

AmerGen Energy Company, LLC
200 Exelon Way
Suite 345
Kennett Square, PA 19348

www.exeloncorp.com

10 CFR 50.90

September 11, 2002
5928-02-20168

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Response To Request For Additional Information –
Technical Specification Change Request No. 298, Revision 1,
Deletion of IOSRG (Independent Onsite Safety Review Group) Requirements
From The TMI Unit 1 Technical Specifications
(TAC NO. MB2964)

Three Mile Island, Unit 1 (TMI Unit 1)
Facility Operating License No. DPR-50
NRC Docket No. 50-289

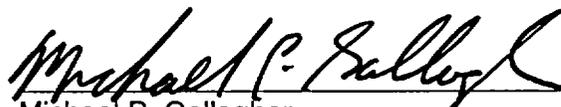
This letter provides additional information in response to NRC request for additional information, dated July 26, 2002, regarding TMI Unit 1 Technical Specification Change Request No. 298, Revision 1, submitted to NRC for review on April 14, 2001. The additional information is provided in Enclosure 1.

No new regulatory commitments are established by this submittal. If any additional information is needed, please contact John G. Hufnagel (610) 765-5507.

I declare under penalty of perjury that the foregoing is true and correct.

Very truly yours,

09-11-02
Executed On


Michael P. Gallagher
Director, Licensing & Regulatory Affairs
Mid Atlantic Regional Operating Group

Enclosure: Response to Request for Additional Information

cc: H. J. Miller, USNRC Administrator, Region I
T. G. Colburn, USNRC Senior Project Manager, TMI Unit 1
J. D. Orr, USNRC Senior Resident Inspector, TMI Unit 1
File No. 00079

A001

ENCLOSURE 1

TMI UNIT 1

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

TECHNICAL SPECIFICATION CHANGE REQUEST No. 298, REV. 1

INDEPENDENT ONSITE SAFETY REVIEW GROUP

1. **NRC Question**

The August 14, 2001, application did not contain specific information on qualification and training requirements for those performing alternate IOSRG functions. Please provide an item-by-item analysis for each of the proposed alternate IOSRG functions, to determine qualification and training requirements for the individuals or groups performing those alternate IOSRG functions and identify where those requirements are documented. Please confirm that the qualification and training requirements either meet or exceed the current IOSRG qualification and training requirement or, where the qualification and training requirements are less stringent, please provide justification. The Standard Review Plan (SRP), Section 13.4, provides the basis for Nuclear Regulatory Commission (NRC) staff evaluations for proposed changes to the Independent Safety Review Group (ISEG) functions described in NUREG-0737. IOSRG is the licensee's equivalent to ISEG. The licensee may wish to consider how the proposed IOSRG alternative functions comport with the guidance in SRP Section 13.4.

Response

Based on our review of the ISEG qualification requirements of NUREG-0737 the individuals tasked with performing the ISEG function are required to have the following qualifications; at least three years of related experience and a Bachelor Degree in Engineering or related field; or shall have at least 8 years of related experience. We have concluded by our review that we meet or exceed the current ISEG qualification and training requirements for each of the positions performing these ISEG alternative functions as stated below.

The principle function of the ISEG includes examination of plant operating characteristics, NRC issuances, industry advisories, and other appropriate sources of plant design and operating experience information that may indicate areas for improving plant safety. Specifically, the periodic review functions as stated in TMI Technical Specifications for IOSRG include the following on a selective and overview basis:

1. Evaluation for technical adequacy and clarity of procedures important to the safe operations 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.

Currently, the performance of these functions is duplicated by various organizations in addition to IOSRG. The organizations that perform the ISEG alternative functions are listed as follows.

Experienced engineers' staff the Corporate, Regional Operating Group (ROG) and Site Engineering and Licensing organizations as described in position descriptions. Functions performed by this staff include the Responsible Technical Reviewer (RTR) and Independent Safety Review (ISR) functions at TMI. These individuals perform the review

function stated in item 1 above, which includes the review of procedures important to the safe operation of the unit and this function supports the ISEG alternative. The qualifications of the independent reviewers, RTR and ISR, are a Bachelor's Degree in Engineering or the Physical Sciences and five years of professional level experience in the area being reviewed or nine years of appropriate experience in the field of specialty.

Engineering personnel at the site and within the ROG and Corporate office support the periodic review function of the IOSRG as stated above in item 4, "assessment of the unit performance regarding conformance to requirements related to safety." This function is now accomplished by the ISEG alternative through the collection of program elements for implementing and/or reviewing areas of quality of plant operations and nuclear safety that are performed across the nuclear organization. Examples of this collection of program elements include the: Maintenance Rule Program, Configuration Control process, the Self-Assessment Program, and the Operating Experience Program (OPEX), and the Corrective Action Program (CAP) which support IOSRG alternative functions.

