

I. TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR) NO. 235

GPU Nuclear requests that the following changed replacement pages be inserted into existing Technical Specifications (T.S.):

Revised pages: 3-35, 4-55a, 4-55c, 4-55e, 4-55g, 4-60, 6-1, 6-4, 6-5, 6-9, and 6-10.

These pages are attached to this change request.

II. REASON FOR CHANGE

This change is requested to modify the TMI-1 Technical Specifications to reflect a partial GPU Nuclear (GPUN) reorganization to become effective when TMI-2 enters the Post-Defueling Monitored Storage (PDMS) mode. This reorganization deletes TMI-2 as a division and incorporates those functions and responsibilities required to maintain the PDMS condition and requirements into the current TMI-1 Division, which shall be renamed the TMI Division. In addition, this change includes several editorial changes that update the following obsolete organizational titles: superintendent; Unit Superintendent; TMI-1 Manager, Radiological Controls; and Supervisor of Safety and Health. The correct corresponding organizational titles are as follows: Director, Operations and Maintenance, TMI; Director, Operations and Maintenance, TMI; Radiological Controls/Safety Director TMI; and Industrial Safety & Health Manager.

III. SAFETY EVALUATION JUSTIFYING CHANGE

When TMI-2 enters PDMS, GPUN intends to reorganize such that all functions and responsibilities associated with TMI-2 are assigned to other divisions and the TMI-2 Division is eliminated. The TMI-1 Division is to be renamed the TMI Division and will assume responsibility for operating and maintaining PDMS conditions and requirements. A new position, PDMS Manager, which reports to the Director, Operations and Maintenance, TMI Division is responsible for ensuring compliance with the TMI-2 license requirements and the PDMS SAR commitments. The PDMS Manager directs operations and maintenance activities required to maintain PDMS license conditions through an assigned maintenance supervisor and operations foreman and their assigned bargaining unit employees. The PDMS Manager will normally schedule and perform all anticipated work during daylight hours when he and his staff are available. The TMI-1 Shift Supervisor and his crew will maintain cognizance of status at TMI-2 by taking the routine log readings and responding to alarms via the remote alarm monitoring system. In this way, the Shift Supervisor will ensure compliance with TMI-2 license conditions on an around the clock basis.

In order to assess the effects of this reorganization, each level of the TMI division will be described with its revised functional responsibilities in the organization. Further, the effects of this action will be assessed to determine the impact, if any, on the safety function of the GPUN organization.

The new TMI Division assumes overall responsibility for operations and maintenance at TMI-2 in PDMS as well as continuing to operate and maintain TMI-1. The scope of work at TMI-2 during the post-accident recovery, defueling, and cleanup necessitated separation of functions for TMI-1 and TMI-2 to allow TMI-1 management to focus on operating and maintaining TMI-1 while the unique work associated with TMI-2 cleanup progressed. Now that the TMI-2 cleanup is complete and the TMI-2 PDMS preparations are complete, the assumption of operations and maintenance responsibilities for TMI-2 in its PDMS condition is of a relatively minor nature and does not create unnecessary diversion for TMI management. The TMI Director is the senior GPUN representative at the TMI site and as such, assures consistent implementation of policies and procedures at the site.

The TMI Operations and Maintenance Department assumes the additional responsibility of conducting PDMS operations and maintenance at TMI-2. The Director, Operations and Maintenance, TMI, will have a new direct report, the PDMS Manager, whose sole responsibility is operations and maintenance of TMI-2. The Plant Operations Director TMI-1 (also a direct report to the Director, Operations and Maintenance, TMI), through the Shift Supervisor, is responsible to ensure the routine log readings are taken and to ensure appropriate response to any TMI-2 alarms. The organizational characteristics described in the TMI-1 Technical Specifications Section 6 are those organizational characteristics that have been identified in Generic Letter 88-06 as important to safety. The minor additional responsibilities assumed by the staff, whose primary responsibility is to operate and maintain TMI-1, do not affect the organizational characteristics identified in the TMI-1 Technical Specifications Section 6, although the following administrative changes to the TMI-1 Technical Specifications are required to rename the Vice President, TMI-1 to Vice President TMI; to rename the Operations and Maintenance Director, TMI-1 to Director, Operations and Maintenance, TMI; and to expand the responsibility of the Vice President TMI-1 to TMI (include TMI-2 as well as TMI-1).

