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ACCESSION NBR:8208230274 DOC.DATE: 82/08/18 NOTARIZED: NO DOCKET # FACIL:50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244 AUTHOR AFFILIATION AUTH.NAME ACRS - Advisory Committee on Reactor Safeguards SHEWMON, P. RECIP.NAME RECIPIENT AFFILIATION PALLADINO, N.J. Commissioners SUBJECT: Discusses ACRS 267th meeting on 820708-10 ne SEP, Phase II review.Stated objectives achieved & NRC actions in SEP assessment acceptable. DISTRIBUTION CODE; YA01S COPIES RECEIVED:LTR _ ENCL _ SIZE: ____

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UNITED STATES NUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS WASHINGTON, D. C. 20555

ACR5-R-0987

August 18, 1982

Honorable Nunzio J. Palladino, Chairman U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dear Dr. Palladino:

SUBJECT: ACRS REPORT ON THE SYSTEMATIC EVALUATION PROGRAM REVIEW OF THE R. E. GINNA NUCLEAR POWER PLANT

During its 267th meeting, July 8-10, 1982, the ACRS reviewed the results of the Systematic Evaluation Program, Phase II, as it has been applied to the R. E. Ginna Nuclear Power Plant. These matters were also discussed during a Subcommittee meeting in Washington, D.C. on June 3, 1982. During our reviews, we had the benefit of discussions with representatives of the Rochester Gas and Electric Corporation (Licensee) and the NRC Staff. We also had the benefit of the documents listed below. We completed our report regarding this matter during the 268th meeting, August 12-14, 1982.

Our first review of Phase II of the Systematic Evaluation Program (SEP) was carried out in connection with its application to the Palisades Plant. Our findings from that review were addressed in a letter to you dated May 11, 1982. Our continuing review of the SEP, in relation to the Ginna Plant, has resulted in no changes in our previous findings and comments as they relate to the SEP program in general'. Mr. William J. Dircks responded to some of those comments in a letter dated June 7, 1982. We find his response acceptable.

The remainder of this letter relates specifically to the SEP review of the Ginna Plant. ·

Of the 137 topics to be addressed in the SEP, 21 were not applicable to the Ginna Plant, and 24 were deleted from the review because they were being reviewed generically under either the Unresolved Safety Issues (USI) program or the TMI Action Plan. Of the 92 topics addressed in the Ginna Plant review, 58 were found to meet current NRC criteria or to be acceptable on another defined basis. Seven topics were later added to this category as a result of modifications made or committed to by the Licensee during the review. We have reviewed the assessments and conclusions of the NRC Staff relating to these topics and have found them appropriate.

For all or part of the remaining 27 SEP topics, the Ginna Plant was found not to meet current criteria. These topics were addressed by the Integrated Assessment and have been resolved to various degrees and in various ways.

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Honorable Nunzio J. Palladino

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The Integrated Assessment has not yet been completed for portions of seven topics; for which additional information must be provided by the Licensee. This information includes the results of studies, calculations, and evaluations that are required by the NRC Staff for its assessments and decisions. Six of these topics relate to structural design and the Licensee has proposed a coordinated program for their resolution. The NRC Staff has agreed to this program. The resolution of these topics will be addressed by the NRC Staff in a supplemental report that will be available for review in connection with the application for a Full-Term Operating License (FTOL) for the Ginna Plant.

For portions of ten topics included in the Integrated Assessment, the NRC Staff concluded that no backfit is required. We concur.

For the remaining topics for which the assessment has been completed, the NRC Staff requires the addition or modification of structures or equipment, or the development or modification of procedures or technical specifications. Except for the three topics discussed below, the Licensee has agreed to the resolution required by the NRC Staff.

One area of disagreement relates to the groundwater level and the associated hydrostatic pressures that the structures below grade must withstand. The plant was designed assuming a groundwater elevation of 250 ft. Although limited observations from borings have shown the groundwater to be near that elevation, there has been no program of continuing measurement to demonstrate that the level does not exceed 250 ft. during periods of prolonged precipitation. In the absence of such a program, the NRC Staff has determined that the effects of groundwater should be evaluated for an assumed elevation at the surface of the ground, approximately 270 ft. for the structures of interest. We believe that such an evaluation should be made. We recommend that acceptability of the structures be based on "no loss of function" and not on arbitrary limits of stresses computed using linear-elastic assumptions.

A second topic for which resolution has not been reached relates to flooding of the site by Deer Creek, a small stream flowing into Lake Ontario in the vicinity of the plant. Flooding from Deer Creek was not considered when the plant was originally licensed; Lake Ontario was the only source of flooding considered by the Applicant and the AEC Staff at that time. Neither the NRC Staff nor the Licensee consider this question to be resolved, nor do we. Since flooding is an important matter that may have implications for other operating plants, we plan to continue our review of flood criteria, both for the Ginna Plant and on a more generic basis, and to provide our comments or recommendations when that review is completed.



Honorable Nunzio J. Palladino

August 18, -1982

The third topic for which agreement has not yet been reached concerns several containment isolation valves that do not satisfy the requirements of General Design Criterion No. 57. In view of the generally acceptable and well-considered manner in which the NRC Staff has evaluated the numerous other topics related to isolation valves, we believe that this topic should be resolved in a manner satisfactory to the NRC Staff.

As was the case for the Palisades Plant, a plant-specific Probabilistic Risk Assessment (PRA) was not available for the Ginna Plant. In its absence, the NRC Staff made careful and conservative use of a limited and essentially qualitative risk assessment, based in part on the Reactor Safety Study, for a three-loop Westinghouse plant and in part on the Interim Reliability Evaluation Program PRA for the Crystal River Plant, a two-loop Babcock & Wilcox plant. From even this limited use of a PRA, it is clear that many of the decisions involved in the SEP could be made much more rationally if plant-specific PRAs were available.

Our conclusions can be summarized as follows:

- 1. The SEP has been carried out in such a manner that the stated objectives have been achieved for the most part for the Ginna Plant and should be achieved for the remaining plants in Phase II of the program.
- 2. The actions taken thus far by the NRC Staff in its SEP assessment of the Ginna Nuclear Power Plant are acceptable.
- 3. The ACRS will defer its review of the FTOL for the Ginna Plant until the NRC Staff has completed its actions on the remaining SEP topics and the USI and TMI Action Plan items.

Sincerely,

P. Shewmon Chairman

References:

- U.S. NRC Draft Report, "Integrated Plant Safety Assessment, Systematic Evaluation Program, R. E. Ginna Nuclear Power Plant," NUREG-0821, dated May 1982.
- 2. NRC Staff Consultants' Review of the R. E. Ginna Nuclear Power Plant
- Integrated Plant Safety Assessment Report including Consultant Reports from R. J. Budnitz, S. H. Bush, J. M. Hendrie, H. S. Isbin, and Z. Zudans.
- 3. R. E. Ginna SEP Topic, Safety Evaluation Reports, Volumes 1 through 3, dated May, 1982.
- U. S. Nuclear Regulatory Commission, "Clarification of TMI Action Plan Requirements," NUREG-0737, dated November 1980

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