

September 24, 1982

Docket No. 50-320

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Mr. B. K. Kanga, Director
Three Mile Island Unit 2
GPU Nuclear Corporation
P.O.Box 480
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Dear Mr. Kanga:

The Nuclear Regulatory Commission has issued the enclosed Amendment of Order for the Three Mile Island Nuclear Station, Unit 2. This Amendment of Order changes the Recovery Mode Proposed Technical Specifications to allow for operations necessary to prepare for future recovery mode activities. The changed requirements had been imposed by the Order of the Director of the Office of Nuclear Reactor Regulation on February 11, 1980. These changes are being made in response to your requests of April 19, 1982 and July 7, 1982. This Amendment of Order is effective upon issuance.

Copies of the related Safety Evaluation and revised pages for the proposed Technical Specifications and their associated bases are enclosed.

Sincerely,

Bernard J. Snyder, Program Director
Three Mile Island Program Office
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment of Order
2. Safety Evaluation
3. Proposed Technical Specification Page Changes

cc: J. Barton
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)

METROPOLITAN EDISON COMPANY, et. al.)

(Three Mile Island Nuclear Station,)
Unit 2))

Docket No. 50-320 OLA

AMENDMENT OF ORDER

I.

GPU Nuclear Corporation, Metropolitan Edison Company, Jersey Central Power and Light Company and Pennsylvania Electric Company (collectively, the Licensee) are the holders of Facility Operating License No. DPR-73, which had authorized operation of the Three Mile Island Nuclear Station, Unit 2 (TMI-2) at power levels up to 2772 megawatts thermal. The facility, which is located in Londonderry Township, Dauphin County, Pennsylvania, is a pressurized water reactor previously used for the commercial generation of electricity.

By Order for Modification of License, dated July 20, 1979, the Licensee's authority to operate the facility was suspended and the Licensee's authority was limited to maintenance of the facility in the present shutdown cooling mode (44 Fed. Reg. 45271). By further Order of the Director, Office of Nuclear Reactor Regulation, dated February 11, 1980, a new set of formal license requirements was imposed to reflect the post-accident condition of the facility and to assure the continued maintenance of the current safe, stable, long-term cooling condition of the facility (45 Fed. Reg. 11282).

Although these requirements were imposed on the licensee by an Order of the Director of Nuclear Reactor Regulation, dated February 11, 1980, the TMI-2 license has not been formally amended. The requirements are reflected in the proposed Recovery Mode Technical Specifications presently pending before the Atomic Safety and Licensing Board. Hereafter in this Amendment of Order, the requirements in question are identified by the applicable proposed Technical Specification.

II.

By letters dated April 19, 1982 and July 7, 1982, the licensee requested changes to the proposed Technical Specifications, Appendix A for Three Mile Island, Unit 2 (TMI-2). The licensee has requested NRC staff approval for the separation of the Auxiliary Building and Fuel Handling Building Air Cleanup Exhaust System Technical Specifications. The proposed change would provide separate Technical Specifications for Auxiliary Building and Fuel Handling Building Air Cleanup Exhaust Systems. Presently section 3.9.12 contains the combined Fuel Handling/Auxiliary Building Air Cleanup Systems Technical Specification. The existing proposed Technical Specification contained in section 3.9.12 does not accurately reflect the existing design of either the Fuel Handling Building or the Auxiliary Building Air Exhaust System. The staff agrees with the licensee that the changes would more clearly define which equipment needs to be operating to provide adequate ventilation capability for the Fuel Handling and Auxiliary Buildings.

The staff has reviewed the design of the Air Exhaust Systems for both the Auxiliary and Fuel Handling Buildings as presented in the licensee's Final Safety Analysis Report (FSAR) and finds that the proposed changes do not conflict with operational or design characteristics of either system. The changes would require corrective actions within 4 hours if the ventilation

flowrate is not within acceptable limits and suspension of operations involving the movement of liquid and gaseous radwastes in the affected building if the Air Exhaust System is not returned to an operable condition within four hours. It should also be noted that the changes provide a definition of liquids that would be considered as liquid radioactive waste which would not be moved in the event of loss of the air cleanup system in the building. This definition is necessary in order not to interfere with required makeup to the reactor coolant system regardless of the status of the Air Exhaust Systems. The staff finds that the proposed amendment of section 3.9.12 of the proposed Technical Specifications is acceptable. The staff's safety assessment of this matter is set forth in the concurrently issued Safety Evaluation. This evaluation concluded, in material part, that the modification does not involve a significant hazards consideration and that there is reasonable assurance that the health and safety of the public will not be endangered by operation in the modified manner. Prior public notice of this Amendment of Order is therefore not required and the action is effective upon issuance.