The Unit staff organization specified in TMI-1 Technical Specifications is not adversely affected by this reorganization. The minimum shift crew composition is assured by administrative requirements contained in AP 1029 (Conduct of Operations) which considers all credible scenarios and manpower required for response at TMI-1 and TMI-2.

The editorial changes regarding obsolete organizational titles included in this proposed amendment are strictly administrative in nature. The functions and responsibilities associated with the obsolete organizational titles are fully included in the current organizational titles.

IV. NO SIGNIFICANT HAZARDS CONSIDERATION

GPUN has determined that this Technical Specification Change Request involves no significant hazards consideration as defined by NRC in 10 CFR 50.92.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability of occurrence or the consequence of an accident previously evaluated. The organizational aspects important to safety as identified in Generic Letter 88-06 are not changed by this proposed amendment. Therefore, this change does not increase the probability of occurrence or the consequence of an accident previously evaluated.
2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. This activity modifies the TMI site organization to consolidate TMI-1 and PDMS TMI-2 operations and maintenance. The important to safety aspects of organization are not impacted. Thus, this proposed change cannot create the possibility of a new or different kind of accident from any previously evaluated.
3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This reorganization is a managerial change that incorporates the operation and maintenance of TMI-2 in its PDMS condition into the Operations and Maintenance structure of TMI-1, now that TMI-2 is in a relatively passive, monitored state. The majority of the tasks associated with maintaining TMI-2 in PDMS will be supervised and accomplished by the PDMS Manager, whose primary responsibility is TMI-2. The attention that the TMI-1 Control Room staff gives to TMI-2 will be minimal and will not detract in any measurable way from their attention to operating TMI-1. Also, the proposed change that updates obsolete organizational titles is merely an administrative update since the current titles fully incorporate all functions and responsibilities associated with the obsolete titles. Thus, operation of the facility in accordance with the proposed amendment does not involve a significant reduction in a margin of safety.

V. IMPLEMENTATION

It is requested that the amendment authorizing this change become effective when GPUN implements PDMS at TMI-2.

3.5.2.5 Control Rod Positions

- a. Operating rod group overlap shall not exceed 25 percent ± 5 percent, between two sequential groups except for physics tests.
- b. Position limits are specified for regulating control rods. Except for physics tests or exercising control rods, the regulating control rod insertion/withdrawal limits are specified in the CORE OPERATING LIMITS REPORT. If any of these control rod position limits are exceeded, corrective measures shall be taken immediately to achieve an acceptable control rod position. Acceptable control rod positions shall be attained within four hours.
- c. Safety rod limits are given in 3.1.3.5.

3.5.2.6 The control rod drive patch panels shall be locked at all times with limited access to be authorized by the Director, Operations and Maintenance, TMI.

3.5.2.7 Axial Power Imbalance:

- a. Except for physics tests the axial power imbalance, as determined using the full incore system (FIS), shall not exceed the envelope defined in the CORE OPERATING LIMITS REPORT.

The FIS is operable for monitoring axial power imbalance provided the number of valid self powered neutron detector (SPND) signals in any one quadrant is not less than the limit in the CORE OPERATING LIMITS REPORT.

- b. When the full incore detector system is not OPERABLE and except for physics tests axial power imbalance, as determined using the power range channels (out of core detector system)(GCD), shall not exceed the envelope defined in the CORE OPERATING LIMITS REPORT.
- c. When neither detector system above is OPERABLE and, except for physics tests axial power imbalance, as determined using the minimum incore system (MIS), shall not exceed the envelope defined in the CORE OPERATING LIMITS REPORT.
- d. Except for physics tests if axial power imbalance exceeds the envelope, corrective measures (reduction of imbalance by APSR movements and/or reduction in reactor power) shall be taken to maintain operation within the envelope.

