

January 26, 1990

Docket No. 50-320

Mr. Michael B. Roche
Vice President/Director
Three Mile Island Unit 2
GPU Nuclear Corporation
P. O. Box 480
Middletown, Pennsylvania 17057

Dear Mr. Roche:

SUBJECT: THREE MILE ISLAND NUCLEAR STATION - ISSUANCE OF AMENDMENT
(TAC NO. 69229)

The Commission has issued the enclosed Amendment No. 36 to Facility Operating License No. DPR-73 for the Three Mile Island Nuclear Station, Unit No. 2, in response to your letter dated August 15, 1988 (Technical Specification Change Request No. 60).

The amendment modifies Appendix A Technical Specifications by revising the specifications related to staffing requirements for the TMI-2 Safety Review Group (SRG). The changes also revise the current definition of review significant items and resolve a conflict with the existing regulatory requirements related to the submission of reports to the NRC.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

/s/

Michael T. Masnik, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 36 to DPR-73
2. Safety Evaluation

cc w/enclosures:
See next page

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

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Sincerely,

A handwritten signature in dark ink, appearing to read "Michael T. Masnik".

Michael T. Masnik, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 36 to DPR-73
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. M. B. Roche
GPU Nuclear Corporation

Three Mile Island Nuclear Station
Unit No. 2

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DATED: January 26, 1990

AMENDMENT NO. 36 TO FACILITY OPERATING LICENSE NO. DPR-73

DISTRIBUTION

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

GPU NUCLEAR CORPORATION

DOCKET NO. 50-320

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 36
License No. DPR-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by GPU Nuclear Corporation, (the licensee) dated August 15, 1988 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and 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 rules and 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; and
 - 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.

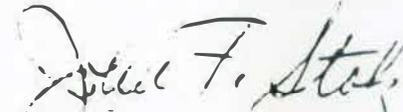
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.c.(2) of Facility Operating License No. DPR-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 36, are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate 124
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 26, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 36

FACILITY OPERATING LICENSE NO. OPR-73

DOCKET NO. 50-320

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

Remove

Page 1x
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1.0 DEFINITIONS

CHANNEL FUNCTIONAL TEST

1.10 A CHANNEL FUNCTIONAL TEST shall be:

- a. Analog channels - the injection of a simulated signal into the channel as close to the primary sensor as practicable to verify OPERABILITY including alarm and/or trip functions.
- b. Bistable channels - the injection of a simulated signal into the channel sensor to verify OPERABILITY including alarm and/or trip functions.

STAGGERED TEST BASIS

1.11 A STAGGERED TEST BASIS shall consist of:

- a. A test schedule for n systems, subsystems, trains or designated components obtained by dividing the specified test interval into n equal subintervals.
- b. The testing of one system, subsystem, train or designated components at the beginning of each subinterval.

FREQUENCY NOTATION

1.12 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.2.

FIRE SUPPRESSION WATER SYSTEM

1.13 A FIRE SUPPRESSION WATER SYSTEM shall consist of: a water source; gravity tank or pumps; and distribution piping and associated sectionalizing control or isolation valves. Such valves shall include yard hydrant curb valves, and the first valve upstream of the water flow alarm device on each sprinkler, hose standpipe or spray system riser.

REVIEW SIGNIFICANT

1.14 REVIEW SIGNIFICANT items shall consist of items that are Important to Safety, or proposed changes to Technical Specifications, License, Special Orders or Agreements, Recovery Operations Plan, Organization Plan, or involve an Unreviewed Safety Question or a Significant Environmental Impact. Also, those procedures which require NRC approval pursuant to Specification 3.9.13. In addition, those activities not covered by an NRC approved system description, SER or TER and which exceed PEIS values.

ADMINISTRATIVE CONTROLS

6.3 UNIT STAFF QUALIFICATIONS

6.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI-N 18.1 of 1971 for comparable positions unless otherwise noted in the Technical Specifications.

