

April 13, 1993

Docket No. 50-244

Dr. Robert C. Mecredy  
Vice President, Nuclear Production  
Rochester Gas and Electric Corporation  
89 East Avenue  
Rochester, New York 14649

Dear Dr. Mecredy:

SUBJECT: ISSUANCE OF AMENDMENT NO. 51 TO FACILITY OPERATING LICENSE NO. DPR-18, R. E. GINNA NUCLEAR POWER PLANT (TAC NO. M84781)

The Commission has issued the enclosed Amendment No. 51 to Facility Operating License No. DPR-18 for the R. E. Ginna Nuclear Power Plant. This amendment is in response to your application dated October 8, 1992.

This amendment updates the auxiliary electrical systems Technical Specifications (TS) with instrument bus operability provisions by adding Specifications, Action Statements, Surveillance Requirements and Basis sections relative to the operation of the vital instrument buses. This amendment also corrects an inconsistency in an existing Action Statement in the auxiliary electrical systems TS for a loss of both offsite power supplies.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/

Allen Johnson, Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 51 to License No. DPR-18
2. Safety Evaluation

OFFICE	LA:PDI-3	PM:PDI-3	OGC	D:PDI-3	
NAME	JClark	AJohnson		WButler	
DATE	3/24/93	3/30/93	4/11/93	4/13/93	1/1

OFFICIAL RECORD COPY  
Document Name: GIM84781.AMD

ENC FILE CENTER COPY

9304210075 930413  
PDR ADOCK 05000244  
P PDR

CP-1



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

April 13, 1993

Docket No. 50-244

Dr. Robert C. Mecredy  
Vice President, Nuclear Production  
Rochester Gas and Electric Corporation  
89 East Avenue  
Rochester, New York 14649

Dear Dr. Mecredy:

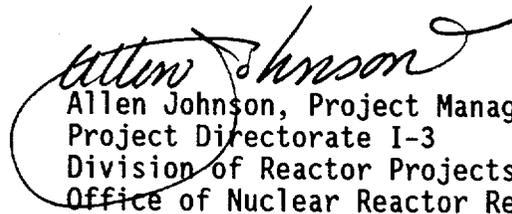
SUBJECT: ISSUANCE OF AMENDMENT NO. 51 TO FACILITY OPERATING LICENSE NO.  
DPR-18, R. E. GINNA NUCLEAR POWER PLANT (TAC NO. M84781)

The Commission has issued the enclosed Amendment No. 51 to Facility Operating License No. DPR-18 for the R. E. Ginna Nuclear Power Plant. This amendment is in response to your application dated October 8, 1992.

This amendment updates the auxiliary electrical systems Technical Specifications (TS) with instrument bus operability provisions by adding Specifications, Action Statements, Surveillance Requirements and Basis sections relative to the operation of the vital instrument buses. This amendment also corrects an inconsistency in an existing Action Statement in the auxiliary electrical systems TS for a loss of both offsite power supplies.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

  
Allen Johnson, Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 51 to License No. DPR-18
2. Safety Evaluation

cc w/enclosures:  
See next page

Dr. Robert C. Mecredy

Ginna

cc:

Thomas A. Moslak, Senior Resident Inspector  
R.E. Ginna Plant  
U.S. Nuclear Regulatory Commission  
1503 Lake Road  
Ontario, New York 14519

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Ms. Donna Ross  
Division of Policy Analysis & Planning  
New York State Energy Office  
Agency Building 2  
Empire State Plaza  
Albany, New York 12223

Charlie Donaldson, Esq.  
Assistant Attorney General  
New York Department of Law  
120 Broadway  
New York, New York 10271

Nicholas S. Reynolds  
Winston & Strawn  
1400 L St. N.W.  
Washington, DC 20005-3502

Ms. Thelma Wideman  
Director, Wayne County Emergency  
Management Office  
Wayne County Emergency Operations Center  
7370 Route 31  
Lyons, New York 14489

Ms. Mary Louise Meisenzahl  
Administrator, Monroe County  
Office of Emergency Preparedness  
111 West Fall Road, Room 11  
Rochester, New York 14620