Bases

Pressure drop across the combined HEPA filters and charcoal adsorbers of less than 6 inches of water at the system design flow rate will indicate that the filters and adsorbers are not clogged by excessive amounts of foreign matter. Pressure drop should be determined at least once per refueling cycle to show system performance capability.

The frequency of tests and sample analysis are necessary to show that the HEPA filters and charcoal adsorbers can perform as evaluated. Tests of the charcoal adsorbers with halogenated hydrocarbon shall be performed in accordance with approved test procedures. Replacement adsorbent should be qualified according to Regulatory Guide 1.52 March 1978. The charcoal adsorber efficiency test procedures should allow for the removal of one adsorber tray, emptying of one bed from the tray, mixing the adsorbent thoroughly and obtaining at least two samples. Each sample should be at least two inches in diameter and a length equal to the thickness of the bed. If test results are unacceptable all adsorbent in the system shall be replaced. Tests of the HEPA filters with DOP aerosol shall also be performed in accordance with approved test procedures. Any HEPA filters found defective should be replaced with filters qualified according to Regulatory Guide 1.52 March 1978.

Operation of the system for 10 hours every month will demonstrate operability of the filters and adsorber system and remove excessive moisture built up on the adsorber.

If significant painting, steam, fire or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals or foreign materials, the same tests and sample analysis shall be performed as required for operational use. The determination of significance shall be made by the Director, Operations and Maintenance, TMI.

Demonstration of the automatic initiation of the recirculation mode of operation is necessary to assure system performance capability.

Bases

Pressure drop across the combined HEPA filters and charcoal adsorbers of less than 6 inches of water at the system design flow rate will indicate that the filters and adsorbers are not clogged by excessive amounts of foreign matter. Pressure drop should be determined at least once every refueling interval to show system performance capability.

The frequency of tests and sample analysis are necessary to show that the HEPA filters and charcoal adsorbers can perform as evaluated. Tests of the charcoal adsorbers with halogenated hydrocarbon refrigerant shall be performed in accordance with approved test procedures. The charcoal adsorber efficiency test procedures should allow for the removal of one adsorber tray, emptying of one bed from the tray, mixing the adsorbent thoroughly and obtaining at least two samples. Each sample should be at least two inches in diameter and a length equal to the thickness of the bed. If test results are unacceptable all adsorbent in the system should be replaced with an adsorbent qualified according to Regulatory Guide 1.52, March 1978. Tests of the HEPA filters with DOP aerosol shall also be performed in accordance with approved test procedures. Any HEPA filters found defective should be replaced with filters qualified according to Regulatory Guide 1.52, March 1978.

Fans AH-E7A&B performance verification is necessary to ensure adequate flow to perform the filter surveillance of T.S. 4.12.2.1 and 4.12.2.3 and can only be demonstrated by running both fans simultaneously. This can only be accomplished when purge valves are not limited to 30° open (i.e., cold shutdown).

Since H₂ purge has been superseded by the installation of H₂ recombiners at TMI-I, the reactor building purge exhaust system no longer is relied upon to serve an operating accident mitigating (i.e. LOCA) function. The retest requirement of T.S. 4.12.2.2a has therefore been changed to reflect the same retest requirements as the auxiliary and fuel handling building ventilation system which similarly serves no operating accident mitigating function.

If significant painting, steam, fire, or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals or foreign material, the same tests and sample analysis shall be performed as required for operational use. The determination of significant shall be made by the Director, Operations and Maintenance, TMI.

References

- (1) UFSAR, Section 5.6 - "Ventilation and Purge Systems"

Bases

Pressure drop across the combined HEPA filters and charcoal adsorbers of less than 6 inches of water at the system design flow rate will indicate that the filters and adsorbers are not clogged by excessive amounts of foreign matter. Pressure drop should be determined at least once every refueling interval to show system performance capability.

