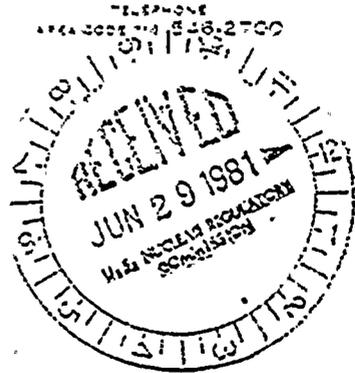




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JOHN E. MAIER
V.P. PRESIDENT

June 23, 1981



Director of Nuclear Reactor Regulation
Attention: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: SEP Topics V-10.B, V-11.A, V-11.B, VI-7.C.1,
VII-3, and VIII-2, R.E. Ginna Nuclear Power Plant
Docket No. 50-244

References:

- (1) Letter from Dennis M. Crutchfield, NRC, to John E. Maier, RGE, SEP Topics, V-10.B, V-11.B, and VII-3 (Safe Shutdown Systems Report), May 13, 1981.
- (2) Letter from Dennis M. Crutchfield, NRC, to John E. Maier, RGE, SEP Topics V-11.A, V-11.B, and VI-7.C.1, dated April 24, 1981.
- (3) Letter from Dennis M. Crutchfield, NRC, to John E. Maier, RGE, SEP Topics VII-3 and VIII-2, dated April 2, 1981.

Dear Mr. Crutchfield:

This letter is in response to the SEP topic assessments provided in the three above-referenced letters. Due to the intimate relationship of the "Safe Shutdown" topics V-10.B, V-11.A, V-11.B and VII-3 addressed in these three letters, all of our comments are provided concurrently in the three attached responses. This should aid the inclusion of our comments into the NRC's "SEP Integrated Assessment".

Very truly yours,

John E. Maier
John E. Maier

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Attachments

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Attachment 1: RG&E responses to NRC Assessment of SEP Topics
V-10.B, RHR System Reliability, V-11.B, RHR Interlock
Requirements, and VII-3, Systems Required for Safe
Shutdown (Safe Shutdown Systems report), May 13, 1981.

1. In RG&E's January 13, 1981 response to the NRC's November 14, 1980 "Safe Shutdown Systems" assessment, a number of comments were made which have not been incorporated into Revision 2 of this assessment, transmitted by letter dated May 13, 1981. We feel these comments were valid, and should be incorporated. For continuity, these comments will be listed below (with their original comment numbers):

- "1. On page 5, Piping System Passive Failures, the NRC assumes piping system passive failures"...beyond those normally postulated by the staff, e.g., the catastrophic failure of moderate energy systems...". Although it is shown that safe shutdown following such an event could be achieved, it is not considered that such an evaluation should even be made. As noted by the staff, it is clearly beyond a reasonable design basis. It is thus recommended that this paragraph be deleted from the evaluation. Subsequent evaluations to this "criterion", such as those related to the CCW system on page 22 and 23, should also be deleted.

11. In paragraph g on page 66, it is noted that, when applying the power diversity requirements of BTP ASB 10-1 in event of an SSE, no means to supply feed to the steam generators exists. It was determined that this was acceptable, based on low likelihood of occurrence.

This conclusion is correct; however, since BPT ASB 10-1 does not consider an SSE in conjunction with the loss of all A.C. power, there is no need to even make the evaluation. The comparisons in the SEP program should be to current criteria, rather than to arguable extrapolations. Reference to loss of all A.C. power in conjunction with an SSE should thus be deleted from this paragraph.

12. On page A-4, it is noted that additional systems are required to achieve cold shutdown for a PWR than for a BWR because of a difference in the definition of cold shutdown. This does not appear to be a reasonable basis. System requirements should be based on specific safety reasons. The NRC should be consistent in its requirements for cold shutdown, or provide a technical basis for any differences."