AMENDMENT NO. 51 TO DPR-18 R. E. GINNA NUCLEAR POWER PLANT DATED April 13, 1993

DISTRIBUTION:

Docket File 50-244  
NRC & Local PDRs  
PDI-3 Reading  
S. Varga  
J. Calvo  
W. Butler  
T. Clark  
A. Johnson  
OGC  
D. Hagan  
G. Hill (2 copies)  
Wanda Jones, P-370  
C. Grimes  
ACRS (10)  
OPA  
OC/LFDCB  
J. Linville, RI  
C. Berlinger  
P. Kang  
J. Richardson  
W. Lazarus, RI

190010

DF01  
111



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

ROCHESTER GAS AND ELECTRIC CORPORATION

DOCKET NO. 50-244

R. E. GINNA NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 51  
License No. DPR-18

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for amendment filed by the Rochester Gas and Electric Corporation (the licensee) dated October 8, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-18 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 51, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

9304210078 930413  
PDR ADOCK 05000244  
P PDR

3. This license amendment is effective 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 13, 1993

ATTACHMENT TO LICENSE AMENDMENT NO.51

FACILITY OPERATING LICENSE NO. DPR-18

DOCKET NO. 50-244

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

<u>Remove</u>	<u>Insert</u>
3.5-14	3.5-14
3.7-1	3.7-1
3.7-2	3.7-2
3.7-3	3.7-3
-	3.7-3a
3.7-5	3.7-5
3.7-6	3.7-6
-	4.6-4a
4.6-5	4.6-5
4.6-5A	4.6-5A

7. With the number of operable channels less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the tripped condition within 1 hour. Should the next Channel Functional Test require the bypass of an inoperable channel to avoid the generation of a trip signal, operation may proceed until this Channel Functional Test. At the time of this Channel Functional Test, or if at any time the number of operable channels is less than the Minimum Operable Channels, either
  - a) be at Hot Shutdown within the next 6 hours and an RCS temperature less than 350°F within the following 6 hours, or
  - b) energize the affected bus with a diesel generator.
8. With the number of operable channels one less than the Minimum Operable Channels required, restore the inoperable channel to operable status within 48 hours or be in Hot Shutdown within the next 6 hours and at an RCS temperature less than 350°F within the following 6 hours.
9. With the number of operable channels one less than the Total Number of Channels required, operation may proceed until the next Channel Functional Test provided the inoperable channel is placed in the tripped position within 1 hour. At the next Channel Functional Test, or at any time the number of operable channels is less than the Minimum Operable Channels required, be at Hot Shutdown within the next 6 hours and at an RCS temperature less than 350°F within the following 6 hours.
10. With the number of operable channels one less than the Minimum Operable Channels required, restore the inoperable channel to operable status within 48 hours or be in Hot Shutdown within an additional 6 hours, and at cold shutdown within the following 30 hours.
11. With the number of operable channels less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the tripped condition within 2 hours. Should the next Channel Functional Test require the bypass of an inoperable channel to avoid the generation of an actuation signal, operation may proceed until this Channel Functional Test. At the time of this Channel Functional Test, or if at any time the number of operable channels is less than the Minimum Operable Channels required, be at Hot Shutdown within 6 hours and at Cold Shutdown within the following 30 hours.

### 3.7 AUXILIARY ELECTRICAL SYSTEMS

#### Applicability

Applies to the availability of electrical power for the operation of plant auxiliaries.

#### Objective

To define those conditions of electrical power availability necessary to provide for the continuing availability of engineered safeguards.

#### 3.7.1 Specification

- 3.7.1.1 When in cold shutdown or refueling, with fuel in the reactor vessel, the following conditions are to be met:
- a. One independent offsite power source operable, or backfeed through unit auxiliary transformer 11; and
  - b. One train of 480-volt buses (14 and 18, or 16 and 17) operable; and
  - c. One diesel generator operable with onsite supply of 5,000 gallons of fuel available and either buses 14 and 18, or 16 and 17, capable of being supplied from that diesel generator.
  - d. One battery and one dc system, and at least 150 amps of battery charger capacity to the battery must be operable.
  - e. Either 120 volt A.C. Instrument Bus 1A or 1C energized from its associated inverter.

