

April 17, 1987

Docket No. 50-320

Mr. F. R. Standerfer  
Vice President/Director  
Three Mile Island Unit 2  
GPU Nuclear Corporation  
P.O. Box 480  
Middletown, Pennsylvania 17057

Dear Mr. Standerfer:

SUBJECT: ISSUANCE OF AMENDMENT NO. 27 TO FACILITY OPERATING LICENSE  
NO. DPR-73 FOR THREE MILE ISLAND NUCLEAR STATION, UNIT 2

The Commission has issued the enclosed Amendment No. 27 to Facility Operating License No. DPR-73 for the Three Mile Island Nuclear Station, Unit 2. The Amendment consists of changes to the Technical Specifications in response to your applications transmitted by letters dated June 18 and July 31, 1985 and supplemented by letters dated November 20, 1985, February 26, 1986 and May 20, 1986 (Technical Specification Change Request No's 49 and 51).

The amendment revises sections 3.7.4, 3.7.7, 3.7.10, 3.8.1, 3.8.2, 3.9.12.1, 3.9.12.2, 3/4.7.4, and 3/4.7.7 of the Appendix A Technical Specifications. Specifically, the amendment: (1) deletes all operability requirements for the emergency diesel generators and for those supporting systems with no other required functions, (2) modifies the operability requirements for the control room emergency air cleanup system so that a backup onsite AC power source (the diesel generators) is not required, and (3) modifies the requirements for both the main building and auxiliary building air cleanup systems, by increasing the number of operable exhaust fans required.

As stated in your letters of February 26, 1986 and May 20, 1986, and based on discussions with your staff, we understand that the TMI-2 emergency plan will be modified to specify that all ongoing TMI-2 recovery activities will be terminated and all systems placed in a safe configuration during an emergency event at TMI-1.

In conjunction with the issuance of this amendment, on February 9, 1987, the Commission granted your request for an exemption from General Design

F. R. Standerfer

- 2 -

Criterion 17 and a partial exemption from General Design Criterion 19 of 10 CFR 50, Appendix A. These exemptions, which relieve you from certain requirements of GDC 17 regarding maintenance of an onsite emergency backup power source, and GDC 19, regarding maintenance of control room habitability, are effective as of the effective date of this amendment.

A copy of the revised pages for the Technical Specifications and the Safety Evaluation supporting the amendment are enclosed.

Sincerely,

*Michael J. Masnick for*  
William D. Travers, Director  
TMI-2 Project Directorate  
Division of PWP Licensing-E  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 27 to DPR-73
2. Safety Evaluation

Office:	<i>W</i> TC/PRTU	<i>W</i> D/PRTU
Concurrees:	RHall/im	WTravers
Date:	3/27/87	3/27/87

## TMI-2 SERVICE LIST

Regional Administrator  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Dr. Judith H. Johnsrud  
Environmental Coalition on Nuclear Power  
433 Orlando Avenue  
State College, PA 16801

Ernest L. Blake, Jr., Esq.  
Shaw, Pittman, Potts, and Trowbridge  
2300 N Street, N.W.  
Washington, DC 20037

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Frederick S. Rice, Chairman  
Dauphin County Board of Commissioners  
Dauphin County Courthouse  
Front and Market Streets  
Harrisburg, PA 17101

Thomas M. Gerusky, Director  
Bureau of Radiation Protection  
Department of Environmental Resources  
P. O. Box 2063  
Harrisburg, PA 17120

Ad Crable  
Lancaster New Era  
8 West King Street  
Lancaster, PA 17601

U.S. Department of Energy  
P. O. Box 88  
Middletown, PA 17057

David J. McGoff  
Office of LWR Safety and Technology  
NE-23  
U.S. Department of Energy  
Washington, DC 20545

William Lochstet  
104 Davey Laboratory  
Pennsylvania State University  
University Park, PA 16802

Frank Lynch, Editorial  
The Patriot  
812 Market Street  
Harrisburg, PA 17105

Robert B. Borsum  
Babcock & Wilcox  
Nuclear Power Division  
Suite 220  
7910 Woodmont Avenue  
Bethesda, MD 20814

