE4A.log and CASE4TA.log) related to determining control room CHI/Q values for atmospheric relief valve releases. Which one of these two runs is being considered for use in the dose assessment analyses and why?
5. There are apparently two ARCON96 files (CASE5A.log and CASE6A.log) related to determining control room CHI/Q values for plant releases. Which one of these two runs is being considered for use in the dose assessment analyses and why?
6. There are apparently five ARCON96 files (Case7.log, Case7a.log, Case7b.log, Case7cc.log, and Case7dd.log) related to determining control room CHI/Q values for auxiliary building leakage releases. Which one of these five runs is being considered for use in the dose assessment analyses and why? Please also justify using the containment building area (1071 m²) as the basis for determining wake diffusion for this release point.

Site Boundary Atmospheric Dispersion Factors

7. Is it still your intent to use the current CHI/Q values presented in the Ginna Updated Final Safety Analysis Report for all the exclusion area boundary and low population zone dose calculations, except for the tornado missile and locked rotor accidents?

TABLE 1

Day-of-the-year and Hour-of-the-day Labeling Discrepancies
For 1999

Range of Data Labels				Missing Data Labels				Repeated Data Labels			
Date of First Data Record		Date of Last Data Record		Date of First Data Record		Date of Last Data Record		Date of First Data Record		Date of Last Data Record	
Day	Hour	Day	Hour	Day	Hour	Day	Hour	Day	Hour	Day	Hour
001	00	353	23	008	10	008	10	031	00	031	23
				056	01	056	04	058	00	058	23
				069	22	070	07	087	00	087	23
				072	15	072	15	116	00	116	23
				075	07	075	08	146	00	146	23
				088	07	088	08	175	00	175	23
				090	02	090	02	205	00	205	23
				090	06	091	06	235	00	235	23
				092	19	092	19	264	00	264	23
				093	11	093	13	294	07	294	09
				153	08	154	15	323	00	323	23
				267	04	267	04				
				295	12	295	12				
				317	18	317	18				
				323	10	323	12				
				327	05	327	06				
				329	12	329	12				
				329	16	329	16				
				343	23	344	06				
				345	02	345	06				
				345	08	345	13				