The training and qualification programs for the engineering personnel at TMI and support engineering within the ROG and at the Corporate offices is detailed below. The Company's implementation of an accredited Engineering Support Personnel training program is in compliance with 10CFR50.120, "Training Rule," and INPO 98-004, "Training and Qualification of Engineering Support Personnel." The program is aligned to the guidance of ACAD 98-004, Guidelines for the Training and Qualification of Engineering Personnel, and ACAD 91-015, The Objectives and Criteria for Accreditation of Training in the Nuclear Power Industry. The Engineering Peer Group owns the program with governance and oversight provided by the Engineering Training Program Manager, Engineering Training located in the Corporate / ROG offices. The program includes Advisory Committees (TAC) and Curriculum Review Committees (CRC). This program applies to members of Exelon Nuclear Engineering, Licensing and Regulatory Affairs, Procurement Engineering and Nuclear Fuel Management. This program is also applicable to other personnel, including contractors, who perform engineering functions described in ACAD 98-004. The accredited Engineering population consists of personnel who independently perform activities described in ACAD 98-004 including tasks associated with the requirements of NUREG-0737 for the ISEG.

In accordance with NUREG-0737 requirements for the ISEG, accredited personnel complete the full scope of orientation training, receive position specific training, and participate in continuing training. Continuing Training for the accredited Engineering population includes training performed on technical and administrative topics to maintain and improve engineering job performance. Continuing Training keeps personnel current with respect to plant modifications, procedure changes, operating experience, and technical advances associated with their job functions. Certification guides were developed to provide qualification criteria for performance of engineering tasks that could have an effect on safe and reliable plant operation. Personnel are required to complete qualifications prior to independent performance of activities requiring qualification. Qualification status is documented in qualification databases maintained by the responsible organizations.

Within the Nuclear Oversight organization, personnel performing reviews of 10CFR50.59 and 10CFR72.48 evaluations meet the ISEG qualification requirements of at least three years of related experience and a Bachelor Degree in Engineering or related field; or shall have at least 8 years of related experience. NOS personnel responsible for implementation of performance based audits of plant operations meet the criteria of NQA-1 and/or ANSI N45.2.23 for Audit Team Leaders. These standards contain education and related experience requirements that meet the requirements as outlined for individuals performing the ISEG function as stated in NUREG 0737. Results of the assessment and inspection process are reviewed and evaluated for performance trends and then reported out to site and corporate management on a bi-weekly, monthly and quarterly basis. The assessments verify the effectiveness of TMI programs and processes and provide management with continuous information on conditions that potentially affect plant safety, operability, reliability, or productivity. This provides an integrated observation system for the assessment and independent safety and technical review functions for activities affecting or potentially affecting nuclear safety. These review and assessment functions performed by NOS at TMI continue to support the requirements of NUREG-0737 and duplicate the periodic review functions performed by IOSRG as stated above in; item 2, "evaluation of the unit operations from a safety perspective" and item 3, "assessment of unit nuclear safety programs.

The Nuclear Safety Review Board (NSRB) is an offsite committee that reports to and advises the President and CNO of the results of their independent oversight of plant operations related to safe operation of the station and the Company's nuclear program relative to nuclear safety. The NSRB is responsible for the independent safety review function and directs the periodic review functions that were performed by IOSRG as stated above in; item 5, "any other matter involving safe operations of the nuclear power plant that the IOSRG manager deems appropriate for consideration". The NSRB directs the NOS organization to perform independent assessment of any area involving safe operations of the nuclear power plant based on NSRB review of the information supplied through the above stated collection of program elements for implementing and/or reviewing areas of quality of plant operations and nuclear safety that are performed across the nuclear organization by Engineering, NOS and Licensing.

Members and Alternate members of the NSRB shall have a minimum of nine years of technical experience in one or more of the disciplines specified in ANSI N18.7 (ANS 3.2), as appropriate for the subject or subjects being reviewed and investigated. A maximum of four of these nine years may be fulfilled in academic training in the pursuit of a degree in engineering or the physical sciences. This exceeds the stated requirements for individuals performing the ISEG function in accordance with NUREG-0737.

As stated in the original submittal, dated 8/14/01, since the formation of the IOSRG the TMI Corrective Action Program has matured to a structured investigation and root cause analysis program to capture significant plant events identify adverse trends, and to provide corrective actions to resolve deficiencies to prevent recurrence. Other programs that have evolved since the formation of the IOSRG is the Self-assessment process, the Management Review Meeting (MRM) and Peer Group Processes that facilitate the identification and resolution of emerging issues and encourage ownership of and commitment to required change also support the IOSRG alternative. Corporate Licensing personnel accomplish the governance and administration of these programs

along with several others such as OPEX and the Technical Specifications Change process. These programs and processes support the IOSRG alternative functions but whether it is OPEX or a Tech Spec Change the Engineering organization is involved in the process. For example, System and Component Engineers are responsible for industry and Exelon OPEX information pertinent to their systems and components. The development of these programs and processes that were not included in the original functions of the ISEG but have evolved and now support the ISEG alternative are also noted within the submittals by TVA and South Carolina Electric and Gas for the elimination of the ISEG.

In summary, qualification requirements for personnel performing the alternate ISEG/IOSRG function meet or exceed the qualification requirements for personnel performing oversight of nuclear safety function as stated in NUREG-0737.

2. **NRC Question**

Please describe the reporting relationships for the various IOSRG alternate functions in order to demonstrate independence. Where reports are made to the site Vice President, please demonstrate how independence of the production reporting chain is maintained given that the Plant Manager also reports directly to the site Vice President.

Response

Site Engineering reports through the Site VP and this group provides direct support to TMI Operations who performs the initial operability and reportability determinations. Site Engineering personnel are assigned as the principle contact and owner of specific plant systems, support the implementation of design changes and modifications, gather data on station for review of material condition and relative health of plant components and systems in support of the Maintenance Rule Program, and participate in the self-assessment process. Although the Engineering organization at the site reports to the Site Vice President, the organization has the necessary independence to effectively monitor Operations and Maintenance activities, including the performance monitoring of plant systems.

This site engineering function receives governance, oversight and support supplied by the centralized corporate engineering group or the ROG engineering groups, independent of the production reporting chain at the site. These Support Engineering groups report to either the ROG Engineering Director and/or the VP Engineering who organizationally report through the Senior VP Nuclear Services. This position is a direct report to the Chief Nuclear Officer. The Engineering Vice President, located in the centralized corporate office has overall program governance responsibilities for all Engineering programs. This individual sets the policies and rules that govern the program. The Central Engineering Programs Manager (CEPM) who resides in the Corporate/ROG offices is responsible to oversee the standardization of programs, processes, and procedures at each of the sites. Also this individual's responsibility includes ensuring that the best practices and industry experience are communicated and considered for implementation at all sites.

In addition, the Engineering Vice President is the Corporate Functional Area Manager (CFAM) responsible for the conduct of an effective Exelon Nuclear Peer Group in the Engineering Area. The duties and responsibilities of the Engineering Peer Group include the following:

- Ensure uniform implementation of processes, programs, procedures, and tools
- Identify and utilize industry best practices for performance
- Foster continuous improvement with a focus on value achieved at the sites
- Transfer knowledge, lessons learned and best practices. In this regard, the Peer Groups review USNRC, INPO, NSRB, and NOS reports, and where appropriate apply fleet/ROG wide solutions to problem areas.
- Identify and resolve emerging issues in a common manner
- Establish functional area performance metrics and monitor performance

As stated above this support engineering function includes the governance and oversight of engineering processes and associated controls by corporate engineering. Also, the Corporate / ROG Engineering responsibilities include support for and oversight of:

- The operability determinations performed by the site engineering group
- Support, control and the implementation of design changes and modifications within the company
- Assessment of data generated by site personnel in making Maintenance Rule determinations in support of the Maintenance Rule Program

Implementation of the Maintenance Rule Program has provided another level of oversight for review of material condition and relative health of plant components and systems. Reports generated of these reviews are supplied to the Site VP through the onsite Engineering Groups and to corporate Engineering Management.

Engineering manages a System Health Indicator Program (SHIP) that uses a windows color scheme to status the overall health of the plant systems. The scope of the SHIP program includes all systems scoped within the Maintenance Rule Program (10CFR50.65), systems that adversely affect power production, and other systems as determined by the plant. An internal Engineering Challenge Review Board is conducted to review and validate the monthly SHIP report. Improvement plans are created as necessary and presented to the Plant Health Committee (PHC).

Exelon Nuclear has a system performance-monitoring program that includes the following:

- Monitor system and component performance
- Permit early detection of equipment problems,
- Predict equipment problems,
- Maintain equipment performance history,
- Help confirm the effectiveness of predictive, preventive, proactive and corrective maintenance,
- Provide information for apparent and root cause analysis,
- Ensure System Managers, Program Engineers and Component and Technology Specialists remain informed of system conditions and performance.

The oversight and governance of the programs and processes that are performed by site engineering personnel (provided by the Corporate Support Engineering group) are the same functions that were provided in the past by the ISEG as stated in the NUREG-0737 requirements.

The Nuclear Oversight (NOS) organization consisting of Corporate, ROG, and Site groups that are independent of production assures that and an appropriate QA Program is established, maintained and effectively executed throughout the nuclear organization. The Corporate NOS group provides the governance and oversight of the implementation of the QA Program and the effective implementation of the quality assurance functions that verify activities affecting safety-related functions. The ROG NOS Group has the responsibility to prioritize and communicate regional quality issues to senior management and for the resolution of these issues. The Corporate and ROG NOS groups provide support to the Site NOS group. The site Nuclear Oversight Group is an onsite group reporting through a ROG Director to the VP Nuclear Oversight. This group is responsible for performing assessments and inspections of Company activities, programs and processes within the scope of the QA Program relating to nuclear safety on a daily basis at the site. Included within these functions is the review of 10CFR50.59 and 10CFR72.48 evaluations, that passed the screening process, to verify that the evaluation supports the conclusion that prior NRC approval either was or was not required and to identify those regulatory evaluations warranting further review by the NSRB. The assessment function performed by NOS includes the independent overview of the ISEG alternative functions performed across the organization. Issues identified that have the potential for affecting nuclear safety are provided to the site management, up through the Site VP and through the VP NOS who has a direct reporting relationship with the company CNO. Results of the assessment and inspection process are reviewed and evaluated for performance trends and then reported out to site and corporate management on a bi-weekly, monthly and quarterly basis. This provides for an overview of activities affecting or potentially affecting nuclear safety and this function is maintained and continues to support the requirements of NUREG-0737.

As stated in the previous question above Licensing personnel accomplish the governance and administration of several programs and processes that support the IOSRG alternative functions. Although these functions were not included in the original functional description of the ISEG they are indicative of the evolution of organizations and processes since the formation of the ISEG. The advances made in these programs and functions are also noted within the justification for implementing the ISEG alternative in the submittals made by the Tennessee Valley Authority for Browns Ferry, Watts Bar and Sequoyah; by South Carolina Electric and Gas Company for V.C. Summer and South Texas Project

The Site Licensing group reports through the Site VP, this group reviews and supports the report ability review process, participates in the site self-assessment process, is responsible for the administration of the CAP at the site, and the review of OPEX data for site applicability. ROG/Corporate Licensing provides oversight and governance of the programs and processes including; CAP, OPEX, Operability, Report ability, 10CFR50.59 Reviews, Self Assessment, PORC and NSRB activities that are performed or supported

by site personnel. The oversight and governance of the programs and processes that are performed by site licensing personnel are provided by the ROG/Corporate Licensing groups and these functions that also support the process that have evolved since the formation of the IOSRG and will continue to support the proposed ISEG alternative functions.

Self-Assessment activities support the ISEG alternative functions. Exelon/Amergen Nuclear uses Self-Assessment to review current performance and to identify gaps between current performance and management expectations of excellence. This information is used to improve performance. Exelon/Amergen recognizes that critical self-assessment is an effective tool for establishing lasting long-term performance improvements. When an individual of an organization identifies and corrects its own problems, those corrective actions are both well accepted and effective. Ongoing and continuous self-assessment processes are also used within Exelon/Amergen such as Nuclear Oversight Audits/Assessments, Site Performance Indicators, NRC Performance Indicators, Corporate Performance Indicators, INPO Performance Indicators, Site Management Review Meetings, and daily Regional Operating Group (ROG) Status Meetings.

The self-assessment process includes a review of Corrective Action Program data, INPO reviews, NRC reviews, OPEX data, Nuclear Oversight Assessments, etc.

The Exelon/Amergen self-assessment program consists of four separate elements that combine to provide a comprehensive review of performance; Focused Area Self-Assessments, Management Observations of Activities, Site Integrated Performance Assessments, Corporate Integrated Performance Assessments. Each of these programs is as follows:

- Focused Area Self-Assessments

The Site Vice President (SVP) has overall responsibility for the execution of the focus area self-assessment process at the site. The SVP designates site focus self-assessment review board members. The focus Area Self-Assessment Review Boards ensure that the quality of focus area self-assessments meet expectations. The ROGs and each site conduct Focus Area self-assessment Review Boards on at least a semi-annual basis. The functional area peer groups specify the critical performance areas requiring periodic self-evaluation using the focus area self-assessment process. Areas important to plant safety, reliability and regulatory compliance are included in the scope of self-assessments.

- Management Observations of Activities

Exelon Nuclear implements a Management Observation Program which has several objectives including; Work site reinforcement of Exelon Nuclear expectations for safe and reliable nuclear plant operations, Establishing a forum for leadership by management personnel, Identification of individual or work group practices that do not meet human performance expectations, Identification of organizational

weaknesses that degrade human error defenses, Providing a means to identify common issues and potential trends of performance that may require management action, Identification of organizational improvements that could enhance personnel safety, productivity or effectiveness.

- Site Integrated Performance Assessments

All functional areas are required to participate in the Site Integrated Performance Assessment Process. A Site Senior Management Challenge Board reviews the results of these assessments. The Senior Management Challenge board meets to review station self-assessment reports as applicable.

- Corporate Integrated Performance Assessments

Corporate self-assessments are conducted on a regional basis. Each Corporate functional area is required to participate. Exelon Nuclear Corporate Office integrated self-assessments are required semi-annually. A challenge board is scheduled for each ROG to review the results of the Corporate Integrated Self-Assessments on a semi-annual basis. Senior Management personnel are expected to participate in the Challenge Board including the Vice President – Operations Support, Senior Vice President Mid-West or Mid-Atlantic ROG as appropriate, the Vice President Nuclear Oversight, and the Corporate Self Assessment Coordinator.

As stated in the TMI OQAP the Company uses a three-tiered approach to accomplish the oversight of Safety. The first tier will now consist of the ISEG alternative, consisting of a collection of program elements for implementing and/or reviewing areas of quality of plant operations and nuclear safety that are performed across the nuclear organization by engineering, licensing and nuclear oversight. The second tier of this approach is accomplished by a NOS staff that assesses and performs quality verification inspection aspects of company activities within the scope of the QA Program relating to safety. This provides for an overview of activities affecting or potentially affecting nuclear safety. The third tier is the Nuclear Safety Review Board (NSRB) that is an offsite committee that reports to and advises the President and CNO of the results of their independent oversight of plant operations related to safe operation of the station and the Company's nuclear program relative to nuclear safety. The NSRB is responsible for the independent safety review function. The responsibilities of the NSRB include:

- Independent reviews of station performance and operations to determine if the facility is being operated and maintained in a manner that promotes safety and provides feedback to the organization on suggested improvements.
- Focus primarily in the areas of Operations, Maintenance, Engineering, Plant Support, Regulatory and Nuclear Oversight, or other matters relating to safety.
- Review of station materials and activities and advises the CNO and management responsible for NOS on the following activities:
 1. any issue potentially affecting the safe operation of the facility.
 2. station nuclear safety performance determined by discussion and interviews with station, ROG, and Exelon/AmerGen Nuclear individuals, plant tours, oversight of meetings, and review of documents distributed for NSRB review.

3. effectiveness of the station program for oversight including audits, assessments, and self-assessments.
4. corrective actions for degraded or non-conforming conditions involving violations of the NRC license requirements, plant transients or forced shutdowns, or the submission of a Licensee Event Report (LER).
5. oversight of activities of the on-site safety review function.

The TMI NSRB reviewed all materials supplied by the IOSRG group as stated above and will not change as a result of implementing the ISEG alternative. The TMI NSRB will continue to perform this review and oversight function as stated within the ISEG alternative.

3. **NRC Question**

In reviewing the proposed changes to the TMI-1 Operational Quality Assurance Plan (OQAP), it is not clear for alternate IOSRG functions, how the alternate IOSRG functions are maintained in documents subject to regulatory oversight. For example, changes to the OQAP that reduce commitments in the previously approved program description are required to be reviewed by the NRC prior to implementation in accordance with 10CFR50.54(a)(4). The proposed OQAP changes, largely serve the purpose of deleting the current IOSRG requirements from the OQAP. Please provide the revised OQAP changes that identify the alternate IOSRG functions; the individual or groups responsible for completing those alternate IOSRG functions; and the qualification, training, and reporting requirements for those individuals or groups, or identify where in the OQAP those requirements currently reside. With respect to the level of detail expected in the revised OQAP pages, although not strictly applicable as the proposed changes are more than a relocation of requirements, Administrative Letter (AL) 95-06, dated December 12, 1995, provides some information with regard to suggested level of detail in QA Plan changes. Specifically, AL 95-06 states that the level of detail in proposed revisions to the QA Plan should be comparable to that previously contained in the TSSs.

Response

Attached are the proposed marked-up pages of the TMI Operational Quality Assurance Plan (OQAP) that compliment this change request showing the ISEG alternative in place of the existing IOSRG function. It is noted that the requirements of NUREG 0737 item I.B.1.2 for the function of the Independent Safety Engineering Group have been maintained within the TMI OQAP, as reflected in the attached marked-up pages. Following approval of this Technical Specification change request TMI will implement the attached proposed changes to the OQAP pursuant to 10CFR50.54(a)(3).

As stated in the TVA SER for the elimination of Independent Safety Engineering Group – Browns Ferry, Watts Bar and Sequoyah, the ISEG alternative is the result of the integration of the ISEG function into a cohesive program that provided senior level management with an assessment of facility operation and recommendations to improve nuclear safety and plant reliability. The above-proposed TMI OQAP illustrates the integration of the ISEG function.

Exelon Generation Company and AmerGen Energy Company submitted to the NRC a Standard Quality Assurance Topical Report (QATR) for review and approval in accordance with the provisions contained in 10 CFR 50.54(a)(3). This common Exelon/AmerGen QATR includes Three Mile Island (TMI) and is an update to the current NRC approved Quality Assurance Program (QAP) described in Exelon Generation Company, LLC, QATR EGC-1A Revision 69. The Independent Safety Engineering Function process described within the submitted standard QATR includes the ISEG alternative described within this Technical Specification Change Request for TMI.

**ATTACHMENT
TO ENCLOSURE 1**

(7 Pages)

Additional responsibilities include providing recommendations or solutions to quality problems, and performing assessments, inspections, and independent oversight for all areas.

add has
 For on-site independent review issues, the Nuclear Oversight Manager and the Independent Onsite Safety Review Group (IOSRG) have the authority to directly report to and communicate with the Chief Nuclear Officer and the Vice President - TMI - Unit 1.

The Director - Mid-Atlantic ROG Nuclear Oversight reports directly to the Vice President - Nuclear Oversight and has unencumbered access to Chief Nuclear Officer on all TMI - Unit 1 quality matters and has direct unencumbered access to the Vice President - TMI - Unit 1 with regard to activities affecting quality. This reporting relationship has been established to provide sufficient independence from the influence of costs and schedules to be able to effectively assure conformance to Quality Assurance Program requirements.

The Director - Mid-Atlantic ROG Nuclear Oversight has no duties or responsibilities unrelated to the responsibilities contained in this document that would prevent the required attention to quality assurance matters. The Director - Mid-Atlantic ROG Nuclear Oversight has the authority and responsibility to:

- a. Develop and administer the maintenance of the TMI -Unit 1 Operational Quality Assurance Plan and Nuclear Oversight procedures required to assure that all TMI - Unit 1 activities provide the required high degree of safety and reliability.
- b. Assess and inspection of TMI - Unit 1 activities to assure that they provide the required high degree of safety and reliability and are carried out consistent with all applicable laws, regulations, regulatory commitments, licenses, corporate policies and other requirements. Assessment schedules are developed and implemented to ensure all required areas are assessed.
- c. Establish and conduct nuclear safety review and assessment activities which include those of the IOSRG and the Nuclear Safety Review Board (NSRB).
- d. Identify and report nonconformances as they may exist. Initiate, recommend or provide solutions through designated channels. Verify implementation of resolutions as required.
- e. Initiate stop work or unit shutdown recommendations when warranted by a safety concern and obtain unit shutdown with appropriate upper-management concurrence.
- f. Provide for a review of selected documents which prescribe methods for activities and quality requirements for items within the scope of this Plan. Refer to Appendix B of this Plan.
- g. Direct and manage Nuclear Oversight.
- h. Provide a working interface and line of communication with other organizational elements and other appropriate industry groups for all program matters.
- i. Provide indoctrination, certification, and/or training programs for Nuclear Oversight.
- j. Assure Quality Assurance program indoctrination of appropriate personnel outside of Nuclear Oversight is provided.
- k. Immediately notify the CNO, CEO, Senior Vice President MA ROG, Vice President - Nuclear Oversight, and the Vice President - TMI – Unit 1, and appropriate organizational elements directors and managers of any significant quality related problem or deficiency.
- l. Perform assessments on a planned and periodic basis to comprehensively determine the effectiveness of the Quality Assurance Program and its implementation; and, detect adverse trends that may be present.

- m. Issue periodic reports to the CNO, CEO, Senior Vice President MA ROG, Vice President - Nuclear Oversight, and the Vice President - TMI - Unit 1, and organizational elements directors and managers on the effectiveness of implementation of activities within the scope of this Plan.
- n. Provide oversight of self-assessment activities to determine effectiveness of the program.
- o. Review and concur with all procedures for reporting and controlling of non-conformance's for compliance with the requirements of this Plan.
- p. Review, verify and concur with close-out of non-conformance's, when required.
- q. Provide interpretations as necessary of this Plan to ensure proper implementation.
- r. Provide and implement an inspection program (excluding Receipt Inspection and NDE) to ensure maintenance and modification activities are carried out consistent with this plan.

1.10 MA ROG Director - Licensing

The MA ROG Director – Licensing reports through the Senior Vice President – Licensing & Regulatory Affairs management. The MA ROG Director - Licensing has the functional authority, independence and responsibility to assure the effective implementation of all applicable non-environmental laws, regulations, and licenses associated with the safe and reliable operation of the generating station. Consistent with this responsibility is the authority to render interpretations in writing on those licensing and regulatory activities to which this Plan applies and the extent to which the Plan applies to those activities.

The MA ROG Director - Licensing has the authority and responsibility to:

- a. Provide in coordination with the TMI - Unit 1 Regulatory Assurance organization principal interface and control with all non-financial, regulatory agencies for AmerGen including NRC, appropriate state agencies, and supporting legal services. In addition, ensure preparation and coordination of responses to regulatory agencies, including NRC inspections and enforcement bulletins, circulars, notices and generic letters, and activities associated with INPO and NEI.
- b. Provide for maintenance of the operating license for the Nuclear Plant.
- c. Direct and manage the Licensing organizational element.
- d. Provide a working interface and line of communication with other organizational elements and other appropriate industry and regulatory groups for all licensing and regulatory matters.

1.11 Director - Site Engineering

The Director - Site Engineering reports directly to the Vice President - TMI - Unit 1. The Director's Quality Assurance Plan responsibilities consist of providing the requisite engineering and technical support to: maintain the design basis of the nuclear plants; maintain the configuration control documents including development and maintenance of the Component Record List (CRL); conduct operating experience assessment; provide nuclear fuel management; provide core performance monitoring; monitor and analyze the technical performance and reliability of systems and components; provide selective review of plant operations and testing procedures, and associated training; provide technical control and coordination of plant modifications as required by Section 6.10 of this Plan; coordinate and implement In-Service Inspection services; and provide a weld program and a repair program; provide management direction and accountability for information technology.

Additional specific responsibilities associated with the above are:

- a. Ensuring programs are established and maintained for the special processes of welding, heat treating, and nondestructive examination. (Section 6.3)

*(these functions support the ISEG Alternative for NUREG 0737).
Also included in the responsibilities are :*

specified; and that the procurement documents have been processed in accordance with established requirements. (Section 5)

- g. Performing periodic evaluation of the quality of procurement documents produced. This evaluation may include a sampling review of previously approved documents or in-line reviews of selected purchase requisitions or orders prior to placement by individuals independent from the production of the documents selected. (Section 5)

1.16 Manager, Business Operations

The Manager, Business Operations reports directly to the Vice President -TMI - Unit 1. The Manager's Quality Assurance Plan responsibilities consist of supporting TMI - Unit 1 in a safe, environmentally sound, reliable and efficient manner in accordance with company policies and all applicable laws, regulations licenses, technical requirements and procedures; providing and maintaining a qualified staff; providing management direction and accountability for the following functions; budget and finance and general administrative coordination.

Additional specific responsibilities with the above are:

- a. Ensuring that the programs are established and maintained to evaluate bids for conformance to technical and quality requirements by the requisitioners and that the contractual, legal and commercial requirements are incorporated into the procurement documents in a manner which will enforce the technical and quality requirements. (Section 5)

1.17 Manager, Human Resources

The Manager Human Resources reports directly to the Vice President -TMI - Unit 1. The Manager's Quality Assurance Plan responsibilities consist of establishing, implementing and maintaining ; medical examination plans and procedures.

1.18 Manager, Nuclear Safety & Plant Review Group

The Manager, Nuclear Safety & Plant Review Group reports directly to the Vice President - TMI - Unit 1. The Manager's Quality Assurance Plan responsibilities consist of process owner and coordinator for the safety review process; managing a Plant Review Group that meets all regulatory and company requirements including development and implementation of standards and process procedures, common curriculum for training personnel, certification of 50.59 Screener / Evaluator / Reviewer personnel, and periodic assessment of performance and ensuring corrective actions are taken.

1.19 Manager, Regulatory Assurance

The Manager, Regulatory Assurance reports to the Vice President – TMI - Unit 1. The Manager's Quality Assurance Plan responsibilities consist of supporting TMI-Unit 1 in a safe, environmentally sound, reliable and efficient manner in accordance with company policies and all applicable laws, regulations, licenses, technical requirements and procedures; providing and maintaining a qualified staff, providing management direction and accountability for the following functions: regulatory activities coordination and oversight, industry operating experience, the TM I- Unit 1 corrective action process (CAP), provide in coordination with the Director Licensing principal interface and control with all non-financial, regulatory agencies for TMI - Unit 1; ensure interpretation of Technical Specifications, codes and regulations.

Additional specific responsibilities with the above are:

- a. Serve as owner for the "Issues Management" process by establishing and maintaining standards that provide for a graded approach to resolving issues based on complexity and risk.
- b. Manage and coordinate LER preparation and submittal.
- c. Assist in the development of a comprehensive self-assessment program.

These functions support the ISEG Alternative for NUREG 0737.

Inset "A"

add

~~Each IOSRG Engineer shall have an academic degree in engineering or a physical science field and 3 years of professional level experience in the nuclear power field including technical supporting functions or 8 years of appropriate experience. Credit toward experience will be given for advanced degrees on a one-to-one basis up to a maximum of two years.~~

For personnel performing inspection, examination, and special processes, the qualification criteria shall be delineated to the techniques of inspection or items being inspected and the technical abilities of the person being certified will be consistent with the assigned tasks (e.g., electrical inspection, mechanical inspection.)

The qualification requirements and experience levels for other Nuclear Oversight personnel are such as to assure competence commensurate with the responsibilities of and the Regulatory Guides associated with the activities performed by the position.

2.0 QUALITY ASSURANCE PROGRAM

2.1 General

This Operational Quality Assurance Plan is the highest tiered TMI - Unit 1 document which provides the generic (and some specific) requirements and methods to control activities. The term "Program" as used herein includes this Plan and the approved documents which are used to implement this Plan. This Plan is implemented through such approved documents.

The TMI - Unit 1 Quality Assurance Program has been established to control the activities performed by TMI - Unit 1 within the scope of this Plan. This control is exerted primarily through the provision of and compliance with implementing documents and assurance that such documents are adequate and consistently used.

Adherence to the requirements of this Plan is mandatory for all TMI - Unit 1 organizations and for all external organizations providing "Items" or conducting "Activities" which are within the scope of this Plan.

The purpose and intent of this Plan is to establish the principles which, when implemented, will provide the level of management control and assurance which is appropriate for each Item or Activity within the scope of this Plan. It is recognized that the extent of management control and assurance to be applied varies with different Items and Activities, and the extent of applicability of this Plan will differ from Item to Item and Activity to Activity.

The Director - Mid-Atlantic ROG Nuclear Oversight is authorized and responsible for determining if and to what degree this Plan applies to a given activity and/or task. In those situations where interpretation of the Plan is required to provide clarity or resolve disagreements, such interpretations shall be documented and approved by the Director - Mid-Atlantic ROG Nuclear Oversight.

2.2 Scope

The scope of the TMI - Unit 1 Operational Quality Assurance Plan includes but is not limited to Items and Activities related to safe nuclear plant operation, protection of personnel and protection of the public. To ensure consistency in identifying those Items and Activities within the scope of this Plan, a classification process has been developed and documented. This process relies on the use of the terms "Safety Related (Q)," "Augmented Quality (A)," and "QA Plan Scope."

2.2.1 Items within the scope of this Plan are designated as "Safety Related" or "Augmented Quality." The definitions of these terms are provided in Appendix D of this Plan. A quality classification process for Items has been developed. This classification process produces a Component Record List which identifies the permanent plant structures, systems, and components that are within the scope of this Plan and their specific classification. New Items to which this Plan applies shall be added to the Component Record List subsequent to their installation.

involving quality or safety arising from a difference of opinion shall, if possible, be resolved at the level at which such disputes occur. If this is not possible, the difference of opinion shall be escalated through supervisory/management levels until resolution is achieved.

The Director - Mid-Atlantic ROG Nuclear Oversight shall make the decision on matters related to if and to what degree this Plan applies to activities, quality requirements, and verification and acceptance to established requirements.

The Director - Site Engineering shall make the decision on matters related to classification of items, and technical requirements or design changes.

The responsibility of the Director - Mid-Atlantic ROG Nuclear Oversight for Quality Assurance Plan implementation takes precedence over his other duties. The Nuclear Oversight Manager has authority to report directly to the CNO.

The Director - Mid-Atlantic (ROG) Nuclear Oversight shall be responsible for evaluating deficiencies generated by Nuclear Oversight, as specified in 8.2.8 of this Plan. Escalation of significant deficiencies to higher management levels shall be evaluated in accordance with written procedures when inadequate or untimely responses occur.

2.11 Safety Review Program

The Safety Review Program will consist of one or more of the following three stages:

- 50.59 Applicability Review
- 50.59 Screening
- 50.59 Evaluation

Each activity will enter the safety review process by performing a 50.59 Applicability Review. The purpose of the Applicability Review is to determine whether the proposed activity is within the scope of 10CFR50.59. This review is performed by a qualified 50.59 Screener / Evaluator / Reviewer on documents and substantive revisions to documents, as specified by the Review and Approval Matrix contained in administrative procedures.