Michael Churchhill, Esq.  
PILCOP  
1315 Walnut Street  
Suite 1632  
Philadelphia, PA 19107

Marvin I. Lewis  
7801 Roosevelt Blvd. #62  
Philadelphia, PA 19152

Jane Lee  
183 Valley Road  
Efters, PA 17319

Walter W. Cohen, Consumer  
Advocate  
Department of Justice  
Strawberry Square, 14th Floor  
Harrisburg, PA 17127

Mr. Edwin Kintner  
Executive Vice President  
General Public Utilities  
Nuclear Corporation  
100 Interpace Parkway  
Parsippany, NJ 07054

U.S. Environmental Prot. Agency  
Region III Office  
Attn: FIS Coordinator  
Curtis Building (Sixth Floor)  
6th and Walnut Streets  
Philadelphia, PA 19106



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

GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION

DOCKET NO. 50-320

THREE MILE ISLAND NUCLEAR STATION UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 27  
License No. DPR-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The applications for amendment dated June 18, 1985 and July 31, 1985 as supplemented by letters dated November 20, 1985, February 26, 1986 and May 20, 1986 by General Public Utilities Nuclear Corporation (licensee), comply with standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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 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;
  - 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-73 is hereby amended to read as follows:

2.C (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 27 are hereby incorporated in the license. The licensee shall operate the facility in accordance with Technical Specifications and all Commission Orders issued subsequent to March 28, 1979.

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

FOR THE NUCLEAR REGULATORY COMMISSION

*Michael J. Masnick for*

William D. Travers, Director  
TMI-2 Cleanup Project Directorate  
Division of PWR Licensing-B  
Office of Nuclear Reactor Regulation

Date of Issuance: April 17, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 27  
TO FACILITY OPERATING LICENSE NO. DPP-73  
DOCKET NO. 50-320

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain a vertical line indicating the area of change.

Amendment Page

3.7-2  
3.7-4  
3.7-8  
3.8-1  
3.8-2  
3.8-3  
3.8-4  
3.9-2  
3.9-3  
P 3/4 7-1  
P 3/4 7-2

LIMITING CONDITIONS FOR OPERATION

---

3.7.4 NUCLEAR SERVICE RIVER WATER SYSTEM

Deleted.

## LIMITING CONDITIONS FOR OPERATION

---

### 3.7.7 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

3.7.7.1 The Control Room Ventilation and Emergency Air Cleanup System shall be OPERABLE\* with:

- a. Two Control Room supply Fans and associated cooling coils,
- b. Two Control Room Bypass Fans,
- c. One charcoal adsorber and HEPA filter train, and
- d. Two isolation dampers in the outside air intake duct.
- e. The Control Room air inlet radiation monitor OPERABLE.

APPLICABILITY: RECOVERY MODE

ACTION:

- a. With one Control Room Supply Fan or its associated cooling coil inoperable, restore the inoperable fan and/or cooling coil to OPERABLE status within 7 days.
- b. With one Control Room Bypass Fan inoperable restore the inoperable fan to OPERABLE status within 7 days.
- c. With the filter train inoperable, restore the filter train to OPERABLE status within 24 hours.
- d. With one isolation damper in the outside air intake duct inoperable, restore the inoperable damper to OPERABLE status or close the duct within 4 hours by use of at least one isolation damper secured in the closed position.
- e. With the Control Room Air Inlet Radiation Monitor inoperable, restore it to OPERABLE status or place the Control Room Emergency Air Cleanup System in the recirculation mode of operation within 4 hours.

---

\*Standby onsite AC power (emergency diesel generators) is not required for operability.

## LIMITING CONDITIONS FOR OPERATION

---

### DELUGE/SPRINKLER SYSTEMS

3.7.10.2 The Deluge and/or Sprinkler Systems located in the following areas shall be OPERABLE:

- a. Deleted.
- b. Deleted.
- c. Air Intake Tunnel (Deluge - 2 of the 3 zones)
- d. Hydrogen Purge Exhaust Filter AH-F-34#
- e. Reactor Building Purge Exhaust Filters AH-F-31A/B#
- f. Control Room Bypass Filter AH-F-5
- g. Deleted.
- h. Fuel Handling Building Exhaust Filter AH-F-14A/B#
- i. Waste gas disposal filter WDG-r-1
- j. Auxiliary Building exhaust filters AH-F-10A/B#
- k. Southeast Storage Facility\*\*\*

APPLICABILITY: RECOVERY MODE.

