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August 24, 2009
TMI-09-099

U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attn: Document Control Desk

SUBJECT: THREE MILE ISLAND NUCLEAR STATION, UNIT 2 (TMI-2)
DPR-73/DOCKET NO. 50-320
REVISION 12 OF THE POST-DEFUELING MONITORED STORAGE (PDMS)
QUALITY ASSURANCE (QA) PLAN FOR TMI-2

In accordance with Section 2.8 of 1000-PLN-7200.04, "GPU Nuclear Post-Defueling Monitored Storage Quality Assurance Plan for Three Mile Island Unit 2," enclosed is the current revision of the PDMS QA Plan for TMI-2. A review of the changes made in revision 12 concluded that the changes do not constitute a reduction in commitment.

The "Summary of Change" on page " 7 of 42" of the enclosed document provides a description of the changes made with revision 12.

Should you have any questions or require additional information, please contact Adam Miller of TMI 1 Regulatory Assurance at (717) 948-8128.

Sincerely,

Joseph J. Hagan
President & Chief Nuclear Officer

JJH/awm

Enclosure – Revision 12 of TMI-2 PDMS QA Plan, "1000-PLN-7200.04," effective date - June 12, 2009

cc: Region I Administrator
TMI-2 Inspector
TMI-2 Sr. Project Manager

Q004
NMSS01

FSME

GPU NUCLEAR	Document Type: Plan	Number: 1000-PLN-7200.04		
Title: GPU Nuclear Post-Defueling Monitored Storage Quality Assurance Plan (PDMS QA Plan) for Three Mile Island Unit 2		Revision: 12	Eff. Date: 06/12/09	Page: 1 of 42

Hierarchy Level:	Applicable Site(s):	Level	SR Scope:	QA Scope:	Series:
Corporate	TMI-2	3	Yes	Yes	0136

Authorizations

Role	Organizational Element	Signature	Date
Initiator:	TMI Nuclear Oversight	Mark Druse	6/1/09
Reviewer:	TMI Nuclear Oversight Manager	[illegible]	6/1/09
Reviewer:	GPU Nuclear Cognizant Officer	[illegible]	06/10/09
Approver:	Vice President GPU Nuclear Oversight	[illegible]	6/10/09

Verifications:

Site administrative controls may require that the user of this procedure verify that it is current and reflects all applicable Temporary Change Notices (TCNs). The performance of the initial verification and any subsequent verifications may be documented below or as directed by applicable procedures.

Date	Time	Initials	Date	Time	Initials

Summary of Change

Revision 5

Change requested by: M. W. Laggart

Reason for Change:

A revision to the GPU Nuclear Post-Defueling Monitored Storage Quality Assurance Plan for Three Mile Island Unit 2 is necessary to reflect the reduced scope and size of the GPU Nuclear organization and the GPU Nuclear/AmerGen Services agreement.

Description of Changes:

Director, Nuclear Safety Assessment changed to GPU Nuclear Cognizant Officer throughout the entire document.

Office of the President changed to GPU Nuclear Cognizant Officer throughout the entire document.

Section 1.3.2 revised to reference the TMI-2 PDMS SAR rather than the GPU Nuclear Organization Plan.

Section 1.3.3 added to reflect the responsibilities and qualifications of the GPU Nuclear Cognizant Officer.

New section 2.2 added to reflect the GPU Nuclear agreement with AmerGen regarding TMI-2 activities.

All of section 2 renumbered due to addition of new paragraph 2.2.

Generic names inserted for Quality Verification and Licensing departments throughout document.

New section 2.18 added to provide the responsibilities and qualifications of the TMI-2/SNEC Oversight Committee.

New section 2.19 added to provide the responsibilities of Ombudsman.

Section 5.2 revised to reflect the TMI-2 TSCR 78 change from "GPU Nuclear Review and Approval Matrix" to "TMI Review and Approval Matrix."

Section 18.6 and 18.8 revised to ensure reports are sent to the GPU Nuclear Cognizant Officer.

Affected Pages: All pages affected due to reformatting purposes.

