

May 8, 2003

NOTE TO: FILE

FROM: Robert G. Schaaf, Project Manager
Environmental Section
License Renewal & Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF TELECONFERENCE WITH ROCHESTER GAS AND
ELECTRIC CORPORATION REGARDING THE STAFF'S REVIEW OF THE
R.E. GINNA LICENSE RENEWAL APPLICATION (TAC NO. MB5225)

Rochester Gas and Electric Corporation (RG&E) provided an assessment of severe accident mitigation alternatives (SAMAs) as part of its environmental report (ER) submitted on July 30, 2002, in support of its request for renewal of the operating license for the Ginna Nuclear Power Plant (Ginna). The U.S. Nuclear Regulatory Commission (NRC) staff issued a request for additional information (RAI) regarding RG&E's SAMA evaluation on December 23, 2002. RG&E provided its response to the staff's RAI by letters dated January 31 and February 28, 2003.

On Friday, March 28, 2003, the staff and its contractor, Information Systems Laboratory (ISL), conducted a teleconference with representatives of RG&E and its contractor, Constellation Energy Group (Constellation), to clarify some of the information provided by RG&E in its responses to the staff's RAI. RG&E submitted additional information to address a number of the clarification requests on April 4, 2003. Additional clarification requests that were resolved during the teleconference are discussed below.

The staff noted that RG&E's response to RAI question 2b identified one Individual Plant Examination (IPE) vulnerability that was determined to require no action due to overly conservative assumptions in the IPE and was not addressed in the SAMA evaluation. The staff requested clarification regarding the overly conservative assumptions, changes made to the Ginna probabilistic safety assessment (PSA) to reduce the conservatism, and why no SAMAs were considered to address the IPE vulnerability. RG&E stated that this vulnerability was related to ventilation for the preferred auxiliary feedwater (AFW) pumps located in the basement of the intermediate building. RG&E explained that there are two methods of accomplishing ventilation within the intermediate building: (1) passive cooling by natural circulation via Fire Door F36, and (2) forced ventilation by the intermediate building exhaust fans. Because only one train of the exhaust fans is powered by the emergency diesel generators, the three AFW pumps rely on the passive cooling capability in a station blackout (SBO) event, in which the diesel generator is inoperable. RG&E stated that a re-analysis of the building's ventilation determined that no active cooling is required for AFW; therefore, this item is no longer an item of concern.

The staff noted that RG&E's response to RAI 2b also stated that all vulnerabilities and items of concern from the IPEEE were resolved, except for seismically induced flooding resulting from the failure of the Reactor Makeup Water Tank (RMWT) and the Monitor Tank. RG&E's response stated that because it is evaluating potential modifications to address this issue, it was not addressed further in the SAMA analysis. In response to RAI 4d, RG&E stated that a variety of hardware modifications are being evaluated to resolve the issue. The staff requested clarification regarding the potential modifications under consideration, estimated costs, and benefits. RG&E indicated that a modification to address this contributor is planned for implementation in 2005. Various design options are being evaluated, including installation of a leak-tight, removable curb around the RHR sub-basement entrance to a level that would neither pose a flooding danger to the safety injection pumps nor allow the RMWT and Monitor Tank contents to enter the sub-basement. This item has been entered into the plant change request system and is being tracked in the Commitment and Action Tracking System (CATS) as item 10602.

The staff noted that RG&E stated in its response to RAI 2a, that the loss of spent fuel pool cooling and fuel handling accidents were removed from the Ginna PSA model core damage frequency (CDF) and analyzed separately. The staff requested information regarding the current assessment of these accident sequences, and whether any SAMAs were evaluated for these accidents. RG&E stated that the loss of spent fuel pool cooling and fuel handling accidents were removed and analyzed separately, since they do not lead to core damage. RG&E stated that this change was made in response to comments provided in the peer review of the Ginna PSA that indicated inclusion of these sequences was overly conservative.

The staff noted that RG&E stated in response to RAI 6 that the scrubbing factors contained within the large early release frequency (LERF) cutset file were set to unity (i.e., no scrubbing). This resulted in the maximum attainable benefit (MAB) increasing from \$992,000 to \$1,928,000. The staff requested the impact of this increase on candidate SAMAs previously screened out due to exceeding the MAB. RG&E stated that the increase in MAB did not result in the identification of any additional SAMAs because the initial screening removed SAMAs that were estimated to cost \$2M or more.

The staff noted that Table 2.12 of NUREG-1742, Perspectives Gained From the Individual Plant Examination of External Events (IPEEE) Program states that the two reactor coolant pump oil collecting tanks in the containment were not reviewed during the seismic walkdown because the containment was inaccessible. The staff requested the current status of this review. RG&E stated that this issue was resolved in the Ginna IPEEE fire analysis, as documented in an RG&E letter to the NRC dated July 30, 1999.

The staff identified cost-beneficial SAMAs proposed by previous license renewal applicants and inquired as to whether these SAMAs would be cost-beneficial at Ginna. Specifically, SAMAs identified included the use of a portable generator to power steam generator level instrumentation, and improvements to the reactor protection system logic to reduce the likelihood of failure of two 125 VAC instrument buses causing the spurious opening of the pressurizer power operated relief valves. RG&E stated that such vulnerabilities did not exist at

Ginna due to design differences, or because sufficient battery capacity exists. Although Ginna is a 4-hour SBO coping plant, the plant batteries were replaced in a previous outage with batteries calculated to provide 8 hours of coping capacity.

The following individuals participated in the teleconference:

Robert Schaaf, NRC
Robert Palla, NRC
James Meyer, ISL
Kimberly Green, ISL

George Wrobel, RG&E
Ray Gallucci, RG&E
Julea Hovey, Constellation

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