#### ACTION:

With one or more of the above required deluge and/or sprinkler systems inoperable, establish a roving (at least once per hour) fire watch with backup fire suppression equipment for the unprotected area(s) within 1 hour; restore the system to OPERABLE status within 14 days.

---

\*\*\*This facility's Action Statement shall require a roving fire watch once per 24 hours instead of once per hour.

#Supply line may be isolated by a single manually operated valve.

## LIMITING CONDITIONS FOR OPERATION

---

### 3.8 ELECTRICAL POWER SYSTEMS

#### 3.8.1 A.C. SOURCES

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system.
- b. Deleted

APPLICABILITY: RECOVERY MODE.

ACTION:

- a. With one offsite circuit of the above required A.C. electrical power sources inoperable, verify the OPERABILITY of the remaining offsite circuit and demonstrate the OPERABILITY of the D.C. bus trains by performing Surveillance Requirements 4.8.2.2.1 and 4.8.2.3.2.a.4 within 4 hours. Restore the full complement of the above required A.C. electrical power sources to OPERABLE status within 7 days.
- b. With both offsite circuits of the above required A.C. electrical power sources inoperable, suspend CORE ALTERATIONS and cease movement of heavy loads in the reactor building.\* Restore one circuit within 8 hours and restore the second A.C. circuit to OPERABLE status within 7 days.

---

\*This does not preclude completion of those activities necessary to place the plant in a safe configuration.

TABLE 3.8-1  
TESTING FREQUENCY MATRIX  
DELETED

TABLE 3.8-2  
RESTORATION TIME MATRIX  
DELETED

## LIMITING CONDITIONS FOR OPERATION

---

---

### 3.8.2 ONSITE POWER DISTRIBUTION SYSTEMS

#### 3.8.2.1 A.C. DISTRIBUTION

3.8.2.1.a The A.C. electrical busses listed in Section 4.8.2.1.a of the RECOVERY OPERATIONS PLAN shall be OPERABLE and energized with tie breakers open (unless closed in accordance with procedures approved pursuant to Specification 6.8.2) between redundant busses.

APPLICABILITY: RECOVERY MODE.

ACTION:

With less than the above complement of A.C. busses OPERABLE, restore the inoperable bus to OPERABLE status within 8 hours.

3.8.2.1.b The AC electrical busses listed in Section 4.8.2.1.b of the RECOVERY OPERATIONS PLAN shall be OPERABLE and energized.

APPLICABILITY: RECOVERY MODE

ACTION:

- a. With any of the above A.C. busses incapable of being supplied by its respective inverter, restore that capability to the affected bus within 7 days.
- b. With any of the above A.C. busses de-energized, restore the inoperable bus to OPERABLE status within 8 hours.

## LIMITING CONDITIONS FOR OPERATION

- b. With no Fuel Transfer Canal (deep end) water level instruments OPERABLE, terminate all activities involving any Canister containing core material in or over the Fuel Transfer Canal (deep end) and/or all activities involving the plenum assembly and all operations involving changes in the Fuel Transfer Canal (deep end) water inventory and restore one inoperable instrument to OPERABLE status within 24 hours.

### FUEL TRANSFER CANAL (DEEP END) WATER LEVEL

3.9.4 The water level in the Fuel Transfer Canal (deep end) shall be maintained at the level specified per NRC approved procedures.

APPLICABILITY: Whenever any Canister containing core material and/or the plenum assembly is in the Fuel Transfer Canal (deep end).

#### ACTION:

- a. With the Fuel Transfer Canal (deep end) water level not in accordance with approved procedures, terminate all activities involving any Canister containing core material in or over the Fuel Transfer Canal (deep end) and/or all activities involving the plenum assembly and restore the water level to within specification within 24 hours.

### FUEL HANDLING BUILDING/AUXILIARY BUILDING AIR CLEANUP SYSTEMS

3.9.12.1 The Fuel Handling Building Air Cleanup Exhaust System shall be OPERABLE with one of the four system air cleanup exhaust fans OPERABLE.