Revision 6

Change requested by: C. C. Faust

Reason for Change:

A revision to the PDMS-OQAP for TMI Unit 2 is necessary to provide for clarity to the original intent of what activities of the PDMS contractor will be audited by GPU Nuclear or a third part contractor other than AmerGen.

Description of change:

In the PDMS QA Plan Appendix A "Audit Frequencies" change:

- Second paragraph, first sentence add the words "QA assessment" after the words "The performance of"

Affected Pages: Cover page – added Level 3, page 3, page 4, page 37 and header on all pages

Revision: 7

Change Requested by: Gary L. Derk

Reason for change: A revision of the PDMS QA Plan is required to align TMI 2 requirements with the newly adopted requirements of the Exelon Quality Assurance Topical Report (QATR) adopted for TMI 1. The QATR replaced the OQAP for TMI 1. The changes in the PDMS QA Plan are required to allow standardization of TMI procedures, presently applicable to TMI 1 and 2, with the Exelon corporate documents.
A GPU Incorporated and FirstEnergy Nuclear Operating Company (FENOC) merger resulted in GPUN sharing the same senior management with FENOC. This revision implements GPU Nuclear organizational changes that resulted from recent FENOC organizational changes.

Description of Change:

Organizational changes were noted through out the plan to indicate that the Vice President of GPU Nuclear Oversight is the officer responsible for the Quality Assurance Plan rather than the Cognizant Officer. The cover page was also changed to reflect the Vice President of GPU Nuclear Oversight as the approver.

A typo, changed reference to 2.2.1 to 2.3.1, was corrected in paragraph 2.3.2 and changed page 11 paragraph number 2.65.3 to 2.6.3.

The identification of procedures as within QA plan scope requirement was deleted and the term Quality Classification List (QCL) was changed to Component Record List (CRL) in paragraph 2.4.

Deleted paragraph 2.7 in its entirety. This contained the requirement for a statement of policy providing authorization and evidence of management commitment to the QA program. In addition it addressed the requirement for plan approval by the GPU Nuclear Cognizant Officer.

Deleted the requirement to incorporate plan changes into implementing procedures within 60 days of issuance unless... from paragraph 2.10, (currently paragraph number 2.9).

Changed the term QCL to CRL in paragraph 3.1.

Replaced the stamping of documents and use of master list requirements in paragraph 6.2.5 the requirement to establish document control procedures to assure that proper documents are accessible and are being used.

Changed paragraph 16.5 requirement for reporting the results of trend reviews to management to reporting the results of significant adverse trends to the appropriate levels of management.

Changed the appendix "A" audit frequency for the independent fire protection and loss prevention program inspection and technical audit from annual to every 24 months.

Deleted the "Exhibit 1" Quality Classification List (QCL) definition and added its replacement term, Component Record List (CRL) definition.

Deleted the "Exhibit 1" Supplier Quality Classification List definition and added its replacement term, Evaluated Vendors List (EVL) definition.

Affected pages: Cover page, pages 6, 7, and 9 through 14, 19, 33, and 36 through 41.

Revision: 8

Change Requested by: Daniel H. Weimer

Reason for change:
These changes are desired to allow cancellation of the GPU Nuclear Organization Plan by transferring organization descriptions to other licensing basis documents, added the position and responsibilities of the Vice President GPU Nuclear Oversight to the plan, to clarify responsibilities of GPU Nuclear and AmerGen Energy in maintaining TMI 2, to ensure all PDMS Audits required by the Technical Specifications are also contained in the PDMS QA Plan, and to add a reference to the Ombudsman's implementation of the Employee Concerns Program.

Description of Changes:

Section 1.2.1 was changed to replace the reference to the GPU Nuclear Organization Plan with the PDMS Safety Analysis Report (SAR).

Section 1.4 was added to the PDMS QA Plan in order to define and document the responsibilities of the Vice President GPU Nuclear Oversight.

Section 2.2 was modified to clarify AmerGen Energy's responsibilities with respect to the contract with GPU Nuclear in regards to the oversight and maintenance of TMI 2.

Section 2.18 was modified to document the GPU Ombudsman implements the Employee Concerns Program instead of the generic employee concerns program.

Appendix A was changed to add the audit of:

- The performance of activities required by the PDMS QA Plan. The audit frequency shall be at least once per 24 months.

This audit is required by the TMI 2 Technical Specifications.

Affected pages: Cover sheet, 5, 8, 9, 10, 39

Revision: 9

Change Requested by: Daniel H. Weimer

Reason for change:
With the completion of the Saxton Nuclear Experimental Corporation (SNEC) Facility Decommissioning and License Termination references to SNEC are being deleted. This change recognizes that the owners of TMI-2 are subsidiaries of FirstEnergy Corp. and replaces the specific position title of Ombudsman with a generic individual appointed by the Vice President of Nuclear Oversight.

Description of Changes:

The Introduction was modified to reflect that as a result of the merger in 2001 the owners of TMI-2 are now subsidiaries of FirstEnergy Corp.

Section 1.4.1 was modified, as a result of the completion of the Saxton Nuclear Experimental Corporation (SNEC) Facility decommissioning and license termination, to change the name of the TMI-2/SNEC Oversight Committee to the TMI-2 Company Nuclear Review Board (CNRB). In addition, as further described in the change to Section 2.18, the reference to a GPU Nuclear Ombudsman was deleted.

Section 2.17 was modified as a result of the completion of the Saxton Nuclear Experimental Corporation (SNEC) Facility decommissioning and license termination, to change the name of the TMI-2/SNEC Oversight Committee to the TMI-2 Company Nuclear Review Board (CNRB).

Section 2.17.1 was modified, as a result of the completion of the Saxton Nuclear Experimental Corporation (SNEC) Facility decommissioning and license termination, to change the name of the TMI-2/SNEC Oversight Committee to the TMI-2 Company Nuclear Review Board (CNRB).

Section 2.17.8 was modified, as a result of the merger of the owners of TMI-2 with FirstEnergy Corp., to refer to the FirstEnergy Nuclear Committee of the Board rather than the GPU Nuclear Board of Directors.

Section 2.17.2 was modified, as a result of the completion of the Saxton Nuclear Experimental Corporation (SNEC) Facility decommissioning and license termination, to change the name of the TMI-2/SNEC Oversight Committee to the TMI-2 Company Nuclear Review Board (CNRB).

Section 2.18 was modified to replace the term Ombudsman with a generic individual appointed by the Vice President Nuclear Oversight. An additional modification was made to refer to the FirstEnergy Nuclear Committee of the Board rather than the GPU Nuclear Board of Directors.

Affected pages: 6, 7, 8, 10, 14, 15, 16

Revision: 10

Change Requested by: Daniel H. Weimer

Reason for change:
The 2006 Exelon TMI-2 PDMS Audit identified there is no documented procedural guidance regarding revising the PDMS QA Plan.

Description of Changes:

Section 2.8 of the PDMS QA Plan was changed to add guidance regarding the requirements for processing and implementing revisions to the PDMS QA Plan. All proposed revisions shall be submitted by the revision initiator, reviewed by the TMI Nuclear Oversight Manager and the GPU Nuclear Cognizant Officer, and approved by the Vice President GPU Nuclear Oversight. Section 2.8 was also revised to document the documentation required to revise the PDMS QA Plan. This documentation includes the revised PDMS QA Plan including all required initiation, review and approval signatures, a summary of change document, and a completed reduction in commitment evaluation. The PDMS cover page was revised to document the revision initiator, reviewers, and approver signatures.

Affected Pages: 1, 6, 14

Revision: 11

Change Requested by: Daniel H. Weimer

Reason for change:
TMI Regulatory Affairs identified the requirement to annually send PDMS QA Plan changes to the NRC was incorrectly deleted in Revision 10.

Description of changes:

The requirement to send PDMS QA Plan changes that are not reductions in commitment to the NRC at least annually was inadvertently deleted in Revision 10. Section 2.8 was revised in Revision 10 and the requirement for the NRC submittals was omitted. The change in Revision 11 includes adding this requirement back into Section 2.8.

Affected Pages: 1, 7, 14

Revision: 12

Change Requested by: Mark Press

Reason for change:

The NRC approved the deletion of Technical Specification Section 6.5 in amendment No. 63. That amendment requires GPU Nuclear to perform a verbatim transfer of the deleted Technical Specification Section 6.5 to the PDMS QA Plan by June 30, 2009.

Description of changes:

With the proposal to delete the Technical Review and Independent Safety Review requirements of the TMI-2 Technical Specifications, GPU Nuclear committed to the verbatim transfer of Technical Specification Section 6.5 to the TMI-2 PDMS QA Plan. This proposed change to the TMI-2 PDMS QA Plan implements that commitment by including the deleted sections of the Technical Specifications in a new Appendix (Appendix B) of this plan. Revision includes AmerGen being changed to Exelon Generation Company throughout and format change.

Affected Pages: 8, 10, 12, 15, 35, 36, 37, 38, 39, 40

Table of Contents

INTRODUCTION 9

1.0 ORGANIZATION 9

2.0 QUALITY ASSURANCE PROGRAM 12

3.0 DESIGN CONTROL 17

4.0 PROCUREMENT DOCUMENT CONTROL 19

5.0 INSTRUCTIONS, PROCEDURES AND DRAWINGS 20

6.0 DOCUMENT CONTROL 21

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES 22

8.0 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS 23

9.0 CONTROL OF SPECIAL PROCESSES 24

10.0 INSPECTION 25

11.0 TEST CONTROL 27

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT 28

13.0 HANDLING, STORAGE AND SHIPPING 29

14.0 INSPECTION, TEST, AND OPERATING STATUS 30

15.0 NONCONFORMING MATERIALS, PARTS, OR COMPONENTS 31

16.0 CORRECTIVE ACTION 33

17.0 QUALITY ASSURANCE RECORDS 34

18.0 AUDITS 35

APPENDIX A - AUDIT FREQUENCIES 36

APPENDIX B - FORMER TECHNICAL SPECIFICATION REQUIREMENTS 37

EXHIBIT 1 - TERMS AND DEFINITIONS 41

INTRODUCTION

At the completion of the TMI-2 Cleanup Program, the plant will be in a safe, stable condition that poses no risk to the health and safety of the public. The absence of any significant quantity or configuration of nuclear fuel assures that there is no potential for a nuclear criticality. This phase of plant life has been named Post-Defueling Monitored Storage (PDMS) and is suitable for an extended period.

During the PDMS period, GPU Nuclear will be licensed under 10 CFR 50 to "possess but not to operate" the TMI-2 facility. Since the plant will be in a non-operating and defueled status, there will no longer be any structures, systems, or components that perform a safety function. Therefore, the quality assurance (QA) requirements of 10 CFR 50, Appendix B, do not specifically apply. However, this Plan has been developed to provide TMI-2 with an appropriate scope PDMS QA Program based upon the guidance of Appendix B requirements. It replaces the "Recovery QA Plan for Three Mile Island Nuclear Station Unit 2" and shall be implemented according to NRC approved License conditions.

This Plan has been structured to correspond to the 18 criteria format of 10 CFR 50, Appendix B. The Plan shall be applied, as necessary, to assure that safe and stable PDMS conditions are maintained, while complying with all pertinent Licensing and other regulatory requirements. The TMI-2 PDMS Safety Analysis Report (SAR) provides rationale concerning the applicability of various regulatory requirements and should be consulted when implementing the Plan. Additionally, it is intended that the Plan be implemented to assure conformance with applicable 10 CFR 20; 10 CFR 71, Subpart H; and 49 CFR requirements. Any questions regarding the scope or interpretation of the Plan should be addressed to the Vice President GPU Nuclear Oversight for determination.

Existing GPU Nuclear organizations and approved nuclear QA programs may be utilized to fulfill the requirements of the PDMS QA Plan since they will meet or exceed its intent.

The NRC issued an Order approving the application regarding the proposed merger of GPU, Inc. and FirstEnergy Corp on March 7, 2001. As part of this order the it was recognized the holders of the TMI-2 license, GPU Nuclear, Metropolitan Edison Company, Jersey Central Power & Light Company and Pennsylvania Electric Company would become subsidiaries of FirstEnergy Corp. thus any reference to FirstEnergy in this plan are made based on this relationship.

1.0 ORGANIZATION

1.1 General

1.1.1 It is the policy of GPU Nuclear to conduct PDMS activities at TMI-2 in such a manner as to ensure protection of the health and safety of the public and the personnel on site. To implement this policy, GPU Nuclear will adhere to the applicable QA requirements of the Nuclear Regulatory Commission (NRC) as presented in the Code of Federal Regulations (CFR) and appropriate Regulatory Guides, codes and standards; the ASME Boiler and Pressure Vessel Code as applicable to the State of Pennsylvania; other pertinent federal, state, and local QA regulatory requirements; and the GPU Nuclear corporate policies, as applicable.

1.1.2 To comply with these requirements, the Vice President GPU Nuclear Oversight has authorized the establishment of a formal and comprehensive QA Program. This Program, which is described in the following sections, shall be implemented through documented and approved policies, procedures, and instructions which adhere to this Plan. As described in Section 2.2, Exelon Generation Company will provide all services, materials and equipment required to maintain TMI-2 in Post-Defueling Monitored Storage (PDMS).

1.2 Responsibilities

1.2.1 The organizational elements responsible for the PDMS phase of TMI-2 are outlined in the following controlled documents: PDMS Safety Analysis Report (SAR) and the TMI-2 Technical Specifications identify the general structure of the on-site and off-site organizations supporting TMI-2. The PDMS Safety Analysis Report sets forth specific responsibilities with regard to the requirements of this Plan and implementing procedures.

1.3 GPU Nuclear Cognizant Officer

1.3.1 GPU Nuclear Cognizant Officer has the overall responsibility for the implementation, and effectiveness of the TMI-2 PDMS QA Program.

1.3.2 Responsibilities for the following functions are defined in the TMI-2 Post Defueling Monitored Storage Safety Analysis Report:

1.3.2.1 Operations and Maintenance

1.3.2.2 Engineering Support

1.3.2.3 Radiation Controls

1.3.2.4 Environmental Controls

1.3.2.5 Licensing

1.3.2.6 Independent Review

1.3.2.7 Nuclear Safety Assessment

1.3.3 The GPU Nuclear Cognizant Officer shall have, as a minimum, a baccalaureate degree in a technical discipline with at least five (5) years experience in a managerial position.

1.4 Vice President GPU Nuclear Oversight

1.4.1 The Vice President, GPU Nuclear Oversight is responsible to ensure the TMI-2 PDMS Quality Assurance program is maintained and implemented in accordance with the PDMS Quality Assurance Plans, and applicable policies and procedures, applicable laws, regulations, licenses and technical requirements. Additionally, he is responsible to manage, direct and provide support to the GPU Nuclear Employee Concerns Program and is the sponsor of the TMI-2 Company Nuclear Review Board.

2.0 QUALITY ASSURANCE PROGRAM

2.1 The PDMS QA Plan is the primary document which establishes the policies, goals, and objectives of the QA Program for TMI-2 and is an integral part of the PDMS SAR. This Plan is authorized by the Vice President GPU Nuclear Oversight and requires that the appropriate levels of management implement the PDMS QA Program. The purpose of this Plan is to establish the principal requirements which, when implemented, will provide that level of assurance necessary to meet and maintain secure PDMS conditions while complying with all pertinent License requirements.

2.2 As part of the sale of TMI-1, GPU Nuclear entered into an agreement with Exelon Generation Company for TMI-2 services. Under this agreement and as a contractor subject to GPU Nuclear's ultimate direction and control, Exelon Generation Company will provide all services, materials and equipment required to maintain TMI-2 in Post-Defueling Monitored Storage (PDMS) not specifically identified as the responsibility of GPU Nuclear. Services provided by Exelon Generation Company will include the performance of activities required by the PDMS QA Plan and meet all the requirements of the Safety Analysis Report, Technical Specifications and this Quality Assurance Program.