6.3.2 The Manager, Radiological Controls TMI-2 shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975. Each Radiological Controls Technician in responsible positions/Foreman shall meet or exceed the qualifications of ANSI 18.1-1971, paragraph 4.5.2/4.3.2, or be formally qualified through an NRC approved TMI-2 Radiation Controls training program. Individuals who do not meet ANSI 18.1-1971 Section 4.5.2 are not considered technicians for purposes of determining qualifications but are permitted to perform work for which qualification has been demonstrated. All Radiological Controls Technicians will be qualified through training and examination in each area or specific task related to their radiological controls functions prior to their performance of those tasks.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the unit staff shall be maintained under the cognizance of the Plant Training Manager and shall meet or exceed the requirements and recommendations of Regulatory Guide 1.8 of 1977 Appendix "A" of 10 CFR Part 55 except that Radiological Controls training may be under the direction of Vice President-Radiological and Environmental Controls.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Plant Training Manager and shall meet or exceed the requirements of Section 27 of the NFPA Code-1976.

6.5 REVIEW AND AUDIT

6.5.1 Technical Review and Control

The Office of TMI-2 Division Director and Support Division Vice-Presidents within GPU Nuclear Corporation as indicated in Organization Plan Figure 1.1, shall be responsible for ensuring the preparation, review, and approval of documents required by the activities within their functional area of responsibility for TMI-2. Implementing approvals shall be performed at the cognizant section manager/director level or above. Independent safety review and audit shall be conducted in accordance with this Technical Specification.

ADMINISTRATIVE CONTROLS

ACTIVITIES

6.5.1.1 Each procedure required by Technical Specification 6.8 and other procedures including those for test and experiments and changes thereto shall be prepared by a designated individual(s)/group knowledgeable in the area affected by the procedure. Each such procedure, and changes thereto, shall be given a technical review 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 Deleted.

6.5.1.3 Proposed modifications 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 technically reviewed by an individual/group other than the individual/group which designed the modification but may be from the same group as the individual who designed the modification.

6.5.1.4 Proposed tests and experiments 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 The Security Plan and implementing procedures shall be reviewed by a knowledgeable individual(s)/group other than the individual(s)/group which prepared them.

6.5.1.6 The Emergency Plan and implementing procedures shall be reviewed by a knowledgeable individual(s)/group other than the individual(s)/group which prepared them.

6.5.1.7 The Recovery Operations Plan and implementing procedures and changes thereto shall be reviewed by a knowledgeable individual/group other than the individual/group which prepared them.

6.5.1.8 Individuals responsible for reviews performed in accordance with 6.5.1.1 through 6.5.1.7 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.

6.5.1.9 Support Division procedures will be reviewed and approved in accordance with their Division level procedures. If the procedure/change impacts the operational status of unit systems or equipment, it must be concurred with by the TMI-2 Division. Unreviewed Safety Question, Technical Specification change (including Recovery Operations Plan change), or Significant Environmental Impact requires line TMI-2 Division and independent safety review prior to implementation.

ADMINISTRATIVE CONTROLS

RECORDS

6.5.1.10 Written records of activities performed under specifications 6.5.1.1 through 6.5.1.9 shall be maintained in accordance with 6.10.

QUALIFICATIONS

6.5.1.11 Responsible Technical Reviewers shall meet or exceed the qualifications of ANSI/ANS-3.1 - 1978 Section 4.4 for Reactor Engineering, Instrumentation and Control, Chemistry and Radiochemistry, Radiation Protection and Quality Assurance Reviewers or have seven (7) years of appropriate experience in the area of their specialty. All other RTRs shall meet Section 4.6, i.e., shall either, (1) have a Bachelor's Degree in Engineering or the physical sciences and three years of professional-level experience in the area being reviewed or, (2) have seven years of appropriate experience in the field of their specialty. An individual performing reviews may possess competence in more than one specialty area. Credit toward experience will be given for advanced degrees on a one-for-one basis up to a maximum of two years.