Even without this provision, it is difficult to comprehend how the Ginna arrangement could result in an "Event V". By administrative procedure, the RHR valves are key-locked closed, with power removed. Further, interlocks are provided for the inboard RHR valves. Thus, for an "Event V" to occur would require the:

- 1) failure of the administrative procedure requiring power lock-out (at the breaker),
- 2) failure of the administrative procedure governing operation of the valve at power,
- 3) failure of the inboard isolation valve,
- 4) failure of the relief valve (RV 203) which has a capacity of 70,000 lb/hr at its 600 psig setpoint, to relieve the leakage past the inboard RHR valve.

This set of failures is considered very remote. When coupled with the fact that the RHR valve design prevents opening of the valves against a greater than 500 psi differential pressure, it is RG&E's conclusion that the possibility of an intersystem LOCA should not be a credible design basis. No additional modifications, such as diverse interlocks for the outboard valves, are warranted.

4. Staff position 5 states that "the operating procedures for the Ginna plant should be modified to direct the operator to cooldown and depressurize to RHR initiation parameters within 36 hours whenever the Service Water System is used for steam generator feedwater..." This position is based on the reference BNL-NUREG-28147, "Impure Water in Steam Generators and Isolation Condensers." We have had this report reviewed by NWT Corporation. NWT-167, "Use of Lake Ontario Water in Steam Generator During Hot Shutdown" (attached) concludes that, "although not recommended from the standpoint of maximizing component life, and operation for periods up to several days is not expected to result in any significant cracking or in deterioration of steam generator integrity."

RG&E therefore concludes that a specific directive to cool down and depressurize to RHR initiation conditions is not warranted, and should not be included in a procedure. The capability to do this does exist, however, and could be used if determined to be necessary at the time.

Attachment 2: RG&E responses to NRC letter of April 24, 1981 regarding SEP Topics V-11.A, "Isolation of High and Low Pressure Systems", V-11.B, "RHR Interlock Requirements", and VI-7.C.1, "Independence of Redundant Onsite Power Systems".

1. The Safety Evaluation for SEP Topic V-11.A, "Requirements for Isolation of High and Low Pressure Systems", specifies that the outboard RHR valves should have diverse interlocks to prevent opening when the RCS pressure is greater than RHR system design pressure.

RG&E rationale for not providing these additional interlocks is provided in comment 3 of Attachment 1 of this transmittal.

2. The safety evaluation also required that interlocks be installed on the CVCS suction valves (200A, 200B, 202), to prevent a possible overpressurization of the CVCS letdown line outside containment. RG&E has noted in our March 27, 1981 letter on this SEP Topic that a relief valve (RV 203), with a capacity greater than the combined capacity of the three orifices, would relieve the pressure buildup caused by closure of the containment isolation valve 371. No overpressurization of the CVCS would thus be expected.

RG&E has also evaluated the potential consequences of such an overpressurization event, with a subsequent small LOCA outside containment, and determined that no unacceptable consequences would result. This break would be a small LCCA outside containment (maximum flow of 140 gpm), and would be terminated by closure of valves 200A, 200B, and 202 either by operator action or automatically by low pressurizer level. Radiological consequences would be minimal, since no fuel damage would result. This event is specifically evaluated by SEP Topic XV-16, "Radiological Consequences of Failure of Small Lines Carrying Primary Coolant Outside Containment." RG&E has provided information concerning this topic by letter dated June 18, 1980 from L. D. White Jr. to Mr. Dennis M. Crutchfield.

The RG&E conclusion is that, based on the availability of RV 203 to prevent overpressurization, together with the lack of unacceptable consequences due to an overpressurization, no interlocks or other modifications are required for the CVCS suction valves.

3. The safety evaluation further states that position indication is required on the CVCS discharge check valves. As stated in our March 27, 1981 letter on SEP Topic V-11.A, we do not believe that this line should be classified as a low pressure

Attachment 3: RG&E responses to NRC letter of April 2, 1981, concerning SEP Topics VII-3, "Electrical, Instrumentation, and Control Feature of Systems Required for Safe Shutdown", and VIII-2, "Diesel Generators".

It appears that all comments provided by RG&E in our January 23, 1981 and January 30, 1981 letters concerning these topics have been properly incorporated.

Based on the resolution of all open items, and the removal of diesel generator testing from SEP Topic VIII-2, RG&E concludes that both of these topics are complete, with no outstanding issues to be carried into the Integrated Assessment.