

September 18, 1986

Docket No. 50-244

Mr. Roger W. Kober, Vice President
Electric and Steam Production
Rochester Gas & Electric Corporation
89 East Avenue
Rochester, New York 14649

Dear Mr. Kober:

The Commission has issued the enclosed Amendment No. 19 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 9, 1985.

The amendment deletes the requirement from the Technical Specifications for operation of the Auxiliary Building ventilation and charcoal filter adsorber system when the fuel being moved or stored in the spent fuel storage pool had decayed at least 60 days since irradiation. This action closes our TAC No. 60036.

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

Sincerely,

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Morton B. Fairtile, Project Manager
Project Directorate #1
Division of PWR Licensing-A

Enclosures:

- 1. Amendment No. 19 to License No. DPR-18
- 2. Safety Evaluation

cc w/enclosures:
See next page

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|----------|--------------------------|---------------|---|----------------------|
| Office: | LA/PAD#1:DPLA | PM/PAD#1:DPLA | OGC <i>MBF</i> | PD/PAD#1 |
| Surname: | PShuttleworth <i>MBF</i> | MFairtile/tg | <i>W/notes revisions to SE and check State def issuance</i> | GLear <i>MBF for</i> |
| Date: | 08/10/86 | 08/10/86 | 08/11/86 | 08/11/86 |

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Mr. Roger W. Kober
Rochester Gas and Electric Corporation

R. E. Ginna Nuclear Power Plant

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 FACILITY OPERATING LICENSE

Amendment No. 19
License No. DPP-18

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Rochester Gas and Electric Corporation (the licensee) dated October 9, 1985 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:

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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No.19, 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 its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Morton B. Fairtile

Morton B. Fairtile, Project Manager
Project Directorate #1
Division of PWR Licensing-A

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 18, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 19

FACILITY 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 are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

3.11-1 to 3.11-4
4.11-1

INSERT

3.11-1 to 3.11-4
4.11-1

3.11 Fuel Handling in the Auxiliary Building

Applicability

Applies to limitations while moving irradiated fuel in the operating floor area of the auxiliary building.

Objective

To limit doses in the event an irradiated fuel assembly is damaged significantly.

Specification

3.11.1 During handling of fuel assemblies in the auxiliary building when either the fuel being handled or the fuel stored in the spent fuel storage pool has decayed less than 60 days since irradiation, the following conditions shall be satisfied:

- a. One auxiliary building main exhaust fan shall be operating.
- b. The auxiliary building exhaust fan 1C, which takes suction from the spent fuel storage pool area, shall be operating.
- c. All doors, windows, and other direct openings between the operating floor area and the outside shall be closed except that the personnel door may be opened for access as required.
- d. Roughing filters shall be installed at the inlet to the adsorbers.

- e. Charcoal adsorbers shall be installed in the ventilation system exhaust from the spent fuel storage pool area and shall be operable.
- 3.11.2 Radiation levels in the spent fuel storage area shall be monitored continuously.
- 3.11.3 A load in excess of one fuel assembly and its handling tool shall never be stationed or permitted to pass over storage racks containing spent fuel.
- 3.11.4 The spent fuel pool temperature shall be limited to 150°F.
- 3.11.5 The restriction of 3.11.3 above shall not apply to the movement of canisters containing consolidated fuel rods if the spent fuel rack beneath the transported canister contain only spent fuel that has decayed at least 60 days since reactor shutdown.

Basis:

Charcoal adsorbers will reduce significantly the consequences of a refueling accident which considers the clad failure of a single irradiated fuel assembly. Therefore, charcoal adsorbers should be employed whenever recently irradiated fuel is being handled. This requires that the ventilation system should be operating and drawing air through the adsorbers. The only exception to the requirement occurs when the fuel being handled, or any fuel in the storage pool, has decayed at least 60 days since irradiation. The consequences of a fuel handling accident in this case without operation of the charcoal adsorbers is significantly less than the guidelines of 10CFR100.³

Amendment No. 6, 10, 12, 19

The desired air flow path, when handling irradiated fuel, is from the outside of the building into the operating floor area, toward the spent fuel storage pool, into the area exhaust ducts, through the adsorbers, and out through the ventilation system exhaust to the facility vent. Operation of a main auxiliary building exhaust fan assures that air discharged into the main ventilation system exhaust duct will go through a HEPA and be discharged to the facility vent. Operation of the exhaust fan for the spent fuel storage pool area causes air movement on the operating floor to be toward the pool. Proper operation of the fans and setting of dampers would result in a negative pressure on the operating floor which will cause air leakage to be into the building. Thus, the overall air flow is from the location of low activity (outside the building) to the area of highest activity (spent fuel storage pit). The exhaust air flow would be through a roughing filter and charcoal before being discharged from the facility. The roughing filter protects the adsorber from becoming fouled with dirt; the adsorber removes iodine, the isotope of highest radiological significance, resulting from a fuel handling accident. The effectiveness of charcoal for removing iodine is assured by having a high throughput and a high removal efficiency. The throughput is attained by operation of the exhaust fans. The high removal efficiency is attained by minimizing the amount of iodine that bypasses the charcoal and having charcoal with a high potential for removing the iodine that does pass through the charcoal.