6.5.2 INDEPENDENT SAFETY REVIEW

FUNCTION

6.5.2.1 The Office of IMI-2 Division Director and Support Division Vice Presidents within GPU Nuclear Corporation as indicated in Organization Plan Figure 1.1 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.

Divisions other than the IMI-2 Division will perform the Independent Safety Review of their own procedures affecting IMI-2 in accordance with approved procedures except as specified in section 6.5.1.9.

When the Preparer determines a procedure is not Review Significant, the signature of the RTR indicates concurrence with this determination.

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. For those IMI-2 Division documents determined to be Review Significant, the Independent Safety Review shall be performed by or under the cognizance of SRG (until implementation of IOSRG) or the Independent Safety Reviewers (ISRs) (upon implementation of IOSRG).

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:

- a. Nuclear Unit operations
- b. Nuclear engineering

ADMINISTRATIVE CONTROLS

- c. Chemistry and radiochemistry
- d. Metallurgy
- e. Instrumentation and control
- f. Radiological safety
- g. Mechanical engineering
- h. Electrical engineering
- i. Administrative controls and quality assurance practices
- j. Emergency plans and related organization, procedures and equipment
- k. Other appropriate fields such as radioactive waste operation associated with the unique characteristics of TMI-2.

6.5.2.4 Consultants may be utilized to provided expert advice.

RESPONSIBILITIES

6.5.2.5 The following subjects shall be independently reviewed by the SRG until implementation of IOSRG or by the ISRs upon implementation of IOSRG:

- a. Written safety evaluations of changes in the facility as described in the Safety Analysis Report, Technical Evaluation Reports, or docketed System Descriptions, changes in procedures as described in the Safety Analysis Report, Technical Evaluation Reports, or docketed System Descriptions, and tests or experiments not described in the Safety Analysis Report, Technical Evaluation Reports, or docketed System Descriptions, which are completed without prior NRC approval under the provisions of 10 CFR 50.59(a)(1). This review of items determined not to be Review Significant when performed by SRG or ISRs is a supplemental review to verify that such changes, tests or experiments did not involve a change in the Technical Specifications or an Unreviewed Safety Question.
- b. Proposed changes in procedures, proposed changes to the facility, or proposed tests or experiments, any of which involves a change in the Technical Specifications or an Unreviewed Safety Question shall be reviewed by SRG prior to implementation. Changes to Review Significant procedures which revision is not deemed to be Review Significant shall not be required to be reviewed by SRG or the ISRs prior to implementation.
- c. Proposed changes to Technical Specifications or license amendments prior to submittal to the NRC for approval.
- d. Violations, deviations, and reportable events which require either one or four hour immediate notification to the NRC. Such reviews are performed after the fact. Review of events covered under this subsection shall include results of any investigations made and the recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event.
- e. Deleted.

ADMINISTRATIVE CONTROLS

- f. Special reviews, investigations or analyses and reports thereon as requested by the Office of the Director TMI-2 or other manager reporting directly to the Office of the Director TMI-2.
- g. Written summaries of audit reports in the area specified in Section 6.5.3.
- h. Recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems, or components, that could affect nuclear safety or radioactive waste safety.
- i. Any other matters involving safe operation of the nuclear power plant which the SRG or the independent safety reviewers deems appropriate for consideration, or which are referred to the SRG or the independent safety reviewers.

6.5.2.6 For those subjects which are REVIEW SIGNIFICANT the Independent Safety Review will be performed by an individual(s) meeting the qualifications of Section 6.5.4.7 (until implementation of IOSRG) or Section 6.5.2.8 (upon implementation of IOSRG).

