November 14, 2001

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

SUBJECT: POTENTIAL CONTAINMENT OVER-PRESSURE DUE TO MAIN STEAMLINE BREAK - R.E. GINNA NUCLEAR POWER PLANT (TAC NO. MB1948)

Dear Dr. Mecredy:

Rochester Gas & Electric Corporation (RG&E) submitted a letter dated May 10, 2001, informing the Nuclear Regulatory Commission (NRC) staff that RG&E received a notice from Westinghouse regarding a non-conservatism in the main steamline break (MSLB) accident analysis for the R.E Ginna Nuclear Power Plant (Ginna). The non-conservatism was due to failure to identify the most limiting single active failure which was the failure of the feedwater regulating valve to close on demand. As a result, the main feedwater system would not be isolated and containment pressure would exceed design pressure.

RG&E took corrective action to recalculate the MSLB accident analysis using cycle-specific reactivity feedback coefficients and limiting the use of the full range of currently analyzed average reactor coolant system temperature (T_{AVE}). As a result, the analyzed post-steamline break pressure remained below the design pressure (60 psig) and, therefore, the facility remains within its licensing basis for the remainder of the current operating cycle.

RG&E staff stated in the May 10, 2001, letter that it would be a significant benefit for Ginna to regain the operational flexibility relative to reactivity feedback coefficients and T_{AVE}. To accomplish this goal, RG&E staff proposed the option to increase the allowable pressure in containment following an MSLB from 60 psig to 69 psig. RG&E also stated that the containment design pressure, as defined in the Ginna Technical Specifications, would remain at 60 psig.

On May 29, 2001, representatives from RG&E met with the NRC staff in Rockville, Maryland to brief the NRC staff on the details of the proposed option, the timing of the analysis, and any required RG&E submittals (see ADAMS Accession No. ML011570545 for meeting minutes). The RG&E staff indicated that it was confident that increasing the allowable pressure to 69 psig is acceptable considering the testing of the containment at 69 psig and 72 psig in 1969 and 1996, respectively. The response (stress, strain, and displacement measurements) of the containment structure at 72 psig measured in 1996 was less than the response at 69 psig measured in 1969. RG&E attributed this difference to the fact that containment concrete structural strength increases with age.

Following the presentation, the NRC staff committed to review past history of other plants, such as St. Lucie, for examples that may apply and provide this information to the licensee. The licensee indicated that it would continue to review their options.

The staff's review of this issue for St. Lucie indicated that the licensee's corrective action was to fix the single failure problem associated with the main feedwater isolation valves. Other plants with similar problems are still evaluating the single failure issue or have provided a license amendment to justify their current design.

According to Section 3.1.1.2.5 of the Ginna Updated Final Safety Analysis Report, the containment design pressure was designed to be greater than the peak pressure due to that of a large break loss of coolant accident as well as a postulated main steam line break. The staff, therefore, concluded that in order to maintain the licensing basis for the reactor containment and to regain operational flexibility, RG&E should either fix the single failure problem associated with the main feedwater regulating valve as was done for St. Lucie or submit a license amendment application to change containment design pressure. If RG&E elects to take the latter approach, it should submit a summary of the containment structural analyses, test results, and any other relevant information to demonstrate that in the event of an MSLB, the containment will remain within its allowable limits. In addition, RG&E should also provide documentation that all electric equipment important to safety used to mitigate an MSLB inside containment are qualified for the new accident conditions.

If you have any questions or comments concerning this issue, please contact me via letter or telephone at (301) 415-2297.

Sincerely,

/RA/

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

Docket No. 50-244

cc: See next page

The staff's review of this issue for St. Lucie indicated that the licensee's corrective action was to fix the single failure problem associated with the main feedwater isolation valves. Other plants with similar problems are still evaluating the single failure issue or have provided a license amendment to justify their current design.

According to Section 3.1.1.2.5 of the Ginna Updated Final Safety Analysis Report, the containment design pressure was designed to be greater than the peak pressure due to that of a large break loss of coolant accident as well as a postulated main steam line break. The staff, therefore, concluded that in order to maintain the licensing basis for the reactor containment and to regain operational flexibility, RG&E should either fix the single failure problem associated with the main feedwater regulating valve as was done for St. Lucie or submit a license amendment application to change containment design pressure. If RG&E elects to take the latter approach, it should submit a summary of the containment structural analyses, test results, and any other relevant information to demonstrate that in the event of an MSLB, the containment will remain within its allowable limits. In addition, RG&E should also provide documentation that all electric equipment important to safety used to mitigate an MSLB inside containment are qualified for the new accident conditions.

If you have any questions or comments concerning this issue, please contact me via letter or telephone at (301) 415-2297.

Sincerely,

/RA/

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

Docket No. 50-244

cc: See next page

DISTRIBUTION:
PUBLIC
PDI-1 R/F
EImbro
JHannon
LRaghavan
RClark
SLittle
DTerao
JCalvo
EAdensam
WBeckner
RLobel
HAshar
BPlatchek, RI
OGC
ACRS

*see previous concurrence

ACCESSION NO.: ML012980032

OFFICE	PDI-1/PM	PDI-1/LA	SPLB/BC	EMCB/(A)BC	EEIB/BC	PD1-1/(A)SC	PD1-1/D
NAME	RClark	SLittle	JHannon*	DTerao*	JCalvo*	PST for LRaghavan	EAdensam*
DATE	11/13/01	11/13/01	10/31/01	10/29/01	10/29/01	11/13/01	11/7/01

OFFICIAL RECORD COPY

cc:

Ho K. Nieh, Jr., 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. William M. Flynn, 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 Law
120 Broadway
New York, NY 10271

Daniel F. Stenger
Ballard Spahr Andrews & Ingersoll, LLP
601 13th Street, NW, Suite 1000 South
Washington, DC 20005

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