- 3.7.1.2 Actions To Be Taken If Conditions of 3.7.1.1 Are Not Met:  
With less than the above minimum required power source operable, immediately suspend all operations involving positive reactivity changes, core alterations, movement of

irradiated fuel and initiate corrective action to restore the required power sources to operable status.

3.7.2 Specification

3.7.2.1 The reactor coolant system shall not be taken above the mode indicated unless the following conditions are met:

- a. Above cold shutdown;
  1. One independent offsite power source operable.
  2. the 480-volt buses 14 and 18 (Train A) and buses 16 and 17 (Train B) are energized.
  3. the two diesel generators are operable with onsite supply of 5,000 gallons of fuel available for each diesel generator.
  4. both batteries and both dc systems are operable.
  5. at least 150 amps of battery charging capacity for each DC system that is in service.
  6. 120 volt A.C. Instrument Buses 1A and 1C are energized from their associated inverters.
  7. 120 volt A.C. Instrument Bus 1B is energized from its associated constant voltage transformer from MCC 1C.
- b. Above 350°F:
  1. All conditions of 3.7.2.1a above are met; and
  2. Two offsite sources (34.5 kv-4160 volt station service transformers, 12A with dedicated circuit 751, and 12B with dedicated circuit 767) are operable.

3.7.2.2 Actions To Be Taken If Conditions of 3.7.2.1 Are Not Met:

- a. Operation above 350°F may continue with one offsite source inoperable, provided all remaining conditions of 3.7.2.1 are met.
- b. With one or both independent offsite sources operable, and one diesel generator inoperable above cold shutdown, demonstrate the operability of the remaining diesel generator by:

1. Performing the surveillance requirements identified in Specifications 4.6.1.b.4 and 4.6.1.b.6 within 1 hour and at least once per 24 hours thereafter and restore the inoperable diesel generator to operable status within 7 days; OTHERWISE:
  2. Reduce to a mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours.
- c. With one safety related 480V Bus (i.e., bus 14 or 16 or 17 or 18) de-energized, re-energize the bus within 1 hour or reduce to a mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours, unless corrective actions are complete that permit continued operation (i.e., the bus is returned to service).
  - d. With both independent offsite sources inoperable, both diesel generators must be operable. In addition, restore one independent offsite source within 72 hours, or reduce to a mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours.
  - e. Operation above cold shutdown may continue if less than 150 amps of battery charging capacity is available to one dc system, provided at least 150 amps of battery charging capacity is available to each dc system within 2 hours. If not available, reduce to a mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours.

- f. With either Instrument Bus 1A or 1C not energized from its associated inverter:
1. Re-energize the bus within 2 hours (backup or maintenance supply), AND
  2. Re-energize the bus from a safety related supply (backup or inverter) within 24 hours, AND
  3. Re-energize the bus from its associated inverter within 72 hours, OTHERWISE
  4. Reduce to a mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours.
- g. With Instrument Bus 1B not energized from its associated constant voltage transformer (CVT) from MCC 1C:
1. Re-energize the bus within 2 hours (maintenance supply), AND
  2. Re-energize the bus from its associated CVT from MCC 1C within 7 days, OTHERWISE
  3. Reduce to a mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours.

Safe shutdown of the plant, and (2) the mitigation and control of accident conditions within the plant.

When the RCS is above cold shutdown, both emergency diesel generators are required to be operable. The two diesel generators have sufficient capacity to start and run all the engineered safeguards equipment at design loads. The safeguards equipment operated from one diesel generator can adequately cool the core and maintain the containment pressure within the design value for any loss of coolant incident. The minimum diesel fuel oil inventory is maintained to assure that both diesels can operate at their design ratings for 24 hours. This assures that both diesels can carry the design loads of required engineered safeguards equipment for any loss of coolant accident conditions for at least 40 hours, or for one engineered safety feature train for 80 hours. <sup>(1)</sup> Commercial oil supplies and trucking facilities exist to assure deliveries within 8 hours.

The offsite power source consists of separate dedicated 34.5 kv-4160 volt station service transformers served by dedicated 34.5 kv lines (12A transformer with dedicated circuit 751, or 12B transformer with dedicated circuit 767) in operable status. Either offsite source of power can supply all auxiliary loads and transfer can be accomplished within the time constraints of GDC 17. Thus, GDC 17 is explicitly met.

