



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

SEP 23 1981

Docket No. 50-320

Mr. Gale K. Hovey  
Vice President and  
Director of TMI-2  
Metropolitan Edison Company  
P.O. Box 480  
Middletown, Pennsylvania 17057

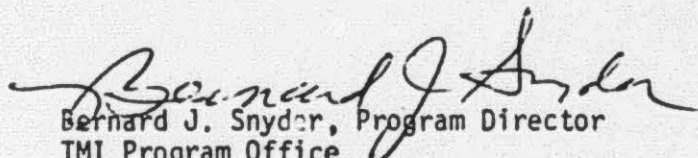
Dear Mr. Hovey:

The Nuclear Regulatory Commission has issued the enclosed Modification of Order for the Three Mile Island Nuclear Station, Unit 2. This Modification of Order modifies proposed Technical Specification 3.6.1.3 to permit both doors of an airlock to be open simultaneously in accordance with procedures approved pursuant to proposed Technical Specification 6.8.2 so as to permit the passage of tools and equipment into and out of the reactor building. This change is being made in response to your request of August 20, 1981 (LL2-81-0192). We have made certain modifications in your submittal to satisfy our requirements. These modifications have been discussed with and agreed to by members of your staff.

This revision to the proposed Technical Specification is effective immediately.

Copies of the related Safety Evaluation and revised pages for the proposed Technical Specification are enclosed.

Sincerely,

  
Bernard J. Snyder, Program Director  
TMI Program Office  
Office of Nuclear Reactor Regulation

Enclosures:

1. Modification of Order
2. Safety Evaluation
3. Proposed Technical Specifications  
pages 3.6-1 and B 3/4 6-1

cc w/enclosures:  
See attached

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PDR ADOCK 05000320  
G PDR

NOS 9-25-81

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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

MODIFICATION OF ORDER

I.

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 of the Director, Office of Nuclear Reactor Regulation, dated February 11, 1980, a new set of license requirements was imposed to reflect the condition of the facility following the accident of March 28, 1979, and to assure the continued maintenance of the current safe, stable, long-term cooling condition of the facility. 45 Fed. Reg. 11282 (February 20, 1980).

II.

The Licensee has undertaken containment entries as part of its maintenance and recovery effort at TMI-2. In order to facilitate certain

activities which it needs to conduct within containment, the Licensee applied on August 20, 1981, for approval of a change to the requirement set forth in Technical Specification 3.6.1.3 that it maintain at least one door in each of its containment air locks closed at all times. The change proposed by the Licensee would permit both doors of the containment air locks to be open simultaneously when necessary to permit the passage of tools and equipment, provided that these operations are undertaken in accordance with procedures approved pursuant to the requirements reflected in Technical Specification 6.8.2.

The NRC Staff has prepared a Safety Evaluation of the proposed change in which it has found that the change will give the Licensee needed additional flexibility in the design of tools and equipment for the conduct of activities inside containment and will reduce the exposure of workers by lessening the time spent inside containment assembling such tools and equipment. Based upon its Evaluation, the Staff has concluded that:

- (1) conditions that the Staff will require to be incorporated in the implementing procedures will assure that no significant releases of radioactive materials will occur in the event of an accident,
- (2) the proposed change will not result in a significant increase in the probability or consequences of accidents previously considered, nor a significant reduction in a margin of safety, and does not, therefore, involve a significant hazards consideration,
- (3) there is reasonable assurance that the activities that would be authorized under the changed Technical Specification can be



- 3 -

conducted without endangering the health and safety of the public, and in compliance with the Commission's regulations, and

- (4) approval of the proposed change will not be inimical to the common defense and security or to the public health and safety.

The Staff has further concluded that approval of the proposed 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. In light of this determination, it has concluded, pursuant to 10 C.F.R. § 51.5(d)(4), that the approval of this change does not require the preparation of an environmental impact statement or negative declaration and environmental impact appraisal.