Tests and sample analysis assure that the HEPA filters and charcoal adsorbers can perform as evaluated. The charcoal adsorber efficiency test procedures should allow for the removal of one adsorber tray, emptying of one bed from the tray, mixing the adsorbent thoroughly and obtaining at least two samples. Each sample should be at least two inches in diameter and a length equal to the thickness of the bed. The in-place test criteria and laboratory test criteria for activated charcoal will meet the guidelines of ANSI-N510-1980. If test results are unacceptable, all adsorbent in the system should be replaced with an adsorbent qualified according to Regulatory Guide 1.52, March 1978 or ANSI- N509-1980. Any HEPA filters found defective should be replaced with filters qualified according to Regulatory Guide 1.52, March 1978 or ANSI-N509-1980.

If significant painting, steam, fire, or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals or foreign material, the same tests and sample analysis shall be performed as required for operational use. The determination of what is significant shall be made by the Director, Operations and Maintenance, TMI.

Operation of the Auxiliary and Fuel Handling Building Exhaust Fans each month for at least ten (10) hours will demonstrate operability of the fans.

Bases

The FHB ESF Air Treatment System is a system which is normally kept in a "standby" operating status. Tests and sample analysis assure that the HEPA filters and charcoal adsorbers can perform as evaluated. The charcoal adsorber efficiency test procedure should allow for the removal of a sample from one adsorber test cannister. Each sample should be at least two inches in diameter and a length equal to the thickness of the bed. The in-place test criteria and laboratory test criteria for activated charcoal will meet the guidelines of ANSI-N510-1980. If test results are unacceptable, all adsorbent in the system shall be replaced with an adsorbent qualified in accordance with ANSI-N509-1980. Any HEPA filters found defective will be replaced with filters qualified in accordance with ANSI-N509-1980.

Pressure drop across the entire filtration unit of less than 7.0 inches of water at the system design flow rate will indicate that the filters and adsorbers are not clogged by excessive amounts of foreign matter.

Operation of the system for 10 hours every month will demonstrate operability of the filters and adsorber system and remove excessive moisture buildup on the adsorbers and HEPA filters.

If significant painting, steam, fire, or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals or foreign material, the same tests and sample analysis shall be performed as required for operational movement of irradiated fuel. The determination of what is significant shall be made by the Director, Operations and Maintenance, TMI.

4.17 SHOCK SUPPRESSORS (SNUBBERS)

SURVEILLANCE REQUIREMENTS

4.17.1 Each snubber shall be demonstrated OPERABLE by performance of the following inspection program.

a. Snubber Types

As used in this specification, type of snubber shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation and may be treated independently. The Radiological Controls/Safety Director, TMI, will ensure that a review is performed for ALARA considerations on all snubbers which are located in radiation areas for the determination of their accessibility. This review shall be in accordance with the recommendations of Regulatory Guides 8.8 and 8.10. The determination shall be based upon the known or projected radiation levels at each snubber location which would render the area inaccessible during reactor operation and based upon the expected time to perform the visual inspection. Snubbers may also be determined to be inaccessible because of their physical location due to an existing industrial safety hazard at the specific snubber location. This determination shall be reviewed and approved by the Industrial Safety & Health Manager.

Snubbers accessible during reactor operation shall be inspected in accordance with the schedule stated below. Snubbers scheduled for inspection that are inaccessible during reactor operation because of physical location or radiation levels shall be inspected during the next reactor shutdown greater than 48 hours where access is restored* unless previously inspected in accordance with the schedule stated below.

Visual inspections shall include all safety related snubbers and shall be performed in accordance with the following schedule:

<u>No. Inoperable Snubbers of Each Type per Inspection Period</u>	<u>Subsequent Visual Inspection Period**#</u>
0	24 months \pm 25%
1	16 months \pm 25%
2	6 months \pm 25%
3, 4	124 days \pm 25%
5, 6, 7	62 days \pm 25%
8 or more	31 days \pm 25%

* Snubbers may continue to be inaccessible during reactor shutdown greater than 48 hours (e.g. if purging of the reactor building is not permitted).

