

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of

Rochester Gas and Electric Corporation  
(R.E. Ginna Nuclear Power Plant)

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Docket No. 50-244

APPLICATION FOR AMENDMENT  
TO OPERATING LICENSE

Pursuant to Section 50.90 of the regulations of the U.S. Nuclear Regulatory Commission (NRC), Rochester Gas and Electric Corporation (RG&E), holder of Facility Operating License No. DPR-18, hereby requests that the Technical Specifications set forth in Appendix A to that license, be amended. This request for change is to allow testing of certain Emergency Core Cooling System motor-operated valves in MODE 4 which currently requires entry into Limiting Condition for Operation 3.0.3.

A description of the amendment request, necessary background information, justification of the requested changes, a no significant hazards and environmental considerations are provided in Attachment I. This evaluation demonstrates that the proposed changes do not involve a significant change in the types or a significant increase in the amounts of effluents or any change in the authorized power level of the facility. The proposed changes also do not involve a significant hazards consideration.

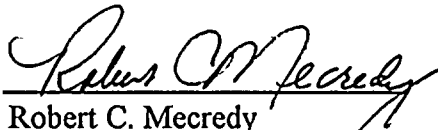
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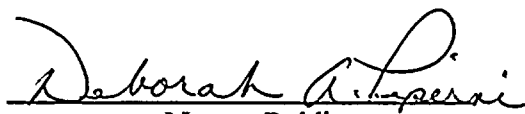
A marked up copy of the Ginna Station Technical Specifications which show the requested changes is set forth in Attachment II. The proposed revised technical specifications are provided in Attachment III. Various references are provided in Attachment IV.

WHEREFORE, Applicant respectfully requests that Facility Operating License No. DPR-18, and Attachment A to that license, be amended in the form attached hereto as Attachment III.

Rochester Gas and Electric Corporation

By   
Robert C. Mecredy  
Vice President  
Nuclear Operations

Subscribed and sworn to before me  
on this 19th day of August 1997.

  
Notary Public

DEBORAH A. PIPERNI  
Notary Public in the State of New York  
ONTARIO COUNTY  
Commission Expires Nov. 23, 1997.

## Attachment I

### R.E. Ginna Nuclear Power Plant

#### License Amendment Request Testing of Emergency Core Cooling System (ECCS) Valves

This attachment provides a description of the license amendment request (LAR) and the necessary justifications to support the addition of a note to Improved Technical Specifications (ITS) with respect to testing of ECCS motor-operated valves in MODE 4. This attachment is divided into six sections as follows. Section A summarizes all changes to the Ginna Station ITS while Section B provides the background and history associated with the changes being requested. Section C provides the justifications associated with these proposed changes. A no significant hazards consideration evaluation and environmental consideration of the requested changes to the Ginna Station Technical Specifications are provided in Sections D and E, respectively. Section F lists all references used in this attachment.

#### A. DESCRIPTION OF TECHNICAL SPECIFICATION CHANGES

This LAR proposes to revise the Ginna Station ITS as summarized below and shown in Attachment II.

##### 1. LCO 3.6.6

A note is added to the LCO which allows the containment spray (CS) pumps to be placed in pull-stop, and motor-operated valves (MOVs) 896A and 896B to have their DC control power restored with the valves placed in the closed position in order to perform interlock and valve testing of MOVs 857A, 857B, and 857C. A time limit of 2 hours is placed on this configuration for each test.

## B. BACKGROUND

On February 13, 1996, the NRC issued Amendment No. 61 to the Ginna Station technical specifications. This amendment replaced the existing Ginna Station technical specifications in their entirety with ITS that were based on NUREG-1431. Included within the ITS were many new surveillance requirements. Specifically, a new surveillance requirement was added to verify that DC control power was removed from the MOVs which isolate the refueling water storage tank (RWST) from the safety injection (SI) and CS systems in MODEs 1, 2, 3, and 4 (see SR 3.5.2.3 and SR 3.6.6.1). Previously, Technical Specifications only required that DC control power be removed above 350°F or MODEs 1, 2, and 3 (see Attachment IV). The addition of MODE 4 was specified within the ITS to ensure that there were no potential single failures which would isolate both CS pumps from the RWST when the CS pumps were required to be OPERABLE. However, the addition of MODE 4 has since been determined to cause testing related problems as described below.

The ITS bases for LCO 3.5.2 describes the two subsystems (SI and residual heat removal (RHR)) which make up the Ginna Station ECCS (see Attachment IV). A simplified diagram of the ECCS is also provided in ITS Bases Figure 3.5.2-1 (see Attachment IV). As shown on the figure, three MOVs (857A, 857B, and 857C) provide the capability for supplying the high-head SI pumps with water from the containment sump via the RHR system during the recirculation phase of an accident. As described in the ITS bases for LCO 3.5.2, MOVs 857A, 857B, and 857C are interlocked with two sets of MOVs which: (1) supply the SI and CS systems from the RWST (896A and 896B), and (2) provide a recirculation path back to the RWST for the SI system (897 and 898). This interlock disables opening of MOV 857A, 857B, and 857C unless one MOV in both the RWST supply and the recirculation return path is closed to prevent contaminated sump water from entering the vented RWST. Consequently, to test this interlock, MOV 896A or 896B must be closed. Though not discussed in the ITS bases, these three MOVs are also interlocked with MOVs 850A and 850B which provide suction for RHR from the containment sump such that MOV 850A or 850B must be open in order to open MOVs 857A, 857B, and 857C.

