

August 27, 1981

Docket No. 50-244
LS05-81-08-089

Mr. John E. Maier
Vice President
Electric & Steam Production
Rochester Gas & Electric Corporation
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DISTRIBUTION
Docket
NRC PDR
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OI&E (5)
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RDiggs
OPA Clare Miles

GDeegan (4)
BScharf (10)



Dear Mr. Maier:

SUBJECT: OPERABILITY OF THE D. C. ELECTRICAL SYSTEMS - ADDITIONAL BATTERY CHARGERS (GINNA)

The Commission has issued the enclosed Amendment No. 45 to Provisional Operating License No. DPR-18 for the R. E. Ginna Nuclear Power Plant. This amendment responds to your application notarized October 10, 1978 (submitted by letter dated October 12, 1978), as supplemented by your submittals dated April 18, 1979 and August 10, 1979.

The amendment authorizes technical specifications regarding operability of the D. C. electrical systems and specifically the availability of additional battery chargers.

Changes have been made to your submittal as mutually agreed upon during a telephone conversation with your staff on July 27, 1981.

Copies of our Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

Original signed by

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

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PDR ADDCK 05000244
P PDR

Enclosures:

1. Amendment No. 45 to License No. DPR-18
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
See next page

DL: ORB #5
DCrutchfield
8/27/81
RJS

DL: AD/SA
GLainas
8/27/81

OFFICE	DL: ORB #5	DL: ORB #5	ELD	DSI: PSB	DE: CEB	DL: SEPB	DE: EOB
SURNAME	RSnaider:cc	HSmith	Ketchum	MSrinivasan	VBenearoya	WRussell	ZRosztoczy
DATE	8/6/81	8/6/81	8/25/81	8/16/81	8/16/81	W.R. 8/13/81	8/17/81

Mr. John E. Maier

- 2 -

August 27, 1981

cc

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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 PROVISIONAL OPERATING LICENSE

Amendment No. 45
License No. DPR-18

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Rochester Gas and Electric Company (the licensee) notarized October 10, 1978 (transmitted by letter dated October 12, 1978) as supplemented by submittals dated April 18, 1979 and August 10, 1979, 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 by changing paragraph 2.C(2) of Provisional Operating License No. DPR-18 to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 45, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 27, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 45
PROVISIONAL OPERATING LICENSE NO. DPR-18
DOCKET NO. 50-244

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages contain the captioned amendment number and marginal lines which indicate the area of changes.

PAGES

3.7-1

3.7-2

3.7-3*

3.7-4

* This page is included for pagination purposes only.

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 (1) to provide for safe reactor operation, and (2) to provide for the continuing availability of engineered safeguards.

Specification

- 3.7.1 The reactor shall not be maintained critical without:
- a. The 34.5 KV-4160 Volt station service transformer in service.
 - b. 480-volt buses 14, 16, 17 and 18 energized.
 - c. 4160-volt buses 12A and 12B energized.
 - d. Two diesel generators operable with onsite supply of 10,000 gallons of fuel available.
 - e. Both batteries and both d.c. systems operable, and at least one 150 amp battery charger or two 75 amp battery chargers in service for each battery.
- 3.7.2 During reactor operation the requirements of 3.7.1 may be modified as follows:

- a. Power operation may continue with the station service transformer out of service provided (a) the failure shall be reported to NRC within 24 hours with an outline of the plans for prompt restoration of offsite power and the additional precautions to be taken while the transformer is out of service and (b) both diesel generators are operable. Under conditions of fulfillment of (b) and non-fulfillment of (a), continued power operation shall not extend beyond 24 hours. Non-fulfillment of (b) shall be deemed sufficient cause for immediate reactor shutdown.
- b. Power operation may continue if one diesel generator is out of service provided (a) the remaining diesel generator is run continuously, and (b) the station service transformer is in service and (c) such operation is not in excess of 7 days (total for both diesels) during any month.
- c. Power operation may continue if less than 150 amps of battery charging capacity is available to one d. c. system, as long as at least 150 amps of battery charger capacity is available to each d. c. system within two hours. If not available, the reactor shall be placed in the hot shutdown condition within the next six hours and in the cold shutdown condition within the following 30 hours.

Basis:

The electrical system equipment is arranged so that no single contingency can inactivate enough safeguards equipment to jeopardize the plant safety. The 480-volt equipment is arranged

on 6 buses. The 4160-volt equipment also is supplied from 4 buses.

Two separate outside sources supply station service power to the plant.

The plant auxiliary equipment is arranged electrically so that multiple items receive their power from the two different sources. The charging pumps are supplied from the 480-volt buses No. 14 and 16. The four containment fans are divided between 480-volt buses No. 14 and 16. The two residual heat pumps are on separate 480-volt buses. Valves are supplied from motor control centers.

One outside source of power is required to give sufficient power to run normal operating equipment. One transmission line can supply all the plant auxiliary power. The 115-34.5 kv station service transformer can supply all the auxiliary loads.

