

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-220]

Niagara Mohawk Power Corporation, (Nine Mile Point Nuclear Station, Unit No. 1); Exemption**I**

Niagara Mohawk Power Corporation (the licensee) is the holder of Facility Operating License No. DPR-63, which authorizes operation of the Nine Mile Point Nuclear Station, Unit No. 1 (NMP1). The license provides that the licensee is subject to all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (the NRC or Commission) now or hereafter in effect.

The facility consists of two boiling-water reactors at the licensee's site located in Oswego County, New York. This exemption applies only to NMP1.

II

The Code of Federal Regulations, 10 CFR 70.24, "Criticality Accident Requirements," requires that each licensee authorized to possess special nuclear material shall maintain a criticality accident monitoring system in each area where such material is handled, used, or stored. Subsection (a)(1) and (a)(2) of 10 CFR 70.24 specifies detection and sensitivity requirements that these monitors must meet. Subsection (a)(1) also specifies that all areas subject to criticality accident monitoring must be covered by two detectors. Subsection (a)(3) of 10 CFR 70.24 requires licensees to maintain emergency procedures for each area in which this licensed special nuclear material is handled, used, or stored and provides (1) that the procedures ensure that all personnel withdraw to an area of safety upon the sounding of a criticality accident monitor alarm, (2) that the procedures must include drills to familiarize personnel with the evacuation plan, and (3) that the procedures designate responsible individuals for determining the cause of the alarm and placement of radiation survey instruments in accessible locations for use in such an emergency. Subsection (b)(1) of 10 CFR 70.24 requires licensees to have a means to identify quickly personnel who have received a dose of 10 rads or more. Subsection (b)(2) of 10 CFR 70.24 requires licensees to maintain personnel decontamination facilities, to maintain arrangements for a physician and other medical personnel qualified to handle radiation emergencies, and to maintain arrangements for the transportation of

contaminated individuals to treatment facilities outside the site boundary. Paragraph (c) of 10 CFR 70.24 exempts part 50 licensees from the requirements of paragraph (b) of 10 CFR 70.24 for special nuclear material used or to be used in the reactor. Paragraph (d) of 10 CFR 70.24 states that any licensee who believes that there is good cause why it should be granted an exemption from all or part of 10 CFR 70.24 may apply to the Commission for such an exemption and shall specify the reasons for the relief requested. Paragraph (a) of 10 CFR 70.14 states that the Commission may, upon application of any interested person or upon its own initiative, grant such exemption from 10 CFR part 70 as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

III

The special nuclear material that could be assembled into a critical mass at NMP1 is in the form of nuclear fuel, the quantity of special nuclear material other than fuel that is stored on site is small enough to preclude achieving a critical mass. The NRC staff has evaluated the possibility of an inadvertent criticality of the nuclear fuel at NMP1 and has determined that such an accident cannot occur if the licensee meets the following seven criteria.

1. Plant procedures do not permit more than 3 new assemblies to be in transit between the associated shipping cask and dry storage rack at one time.

2. The k-effective of the fresh fuel storage racks filled with fuel of the maximum permissible Uranium (U)-235 enrichment and flooded with pure water does not exceed 0.95 at a 95% probability with a 95% confidence level.

3. If optimum moderation of fuel in the fresh fuel storage racks occurs when the fresh fuel storage racks are not flooded, the k-effective corresponding to this optimum moderation does not exceed 0.98 at a 95% probability with a 95% confidence level.

4. The k-effective does not exceed 0.95 at a 95% probability with a 95% confidence level in the event that the spent fuel storage racks are filled with fuel of the maximum permissible U-235 enrichment and flooded with pure water.

5. The quantity of forms of special nuclear material, other than nuclear fuel, that are stored on site in any given area is less than the quantity necessary for a critical mass.

6. Radiation monitors, as required by General Design Criterion (GDC) 63 of Appendix A to 10 CFR part 50, are

provided in fuel storage and handling areas to detect excessive radiation levels and to initiate appropriate safety actions.

7. The maximum nominal U-235 enrichment is limited 5 to 5 weight percent.

By letter dated November 6, 1998, the licensee requested an exemption from 10 CFR 70.24. In this exemption request, the licensee addressed the seven criteria given above and indicated how each criterion is satisfied at NMP1. The licensee stated that it does not analyze for the optimum moderation condition as addressed in Criterion 3 above, but has used a standard industry practice by implementing administrative and physical controls in accordance with General Electric's Service Information Letter 152, "Criticality Margins for the Storage of New Fuel," dated March 31, 1976. To preclude the existence of an optimum moderation condition in the new fuel vault area, the licensee uses the following controls or design features: the new fuel vault is equipped with a drain to prevent flooding; the pre-fire plans will be revised before any more new fuel is received to ensure that fire fighting foam or water will not be directed towards the new fuel vault during dry storage of new fuel; and only one new fuel vault (non-combustible) cover is removed at a time and, if the vault is left unattended, either the new fuel vault cover will be reinstalled or a solid fireproof cover installed. The NRC staff has found these practices and features acceptable.

Regarding Criterion 4 above, the licensee states that there are two types of spent fuel storage racks in the NMP1 spent fuel storage pool—those of the poison type incorporating a neutron absorbing material and those of a non-poison type without special neutron absorbers. Both types are designed to maintain k-effective less than or equal to 0.95 under all storage conditions. As required by NMP1 Technical Specification (TS) 5.5, fuel assemblies stored in the spent fuel storage locations of the non-poison flux trap design are limited to 3.0 weight percent of U-235 per axial centimeters of assembly. Since all fuel assemblies used at NMP1 since the 1980's exceed 3.0 weight percent of U-235, the non-poison racks are not used for unirradiated fuel. Spent fuel storage racks of the poison type incorporating a neutron absorber are analyzed and designed consistent with Criterion 4. Thus, the NRC staff concludes that the storage of new fuel in spent fuel racks at NMP1 is consistent with Criterion 4 above.