RECORDS

6.5.2.7 Reports of reviews encompassed in Section 6.5.2.5 shall be maintained in accordance with 6.10.

QUALIFICATIONS FOR INDEPENDENT SAFETY REVIEWERS (Upon Implementation of IOSRG)

6.5.2.8 The independent safety reviewer(s) shall either have a Bachelor's Degree in Engineering or the Physical Sciences and five years of professional level experience in the area being reviewed or have nine years of appropriate experience in the field of his or her speciality. An individual performing reviews may possess competence in more than one specialty area. Credit toward experience will be given for advanced degrees on a one-for-one basis up to a maximum of two years.

6.5.3 Audits

6.5.3.1 Audits of unit activities shall be performed in accordance with the TMI-2 Recovery QA Plan. These audits shall encompass:

- a. The conformance of unit operations to provisions contained within the Technical Specifications and applicable license conditions. The audit frequency shall be at least once per 12 months.
- b. The performance, training and qualifications of the entire unit staff. The audit frequency shall be at least once per 12 months.
- c. The verification of the nonconformances and corrective actions program as related to actions taken to correct deficiencies occurring in unit equipment, structures, systems or methods of operation that affect nuclear safety. The audit frequency shall be at least once per 6 months.

ADMINISTRATIVE CONTROLS

- d. The performance of activities required by the Recovery Quality Assurance Plan to meet the criteria of Appendix "8", 10 CFR 50. The audit frequency shall be at least once per 24 months.
- e. The Emergency Plan and implementing procedures. The audit frequency shall be at least once per 12 months.
- f. The Security Plan and implementing procedures. The audit frequency shall be at least once per 12 months.
- g. The Radiation Protection Plan and implementing procedures. The audit frequency shall be at least once per 12 months.
- h. The Fire Protection Program and implementing procedures. The audit frequency shall be at least once per 24 months.
- i. An independent fire protection and loss prevention program inspection and technical audit shall be performed annually utilizing either qualified offsite licensee personnel or an outside fire protection firm.
- j. An inspection and technical audit of the fire protection and loss prevention program, by an outside qualified fire consultant at intervals no greater than 3 years.
- k. Any other area of unit operation considered appropriate by the SRG, the Manager, SRG's immediate supervisor, (until implementation of IOSRG), the IOSRG, other managers reporting directly to the Office of the Director TMI-2, the Office of the Director TMI-2, or the Office of the President - GPUNC. Any other areas required to be audited by QA will be identified to the appropriate QA Management level.

RECORDS

6.5.3.2 Audit reports encompassed by sections 6.5.3.1 shall be forwarded for action to the management positions responsible for the areas audited and either the SRG, (until implementation of IOSRG) or the IOSRG (upon its implementation), within 60 days after completion of the audit. The SRG, (until implementation of IOSRG) or the IOSRG will review specified audits performed by QA and make corrective action recommendations as appropriate.

6.5.4 Safety Review Group (SRG)

FUNCTION

6.5.4.1 The SRG shall be a full-time group of engineers, independent of the Site Operations and Engineering staff, and located onsite within the TMI-2 division. (See Organization Plan Figure 1.2.)

APPLICABILITY

6.5.4.1.1 Until implementation of IOSRG.

ADMINISTRATIVE CONTROLS

ORGANIZATION

6.5.4.2 The TMI-2 SRG shall consist:

6.5.4.2.1 Manager, SRG and a minimum staff of 5 engineers (Mode 1). In the event of an unanticipated vacancy in the SRG staff, the number of staff members can be four (4) for a period not to exceed one (1) month pending selection of a qualified candidate to fill the vacancy.

6.5.4.2.2 Manager, SRG and a minimum staff of 3 engineers (Post-Mode 1, until implementation of IOSRG). In the event of an unanticipated vacancy in the SRG staff, the number of staff members can be two (2) for a period not to exceed one (1) month pending selection of a qualified candidate to fill the vacancy.

The SRG shall report within the TMI-2 Division independent of the unit operations and engineering functions, but no lower in the organization than one level below the Office of the Director, TMI-2.

RESPONSIBILITY

6.5.4.3 The Manager, SRG is advisory to the Office of the Director TMI-2. However, he has the authority and responsibility to bring to the attention of the Office of the President GPUNC any issues he believes are not being addressed with adequate consideration of nuclear or radiological safety.