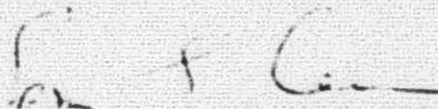
It was further determined that the modification does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. In light of this determination, it was concluded that the instant action is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5 (d)(4), that an environmental impact statement or environmental impact appraisal need not be prepared herewith.

III.

Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, the Director's Order of February 11, 1980, is hereby revised to incorporate the deletions, additions, and modifications set forth in Attachment A hereto. For further details with respect to this action, see (1) Letter to B. Snyder, USNRC, from R. Arnold, Met-Ed/GPU, Technical Specification Change Request No. 35 dated April 19, 1982, (2) Amendment to Technical Specification Change Request No. 35, dated July 7, 1982, and (3) The Director's Order of February 11, 1980.

All of the above documents are available for inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C., and at the Commission's Local Public Document Room at the State Library of Pennsylvania, Government Publications Section, Education Building, Commonwealth and Walnut Streets, Harrisburg, Pennsylvania 17126.

FOR THE NUCLEAR REGULATORY COMMISSION



Edson G. Case, Acting Director
Office of Nuclear Reactor Regulation

Effective Date: September 24, 1982
Dated at Bethesda, Maryland

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

GPU NUCLEAR CORPORATION

METROPOLITAN EDISON COMPANY

PENNSYLVANIA ELECTRIC COMPANY

JERSEY CENTRAL POWER AND LIGHT COMPANY

DOCKET NO. 50-320

THREE MILE ISLAND NUCLEAR STATION, UNIT 2

Introduction

By letters dated April 19, 1982 and July 7, 1982, (References 1 & 2) the licensee requested changes to the proposed Technical Specifications Appendix A, for Three Mile Island, Unit 2 (TMI-2). The proposed changes would allow for the separation of the Auxiliary and Fuel Handling Building Air Cleanup Exhaust Systems proposed Technical Specification (section 3.9.12). Presently the requirements of proposed Technical Specification section 3.9.12 do not reflect the actual design and operational features of the Auxiliary and Fuel Handling Building Air Cleanup Exhaust Systems and the changes would more clearly define which equipment needs to be operating to provide adequate ventilation capability for the Auxiliary and Fuel Handling Buildings.

Summary

The licensee has requested NRC staff approval to allow for the separation of the Fuel Handling Building Air Cleanup System and the Auxiliary Building Air Cleanup System Technical Specifications. The proposed changes would accurately reflect the existing air cleanup exhaust systems design and require corrective action if air flow should deviate from the allowable flowrate during normal operation. In addition to the above, the changes would suspend the movement of liquid and gaseous radioactive wastes if the air cleanup exhaust system in the building is inoperable.

Evaluation

By Order of the Director, Office of Nuclear Reactor Regulation, dated February 11, 1980, a new set of formal license requirements was imposed to reflect the post accident condition of the TMI-2 facility. The order required in section 3.9.12 the Fuel Handling and Auxiliary Building air cleanup systems to be operable with exhaust ventilation flow routed through HEPA filters during system operation.

The air exhaust systems for both the Fuel Handling Building and Auxiliary Building were designed in a manner such that normal flow out of these buildings would bypass the exhaust filters unless airborne contamination levels reached a pre-determined level, then flow would be routed through the air cleanup exhaust filter systems prior to release. As a result of the March 28, 1979 accident and the February 11, 1980 order, all exhaust air flow from the Fuel Handling and Auxiliary Buildings must be filtered prior to release to the environment, to minimize the release of airborne contaminants.

The design of the existing air cleanup exhaust system is such that redundancy in the system does not exist when flow is routed through the exhaust filter units. The exhaust filter units for the Fuel Handling and Auxiliary Building air exhaust systems consist of two parallel exhaust filter trains, sized such that each train passes 50% of the required exhaust flow. Since each filter train for both the Fuel Handling and Auxiliary air exhaust system is designed for only 50% of the required air exhaust flow, it is possible that a number of anticipated and unanticipated operational occurrences can cause a reduction in the specified flow requirement. To address this design feature the licensee proposed an

action statement based on time and air flow. According to the action statement, when any condition arises that reduces air flow, operator actions will be taken to restore the required flow within four hours. However, during such off normal flow conditions, air flow out of the affected building continues to be filtered and the public health and safety is not compromised.