### III.

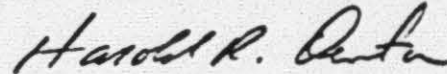
Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, the Director's Order of February 11, 1980, is hereby modified to incorporate the requested change to Technical Specification 3.6.1.3. The revised Specification is set forth in Attachment A hereto. This action does not amend Operating License No. DPR-73 to incorporate revised Technical Specification 3.6.1.3 therein. The question of whether to amend the License to incorporate the Recovery Mode Technical Specifications, of which Technical Specification 3.6.1.3 is a part, is presently pending before an Atomic Safety and Licensing Board. The Licensee is, however, authorized to act in accordance with the revised requirements reflected in Technical Specification 3.6.1.3.

For further details with respect to this action, see (1) Letter to B. Snyder, USNRC, from G. K. Hovey, Met. Ed/GPU, Technical Specification Change Request No. 29, dated August 20, 1981, (LL2-81-0192); (2) Letter

to G. K. Hovey, Met. Ed/GPU, from B. J. Snyder, USNRC, dated September 23, 1981; 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, NW, Washington, DC, 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



Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Effective date: September 23, 1981

Dated at Bethesda, Maryland,  
this 23 day of September, 1981.

FACILITY OPERATING LICENSE NO. DPR-73DOCKET NO. 50-320

Replace the following pages of the proposed Appendix "A" Technical Specifications with the enclosed pages as indicated. The revised pages contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Pages

3.6-1

B3/4 6-1

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## LIMITING CONDITIONS FOR OPERATION

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### 3.6 CONTAINMENT SYSTEMS

#### 3.6.1 PRIMARY CONTAINMENT

##### CONTAINMENT INTEGRITY

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained and all containment penetrations, including at least two OPERABLE containment isolation valves or a double barrier in each penetration, shall be closed when not required open per procedures approved pursuant to Specification 6.8.2. Purging or other treatment of the containment atmosphere shall be prohibited until approved by the NRC.

APPLICABILITY: RECOVERY MODE.

##### ACTION:

With one containment isolation valve per containment penetration open or inoperable, maintain the affected penetration(s) closed with either:

- a. At least one deactivated automatic valve secured in the isolation position, and
- b. At least one closed manual valve, or a blind flange.

##### CONTAINMENT AIR LOCKS

3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for transit entry and exit through the containment, then at least one air lock door shall be closed unless otherwise specified per procedures approved pursuant to Specification 6.8.2.
- b. An overall air lock leakage rate of less than or equal to  $0.05 L_a$  at  $P_a$ , 56.2 psig.

APPLICABILITY: RECOVERY MODE.

##### ACTION:

With an air lock inoperable, maintain at least one door closed and restore the air lock to OPERABLE status within 24 hours.



## 3/4.6 CONTAINMENT SYSTEMS

### BASES

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#### 3/4.6.1 PRIMARY CONTAINMENT

##### 3/4.6.1.1 CONTAINMENT INTEGRITY

Primary CONTAINMENT INTEGRITY must be maintained to ensure that the radioactive materials which were released to the containment atmosphere during the March 28, 1979 incident will not be released to the atmosphere.

On November 21, 1979, the Commission issued a Statement of Policy and Notice of Intent to Prepare a Programmatic Environmental Impact Statement addressing the overall decontamination and cleanup activities at TMI-2, including, among other things, the purging or other treatment of the containment atmosphere (44 F.R. 67738). The Commission recognized in its Statement that it may be in the best interest of the public health and safety to purge the containment during the development of the programmatic statement. If the need to take such prompt action arises the Commission has stated that it will consider the advice of the Council on Environmental Quality (CEQ) as to the Commission's NEPA responsibilities, and moreover, will not take such action until the activity has undergone an environmental review with opportunity for public comment. The Commission further recognized that there may be emergency situations, not at this time foreseen, which could require rapid action. In these situations, the Commission has indicated its intention to consult with CEQ to the extent practicable. Accordingly, the purging or other treatment of the containment atmosphere is prohibited until approved by the NRC consistent with the foregoing.