The NRC staff has reviewed the licensee's submittal and has determined

that NMP1 meets the criteria for prevention of inadvertent criticality; therefore, the NRC staff has determined that there is no credible way in which an inadvertent criticality could occur in special nuclear materials handling or storage areas at NMP1.

The purpose of the criticality monitors required by 10 CFR 70.24 is to ensure that if a criticality were to occur during the handling of special nuclear material, personnel would be alerted to that fact and would take appropriate action. The NRC staff has determined that there is no credible way in which such an accident could occur. The licensee has radiation monitors consistent with GDC 63 in fuel storage and handling areas. These monitors would alert personnel to excessive radiation levels and allow them to initiate appropriate safety actions. The low probability of an inadvertent criticality, together with the licensee's adherence to GDC 63, constitute good cause for granting an exemption to the requirements of 10 CFR 70.24.

IV

The Commission has determined that, pursuant to 10 CFR 70.14(a), this exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants the licensee an exemption from the requirements of 10 CFR 70.24 for NMP1.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will have no significant impact on the quality of the human environment [63 FR 67944].

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 10th day of December 1998.

For the Nuclear Regulatory Commission.

Samuel J. Collins,

Director, Office of Nuclear Reactor Regulation.

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NUCLEAR REGULATORY COMMISSION

[Docket No. 50-410]

In the Matter of Rochester Gas and Electric Corporation; (Nine Mile Point Nuclear Station Unit No. 2); Order Approving Application Regarding Restructuring of Rochester Gas and Electric Corporation by Establishment of a Holding Company Affecting License No. NPF-69, Nine Mile Point Nuclear Station, Unit No. 2

I

Rochester Gas and Electric Corporation (Applicant) is licensed by the U.S. Nuclear Regulatory Commission (NRC or Commission) to own and possess a 14-percent interest in Nine Mile Point Nuclear Station, Unit 2 (NMP2), under Facility Operating License No. NPF-69, issued by the Commission on July 2, 1987. In addition to Applicant, the other owners who may possess, but not operate, NMP2 are New York State Electric & Gas Corporation with an 18-percent interest, Long Island Lighting Company with an 18-percent interest, and Central Hudson Gas and Electric Corporation with a 9-percent interest. Niagara Mohawk Power Corporation (NMPC) owns a 41-percent interest in NMP2, is authorized to act as agent for the other owners, and has exclusive responsibility and control over the operation and maintenance of NMP2. NMP2 is located in the town of Scriba, Oswego County, New York.

II

Under cover of a letter dated July 31, 1998, Applicant submitted an application, which was supplemented August 18, 1998, and September 14, 1998, for consent by the Commission, pursuant to 10 CFR 50.80, regarding a proposed corporate restructuring action that would result in the indirect transfer of the operating license for NMP2 to the extent it is held by Applicant. As a result of the proposed restructuring, Applicant would establish a new holding company and become a subsidiary of the new holding company, not yet named, to be created in accordance with an "Amended and Restated Settlement Agreement" with the Public Service Commission of the State of New York, dated January October 23, 1997 (Case 96-E-0989).

According to the application, essentially all of the outstanding shares of Applicant's common stock would be exchanged on a share-for-share basis for common stock of the proposed new holding company, such that the holding company would own the outstanding

common stock of Applicant. Under the proposed restructuring, Applicant would continue to be an "electric utility" as defined in 10 CFR 50.2, providing the same utility services as it did before the restructuring. In addition, certain non-utility unregulated subsidiaries of Applicant would become subsidiaries of the new holding company. Applicant would retain its ownership interest in NMP2 and would continue to be a licensee. No direct transfer of the operating license or interests in the station would result from the proposed restructuring. The transaction would not involve any change to either the management organization or technical personnel of NMPC, which has exclusive responsibility under the operating license for operating and maintaining NMP2 and which is not involved in the proposed restructuring of Applicant.

Notice of the application for approval was published in the **Federal Register** on October 26, 1998 (63 FR 57141), and an Environmental Assessment and Finding of No Significant Impact was published in the **Federal Register** on October 26, 1998 (63 FR 57143).

Under 10 CFR 50.80, no license shall be transferred, directly or indirectly, through transfer of control of the license, unless the Commission shall give its consent in writing. Upon review of the information submitted in the application of July 31, 1998, as supplemented by letters dated August 18, and September 14, 1998, and attachments thereto, the NRC staff has determined that the proposed restructuring of Applicant by establishment of a holding company will not affect the qualifications of Applicant as a holder of the license, and that the transfer of control of the license for NMP2, to the extent effected by the restructuring, is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission, subject to the conditions set forth herein. These findings are supported by a safety evaluation dated December 14, 1998.

III

Accordingly, pursuant to sections 161b, 161i, 161o, and 184 of the Atomic Energy Act of 1954, as amended, 42 USC 2201(b), 2201(i), 2201(o), and 2234, and 10 CFR 50.80, *It is hereby ordered* that the Commission approves the application regarding the proposed restructuring of Applicant by the establishment of a holding company, subject to the following: (1) Applicant shall provide the Director, Office of Nuclear Reactor Regulation, a copy of any application, at the time it is filed,