In the event that corrective actions by the licensee fail to restore the Fuel Handling or Auxiliary Building air cleanup exhaust system to operation within the specified time period, all movements of liquid and gaseous radioactive waste in the affected building must be stopped until the inoperable air cleanup exhaust system is restored to operation. This requirement is imposed to reduce the possibility of uncontrolled releases of radioactive material into the affected building and the environment. Since processed water which contains trace quantities of radioactive materials is being reused throughout the plant in a number of recovery operations, including required makeup to the reactor coolant system, clear criteria are needed to define radioactive liquids. At the request of the NRC staff, criteria were developed by the licensee and reviewed and approved by the NRC staff to define when liquids should be classified as radioactive. The criteria are based on not exceeding defined measurable levels of radioactivity. Reference 2 lists each isotope and its associated maximum concentration. The staff based its approval on measured concentrations in processed water being less than 10 CFR Part 20, Table I concentrations which define the maximum concentration in liquid for a restricted area. The staff used the above bases because the primary impact of any uncontrolled releases of radioactive material as described above would be on plant personnel.

Environmental Considerations

We have determined that the change does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the change 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 change.

Conclusion

Based upon our review of the Auxiliary and Fuel Handling Building Air Cleanup System (Reference 3) and the change request and amendment to the change request (References 1 & 2), the staff finds that the modification of proposed Technical Specification section 3.9.12 is acceptable.

We have also concluded, based on the considerations discussed above, that:

- (1) because the change does not involve a significant increase in the probability or consequences of accidents previously considered, does not involve a significant increase in the possibility of an accident or malfunction of a different type than evaluated previously and does not involve a significant decrease in a safety margin, it 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 implementation of this change will not be inimical to the common defense and security or to the health and safety of the public.

References

- 1) GPU Nuclear letter from R.C. Arnold to B.J. Snyder, Director, TMI Program Office, April 19, 1982.
- 2) GPU Nuclear letter from R.C. Arnold to B.J. Snyder, Director, TMI Program Office, July 7, 1982.
- 3) Final Safety Analysis Report, Three Mile Island Nuclear Station-Unit 2, April 4, 1974.

FACILITY OPERATING LICENSE NO. DPR-73

DOCKET NO. 50-320

Replace the following pages of Appendix "A" Proposed Technical Specifications with the enclosed pages as indicated. The revised pages contain vertical lines indicating the area of change.

Pages

3.9-1

3.9-2 (added)

LIMITING CONDITIONS FOR OPERATION

3.9 RADIOACTIVE WASTE STORAGE

FUEL HANDLING BUILDING/AUXILIARY BUILDING AIR CLEANUP SYSTEMS

3.9.12.1 The Fuel Handling Building Air Cleanup Exhaust System shall be OPERABLE with exhaust ventilation flow through the HEPA filters during system operation. The Fuel Handling Building Air Cleanup Exhaust System is OPERABLE when two of the four system air cleanup exhaust fans are OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the Fuel Handling Building Air Cleanup Exhaust System inoperable due to flow requirements, return the flow to within acceptable limits within four (4) hours or;
- b. With the Fuel Handling Building Air Cleanup Exhaust System inoperable (other than as allowed in paragraph 3.9.12.1 a above), suspend all operations involving movement of liquid and gaseous radioactive wastes in the Fuel Handling Building (other than sampling evolutions required by the Technical Specifications or Recovery Operations Plans) until the system is restored to OPERABLE status.

3.9.12.2 The Auxiliary Building Air Cleanup Exhaust System shall be OPERABLE with exhaust ventilation flow through the HEPA filters during system operation. The Auxiliary Building Air Cleanup Exhaust System is OPERABLE when two of the four system air cleanup exhaust fans are OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the Auxiliary Building Air Cleanup Exhaust System inoperable due to flow requirements, return the flow to within acceptable limits within four (4) hours or;
- b. With the Auxiliary Building Air Cleanup Exhaust System inoperable (other than as allowed in paragraph 3.9.12.2 a above), suspend all operations involving movement of liquid and gaseous radioactive wastes in the Auxiliary Building (other than sampling evolutions required by the Technical Specifications or Recovery Operations Plan) until the system is restored to OPERABLE status.

LIMITING CONDITIONS FOR OPERATION

EPICOR II PROCESSED WATER

3.9.13 Discharge of water processed by the EPICOR II system shall be prohibited until approved by the NRC. Water processed by the EPICOR II system shall be discharged in accordance with procedures approved pursuant to Specification 6.8.2.

APPLICABILITY: At all times.

ACTION:

None except as provided in Specification 3.0.3.

REACTOR BUILDING SUMP WATER

3.9.14 Processing and discharge of water in the Reactor Building sump and Reactor Coolant System shall be prohibited until approved by the NRC. Water in the Reactor Building sump and Reactor Coolant System shall be processed and discharged in accordance with procedures approved pursuant to Specification 6.8.2.

APPLICABILITY: At all times.

ACTION:

None except as provided in Specification 3.0.3.