6.5.4.4 The review functions of the SRG shall include:

- (1) the independent safety review activities stated in Section 6.5.2.5.
- (2) assessment of unit operations and performance and unit safety programs from a nuclear safety perspective.
- (3) any other matter involving safe nuclear operations at the nuclear power plant that the Manager, SRG, the Manager, SRG's immediate supervisor, or other managers reporting directly to the Office of the Director TMI-2 deem appropriate for consideration.

6.5.4.5 For those reviews requiring expertise outside that possessed by SRG, SRG is authorized to require reviews by other company groups as deemed appropriate by the Manager, SRG. SRG may also utilize consultant expertise as it deems appropriate.

Authority

6.5.4.6 The SRG shall have access to the unit and unit records as necessary to perform its evaluations and assessments. Based on its reviews, the SRG shall provide recommendations to the management positions responsible for the areas reviewed. The SRG shall have authority to require independent reviews by other organizations as necessary to complete its functional responsibilities. The Manager, SRG is advisory to the Office of the Director TMI-2. However, he has the authority and responsibility to bring to the attention of the Office of the President any issues he believes are not being addressed with adequate consideration of nuclear or radiological safety.

QUALIFICATIONS

6.5.4.7 The SRG engineers shall have either; (1) a Bachelor's Degree in Engineering or the Physical Sciences and five (5) years of professional level experience in the nuclear power field including technical supporting functions, or, (2) 9 years of appropriate experience. Credit toward experience will be

ADMINISTRATIVE CONTROLS

given for advance degrees on a one-to-one basis up to a maximum of two years. The Manager, SRG, shall meet or exceed the requirements of section 4.7 of ANSI/ANS 3.1-1978.

RECORDS

6.5.4.8 Although day to day results of evaluations by the SRG are communicated directly to the responsible department by the SRG, special reports are prepared only for items deemed appropriate by SRG as concurred with by the Manager, SRG's immediate supervisor. These special reports of evaluations and assessments by SRG shall be prepared, approved, and then transmitted to the Office of the Director, TMI-2 and the management position responsible for the area reviewed through the Manager, SRG's immediate supervisor. These reports shall be maintained for the life of the operating license.

6.5.5 INDEPENDENT ONSITE SAFETY REVIEW GROUP (IOSRG)

FUNCTION

6.5.5.1 The IOSRG shall be a full-time group of engineers, independent of the unit staff, and located onsite.

APPLICABILITY

6.5.5.1.1 Transition from SRG to IOSRG will be determined by Licensee with written notification to the NRC staff.

ORGANIZATION

- 6.5.5.2 a. The IOSRG staff shall be as specified in the TMI-1 Tech. Specs. (License No. OPR-50) except for an additional position to support to TMI-2 activities.
- b. The IOSRG shall report to the director responsible for nuclear safety assessment and will perform their function for both TMI Unit 1 and Unit 2.

RESPONSIBILITY

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

- a. The independent safety review activities stated in Section 6.5.2.5 which may be performed after the fact.
- b. Assessment of unit operations and performance and unit safety programs from a nuclear safety perspective.
- c. Any other matter involving safe operations of the nuclear power plant that the onsite IOSRG manager or the Office of the Director, TMI-2 deems appropriate for consideration.

ADMINISTRATIVE CONTROLS

AUTHORITY

6.5.5.4 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

6.5.5.5 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

6.5.5.6 Reports of evaluations and assessments encompassed in Section 6.5.5.3 shall be prepared, approved, and transmitted to the Office of the Director, TMI-2, the division vice president responsible for nuclear safety assessment and the management positions responsible for the areas reviewed.