The bus arrangements specified for operation ensure that power is available to an adequate number of safeguards auxiliaries. With additional switching, more equipment could be out of service without infringing on safety.

Two diesel generators have sufficient capacity to start and run at design load all the engineered safeguards equipment. The safeguards operated from one diesel generator can adequately cool the core for any loss-of-coolant incident, and they also

maintain the containment pressure within the design value.

The minimum diesel fuel oil inventory at all times is maintained to assure the operation of both diesels carrying design load of all the engineered safeguards equipment for at least 40 hours. (1) Commercial oil supplies and trucking facilities exist to assure deliveries within 8 hours.

The plant design includes two 150 amp battery chargers and two 75 amp battery chargers. The 75 amp battery chargers are capable of manual transfer from one d. c. system to the other. At least one 150 amp battery charger or two 75 amp battery chargers 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.

The two diesel generators, each capable of supplying safeguards loads, and the station auxiliary transformer provide three separate sources of power immediately available for operation of these loads. Thus the power supply system meets the single failure criteria required of safety systems. (2)

References:

(1) FSAR - Section 8.2.1

(2) FSAR - Appendix 8A



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 45 TO PROVISIONAL OPERATING LICENSE NO. DPR-18

ROCHESTER GAS AND ELECTRIC CORPORATION

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION AND BACKGROUND

By application notarized October 10, 1978 (submitted by letter dated October 12, 1978), as supplemented by letters dated April 18, 1979 and August 10, 1979, Rochester Gas and Electric Corporation (RG&E) (the licensee) requested changes to the Technical Specifications for the R. E. Ginna Nuclear Power Plant. These changes would revise the specifications dealing with availability of battery chargers in the Class 1E direct current (dc) electrical system. Two 75 amp battery chargers were installed at the plant prior to startup in 1969 in accordance with the original plant equipment specifications and construction procedures, and have, thus, been part of the plant configuration, but were not covered by the plant Technical Specifications.

Changes were made to the proposed technical specification changes as mutually agreed upon by the NRC staff and RG&E representatives.

2.0 EVALUATION

Each of the two Class 1E dc systems has a dedicated battery charger in use, whose capacity is 150 amperes. The current Technical Specifications require that only one battery charger per system needs to be operable while the reactor is maintained critical.

In addition to two 150 ampere battery chargers, two additional battery chargers, each with 75 amperes capacity, were installed in the plant prior to its startup in 1969. The licensee has proposed to list the two 75 ampere battery chargers in the Technical Specifications and thereby take credit for their operation. With all battery chargers operational and in their normal configuration, there is a total battery charger capacity of 225 amperes per battery. In the event either of the 150 ampere battery chargers becomes inoperable, manual transfer of a 75 ampere battery charger will result in a battery charger capacity of 150 amperes per Class 1E dc system. In addition, the dc bus tie-switch is

padlocked open with the key maintained by the shift foremen. Operating procedures require that the feeder fuse to the redundant bus will be removed whenever the bus tie-switch is closed in order to use both 75 ampere chargers for one dc bus.

This configuration and capacity are in accordance with the guidance and recommendations provided in Regulatory Guide 1.6 and 1.32.

The additional battery chargers and their circuits are a part of the Class 1E electrical equipment which is currently under review in the SEP Program. The environmental and seismic qualification of such equipment is under review in the generic Equipment Qualification Program. Also, the adequacy of the physical separation of Class 1E electrical equipment and circuits required by Regulatory Guide 1.75 is currently under review in the Fire Protection Program. These additional reviews will assure long-term capability of the electrical equipment to perform its intended function.

3.0 SUMMARY

Based on our evaluation of the information provided by the licensee, we find that the two additional battery chargers on the dc systems are in conformance with the positions of Regulatory Guide 1.6 and 1.32, and the criteria of the IEEE Std. 308-1974. Therefore, we conclude that the proposed changes to the Technical Specifications are acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

We have determined that the proposed amendment does not authorize a change in effluent types, increase in total amounts of effluents, or an increase in power level, and will not result in any significant environmental impact. Having made this determination, we have concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact, and, pursuant to 10 CFR 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

We also conclude, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public.

Date: August 27, 1981

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-244ROCHESTER GAS AND ELECTRIC CORPORATIONNOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 45 to Provisional Operating License No. DPR-18, to Rochester Gas and Electric Corporation (the licensee), which revised the Technical Specifications for operation of the R. E. Ginna Plant (facility) located in Wayne County, New York. This amendment is effective as of its date of issuance.

The amendment incorporates technical specifications regarding operability of the direct current electrical systems, specifically incorporating the installed additional battery chargers.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.


The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

- 2 -

For Further details with respect to this action, see (1) the application for amendment notarized October 10, 1978 (transmitted by letter dated October 12, 1978), as supplemented by letters from the licensee dated April 18, 1979 and August 10, 1979, (2) Amendment No. 45 to License No. DPR-18, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Rochester Public Library, 115 South Avenue, Rochester, New York 14627. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 27th day of August, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing