

# AmerGen

A PECO Energy/British Energy Company

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August 9, 2000  
5928-00-20193

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Dear Sir or Madam:

Subject: THREE MILE ISLAND NUCLEAR STATION, UNIT 1 (TMI-1),  
OPERATING LICENSE NO. DPR-50  
DOCKET NO. 50-289  
TECHNICAL SPECIFICATION CHANGE REQUEST NO. 298  
INDEPENDENT ONSITE SAFETY REVIEW GROUP

In accordance with 10 CFR 50.4 (b) (1), enclosed is Technical Specification Change Request (TSCR) No. 298.

The purpose of this TSCR is to request that the TMI-1 Technical Specifications Sections 6.5.3 and 6.5.4 be revised to eliminate the reference to the Independent Onsite Safety Review Group (IOSRG) and to define the performance of the IOSRG function by the nuclear quality assurance organization. These administrative changes are similar to changes that have already been approved at other plants in Region 1.

Pursuant to 10 CFR 50.91 (a) (1), enclosed is our analysis, applying the standards in 10 CFR 50.92 to make a determination of no significant hazards considerations. Pursuant to 10 CFR 50.91(b)(1), a copy of this Technical Specification Change Request is provided to the designated official of the Commonwealth of Pennsylvania, Bureau of Radiation Protection, as well as the chief executives of the township and county in which the facility is located.

Please contact V. Lewis Killpack, Jr. of the TMI Regulatory Engineering Department at (717) 948-8196 regarding any additional concerns or questions on this issue.

Very truly yours,



Mark E. Warner  
Vice President, TMI Unit 1

MEW/vlk

ADDI

**Enclosures:**

- (1) Technical Specification Change Request 298 Description of Change, Safety Evaluation Supplement, and No Significant Hazards Consideration Analysis**
- (2) Technical Specification Mark-up**
- (3) Proposed Technical Specification Pages**

**cc: Administrator, Region I**

**TMI-2 Senior Project Manager**

**TMI Senior Resident Inspector**

**Chairman, Board of Supervisors of Londonderry Township**

**Director, Bureau of Radiation Protection, PA Department of Environmental Resources**

**Chairman, Board of County Commissioners of Dauphin County**

**File No. 00079**



**Enclosure 1**

**Technical Specification Change Request 298  
Description of Change, Safety Evaluation Supplement  
and No Significant Hazards Consideration Analysis**

## I TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR) 298

AmerGen requests that the following changed replacement pages be inserted into the existing Technical Specification:

Revised pages: 6-8 and 6-9.

These pages are attached to this change request.

## II REASON FOR CHANGE

The primary focus of this change is to eliminate the reference to IOSRG as an organization, and to define the performance of the IOSRG function. The TMI quality assurance organization will perform both the assessment and IOSRG functions. The performance of these two functions by a single qualified organization will lead to efficiencies in the performance of both functions.

## III DESCRIPTION OF CHANGE

1) Section 6.5.3.1.k – Change “IOSRG” to “management position responsible for nuclear quality assurance”. The allowance of IOSRG to determine additional areas requiring audits is too narrow. Since the IOSRG function is a part of the function of nuclear quality assurance, and all personnel within quality assurance are capable of identifying areas requiring special audits, this section is revised to add the flexibility of empowering all nuclear quality assurance personnel to identify these deficient areas.

2) Section 6.5.4.1 – Change the reference to the IOSRG as a group or organization to a reference as an oversight function. The IOSRG function will continue to be implemented by nuclear quality assurance, but a specific dedicated safety review group or organization will not be retained. The nuclear quality assurance staff will perform the assessment and safety review oversight.

3) Section 6.5.4.2.a – Change the reference to the IOSRG as a group or organization to a reference as an oversight function. The IOSRG function will continue to be implemented by nuclear quality assurance, but a specific dedicated safety review group or organization will not be retained. The nuclear quality assurance staff will perform the assessment and safety review oversight.

4) Section 6.5.4.2.b – Delete this section. Since the nuclear quality assurance staff will be fulfilling the responsibilities of the IOSRG function, the allowance for dropping to two engineers for up to six months is no longer necessary. Adequate staffing of the nuclear quality staff will preclude the possibility of dropping to two IOSRG qualified personnel. Many of the nuclear quality assurance staff will or can be qualified to perform the IOSRG function.

5) Section 6.5.4.2.c – Change this section to 6.5.4.2.b since the section above has been deleted and add “implementing personnel” to “IOSRG” to indicate that the nuclear quality assurance personnel will be implementing the IOSRG function.

6) Section 6.5.4.3 – This section was reworded to indicate required IOSRG review functions rather than referring to the IOSRG as a discrete organization.

7) Section 6.5.4.3, Bullet 5) – Change “IOSRG Manager” to “management position responsible for nuclear quality assurance”. This is an organizational change that more accurately reflects the management position that is responsible for implementing the IOSRG function.

8) Section 6.5.4.4 - Change the reference to the IOSRG as a group or organization to a reference as an oversight function. The IOSRG function will continue to be implemented by nuclear quality assurance, but a specific dedicated safety review group or organization will not be retained. The nuclear quality assurance staff will perform the assessment and safety review oversight.

9) Section 6.5.4.5 – Change “IOSRG engineers” to “IOSRG personnel” to add the flexibility of empowering all nuclear quality assurance personnel with the proper qualifications to perform the IOSRG function and to emphasize IOSRG is a function, not the name of an organization.

#### IV SAFETY EVALUATION JUSTIFYING CHANGE

The training and qualification of the personnel performing the IOSRG function will be unchanged from the current requirements. Since nuclear quality assurance personnel are independent of the Plant Staff, have unencumbered access to the information necessary for the performance of their jobs, and review activities affecting nuclear safety or safe plant operations, the inclusion of the IOSRG function into the nuclear quality assurance organization will have no detrimental affect on the oversight of TMI activities.

1) *Will implementation of the change adversely affect nuclear safety or plant operation?* No, these changes will not adversely affect nuclear safety or plant operations. The IOSRG is currently identified as an organization independent of Plant Staff, with no line responsibilities, having unencumbered access to the information necessary to perform its job. This organization is tasked with evaluated plant activities and documents for their impact on nuclear safety and safe operations. The IOSRG reports to the manager responsible for quality assurance, who in turn reports to the Director, Nuclear Quality Assurance. The proposed reorganization eliminates the IOSRG organizational description, and replaces it with a functional description. Nuclear quality assurance personnel who share the IOSRG’s independence and reporting relationship will perform the IOSRG function. Nuclear quality assurance personnel, who meet the training and qualification requirements for performing the IOSRG function, will be tasked with fulfilling that function. Since qualified personnel will be performing the IOSRG function, there is no adverse affect on nuclear safety or safe plant operations.

2) *May the probability of occurrence of an accident previously evaluated in the safety analysis report be increased?* No, the probability of an accident previously evaluated in the safety analysis report will not be increased as a result of this reorganization. Nuclear quality assurance and IOSRG both provide independent oversight of plant activities, including assessing the activities affect on nuclear safety and safe plant operations. With this reorganization, the IOSRG function and the quality assurance function will be provided by the nuclear quality assurance group. The level and adequacy of the overall oversight of TMI activities will not be changed by this reorganization. Likewise the probability of an accident previously evaluated in the safety analysis report is not increased, since the level of oversight is not reduced.

3) *May the consequences of an accident previously evaluated in the safety analysis report be increased?* No, the consequences of an accident previously evaluated in the safety analysis report are not increased by this reorganization. As discussed in 2) above the adequacy of oversight of plant activities will not be affected by this change. Combining the IOSRG and QA oversight functions into a single organization with a charter to assess a wide spectrum of plant activities adds a synergy to the oversight organization. This integration of IOSRG and QA oversight into a common oversight program will not decrease the efficiency and effectiveness of the oversight. As such, the probability and consequences of accidents evaluated in the safety analysis report will not be increased by this change.

4) *May the probability of occurrence of a malfunction of equipment important to safety previously evaluated in the safety analysis report be increased?* No, the probability of occurrence of a malfunction of equipment previously evaluated in the safety analysis report is not increased by this change. Since this change involves reorganization resulting in the QA and IOSRG oversight functions being combined into a single organization, equipment reliability is not directly affected by this change. Increased efficiencies and synergism in the performance of the oversight of plant activities should ultimately reduce the likelihood of equipment malfunctions in that early detection of impending failures may be identified through this oversight. The Assessment group will also overview plant programs relating to the maintenance and control of plant equipment.

5) *May the consequences of a malfunction of equipment important to safety previously evaluated in the safety analysis report be increased?* No, the consequences of a malfunction of equipment are not increased by this change. This change is organizational in nature. As discussed in the responses to the questions above, this change involves combining the IOSRG and QA oversight functions into a single group to obtain an increase in the efficiency of the oversight program. This change doesn't directly affect plant equipment, its malfunction, or the consequences of its malfunction. Increased efficiency in the oversight process will help ensure safe plant operations. Early detection and resolution of deficiencies and identification of areas of potential improvement serve to decrease the likelihood of equipment malfunctions and the consequences of failures. Oversight of programs such as Operations, Maintenance, and Training verify a trained and qualified plant staff is operating the unit in a manner to minimize the probability of equipment malfunctions and the consequences of malfunctions.

6) *May the probability for an accident of a different type than any evaluated previously in the safety analysis report be created?* No, the probability of an accident of a different type than previously evaluated in the safety analysis report is not increased by this organizational change. With the increased efficiency and synergism obtained by combining the IOSRG and QA oversight functions the probability of a different type of accident than previously evaluated is not increased by this change. Increased efficiency in the oversight of TMI activities will increase the value of that oversight. The efficient oversight of plant activities is one of several means to minimize the probability of accidents of any type occurring at the plant.

7) *May the possibility for a malfunction of a different type than any evaluated previously in the safety analysis report be created?* No, the possibility of a different type of malfunction than any previously evaluated is not created. The organizational change of combining the IOSRG and QA oversight functions within a single group can only serve to

minimize the probability of malfunctions not previously evaluated being created. The IOSRG function of reviewing nuclear safety and safe plant operations remains unchanged, as does the training and qualification requirements for those individuals performing those reviews. This change only combines the two types of oversight into a single organization. The increased efficiency derived from this reorganization will help serve to minimize the potential of all plant malfunctions. The oversight organization has no line responsibilities, is independent of the Plant Staff, and as such cannot increase the likelihood of a malfunction.

8) *Is the margin of safety as defined in the basis for any Technical Specification reduced?* No, the margin of safety as defined in the Technical Specifications is not reduced as a result of this change. The applicable TMI-1 Technical Specifications section is 6.5.4. As a section 6.0, "Administrative Controls," requirement, there is no margin of safety associated with this section. NUREG-0737 is referenced in the NRC SER, which provided the basis for approving the Technical Specification Amendment that added the IOSRG section to the TMI-1 Technical Specifications. Section I.B.1.2 of NUREG-0737 states in part, "It is expected that the ISEG may interface with the quality assurance (QA) organization, but preferably should not be an integral part of the QA organization." NUREG-0737 was published in November 1980. Since that time, the IOSRG and QA programs at TMI-1 have matured and been refined. When reviewing the intended function of the IOSRG, as defined in NUREG-0737, it is clear that the independent verification of the adequacy of the plant's human performance, the assurance of nuclear safety, and the assessment of safe plant operations is now a shared responsibility of the QA and IOSRG organizations. Combining the QA and IOSRG oversight functions into a single organization with no line responsibilities, independent of Plant Staff, and reporting to an off-site Director will increase the efficiency and synergy of the two oversight roles. NUREG-0737 does not prohibit the combining the IOSRG function with the QA organization. It suggests this separation be maintained. The maturation of the oversight programs at TMI-1 would now indicate this 1980 suggestion is no longer as valid as it was at the infancy of the IOSRG program. The combination of the two similar oversight programs into one organization is now desirable to further increase the efficiency.

9) *Is a Technical Specification change required?* Yes, administrative changes are required and will be processed as Technical Specification Change Request 298. These changes are similar to changes that have been approved at other plants in Region 1.

V

#### NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

This Technical Specification Change Request poses no significant hazards consideration as defined by 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 consequences of an accident previously evaluated. The proposed changes do not affect assumptions contained in plant safety analyses, the physical design and/or operation of the plant, nor do they affect Technical Specifications that preserve safety analysis assumptions. None of the proposed changes involve a physical modification to the plant, a new mode of operation or a change to the UFSAR transient analyses. No Technical Specification Limiting Condition for Operation, Action Statement, or Surveillance Requirement is affected by any of the proposed changes. The proposed changes do not alter the design,

function, or operation of any plant component. Therefore, the proposed amendment does not affect the probability of occurrence or consequences 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 previously evaluated. The proposed changes do not affect assumptions contained in plant safety analyses, the physical design and/or modes of plant operation defined in the plant operating license, or Technical Specifications that preserve safety analysis assumptions. The proposed changes do not introduce a new mode of plant operation or surveillance requirement, nor involve a physical modification to the plant. The proposed changes do not alter the design, function, or operation of any plant components. Therefore, the proposed amendment does not affect the possibility of a new or different kind of accident from any accident previously evaluated.

3) Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. None of the proposed changes involve a physical modification to the plant, a new mode of operation or a change to the UFSAR transient analyses. No Technical Specification Limiting Condition for Operation, Action Statement, or Surveillance Requirement is affected. Therefore, the proposed amendment does not reduce the margin of safety.

Based upon the analysis provided herein, the proposed changes will not increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a reduction in a margin of safety. The performance of safety assessment and the IOSRG functions by a single qualified organization will lead to efficiencies in the performance of both functions. The training and qualification of the personnel performing the IOSRG function will be unchanged from the current requirements. Therefore, the proposed changes meet the requirements of 10 CFR 50.92(c) and involve no significant hazards consideration.

## VI IMPLEMENTATION

It is requested that the amendment authorizing this change become effective upon the date of issuance and implemented within 30 days.

**Enclosure 2**  
**Technical Specification Mark-up**

- i. The Process Control Program and implementing procedures for solidification of radioactive wastes.
- j. The performance of activities required by the Quality Assurance Program to meet criteria of Regulatory Guide 4.15, December, 1977.
- k. Any other area of unit operation considered appropriate by the **IOSRG management position responsible for nuclear quality assurance** or the Chief Nuclear Officer.

6.5.3.2 Audits of the following shall be performed under the cognizance of the department director responsible for technical support:

- a. An independent fire protection and loss prevention program inspection and audit shall be performed utilizing either qualified licensee personnel or an outside fire protection firm.
- b. An inspection and audit of the fire protection and loss prevention program, by an outside qualified fire consultant.

### RECORDS

6.5.3.3 Audit reports encompassed by sections 6.5.3.1 and 6.5.3.2 shall be forwarded for action to the management positions responsible for the areas audited within 60 days after completion of the audit. Upper management shall be informed per the Operation Quality Assurance Plan.

### 6.5.4 INDEPENDENT ONSITE SAFETY REVIEW GROUP (IOSRG) STRUCTURE FUNCTION

6.5.4.1 The **IOSRG function** shall be ~~a full-time group of engineers~~ **implemented by nuclear quality assurance personnel**, experienced in nuclear power plant engineering, operations and/or technology, independent of the unit staff, and located on site.

### ORGANIZATION

- 6.5.4.2 a. The **IOSRG function** shall ~~consist of a manager and a minimum staff of 3 members~~ **be implemented by personnel** who meet the qualifications of 6.5.4.5. Group expertise shall be multi-disciplined.
- ~~b. In the event of an unanticipated vacancy in the IOSRG staff, the number of staff can be two (2) members for a period of not to exceed six (6) months while the vacancy is being filled.~~
- ~~cb. The IOSRG implementing personnel~~ shall report to the director responsible for nuclear quality assurance.

## FUNCTION

6.5.4.3 The ~~periodic~~ **IOSRG** 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~~ **management position responsible for nuclear quality assurance** deems appropriate for consideration.

## AUTHORITY

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

## QUALIFICATIONS

6.5.4.5 The ~~IOSRG engineers~~ **implementing personnel** 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 responsible for nuclear quality assurance, the Vice President-TMI Unit 1, the Chief Nuclear Officer and the management positions responsible for the areas reviewed.

**Enclosure 3**  
**Proposed Technical Specification Pages**

- i. The Process Control Program and implementing procedures for solidification of radioactive wastes.
- j. The performance of activities required by the Quality Assurance Program to meet criteria of Regulatory Guide 4.15, December, 1977.
- k. Any other area of unit operation considered appropriate by the **management position responsible for nuclear quality assurance** or the Chief Nuclear Officer.

6.5.3.2 Audits of the following shall be performed under the cognizance of the department director responsible for technical support:

- a. An independent fire protection and loss prevention program inspection and audit shall be performed utilizing either qualified licensee personnel or an outside fire protection firm.
- b. An inspection and audit of the fire protection and loss prevention program, by an outside qualified fire consultant.

#### RECORDS

6.5.3.3 Audit reports encompassed by sections 6.5.3.1 and 6.5.3.2 shall be forwarded for action to the management positions responsible for the areas audited within 60 days after completion of the audit. Upper management shall be informed per the Operation Quality Assurance Plan.

#### 6.5.4 INDEPENDENT ONSITE SAFETY REVIEW GROUP (IOSRG) FUNCTION

6.5.4.1 The IOSRG function shall be **implemented by nuclear quality assurance personnel**, experienced in nuclear power plant engineering, operations and/or technology, independent of the unit staff, and located on site.

#### ORGANIZATION

- 6.5.4.2 a. The IOSRG function shall be **implemented by personnel** who meet the qualifications of 6.5.4.5. Group expertise shall be multi-disciplined.
- b. The IOSRG **implementing personnel** shall report to the director responsible for nuclear quality assurance.

## FUNCTION

6.5.4.3 The **IOSRG** review functions 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 **management position responsible for nuclear quality assurance** deems appropriate for consideration.

## AUTHORITY

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

## QUALIFICATIONS

6.5.4.5 The **IOSRG implementing personnel** 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 responsible for nuclear quality assurance, the Vice President-TMI Unit 1, the Chief Nuclear Officer and the management positions responsible for the areas reviewed.