6.6 REPORTABLE EVENTS ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Section 50.73 of 10 CFR Part 50, and
- b. Until implementation of IOSRG, each REPORTABLE EVENT shall be investigated and reviewed by the SRG, including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence. A report shall be submitted to the Manager, SRG's immediate supervisor and the Office of the Director, TMI-2. Upon implementation of IOSRG, each REPORTABLE EVENT shall undergo an independent safety review by a qualified ISR. This review may be performed after the NRC submittal is made.
- c. Deleted.

6.7 SECTION DELETED

6.8 PROCEDURES

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
- b. Recovery Operations Plan implementation.
- c. Surveillance and test activities of safety-related equipment and radioactive waste management equipment.

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6.8.2.1 Each procedure and any change to any procedure prepared pursuant to 6.8.1, shall be prepared, reviewed and approved in accordance with 6.5 and will be reviewed periodically as required by ANSI 18.7 - 1976.

6.8.2.2 Deleted.

6.8.3.1 Temporary changes to procedures of 6.8.1 may be made provided that:

- a. The intent of the original procedure control is not altered, and
- b. (1) For those procedures which affect the operational status of unit systems or equipment, the change is approved by two members of the unit management staff, at least one of whom holds a Senior Reactor Operator's License. If one of the two above signatures is not by a supervisory person within the Department having cognizance of the procedure being changed, the signature of that supervisory person within the department will also be required, or
(2) For those procedures which do not affect the operational status of unit systems or equipment, the change is approved by two members of the responsible organization. If one of the two above signatures is not by a section manager/director within the Department having cognizance of the procedure being changed, the signature of that section manager/director within the department will also be required, and
- c. The change is documented, Independent Safety Review completed, and the required reviews and approvals are obtained within 14 days, and
- d. Those changes to procedures required by Specification 3.9.13 are submitted to the NRC for review within 72 hours following approval by the management level specified for implementation by Section 6.5.1.9.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS AND REPORTABLE OCCURRENCES

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted in accordance with 10 CFR 50.4 unless otherwise noted.

ANNUAL REPORTS¹

6.9.1.4 Annual reports covering the activities of the unit as described below during the previous calendar year shall be submitted prior to March 1 of each year.

6.9.1.5 Reports required on an annual basis shall include:

- a. A tabulation of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,² e.g., reactor operations and surveillance, inservice

¹A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

²This tabulation supplements the requirements of § 20.407 of 10 CFR Part 20.

ADMINISTRATIVE CONTROLS

ANNUAL REPORT¹ (Continued)

inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

- b. The following information on aircraft movements at the Harrisburg International Airport:
 1. The total number of aircraft movements (takeoffs and landings) at the Harrisburg International Airport for the previous twelve-month period.
 2. The total number of movements of aircraft larger than 200,000 pounds, based on a current percentage estimate provided by the airport manager or his designee.

RADIATION SAFETY PROGRAM REPORT

6.9.1.6 Deleted.

REPORTABLE OCCURRENCES

6.9.1.7 Deleted.

PROMPT NOTIFICATION WITH WRITTEN FOLLOWUP

6.9.1.8 Deleted.

THIRTY DAY WRITTEN REPORTS

6.9.1.9 Deleted.

REPORTING REQUIREMENTS FOR INCIDENT WHICH OCCURRED ON MARCH 28, 1979

6.9.1.10 Section Deleted. All reporting requirements completed.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted in accordance with 10 CFR 50.4 within the time period specified for each report.

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

- a. Records of sealed source and fission detector leak tests and results.
- b. Records of annual physical inventory of all sealed source material of record.

ADMINISTRATIVE CONTROLS

SPECIAL REPORTS (Continued)

- c. Records of changes made to the procedures required by Specifications 6.8.1.d and e.

6.10.2 The following records shall be retained as long as the Licensee has an NRC license to operate or possess the Three Mile Island facility.

- a. Records and logs of unit operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety and radioactive waste systems.
- c. ALL REPORTABLE EVENTS submitted to the Commission.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of changes made to the procedures required by Specifications 6.8.1.a, b., c., and f.
- f. Radiation Safety Program Reports and Quarterly Recovery Progress Reports on the March 28, 1979 incident.
- g. Records of radioactive shipments.
- h. Records and logs of radioactive waste systems operations.
- i. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Safety Analysis Report, TER, SD, or Safety Evaluation previously submitted to NRC.
- j. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
- k. Records of transient or operational cycles for those unit components designed for a limited number of transients or cycles.
- l. Records of reactor tests and experiments.

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- m. Records of training and qualification for current members of the unit staff.
- n. Records of in-service inspections performed pursuant to these Technical Specifications.
- o. Records of Quality Assurance activities required by the Operating Quality Assurance Plan.
- p. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- q. Records of meetings of the Plant Operation Review Committee (PORC) and the General Review Committee (GRC) and reports of evaluations prepared by the SRG or by the IOSRG, if applicable to TMI-2.
- r. Records of the incident which occurred on March 28, 1979.
- s. Records of unit radiation and contamination surveys.
- t. Records of radiation exposure for all individuals entering radiation control areas.
- u. Records of gaseous and liquid radioactive material released to the environs.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area shall be controlled as specified in the Radiation Protection Plan.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 36 TO FACILITY OPERATING LICENSE NO. DPR-73
GPU NUCLEAR CORPORATION
THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 2
DOCKET NO. 50-320

INTRODUCTION

By letter dated August 15, 1988, GPU Nuclear Corporation (GPUN or the licensee) requested the approval of a change to the Appendix A Technical Specifications of Facility Operating License No. DPR-73 for Three Mile Island Nuclear Station, Unit No. 2. The proposed amendment would revise the specifications related to staffing requirements for the TMI-2 Safety Review Group (SRG). The changes also revise the current definition of review significant items and resolve a conflict with the existing regulatory requirements related to the submission of reports to the NRC.

DISCUSSION AND EVALUATION

In Section 1 of the Appendix A Technical Specifications the licensee proposes a change in the definition of "Review Significant." The definition defines in part, review of significant items as those system operating procedures and associated emergency, abnormal, alarm response procedures which require NRC approval. License Amendment No. 30, dated May 27, 1988 deleted the requirement for NRC prior approval of procedures except those specified by Section 3.1.13. The licensee proposes to change a portion of the definition to state specifically the procedures which still require NRC approval. Therefore the definition would specify that the only procedures that would require NRC approval would be those associated with Section 3.1.13. The staff finds the proposed change acceptable.

Section 6.5 defines the licensee's review and audit requirements for TMI-2. The licensee proposes to reduce the minimum staffing requirement of the TMI-2 Safety Review Group (SRG), after completion of defueling and elimination of the possibility of a criticality accident and transition to Mode 2. The current Technical Specification, Section 6.5.4.2, requires a Manager, SRG and a minimum staff of five engineers. After transition to Mode 2 the licensee proposes to reduce the SRG staff to a Manager, SRG and a minimum staff of three engineers.

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The licensee further proposed in their August 15, 1988 submittal that after all canisters containing fuel have been shipped offsite the SRG would be eliminated. In its place the licensee proposes to substitute a new requirement for Independent Safety Reviewers (ISRs). Subsequent to the licensee's submittal the staff discussed the requirement to maintain an independent safety review organization that is truly independent of the functional organization responsible for the document or change. The licensee has agreed to retain the SRG until such time that the Unit 1 Independent Onsite Safety Review Group (IOSRG) will assume oversight of TMI-2.

Therefore at some time after the licensee enters Mode 2 the independent safety review function at TMI-2 will be assumed by the TMI-1 IOSRG. Transition from the SRG to the IOSRG will be determined by the licensee, with written notification to the NPC staff. The IOSRG staff will be specified in the TMI-1 Technical Specifications (License No. DPR-50). An additional position will be specified in support of TMI-2 activities. The IOSRG will report to the director responsible for nuclear safety assessment and will function for both TMI-1 and TMI-2.

The periodic review function of the IOSRG will result in independent safety reviews similar to that required of the SRG. The principal difference is that under the IOSRG the review function can be performed after the fact. Qualifications for IOSRG members are similar to those of the SRG although less experience is required. The responsibilities and qualification requirements for the IOSRG will be the same for TMI-1 and TMI-2.

Once the licensee transitions to the IOSRG the licensee will have an additional requirement for ISRs. The ISRs would perform the independent review of the subjects listed in Specification 6.5.2.5, for those actions which could affect the safety of the facility. This review would be performed prior to implementation of the activity. The qualifications for the ISRs are identical to those for the current SRG members. The ISRs will be required to review documents and changes thereto that are currently required to be reviewed by the SRG. The review by ISRs will be documented by means of plant procedures and will include a review of the technical aspects of the proposed as well as a review of any associated safety evaluation attached to the document under review.

The ISR cannot be the Document Originator, Responsible Technical Reviewer (PTR) Implementing Approver or an individual having direct responsibility for performance. An ISR may be from the same functional organization as the preparer and PTR. The ISRs will be assigned on a departmental basis. Ultimately when TMI-2 comes under the direction of TMI-1 ISRs will be shared between both units. Initially there will be approximately 12 ISRs appointed when TMI-2 eliminates the SRG and implements the IOSRG.

Following the completion of defueling and the elimination of the possibility of an inadvertent criticality, the reduction in the minimum SRG staffing would be implemented without significantly affecting the ability of the SRG to perform its required functions. The reduction is appropriate based on the reduced scope of the cleanup activities and the overall increase in the margin of safety after the end of defueling.

The licensee's planned transition from the SRG to the IOSRG and the use of ISRs subsequent to the mode change would not result in a decrease in the margin of safety at TMI-2. The potential for a radiological release exceeding the guidelines of 10 CFR 50 Appendix I would be essentially eliminated once the licensee completes defueling. The potential for any event requiring immediate notification as required by 10 CFR 50.72 or an event which is reportable pursuant to 10 CFR 50.33, both of which currently require SRG review, would be unlikely. Furthermore, most plant systems and components will be isolated and not operating. Activities planned after the completion of defueling would be limited to readying the facility for long term storages. The use of the IOSRG and ISRs is consistent with current practices at TMI-1. Furthermore transition from the SRG to the IOSRG and ISRs is consistent with the licensee's plans to consolidate many of the activities at TMI into site organizations. Changes to procedures will continue to receive review and approval by RTPs.

The staff finds that the proposed reduction in the staffing of the SRG after transition to Mode 2 and the subsequent transition to a IOSRG with the concurrent establishment of the ISRs acceptable.

The licensee, in their August 15, 1988 letter, requested that in Section 1.14, the definition of "Review Significant", be further revised to be applicable only during Modes 1 and 2. The staff has discussed this request with the licensee and the licensee, in a telephone conference on October 19, 1989, agreed to withdraw this requested change.

The licensee also proposed changes to a number of other sections in Section 6.5, Review and Audit, to reflect the reduction in SRG staffing during Mode 2 and the subsequent transition to IOSRG and initiation of ISRs. The staff finds these proposed changes acceptable.

The licensee also proposes to change Section 6.9.1, Routine Reports and Reportable Occurrences, and 6.9.2, Special Reports. Both specifications require that reports be submitted to the NRC Region I Administrator unless otherwise noted. The licensee proposes to change both sections and specify that reports be submitted in accordance with 10 CFR 50.4. Specific requirements for the submission of reports are contained in 10 CFR 50.4. The proposed change is administrative in nature and removes any conflict with existing regulatory requirements and the technical specifications. The staff finds the proposed change acceptable.

ENVIRONMENTAL CONSIDERATION

The amendment changes the reporting and administrative requirements of the licensee's review and audit procedures. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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.

CONCLUSION

We have 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 (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Michael T. Masnik

Dated: January 26, 1990