With fuel in the reactor vessel a minimum of one offsite source, one onsite source of AC power and one DC power train are required. The offsite power source may be provided by one of three configurations:

1. Transformer 12A served by a dedicated 34.5 kv line (circuit 751), or
2. Transformer 12B served by a dedicated 34.5 kv line (circuit 767), or
3. Backfeed through unit auxiliary transformer 11.

The offsite power source is the preferred source of AC power. Operability of an offsite source requires that one station service transformer served by a dedicated 34.5 kv line is operating and providing power to the unit. The emergency diesel generator provides power upon loss of the offsite source. One emergency diesel generator with 5,000 gallons of fuel can provide power to a minimum level of engineered safeguards equipment for 40 hours (the required safeguards loads at cold shutdown/refueling are significantly less than during power operation). One operable diesel fuel oil transfer pump is required to supply fuel from one of the two fuel storage tanks to the day tank of the operable diesel generator. With less than one offsite AC power source, and one onsite AC power source, one DC power train, and one battery backed instrument bus available, no operations involving positive reactivity changes, core alterations, and movement of irradiated fuel shall occur.

Battery chargers with at least 150 amps capacity shall be in service for each battery so that the batteries will always be at full charge. This ensures that adequate dc power will be available.

The plant can be safely shutdown without the use of offsite power since all vital loads (safety systems, instruments, etc.) can be supplied from the emergency diesel generators and the station batteries. Instrument Buses 1A, 1B, and 1C provide power to vital plant instrumentation. All three buses are backed up by safety related emergency supplies; bus 1A from battery 1A, bus 1C from battery 1B, and bus 1B from diesel generator 1A.

#### 4.6.4 Instrument Buses

Each safety related instrument bus required to be operable, shall be demonstrated operable at least once per 7 days by:

1. Verifying nominal voltage indications on the Instrument Buses 1A, 1B, 1C.
2. Verifying proper supply breaker alignment for Instrument Buses 1A, 1B, and 1C.
3. Verifying proper static switch alignment for Instrument Buses 1A and 1C.

## Basis

The tests specified are designed to demonstrate that the diesel generators will provide power for operation of equipment. They also assure that the emergency generator system controls and the control systems for the safeguards equipment will function automatically in the event of a loss of all normal 480V AC station service power.  
(1)

The testing frequency specified will be often enough to identify and correct any mechanical or electrical deficiency before it can result in a system failure. The fuel supply and starting circuits and controls are continuously monitored and any faults are indicated by alarm. An abnormal condition in these systems can be identified without having to test the diesel generators.

Periodic tests are also specified to demonstrate that the offsite power sources will provide power for operation of equipment.

Offsite power source operability requires correct breaker alignment and indicated power availability from the two preferred power circuits, 767 and 751, to the 4160 volt buses. These requirements are met by monitoring nominal voltage indications on the high-voltage side of transformers 12A and 12B; and on the 4160 volt buses 12A and 12B.

Offsite power source independence requires separate 4160 volt circuits supplying power to the 4160 volt buses. Interlocks prevent concurrent closure of 12AX and 12BX, OR 12AY and 12BY; and surveillance is specified to ensure separation is maintained.

Instrument bus power source operability requires correct breaker alignment and indicated power availability. These requirements are met by monitoring nominal voltage indications on the buses and proper breaker alignment.

Furthermore, to assure independence between redundant Class 1E 480 volt buses 14 and 18 (Train A) and buses 16 and 17 (Train B), tie breakers 52/BT16-14 and 52/BT17-18 are required to be open when the plant mode is above 200°F. Once tie breakers are open, interlocks prevent closure when independent and redundant buses are energized.

Station batteries may deteriorate with time, but precipitous failure is extremely unlikely. The surveillance specified is that which has been demonstrated over the years to provide an indication of a cell becoming unserviceable long before it fails, and to ensure that the battery capacity is acceptable.