Final decision making authority regarding direction and control of TMI-2 PDMS activities and responsibility for the implementation, and effectiveness of the TMI-2 PDMS QA Program remains with the GPU Nuclear Cognizant Officer.

2.3 The scope of the PDMS QA Program includes all items and activities which are necessary for safe PDMS operations, maintenance, and surveillance. These items and activities are designated as within "PDMS QA Plan Scope" and include:

2.3.1 Structures, systems, and components required to be operable by the TMI-2 Technical Specifications.

2.3.2 Operations associated with any of the structures, systems, and components included in 2.3.1 above, including chemistry activities.

2.3.3 Surveillance testing and maintenance of structures, systems, and components included in 2.3.1 above.

2.3.4 Modifications of structures, systems, and components included in 2.3.1 above.

2.3.5 Radiological monitoring (including on-site and environmental monitoring).

2.3.6 Radiological protection.

2.3.7 Radioactive waste management.

2.3.8 Emergency planning.

2.3.9 Training.

2.3.10 Security.

2.3.11 Fire protection.

2.3.12 Additional items/activities deemed necessary by plant management.

NOTE:	The TMI-1 SAR should be referred to for descriptions of the Security, Emergency, and Radiation Protection Plans established for PDMS.

2.4 Procedures, or portions thereof, for controlling activities within PDMS QA Plan Scope shall be reviewed, approved, distributed and revised in accordance with administrative procedures. Systems and major components, but not parts thereof, will be identified as within PDMS QA Plan Scope in a Component Record List (CRL) document. The CRL shall be established, maintained, and controlled.

The significance of an item or activity to quality shall be considered in its classification. Procedures shall be prepared which establish the requirements for identification and control of items and activities within PDMS QA Plan Scope. Activities affecting structures, systems, and components within PDMS QA Plan Scope shall be considered to be within QA Plan Scope unless otherwise specified.

2.5 Assigned organizations shall implement the requirements of the Plan through written policies, procedures, or instructions appropriate to the circumstances. The degree to which the requirements of this Plan and its implementing documentation are applied will be based upon considerations such as:

2.5.1 The importance of a malfunction or failure of the item to the maintenance of safe and stable PDMS conditions.

2.5.2 The design and fabrication complexity or uniqueness of the item.

2.5.3 The need for special controls and surveillance or monitoring of processes, equipment, and operational activities.

2.5.4 The degree to which functional compliance can be demonstrated by inspection or test.

2.5.5 The quality history and degree of standardization of the item or activity.

2.5.6 The intended life during which the item performs a quality-related function.

2.6 GPU Nuclear is committed to a comprehensive QA Program consisting of up to three levels of verification to assure satisfactory and complete implementation of the program commensurate with its requirements for maintaining PDMS conditions. The Program's foremost considerations are the protection of the general public's health and safety.

2.6.1 Level 1 - Activities at this level consist of independent inspections, checks, and tests. Where first-level activities involve independent inspection for purposes of acceptance and/or verification of modifications to systems within PDMS QA Plan Scope, the activity will be performed by the Quality Verification (Inspection Services, Quality Control, etc.) organization or other plant organizations.

2.6.2 Level II - The activities at this level are primarily those of surveillance or monitoring and are performed as deemed necessary by the organization responsible for quality oversight. The level of surveillance/monitoring applied is consistent with the importance of the item to maintaining the function and intent of activities and equipment within PDMS QA Plan Scope, and the extent of administrative controls utilized for the Level I activity.

2.6.3 Level III - The purpose of this level of activity is to assure, through a comprehensive program of review and auditing, that programs are properly functioning. This level also establishes that all organizations are properly satisfying all the requirements of the PDMS QA Program.