APPLICABILITY: RECOVERY MODE

#### ACTION:

With the Fuel Handling Building Air Cleanup Exhaust System inoperable, restore the system to OPERABLE status within 4 hours or, 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 PLAN) until the system is restored to OPERABLE status.

LIMITING CONDITIONS FOR OPERATION

---

3.9.12.2 The Auxiliary Building Air Cleanup Exhaust System shall be OPERABLE with one of the four system air cleanup exhaust fans OPERABLE.

APPLICABILITY: RECOVERY MODE

ACTION:

With the Auxiliary Building Air Cleanup Exhaust System inoperable, restore the system to OPERABLE status within 4 hours or, 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.

ACCIDENT GENERATED WATER

3.9.13 Discharge of ACCIDENT GENERATED WATER shall be prohibited until approved by the NRC. ACCIDENT GENERATED WATER shall be discharged in accordance with procedures approved pursuant to Specification 6.8.2.

APPLICABILITY: RECOVERY MODE

ACTION:

None except as provided in Specification 3.0.3.

REACTOR BUILDING SUMP WATER

3.9.14 Deleted.

## 3/4.7 PLANT SYSTEMS

### BASES

---

---

#### 3/4.7.1 FEEDWATER SYSTEM

Deleted by Amendment of Order Dated April 1, 1982.

#### 3/4.7.2 SECONDARY SERVICES CLOSED COOLING WATER SYSTEM

Deleted.

#### 3/4.7.3 CLOSED CYCLE COOLING WATER SYSTEM

##### 3/4.7.3.1 NUCLEAR SERVICES CLOSED CYCLE COOLING SYSTEM

Deleted.

##### 3/4.7.3.2 DECAY HEAT CLOSED COOLING WATER SYSTEM

Deleted.

##### 3/4.7.3.3 MINI DECAY HEAT REMOVAL SYSTEM (MDHRS)

Deleted.

#### 3/4.7.4 NUCLEAR SERVICE RIVER WATER SYSTEM

Deleted.

#### 3/4.7.6 FLOOD PROTECTION

The limitation on flood protection ensures that facility protective actions will be taken in the event of flood conditions. The limit of elevation of 302 ft. Mean Sea Level USGS datum is the elevation at which facility flood control measures are required to be taken to provide protection to Safety Related equipment.

## PLANT SYSTEMS

### BASES

#### 3/4.7.7 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

The OPERABILITY of the control room emergency air cleanup system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accidents at TMI-2. Under certain conditions (i.e., loss of offsite power combined with a severe accident at Unit 1), it would be required to place TMI-2 in a stable configuration with core alterations suspended. In this case, operability requirements to ensure TMI-2 control room habitability may be temporarily suspended. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix "A", 10 CFR 50.

#### 3/4.7.9 SEALED SOURCE CONTAMINATION

The limitation on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10CFR70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source, and Special Nuclear Material sources will not exceed allowable intake values.

#### 3/4.7.10 FIRE SUPPRESSION SYSTEMS

The OPERABILITY of the Fire Suppression Systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where Safety Related equipment is located. The Fire Suppression System consists of the water system, spray and/or sprinklers, Halon and fire hose stations. The collective capability of the Fire Suppression Systems is adequate to minimize potential damage to Safety Related equipment and is a major element in the Facility Fire Protection Program. Any two of the four main fire pumps provide combined capacity greater than 3575 gpm.

In the event that portions of the Fire Suppression Systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the affected equipment can be restored to service.

In the event that the Fire Suppression Water System becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for a Special Report to the Commission provides for timely evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued operation of the nuclear plant.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 27 TO FACILITY OPERATING LICENSE NO. DPR-73  
GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION  
THREE MILE ISLAND NUCLEAR STATION UNIT NO. 2  
DOCKET NO. 50-320

1.0 INTRODUCTION

On June 18, 1985 GPUN submitted Technical Specification Change Request No. 49. This proposed change requested deletion of all operability requirements for the Three Mile Island Unit 2 (TMI-2) control room emergency air cleanup system and deletion of quantitative airflow requirements specified for the auxiliary building and fuel handling building ventilation systems. The submittal and references included supporting information to demonstrate that these changes would result in no adverse effect on plant safety. The control room emergency air cleanup system is the only system still dependent on the onsite class IE AC distribution system (i.e., diesel generators) during a loss of offsite power. The licensee's goal was to demonstrate that none of the remaining loads on the diesel generators were required to protect the health and safety of the public, and that therefore, the Technical Specification requirement to maintain the diesel generators in emergency standby is no longer necessary.