The equalizing charge, as recommended by the manufacturer, is vital to maintaining the ampere-hour capability of the battery. As a check upon the effectiveness of the equalizing charge, the battery should be loaded rather heavily and the voltage monitored as a function of time. If a cell has deteriorated or if a connection is loose, the voltage under load will drop excessively indicating replacement or maintenance.

The minimum permissible on-site fuel inventory, 10,000 gallons, (5,000 gallons for each generator), is sufficient for operation under loss-of-coolant accident conditions of two engineered safety features trains for 40 hours, or for one train for 80 hours, or for operation of both diesel generators at their design ratings for 24 hours. (2)

#### References

- (1) UFSAR, Section 8.3
- (2) UFSAR, Section 9.5.4



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 51 TO FACILITY OPERATING LICENSE NO. DPR-18  
ROCHESTER GAS AND ELECTRIC CORPORATION  
R. E. GINNA NUCLEAR POWER PLANT  
DOCKET NO. 50-244

1.0 INTRODUCTION

By letter dated October 8, 1992, the Rochester Gas and Electric Corporation (RG&E), the licensee, submitted a request for changes to the R. E. Ginna Nuclear Power Plant (Ginna), Technical Specifications (TS). RG&E requested changes to the Ginna auxiliary electrical system (AES) for the 120 v ac vital instrument buses. Although RG&E has recently reformatted the entire AES for the Ginna plant, the current TS contains no instrument bus operability provisions. With this amendment request, the licensee proposes to add Specifications, Action Statements (AS), Surveillance Requirements (SR) and Basis sections relative to the operation of the 120 v ac vital instrument buses into the AES TS. This amendment also corrects an inconsistency in an existing AS in the AES for a loss of both offsite power supplies.

2.0 EVALUATION

The NRC staff has reviewed RG&E's proposed changes to the Ginna TS. The evaluation for each proposed TS change is as follows:

2.1 Action Statement No. 11 for Hi-Hi Containment Pressure (Item 2 b) in Table 3.5-2 of Engineered Safety Feature (ESF) Actuation Instrumentation

With an inoperable containment spray automatic initiation channel, the above Action Statement requires that the plant operation may proceed provided the inoperable channel is placed in the tripped condition within 1 hour. With this request, the licensee proposes to extend the 1 hour limit to 2 hours because additional time is necessary due to the difficulty of placing a channel in trip condition when an instrument bus is de-energized. The licensee contends that the 2 hour request is consistent with the similar AS in the Standard TS for Westinghouse Pressurized Water Reactors (NUREG-0452). It is also consistent with the 2 hour allowed outage time proposed for an inoperable instrument bus which supplies power to the instrument channel. The licensee further justifies that its request is acceptable due to the low probability of requiring automatic containment spray initiation and the continued availability of manual initiation.

Our review of the similar provision used in the above Westinghouse Standard TS indicates that the inoperable channel may be bypassed for up to 2 hours. We

9304210081 930413  
PDR ADDCK 05000244  
PDR

also find that placing the inoperable channel in tripped condition is more conservative than bypassing it from the ESF actuation logic standpoint. Therefore, we conclude that the proposed AS No. 11 for Hi-Hi Containment Pressure in Table 3.5-2 is acceptable.

## 2.2 Specification 3.7.1.1

The current Specification 3.7.1.1 begins with a phrase "with fuel in the reactor vessel." It does not explicitly specify the appropriate plant operating modes in this Specification section. The licensee proposes to insert the following phrase "when in cold shutdown or refueling" ahead of the current phrase to include the plant operating modes in this section. We concur with the licensee that by adding this phrase ahead of the current Specification 3.7.1.1 clarifies the plant operating modes, and it does not involve any technical change to the Specification. We find the proposed revision to the Specification 3.7.1.1 to be acceptable.

## 2.3 Addition of Specifications 3.7.1.1.e, 3.7.2.1.a.6, and 3.7.2.1.a.7

Since the current Ginna TS contain no provisions for the safety related 120 v ac vital instrument bus operability based on the reactor coolant system operation, the licensee proposes to add the following requirements for the instrument buses:

- a. When in cold shutdown and refueling, Specification 3.7.1.1.e has been added to require "Either 120 volt A.C. Instrument Bus 1A or 1C energized from its associated inverter."
- b. For the operation modes above cold shutdown, Specifications 3.7.2.1.a.6 and 3.7.2.1.a.7 have been added to require "120 volt A.C. Instrument Bus 1A and 1C are energized from their associated inverters" and "120 volt A.C. Instrument Bus 1B is energized from its associated constant voltage transformer from MCC 1C", respectively.