In addition to interlock testing, MOVs 857A, 857B, and 857C are subject to testing in accordance with the Ginna Station MOV Program (e.g., differential pressure testing). This testing requires that MOVs 896A and 896B be throttled closed to prevent NPSH concerns for the RHR pumps since the RHR system boundaries are expanded.

The purpose of this LAR is to provide a note to specifically allow this interlock and valve testing in MODE 4 without requiring entry into LCO 3.0.3 which is typically considered a condition prohibited by technical specifications and requires NRC notification. No modifications are required in order to implement this LAR.

## C. JUSTIFICATION OF CHANGES

This section provides the justification for all changes described in Section A above and shown in Attachment II. The justifications are organized based on whether the change is: more restrictive (M), less restrictive (L), administrative (A), or the requirement is relocated (R). The justifications listed below are also referenced in the technical specification(s) which are affected (see Attachment II). It is noted that there are only less restrictive changes associated with this LAR.

### C.1 Less Restrictive

1. A note is provided for LCO 3.6.6 which allows the CS pumps to be placed in pull-stop, and MOVs 896A and 896B to have their DC control power restored with the valves placed in the closed position in order to perform interlock and valve testing of MOVs 857A, 857B, and 857C. A time limit of 2 hours is placed on this configuration for each test. As described in Section B of this attachment, the purpose of this note is to allow testing of MOVs 857A, 857B, and 857C which is specifically required to demonstrate their OPERABILITY (i.e., the valves would have to be declared inoperable if they were not allowed to be tested). This testing is required to be performed in MODE 4 for the following reasons:
  - a. *Testing of the valve interlocks renders RHR incapable of providing core cooling.* In order to perform the necessary interlock testing, RHR must be isolated from the reactor coolant system (RCS) in order to prevent dumping RCS inventory into the containment sump via MOVs 850A and 850B. Isolating both the RHR suction and injection paths (i.e., MOVs 700, 701, 720, and 721) renders RHR inoperable with respect to providing core cooling and circulation. In MODES 5 and 6, RHR is the preferred, if not the only, system available to provide core cooling.
  - b. *Differential pressure testing requirements.* In order to perform the necessary testing, a differential pressure of approximately 200 psig is required to be produced across MOVs 857A, 857B, and 857C. This is best performed when the RHR system is taking suction from the RWST as would be the case in MODE 4 after the transition from RHR to steam generator cooling.

As described in Section B of this attachment, performance of the above tests in MODE 4 requires that MOVs 896A and 896B be throttled or completely closed. Based on previous plant experience, it is expected that each test can be accomplished within 2 hours. Placing a CS pump in pull-stop and allowing MOVs 896A and 896B to be closed is acceptable for the following reasons:



- a. There is no design basis accident which requires the function of CS in MODE 4. The CS system is only required by the ITS in MODE 4 since the RCS is typically pressurized which creates the relatively small potential for pipe breaks and leakage which would require containment cooling. However, containment leakage detection systems are required to be in service to detect these leaks very rapidly (see LCO 3.4.15) along with containment fan coolers. Also, the time period for testing is restricted to 2 hours per test which is a very small percentage of the time the plant is in MODEs 1 through 4.
- b. There is no design basis accident which requires the function of the ECCS in MODE 4. The bases for LCO 3.5.3, "ECCS - MODE 4", specifically state this and define OPERABILITY based on the capability of reconfiguring the system to the injection mode within 10 minutes. Since testing personnel will be in direct communication with the control room for the portion of the test which requires MOV 896A and 896B to be closed, this requirement is still met for the SI system and no further technical specification changes are required.
- c. The proposed note reduces the chance of losing all core cooling when performing this test in MODE 4 since the reactor coolant pumps will be in service as RHR is placed in the test configuration.

There are not any administrative (A), more restrictive (M), or relocated (R) changes associated with this LAR.

#### D. SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

The proposed changes to the Ginna Station Technical Specifications as identified in Section A and justified in Section C have been evaluated with respect to 10 CFR 50.92(c) and shown to not involve a significant hazards consideration as described below. This section is organized based on Section C above.

##### D.1 Evaluation of Less Restrictive Changes

The less restrictive changes discussed in Section C.1 do not involve a significant hazards consideration as discussed below:





1. Operation of Ginna Station in accordance with the proposed changes does not involve a significant increase in the probability or consequences of an accident previously evaluated. The change is to add a note to LCO 3.6.6 which allows the CS pumps to be placed in pull-stop and MOVs 896A and 896B to have power restored and closed in MODE 4. This does not increase the probability of any accident previously evaluated since the CS system provides mitigation capability only (i.e., does not initiate any accident). In addition, there is no design basis accident previously evaluated in MODE 4 which would require the use of CS. Therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously analyzed.
2. Operation of Ginna Station in accordance with the proposed changes does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or changes in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.
3. Operation of Ginna Station in accordance with the proposed changes does not involve a significant reduction in a margin of safety. The proposed changes will not reduce a margin of plant safety because the CS function is not required for any design basis accident in MODE 4. In addition, time restraints on placed on the proposed plant configuration. As such, no question of safety is involved, and the change does not involve a significant reduction in a margin of safety.

Based upon the above information, it has been determined that the proposed changes to the Ginna Station Technical Specifications do not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of a new or different kind of accident previously evaluated, and does not involve a significant reduction in a margin of safety. Therefore, it is concluded that the proposed changes meet the requirements of 10 CFR 50.92(c) and do not involve a significant hazards consideration.

#### E. ENVIRONMENTAL CONSIDERATION

RG&E has evaluated the proposed changes and determined that:

1. The changes do not involve a significant hazards consideration as documented in Section D above;
2. The changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite since no specifications related to offsite releases are affected; and