On July 31, 1985 GPUN submitted Technical Specification Change Request No. 51. The proposed change requested deletion of availability and operability requirements for the class IE diesel generators and the remaining systems which depended on the diesel generators during a postulated loss of offsite power. The proposed change also requested deletion of requirements for the fire protection system and emergency buses associated with the diesel generators.

The NRC staff requested additional information and clarification of these proposed changes in a letter dated October 2, 1985. GPUN provided additional information and modified their requests in letters dated November 20, 1985, February 26, 1986 and May 20, 1986. The current request retains all the operability requirements for the components of the control room emergency air cleanup system but deletes the requirements for a standby onsite AC power supply (diesel generators) for the system.

## 2.0 DISCUSSION AND EVALUATION

TMI-2 is in a long-term cold shutdown for post-accident cleanup, including removal of the damaged fuel. Short-lived fission products which make up the preponderance of the postulated accident source term in operating reactors have decayed to negligible levels. The decay heat

produced by fission products following reactor shutdown is less than 10 kilowatts and forced cooling (i.e. circulation of coolant by reactor coolant pumps) of the core has been unnecessary since 1981.

#### Section 3.7.7.i

The current technical specification requires that the control room ventilation and emergency air cleanup system remains operable by specifying operability requirements of the various major components of the system. Currently, the control room ventilation and emergency air cleanup system is powered by one of two redundant offsite AC power distribution systems. An onsite vital (standby) power distribution system consisting of diesel generators and their associated distribution system provides a backup to the redundant offsite systems. In the event of loss of offsite power, the onsite vital power distribution system maintains the operability of the control room ventilation and emergency air cleanup system.

The licensee has proposed to eliminate the availability of the standby onsite AC power system, currently a Technical Specification requirement, as a backup to offsite power. In the event of a loss of offsite power (LOOP) the control room ventilation and emergency air cleanup system would be inoperable for the period of time required to restore offsite power to the station. The staff has evaluated the need for maintaining the control room ventilation and emergency air cleanup system operational and the control room habitable at all times.

Currently at TMI-2, continuous control room staffing is required to periodically monitor plant conditions. Additionally, TMI-2 control room staffing is required for core alterations (e.g., defueling) and certain water processing activities which involve the reactor coolant system.

The staff has evaluated the licensee's request to eliminate diesel generator requirements by evaluating possible TMI-2 initiated accidents and resulting consequences. The types of accidents possible at TMI-2 during the current cleanup phase (long-term cold shutdown) differ markedly from those possible in an operating reactor. The staff and the licensee have evaluated a broad spectrum of potential accident scenarios at TMI-2 which could, in the absence of an operable control room emergency air cleanup system, affect control room habitability. These included liquid spills, fires, canister drops, and loss of coolant accidents. None of these accidents would be caused by a loss of offsite power and thus are extremely unlikely to

occur simultaneously with the unavailability of the control room emergency air cleanup system. An accident sequence resulting in both the unavailability of the control room emergency air cleanup system and a challenge to control room habitability would require simultaneous and independent accidents, an extremely low probability event. The source terms from postulated accident scenarios at TMI-2 are much smaller than those generated by operating reactor because there is little or no source of energy for dispersal of core material and the material that could comprise this source term would not include short-lived fission products. Additionally, the source term material would primarily consist of particulate materials which can be readily filtered using any of a variety of individual respirators. A sufficient number of respirators are stocked in the control room and thus are readily available to personnel.