##### 3/4.6.1.3 CONTAINMENT AIR LOCKS

The containment air locks must be maintained OPERABLE to provide CONTAINMENT INTEGRITY. These air locks are being used during entries into the containment to ensure that radioactive materials are not be released to the environs. The preferred method for ensuring that radioactive materials are not released during these entries is to maintain at least one door closed at all times; however, to permit the passage of long items into the reactor building, both doors may be open simultaneously in accordance with procedures approved pursuant to Specification 6.8.2.

##### 3/4.6.1.4 INTERNAL PRESSURE

The negative pressure limit provides assurance that the containment will not exceed its design negative pressure differential. The positive pressure limit provides assurance that leakage from the containment will be limited for dose considerations.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER AND LIGHT COMPANY

PENNSYLVANIA ELECTRIC COMPANY

DOCKET NO. 50-320

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 2

Introduction

By letter dated August 20, 1981, the Metropolitan Edison Company (licensee) proposed changes to the Recovery Mode technical specifications for Three Mile Island Unit 2 (TMI-2) dealing with the containment air lock doors. The proposed changes would permit both doors of the containment air locks to be open simultaneously when necessary to permit the passage of tools and equipment provided these operations are in accordance with procedures approved pursuant to proposed Technical Specification 6.8.2. Presently, the Recovery Mode technical specifications require that at least one door of the containment air locks be closed at all times. The requirements of the Recovery Mode technical specifications were imposed by the Order of the Director of the Office of Nuclear Reactor Regulation dated February 11, 1980 45 F.R. 11282 (February 20, 1980).

Evaluation

The licensee has proposed that both doors of the containment air locks be permitted to be open simultaneously so that tools and equipment longer than the distance between the air lock doors (approximately 9 feet) could be brought into the reactor building. The present form of proposed Technical Specification 3.6.1.3 requires that at least one door of the air lock be closed at all times. This restriction precludes bringing items longer than approximately 9 feet into the reactor building thereby requiring assembly or fabrication of items longer



than approximately 9 feet within the reactor building. Authorization of the proposed change would enable the licensee to utilize additional flexibility in the design of items which will be required inside the reactor building during the planned cleanup operations. Approval of this change would also be in accordance with the As Low As Reasonably Achievable (ALARA) concept for reducing occupational exposures associated with performing required tasks since it will minimize the time required to be spent in high radiation areas within the reactor building by permitting entry of preassembled tools and equipment.

The purpose of the reactor building air locks is to permit transit entry into and exit from the reactor building while maintaining containment integrity, thereby ensuring no significant releases of radioactive materials via this pathway. To ensure that there will be no significant releases of radioactive materials from the reactor building through the air lock when both of its doors are open simultaneously, we will require as a condition of our approval of procedures pursuant to Specification 6.8.2 that the time both doors are open simultaneously be minimized and that the frequency for simultaneous opening of both doors be relatively infrequent. Additionally, we will require via these procedures, that whenever both air lock doors are open simultaneously, the reactor building purge system be in operation and exhausting through the HEPA filters. This provision will ensure that the reactor building atmosphere is maintained at a negative pressure relative to the outside atmosphere and therefore the air will flow into the reactor building whenever the air lock doors are open. To initially open the air lock doors, pressure in the ante room (service building compartment adjoining the air lock) and the reactor building will be equalized by securing the reactor building purge. The purge will be restarted after the air lock doors are opened. During the short

interval when the pressures are equalized and the air lock doors are being opened, reactor building air may flow into the ante room, however, air exhausted from the ante room is also filtered by HEPA filters prior to discharge to the environment. Therefore, the door opening sequence will not increase radiological hazards. These actions will preclude the release of unfiltered effluents from the reactor building via the open air lock doors.

We also considered the possible consequences of a postulated loss of coolant accident with TMI-2 in its present condition. Since TMI-2 is currently in cold shutdown with the reactor coolant system being maintained at  $90 \pm 10$  psig and with hot leg temperatures of approximately  $120^{\circ}\text{F}$  and cold leg temperatures of approximately  $75^{\circ}\text{F}$ , any postulated piping failure with resulting release of fluid to the reactor building atmosphere, would cause only a slight, if any, increase in reactor building atmosphere pressure. Therefore, we concluded that there would be an adequate response time to close at least one air lock door and thereby re-establish containment integrity, thus preventing any significant release of radioactive materials.