If it is determined that the activity is in the scope of the 10CFR50.59 process, then the next step is to perform a 50.59 Screening. The purpose of the Screening is to determine whether a proposed activity requires performance of a 10CFR50.59 Evaluation. The 50.59 Screening is performed by a qualified 50.59 Screener / Evaluator / Reviewer on activities in the area of the individual's expertise. A qualified reviewer will review all screenings that do not require an evaluation.

The purpose of the Evaluation is to determine if the proposed activity requires NRC approval via License Amendment under 10CFR50.90 prior to implementation. The 50.59 evaluations are prepared by qualified 50.59 Evaluators / Reviewers on activities in the area of the individual's expertise. All evaluations are reviewed by a second independent qualified reviewer prior to implementation.

Independent Safety Oversight

~~The first element of oversight of safety is the IOSRG. The IOSRG has no line responsibilities or line functions and is devoted solely to safety matters. It is independent of the plant staff and reports to the Nuclear Oversight Manager who reports to the Director - Mid-Atlantic ROG Nuclear Oversight. The IOSRG will consist of a minimum of a manager and three full time engineers / technical staff.~~

~~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. IOSRG reports of evaluations and assessments shall be transmitted to the Director - Mid-Atlantic ROG Nuclear Oversight and the management positions responsible for the areas reviewed.~~

Insert "B" 2-12

add

add

Insert "C"

The second element of oversight of safety is the Nuclear Oversight staff, who assess and perform quality verification inspection aspects of AmerGen activities within the scope of this Plan or relating to safety. This provides for an overview of activities affecting or potentially affecting safety.

The third element of oversight of safety is the Nuclear Safety Review Board. This is a group of senior level individuals with diverse backgrounds and extensive nuclear experience. The Board reports to the Chairman Nuclear Safety Review Board and takes general direction from the CEO/CNO but has direct access to the AmerGen Management Committee. Its charter is broadly defined to encompass all matters potentially affecting nuclear safety (including management related aspects) so as to foresee potentially significant nuclear safety and radiation problems. Licensing provides staff support to the Nuclear Safety Review Board.

2.13 Self Assessment

Organizations responsible for performance of activities within the scope of this Plan may perform evaluations to assess their performance, seek opportunities for improvement or address known problems. Nuclear Oversight will typically review self-assessment activities conducted by other organizational elements as part of its independent assessments. Nuclear Oversight will not eliminate assessments required by this Plan as a result of organizational self-assessment activities but may alter scope when self-assessment activities sufficiently address subject areas.

2.14 Employee Concerns Program

An Employee Concerns Program is provided by Nuclear Oversight. The responsible individual is accessible on a confidential basis, if desired, to anyone in the company having a nuclear or radiation safety concern that he or she considers is not being adequately addressed. This individual is empowered to investigate such matters, identify any needed action and seek its resolution. The individual who raised the concern will be contacted with the result of the investigation.

3.0 CONTROL OF DOCUMENTS AND RECORDS

3.1 Plans, Procedures, Instructions, Drawings, Specifications

3.1.1 General

Activities which are within the scope of this Plan shall be prescribed by approved documents of a type appropriate to the circumstances. These documents shall be complied with in the performance of the activity or changed prior to proceeding with the activity. These documents typically include but are not limited to those termed plans, procedures, instructions, directives, drawings and specifications. All personnel shall be indoctrinated in the use or content of such documents prior to commencement of the activity.

3.1.2 Requirements

Documents which prescribe the methods for the performance of activities and/or tasks within the scope of this Plan shall be consistent with the requirements of this Plan. These Plan requirements include compliance with the text of this Plan and the Regulatory Guides and ANSI standards to the extent delineated in Appendix C. To accomplish this, these documents shall:

- a. Define the responsibilities and authorities of personnel performing the activity.
- b. Describe interfaces between AmerGen organizational elements and/or external organizations that participate in or are affected by the conduct of the activity.
- c. Prescribe actions to be taken or the results to be achieved which are consistent with the requirements of this Plan.

TMI IOSRG TSCR
TMI OQAP Rev. 25
PROPOSED MARK-UP INSERTS

INSERT "A"

Within the Nuclear Oversight organization, personnel performing reviews of 10CFR50.59 and 10CFR72.48 evaluations meet the ISEG qualification requirements of at least three years of related experience and a Bachelor Degree in Engineering or related field; or shall have at least 8 years of related experience.

INSERT "B"

The first element of oversight of safety will now consist of the ISEG alternative, consisting of a collection of program elements for implementing and/or reviewing areas of quality of plant operations and nuclear safety that are performed across the nuclear organization by engineering, licensing and nuclear oversight.

INSERT "C"

Issues identified as a result of the reviews performed within the ISEG alternative are provided to the site management, up through the Site VP and to the appropriate ROG and Corporate Management. This provides for an overview of activities affecting or potentially affecting nuclear safety and this function is maintained and continues to support the requirements of NUREG-0737.

INSERT "D"

This assessment function includes the independent overview of the ISEG alternative functions performed across the organization. Results of the assessment and inspection process are reviewed and evaluated for performance trends and then reported out to site and corporate management on a bi-weekly, monthly and quarterly basis. This provides for an overview of activities affecting or potentially affecting nuclear safety and this function is maintained and continues to support the requirements of NUREG-0737.