The purpose of Specification 3.7.1.1.e (i.e., either instrument bus 1A or 1C) is to ensure the availability of one channel of continuous indication while allowing for maintenance and surveillance of one safety related battery. The addition of Specifications 3.7.2.1.a.6 and 7 are intended to require operability of all three instrument buses for the above cold shutdown reactor operation. However, unlike the Standard TS plants where all instrument buses are powered from inverters, only two of the three instrument buses (1A and 1C) at Ginna are powered from a battery backed inverter. The third instrument bus (1B) is powered from a diesel generator backed transformer. Since the diesel backed instrument bus 1B is required to initiate one of three ESF logic, we find that all three instrument buses are needed to perform this safety function.

On this basis, we concur with the licensee that a separate operability requirement for both battery backed (Specification 3.7.2.1.a.6) and diesel backed (Specification 3.7.2.1.a.7) instrument buses should be specified for the cold shutdown reactor operation mode at Ginna.

Since the current Ginna TS has no operability restrictions for inoperable instrument buses during plant operation and during cold shutdown, the staff finds that the proposed Specifications 3.7.1.1.e, 3.7.2.1.a.6, and 3.7.2.1.a.7 provide a safety enhancement over the current TS. The proposed TS revisions provide additional operational restrictions and are consistent with the Standard TS. Therefore, the staff concludes that addition of Specifications 3.7.1.1.e, 3.7.2.1.a.6 and 3.7.2.1.a.7 are acceptable.

#### 2.4 Action Statement 3.7.2.2.d

With both independent offsite power sources inoperable, the AS 3.7.2.2.d requires that both emergency diesel generators (EDGs) must be operable. It also requires restoration of one independent offsite power source within 72 hours, or reduce to a mode equal to or below hot shutdown within the next 6 hours and to an RCS temperature less than or equal to 350 degree F within the following 6 hours.

The licensee proposes the above underlined phrase to be replaced with "and be in cold shutdown within the following 30 hours." The current AS implies that the plant can remain above cold shutdown by maintaining the reactor coolant system (RCS) temperature less than or equal to 350 degree F without any offsite power source. The licensee finds the current AS is inconsistent with the Specification 3.7.2.1.a.1 provision which requires one offsite power source to be operable for the plant to be in above cold shutdown.

The staff concurs with the licensee's assessment that the new requirement is more appropriate and clearer than the existing requirement. The staff also notes that the proposed verbiage has been used in the similar AS throughout Ginna TS. Therefore, the staff concludes the proposed change to the AS 3.7.2.2.d is acceptable.

#### 2.5 Addition of Action Statements 3.7.2.2.f and 3.7.2.2.g

The normal power supply configuration for the instrument bus 1A and 1C are energized from its associated inverter (i.e., battery backed) while the instrument bus 1B is energized from its associated constant voltage transformer (CVT) from its associated diesel (i.e., diesel backed).

With either instrument bus 1A or 1C not energized from its associated inverter, the licensee proposes AS 3.7.2.2.f which adds: (1) the bus will be re-energized within 2 hours (backup or maintenance supply), and (2) re-energized from a safety related supply (backup or inverter) within 24 hours, and (3) re-energized from its associated inverter within 72 hours, otherwise reduce the plant mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours.

With instrument bus 1B not energized from its associated CVT from MCC 1C, the licensee also proposes AS 3.7.2.2.g which adds: (1) the bus be re-energized within 2 hours (maintenance supply), and (2) and re-energized from its associated CVT from MCC 1C within 7 days, otherwise reduce to the plant mode equal to or below hot shutdown within the next 6 hours and be in cold shutdown within the following 30 hours.

The staff has reviewed the power supply configuration system for the above instrument buses with respect to the proposed ASs 3.7.2.2.f and g. We find that power for the instrument buses 1A and 1C is available from:

1. its normal supply from a safety related dc bus via an inverter.
2. a backup supply from a safety related 480 v bus (MCC 1C or 1D) via a CVT.
3. a maintenance supply from a non-safety related 480 v bus (MCC 1A) via a CVT.