** The inspection interval for each type of snubber shall not be lengthened more than one step at a time unless a generic problem has been identified and corrected; in that event the inspection interval may be lengthened one step the first time and two steps thereafter if no inoperable snubbers of that type are found.

The provisions of Table 1.2 are not applicable.

6. ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

- 6.1.1 The Vice President - TMI shall be responsible for TMI-1 and TMI-2 operations and may, at any time, delegate his responsibilities in writing to the Director, Operations and Maintenance, TMI. He shall delegate the succession of his responsibilities in writing during his absence.
- 6.1.2 The Shift Supervisor (or during his absence from the Control Room, a designated individual), shall be responsible for the Control Room command function. A management directive to this effect signed by the President - GPUNC shall be reissued to all unit personnel on an annual basis.

6.2 ORGANIZATION

6.2.1 CORPORATE

- 6.2.1.1 An onsite and offsite organization shall be established for unit operation and corporate management. The onsite and offsite organization shall include the positions for activities affecting the safety of the nuclear power plant.
- 6.2.1.2 Lines of authority, responsibility and communication shall be established and defined from the highest management levels through intermediate levels to and including operating organization positions. These relationships shall be documented and updated as appropriate, in the form of organizational charts. These organizational charts will be documented in the Updated FSAR and updated in accordance with 10 CFR 50.71e.
- 6.2.1.3 The President-GPUNC shall have corporate responsibility for overall plant nuclear safety and shall take measures to ensure acceptable performance of the staff in operating, maintaining, and providing technical support so that continued nuclear safety is assured.

6.2.2 UNIT STAFF

- 6.2.2.1 The Vice President-TMI shall be responsible for overall site safe operation and shall have control over those on site activities necessary for safe operation and maintenance of the site.
- 6.2.2.2 The unit staff organization shall meet the following:
- Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
 - At least one licensed Reactor Operator shall be present in the control room when fuel is in the reactor.

ACTIVITIES

- 6.5.1.1 Each procedure required by Technical Specification 6.8 and other procedures which affect nuclear safety, and substantive changes thereto, shall be prepared by a designated individual(s)/group knowledgeable in the area affected by the procedure. Each such procedure, and substantive changes thereto, shall be reviewed for adequacy by an individual(s)/group other than the preparer, but who may be from the same organization as the individual who prepared the procedure or change.
- 6.5.1.2 Proposed changes to the Appendix "A" Technical Specifications shall be reviewed by a knowledgeable individual(s)/group other than the individual(s) group who prepared the change.
- 6.5.1.3 Proposed modifications that affect nuclear safety to unit structures, systems and components shall be designed by an individual/organization knowledgeable in the areas affected by the proposed modification. Each such modification shall be reviewed by an individual/group other than the individual/group which designed the modification but may be from the same division as the individual who designed the modification.
- 6.5.1.4 Proposed tests and experiments that affect nuclear safety shall be reviewed by a knowledgeable individual(s)/group other than the preparer but who may be from the same division as the individual who prepared the tests and experiments.
- 6.5.1.5 Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence, shall be reviewed by a knowledgeable individual(s)/group other than the individual/group which performed the investigation.
- 6.5.1.6 All REPORTABLE EVENTS shall be reviewed by an individual/group other than the individual/group which prepared the report.
- 6.5.1.7 Special reviews, investigations or analyses and reports thereon as requested by the Vice President TMI shall be performed by a knowledgeable individual(s)/group.
- 6.5.1.8 The Security Plan and implementing procedures shall be reviewed by a knowledgeable individual(s)/group other than the individual(s)/group which prepared them.