The staff has also evaluated possible TMI-1 initiated accidents on TMI-2 control room habitability. TMI-1, which is adjacent to TMI-2, is in a normal operating cycle for power reactors with periods of power operation, periodically interrupted by variable length shutdowns for refueling, maintenance and repairs. A severe accident at TMI-1 while it is at power could generate a source term which could affect the TMI-2 control room

habitability. It is very improbable that this type of accident would occur and even more unlikely that it would be coincident with a loss of offsite power (LOOP) at TMI-2. If there were no coincident TMI-2 LOOP, the TMI-2 control room emergency air cleanup system would function normally and be unaffected by any TMI-1 accident.

GPUM has committed in its letters of February 26, 1986 and May 20, 1986 to terminate all recovery activities and place systems in a safe stable configuration at TMI-2 during an emergency event at TMI-1. This would include core alterations, RCS water processing, transfer of fuel bearing canisters and casks, and movement of heavy loads in the reactor building. While an accident at TMI-1 could affect habitability in TMI-2, it would not cause equipment failures or additional accidents to occur at TMI-2. No active components are required to maintain the current safe shutdown of TMI-2. With recovery activities terminated, periodic monitoring of TMI-2 is all that is required. No effect on plant safety would occur due to temporary inaccessibility of the TMI-2 control room. Although not required, short-term access to TMI-2 could be provided by use of self contained breathing apparatus. The staff has determined that intermittent access is acceptable for periods up to 24 hours under these conditions. The staff has previously determined that offsite AC power can be restored at TMI within five hours. With the restoration of

offsite power, the TMI-2 control room emergency air cleanup system would again become operable and personnel could resume the monitoring of activities from the control room.

The staff is requiring that GPUINC incorporate in the TMI-2 emergency plan its commitments regarding termination of recovery activities at TMI-2 during emergency events at TMI-1. The licensee has agreed to implement the changes to the emergency plan.

The staff finds the licensee's proposal acceptable and accordingly approves the licensee's proposal to eliminate the standby emergency onsite AC power supply to the control room ventilation and emergency air cleanup system. An asterisk and associated footnote have been added to Section 3.7.10 to clarify the fact that standby emergency onsite AC power is no longer required for the control room emergency air cleanup system.

Sections 3.8.1 and 3.8.2, Tables 3.8.1 and 3.8.2

Section 3.8.1 of the current technical specifications specify AC electrical power supply operability requirements. Two physically independent offsite transmission networks and a onsite Class IE distribution system is required. Additionally the specification requires two separate and independent operable class IE diesel generators. Section 3.8.2 requires that specific AC electrical busses listed in the Recovery Operations Plan be operable and energized. Tables 3.8.1 and 3.8.2 specify testing frequency of the diesel generators under different conditions of offsite power availability. The licensee proposed deletion of operability requirements for the Class IE diesel generators from Technical Specification 3.8.1 and the elimination of the requirements to verify the position of AC busses energized by diesel generator actuation. Low voltage AC vital busses formerly energized by diesel generators would be energized, in the case of a loss of offsite power, by the inverter and battery system.

The diesel generators, prior to the TMI-2 accident provided backup emergency AC power for a number of vital systems including the decay heat removal system, high pressure safety injection and later after the accident to the installed mini-decay heat removal system. As the plant progressed to the current state of stable long-term cold shutdown, without a need for forced cooling, the requirements for these systems were eliminated and their operability requirements in the Technical Specifications deleted. The last remaining load on the diesel generators is the control room ventilation and emergency air cleanup system. With the deletion of the requirement to maintain the operability of this system at all times, including during a loss of offsite power, the need for the diesel generators is eliminated. The staff finds the licensee's proposal acceptable and recommends the elimination of the operability requirements for the diesel generators. Testing requirements (Tables 3.8.1 and 3.8.2) would also be eliminated. The changes to Technical Specification 3.8.2 realign the AC busses in response to the elimination of the diesel generators.

Section 3.7.4 and 3/4.7.4

This Technical Specification specifies the operability requirements of the nuclear service river water system. The nuclear service river water system currently provides cooling water for a number of non-safety related cooling systems as well as cooling for the diesel generators. Currently the only safety related load on the nuclear service river water system are the diesel generators. The licensee proposes to delete the operability requirements for the nuclear service river water system since the requirement to maintain the operability of the diesel generators is eliminated. The staff finds the licensee's proposal acceptable, recognizing that there is no safety related requirement to maintain the operability of the nuclear service river water system if the diesel generator heat load is eliminated.