The staff also finds that power from instrument bus 1B can be supplied via a CVT from:

1. its normal supply from a safety related 480 v bus (MCC 1C) via diesel generator.
2. a maintenance supply from a non-safety related 480 v bus (MCC 1A).

The Standard PWR plant (i.e., 4 loop and 4 channel system) requires re-energizing the instrument buses within 2 hours and to return the original normal inverter power supply configuration within 24 hours. The licensee submitted additional information to NRC in this regard during a November 16, 1992, telecon, that this requirement cannot be applied directly to Ginna, as it is designed as a two loop plant with two ESF channels. For the Ginna plant another channel (instrument bus 1B) has been added to provide the third channel.

Considering that Ginna has no instrument bus operability requirements in its current TS, the instrument buses can be connected indefinitely to any one of the above available power sources including non-Class 1E power supplies. Although the proposed ASs with its allowed outage time provisions do not fully conform to the Standard TS, they provide some limitation as to how long the instrument buses can remain on other power sources (i.e., non-Class 1E power supplies). The staff finds that the proposed ASs provide a reasonable time for the instrument buses to return to their normal power supply configurations. On this basis, the proposed changes are an improvement over the current TS. Therefore, the staff concludes addition of ASs 3.7.2.2.f and 3.7.2.2.g to be acceptable.

## 2.6 Addition of Surveillance Requirement (SR) 4.6.4 and Basis page 4.6-5

In order to ensure proper power supply alignment and operability of the vital instrument buses, the SR 4.6.4 has been proposed when each instrument bus is required to be demonstrated operable at least once per 7 days by verifying correct breaker alignment, nominal voltage indications for the instrument buses 1A, 1B, and 1C. In addition, the licensee provided a paragraph to describe the basis of adding new SR 4.6.4 for the instrument buses in the Basis section (i.e., sixth paragraph of page 4.6-5).

The staff has reviewed the proposed SR 4.6.4 and the paragraph for Basis. The staff finds that the methodology and frequency are consistent with the Standard TS which are required for the vital instrument buses and the SR provision is properly described in the Basis section. Therefore, the staff concludes addition of SR 4.6.4 and the description provided for the SR in the Basis section to be acceptable.

## 2.7 Basis page 3.7-5 and page 4.6-5A

The current design basis for the diesel fuel storage capacity has been explained on page 3.7-5 and page 4.6-5A of the Basis. It states that the minimum diesel fuel oil inventory (i.e., 5000 gallons for each diesel) is sized to ensure two ESF trains for 40 hours operation under LOCA conditions (or 80 hours for one train) or for operation under hot standby non-accident conditions for 111 hours. However, the Ginna Electrical Distribution System Functional Inspection (EDSFI) on May 6 to June 7, 1991, found the design basis of the fuel storage tanks was to provide capacity for full load operation of both diesels for 24 hours. In accordance with EDSFI findings, the licensee agreed to change the design basis for the fuel oil storage capacity described in pages of 3.7-5 and 4.6-5A for operation of both diesels at design ratings for 24 hours and to delete the reference to hot standby operation which has never been considered as a design requirement.

The staff has reviewed the proposed changes in the Basis sections and find them to be acceptable.

## 2.8 Basis page 3.7-6

### a. First paragraph

With less than one offsite and one onsite ac source of power and one dc power train, the current Basis requires that no operations involving positive reactivity changes, core alterations, and movement of irradiated fuel should occur. With this amendment request, the licensee proposes to add "one battery backed instrument bus" to the above conditions for the Basis section. The staff finds that this proposed change in the Basis section is appropriate and consistent with the addition of Specification 3.7.1.1.e. Therefore, the staff concludes that it is acceptable.

b. Third paragraph

Since new proposed TS includes the vital instrument buses, the licensee added a description for the instrument buses to the Basis section. The staff has reviewed the description for the instrument buses in the Basis section, and finds it to be acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State Official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (57 FR 58251). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: P. Kang

Date: April 13, 1993