The spent fuel pool temperature is limited to 150°F because if the spent fuel pool cooling system is not at that temperature, sufficient time (approximately 7 hours) is available to provide backup cooling, assuming the maximum anticipated heat load (full core discharge & previously stored fuel), until a temperature of 180°F is reached, the temperature at which the structural integrity of the pool was analyzed and found acceptable.

The requirement of 3.11.5 insures that should a handling accident occur during the movement of a consolidated fuel cannister (as described in 5.4.) the dose at the exclusion area boundary would satisfy the requirements of 10CFR100.

References

- (1) FSAR - Section 9.3-1
- (2) ANS-5.1 (N 18.6), October 1973
- (3) Letter, J.A. Zwolinski, (USNRC) to R.W. Kober, (RG&E),
November 14, 1984.

4.11 Refueling

Applicability

Applies to refueling and to fuel handling in the spent fuel pool.

Specification

4.11.1 Spent Fuel Pit Charcoal **Adsorber** System.

4.11.1.1 Within 60 days prior to any operation of the spent fuel pool charcoal **adsorber** system as required by Section 3.11, the following conditions shall be demonstrated. After the conditions have been demonstrated, the occurrence of painting, fire, or chemical release in any ventilation zone communicating with the spent fuel pool charcoal **adsorber** system shall require that the following conditions be redemonstrated, before fuel handling may continue, if operation of the spent fuel pool charcoal adsorber system is required per section 3.11

- a. The total air flow rate from the charcoal **adsorbers** shall be at least 75% of that measured with a complete set of new absorbers.
- b. In-place Freon testing, under ambient conditions, shall show at least 99% removal.
- c. The results of laboratory analysis on a carbon sample shall show 90% or greater radioactive methyl iodide removal when tested at least 150°F and 95% RH and at 1.5 to 2.0 mg/m³ loading with tagged CH₃I.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO.19 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 9, 1985, the Rochester Gas and Electric Corporation (RG&E or the licensee) submitted a proposed license amendment for Facility Operating License No. DPR-18 for the R. E. Ginna Nuclear Power Plant (the facility). The amendment deletes the requirement from the Technical Specifications (TS) for operation of the Auxiliary Building ventilation and charcoal filter adsorber system when the fuel being moved or stored in the spent fuel storage pool had decayed at least 60 days since irradiation.

2.0 EVALUATION

The NRC staff has performed a previous evaluation (letter dated November 14, 1984, NRC to RG&E) in regard to an expansion of the capacity of the spent fuel pool. Our evaluation indicated that the radiological consequences of nine damaged fuel assemblies, without operation of the charcoal filters, resulted in an offsite dose of 2 rem thyroid and 0.1 rem whole body. This release is two-thirds of one percent and 0.4 of one percent, respectively, of the accident releases assumed as acceptable in 10 CFR 100.11(a)(2). The licensee's proposed changes to TS 3.11 and 4.11 in the October 9, 1985 submittal deals with the handling of only a single fuel assembly, when the charcoal filters are not in operation and the fuel has decayed for at least 60 days. We have evaluated the licensee's proposal and have determined that operation in the proposed manner meets the requirements of 10 CFR Part 100, 10 CFR Part 20 and 10 CFR Part 50 Appendix 1. In addition, the guidance of NUREG-0472 (Radiological Effluent Technical Specifications for PWR's) for gaseous effluent treatment systems would be met in the event of an accident during the proposed mode of operation. The largest offsite dose resulting from our analyses was 2.09 rem thyroid for a single fuel assembly. These evaluations were performed by our contractor, the Idaho National Engineering Laboratory, and submitted to NRC by letter dated August 19, 1986 which transmitted their TER Number EGG-PHY-7350 dated August 1986. We conclude that the changes to TS 3.11 and 4.11 are acceptable as the postulated accidents result in offsite doses that are a small fraction of the acceptable accident consequences of 10 CFR Part 100.

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3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

4.0 CONCLUSION

The staff 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 and (2) 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 to the health and safety of the public.

5.0 ACKNOWLEDGEMENT

Principal Contributor: M. B. Fairtile

Dated: September 18, 1986

Distribution Copies:

Docket File 50-244

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