- 6.5.1.9 The Emergency Plan and implementing procedures shall be reviewed by a knowledgeable individual(s)/group other than the individual(s)/group which prepared them.
- 6.5.1.10 A knowledgeable individual(s)/group shall review every unplanned onsite release of radioactive material to the environs including the preparation and forwarding of reports to the Vice President TMI covering evaluations, recommendations and disposition of the corrective action to prevent recurrence.
- 6.5.1.11 Major changes to radwaste systems shall be reviewed by knowledgeable individual(s)/group other than the individuals(s)/group which prepared them.
- 6.5.1.12 Individuals responsible for reviews performed in accordance with 6.5.1.1 through 6.5.1.4 shall include a determination of whether or not additional cross-disciplinary review is necessary. If deemed necessary, such review shall be performed by the appropriate personnel. Individuals responsible for reviews considered under 6.5.1.1 through 6.5.1.5 shall render determinations in writing with regard to whether or not 6.5.1.1 through 6.5.1.5 constitute an unreviewed safety question.

RECORDS

- 6.5.1.13 Written records of activities performed under Specifications 6.5.1.1 through 6.5.1.11 shall be maintained.

QUALIFICATIONS

- 6.5.1.14 Responsible Technical Reviewers shall meet or exceed the qualifications of ANSI/ANS 3.1 of 1978 Section 4.6, or 4.4 for applicable disciplines, or have 7 years of appropriate experience in the field of his specialty. Credit toward experience will be given for advanced degrees on a one-to-one basis up to a maximum of two years. Responsible Technical Reviewers shall be designated in writing.

6.5.2 INDEPENDENT SAFETY REVIEW FUNCTION

- 6.5.2.1 The Vice President of each division within GPU Nuclear Corporation shall be responsible for ensuring the independent safety review of the subjects described in 6.5.2.5 within his assigned area of safety review responsibility, as assigned in the GPUN Review and Approval Matrix.
- 6.5.2.2 Independent safety review shall be completed by an individual/group not having direct responsibility for the performance of the activities under review, but who may be from the same functionally cognizant organization as the individual/group performing the original work.
- 6.5.2.3 GPU Nuclear Corporation shall collectively have or have access to the experience and competence required to independently review subjects in the following areas:

FUNCTION

6.5.4.3 The periodic review functions of the IOSRG shall include the following on a selective and overview basis:

- 1) Evaluation for technical adequacy and clarity of procedures important to the safe operation of the unit.
- 2) Evaluation of unit operations from a safety perspective.
- 3) Assessment of unit nuclear safety programs.
- 4) Assessment of the unit performance regarding conformance to requirements related to safety.
- 5) Any other matter involving safe operations of the nuclear power plant that the onsite IOSRG manager deems appropriate for consideration.

AUTHORITY

6.5.4.4 The IOSRG shall have access to the unit and unit records as necessary to perform its evaluations and assessments. Based on its reviews, the IOSRG shall provide recommendations to the management positions responsible for the areas reviewed.

QUALIFICATIONS

6.5.4.5 The IOSRG engineers shall have either: (1) a Bachelor's Degree in Engineering or the Physical Sciences and three years of professional level experience in the nuclear power field including technical supporting functions, or (2) eight years of appropriate experience in nuclear power plant operations and/or technology. Credit toward experience will be given for advance degrees on a one-to-one basis up to a maximum of two years.

RECORDS

6.5.4.6 Reports of evaluations and assessments encompassed in Section 6.5.4.3 shall be prepared, approved, and transmitted to the director and the division vice president responsible for nuclear safety assessment, the Vice President-TMI, and the management positions responsible for the areas reviewed.

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Nuclear Regulatory Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR 50, and
- b. Each REPORTABLE EVENT shall undergo an independent safety review pursuant to Specification 6.5.2.5.d.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a safety limit is violated:

- a. The reactor shall be shutdown and operation shall not be resumed until authorized by the Nuclear Regulatory Commission.
- b. An immediate report shall be made to the Director, Operations and Maintenance, and Vice President TMI, and the event shall be reported to NRC in accordance with 10 CFR 50.72.
- c. A complete analysis of the circumstances leading up to and resulting from the occurrence shall be prepared by the unit staff. This report shall include analysis of the effects of the occurrence and recommendations concerning operation of the unit and prevention of recurrence. This report shall be submitted to the Director Operations and Maintenance and the Vice President, TMI. The safety limit violation report shall be submitted to NRC in accordance with 10 CFR 50.73.