#### Environmental Consideration

We have 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. Having made this determination, we have further concluded that the modification involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR Section 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 the modification.



Conclusion

Based upon the foregoing we have concluded that: (1) conditions that we will require to be incorporated in the implementing procedures will assure that no significant releases of radioactive materials will occur in the event of an accident, (2) the proposed change does not involve a significant increase in the probability or consequences of accidents previously considered nor a significant reduction in a margin of safety and, therefore, does not involve a significant hazards consideration, (3) there is reasonable assurance that the activities that would be authorized under the changed technical specification can be conducted without endangering the health and safety of the public, and in compliance with the Commission's regulations, and (4) approval of the proposed change will not be inimical to the common defense and security or to the public health and safety.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

METROPOLITAN EDISON COMPANY, ET AL.

(Three Mile Island Nuclear Station,  
Unit 2)

}  
Docket No. 50-320 OLA  
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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF NOTICE OF ISSUANCE OF MODIFICATION OF ORDER AND MOTION TO REVISE PROPOSED TECHNICAL SPECIFICATIONS IN ACCORDANCE THEREWITH" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or as indicated by an asterisk by deposit in the Nuclear Regulatory Commission internal mail system, this 24th day of September, 1981:

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\*Mr. Frederick J. Shon, Administrative  
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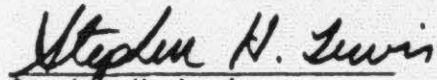
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Counsel for NRC Staff

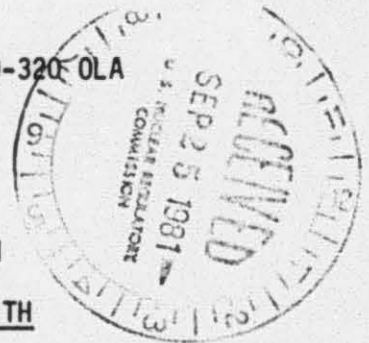
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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of  
METROPOLITAN EDISON COMPANY, ET AL.  
(Three Mile Island Nuclear Station,  
Unit 2)

Docket No. 50-320 OLA



NRC STAFF NOTICE OF ISSUANCE OF MODIFICATION  
OF ORDER AND MOTION TO REVISE PROPOSED  
TECHNICAL SPECIFICATIONS IN ACCORDANCE THEREWITH

On September 23, 1981, the Director of the NRC's Office of Nuclear Reactor Regulation issued the attached Modification of Order, pursuant to his authority under 10 C.F.R. § 2.717(b), which modifies requirements imposed by his Order of February 11, 1980, to allow the Licensee to open both doors of the containment air locks simultaneously to permit the passage of tools and equipment which would not fit between the two doors. The Modification is supported by the Safety Evaluation attached to it.

Proposed Technical Specification 3.6.1.3, pending before this Atomic Safety and Licensing Board as part of the Operating License Amendment proceeding, presently contains the requirement which the Director's Order has revised, namely, that at least one door of the containment air locks be closed at all times. Based upon the Director's Modification of Order and the supporting Safety Evaluation, the NRC Staff hereby moves the Licensing Board, subject to its authority under § 2.717(b) to later modify the proposed Technical Specification, to revise proposed Technical

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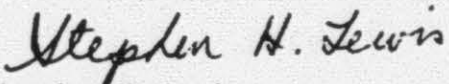
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Specification 3.6.1.3 so as to make it consistent with the modified requirement imposed by the Director. This will assure that the Licensing Board has before it for approval the presently effective requirements imposed on the Licensee.

All of the parties to this proceeding (the Licensee, the Environmental Coalition on Nuclear Power, and Dr. Lochstet), have been contacted by Staff counsel and do not oppose the grant of this motion.

Respectfully submitted,

  
Stephen H. Lewis  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 24th day of September, 1981.