Section 3.7.10

This Technical Specification requires an operable deluge and/or sprinkler system in a number of locations throughout the plant. These areas are listed in the subsection of 3.7.10.2. The licensee proposed to delete the requirement for an operable fire suppression system in the diesel generator rooms. Since the diesel generator operability

requirements are being deleted, the staff agrees that a fire protection system in the diesel generator room should no longer be required. The existing requirement for a fire detection system in this area will, however, be retained to provide assurance that a fire, initiated in the diesel generator room, will not pose a threat to other areas in the plant.

Section 3.9.12.1 and 3.9.12.2

The current Technical Specifications requires that at least two of the four fuel handling building/auxiliary building air cleanup system fans be operable. Section 3.9.12.1 pertains to the fuel handling building air cleanup exhaust system and Section 3.9.12.2 pertains to the auxiliary building air cleanup exhaust system. The Action statement of these two sections require the licensee to return the airflow to within acceptable quantitative limits of the Recovery Operations Plan within 4 hours of the system becoming inoperable or suspend all operations involving movement of liquid and gaseous radioactive wastes in the fuel handling building/auxiliary building. Sections 4.9.12.1 and 4.9.12.2 of the Recovery Operations Plan delineates operability by specifying exhaust flow rate, maximum filter pressure drop, and minimum negative building pressure. These sections were erroneously referred to as part of the Appendix A Technical Specifications in the proposed no significant hazards consideration determination published in the February 11, 1987 issue of the Federal Register (52 FR 4408). The exhaust flow rate values listed in these sections can only be achieved by operation of at least two exhaust fans.

The licensee proposed to delete the requirement in Technical Specifications 3.9.12.1 and 3.9.12.2 for the operation of a minimum of two exhaust fans. The determination of operability of these systems would not be tied to the operation of a specific number of fans or exhaust flow rate but rather the filter pressure drop and the building pressure. Changes in the Recovery Operations Plan to reflect this have been proposed.

The staff finds that the proposed change in emphasis from specifying exhaust flow rate to building negative pressure more accurately reflects the purpose of this specification which is to assure, 1) airflow into the auxiliary and fuel handling buildings, and 2) that exfiltration will not occur. It provides the licensee with greater operational flexibility without increasing the risk of inadvertent release of radioactivity. The staff finds the licensee's proposal acceptable. However, to assure early detection of any system degradation, the staff has added a requirement to perform a daily check of pressure indication on the pressure alarm. The licensee has agreed to the requirement.

The licensee's original request proposed changing the interval of time from 4 to 8 hours between the loss of the air cleanup exhaust systems and

the termination of operations involving the movement of liquid and gaseous radioactive wastes in the fuel handling building. Subsequent discussions with the licensee established that there was insufficient technical justification for the change and the licensee withdrew the request.

### 3.0 CONTACT WITH STATE OFFICIAL

The NRC staff has advised, by letter dated February 20, 1987, the Director, Bureau of Radiation Protection, Department of Environmental Resources, Commonwealth of Pennsylvania, of the proposed determination of no significant hazards consideration. No comments were received.

### 4.0 ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts and will not result in a significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration (52 FR 4408), and no public comments or requests for a hearing were received. Accordingly, the 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.

5.0 CONCLUSION

Based upon our evaluation of the proposed changes to the TMI-2 Technical Specifications as modified by agreement with the licensee, and subject to the implementation of the required changes to the TMI-2 emergency plan, the staff finds that the licensee's request is acceptable.

We have further 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 implementation of this change will not be inimical to the common defense and security or to the health and safety of the public.

Distribution Copies:

Docket File 50-320

NRC PDR

Local PDR

TMI-2 HQ file

FMiranlia

MMasnik

WTravers

PHall

OGC/LChandler

SLewis

- IHarron

EJordan

BGrimes

JPartlow

TBarnhart (4)

WJones

FOB for appropriate Division

ACPS (10)

OPA

LFMB (w/cy of TAC w/Amd No. & date issued)