2.7 The Vice President GPU Nuclear Oversight, shall, for each revision to this PDMS QA Plan, determine if the changes reduce or do not reduce the commitments previously accepted by the NRC.

2.8 Revisions to the PDMS QA Plan that do not reduce the commitments to the NRC shall be submitted by the revision initiator, reviewed by the TMI Nuclear Oversight Manager and the GPU Nuclear Cognizant Officer, and shall be and approved by the Vice President GPU Nuclear Oversight. The signatures of the revision initiator, TMI Nuclear Oversight Manager, the GPU Nuclear Cognizant Officer, and the Vice President GPU Nuclear Oversight shall be documented on the PDMS QA Plan cover page. These signatures will serve as the documentation of the satisfactory completion of all required reviews and approvals. Revisions of this type do not require approval by the NRC prior to issuance, but must be submitted to the NRC at least annually.

Revisions to the PDMS QA Plan that reduce the commitments to the NRC shall be submitted to the NRC and receive NRC approval prior to implementation. Revisions shall be regarded as approved by the NRC upon receipt of an NRC correspondence to this effect from the appropriate reviewing office, or 60 days after submittal to the NRC whichever comes first. Revisions of this type shall be submitted to the NRC by the GPU Nuclear Cognizant Officer. The revision initiation, review and approval for this type of PDMS QA Plan revision shall be the same as discussed above for revisions that do not reduce commitments to the NRC.

Documentation required for each PDMS QA Plan revision shall include the revised PDMS QA Plan including the required signatures as discussed above, a documented summary of change, and the reduction in commitment evaluation.

2.9 The PDMS QA Plan shall be maintained in accordance with written procedures that comply with appropriate regulatory requirements. Copies of the Plan may be distributed as "Controlled" or "Uncontrolled" copies in accordance with approved document control procedures. Changes to this Plan shall be incorporated into implementing procedures in accordance with an approved document control process. .

2.10 The effectiveness of the QA Program is evaluated and reported to the Vice President GPU Nuclear Oversight and the GPU Nuclear Cognizant Officer through the surveillance, monitoring, and auditing functions. Vice President GPU Nuclear Oversight shall be responsible for evaluating deficiencies for the detection of any adverse quality trends.

2.11 Records of commitments to regulatory requirements are maintained by the Licensing (Regulatory Engineering, etc.) organization. The TMI-2 PDMS SAR and associated License form the initial basis of these commitments. They must be complied with in conjunction with this PDMS QA Plan.

2.12 The GPU Nuclear QA Program includes requirements for formal indoctrination and training/retraining programs of personnel performing or verifying activities within PDMS QA Plan Scope. These programs are implemented by appropriate training plans and procedures.

2.13 QA programs and implementing procedures for suppliers or contractors providing materials and services for GPU Nuclear which are covered under the scope of this QA Program shall be subject, when specified in procurement documents, to review and acceptance by Vice President GPU Nuclear Oversight or his designee prior to the commencement of any activity within PDMS QA Plan Scope.

2.14 It is the responsibility of the Vice President GPU Nuclear Oversight, supported by his staff, to provide for the effective administration of this Plan. Accordingly, all queries regarding the scope or interpretation of the Plan shall be addressed to the Vice President GPU Nuclear Oversight
Disputes involving quality 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.

2.15 Quality Verification (Inspection Services, Quality Control, etc.) shall make the decision on matters concerning inspection and acceptance to established requirements. The director of the applicable engineering group shall make the decision on matters concerning interpretation of technical requirements or design changes.

2.16 Organizations that are implementing approved nuclear QA Programs may apply those programs, as necessary, in support of this Plan.

2.17 Independent oversight is provided by the TMI-2 Company Nuclear Review Board (CNRB). The CNRB serves to independently assure that the TMI-2 structures, systems and components are maintained so as to protect the health and safety of the workers, the public and the environment and to enable effective and efficient dismantlement and decommissioning in the future. The committee is sponsored by the Vice President GPU Nuclear Oversight and advisory to the GPU Nuclear Cognizant Officer.

2.17.1 The responsibilities of the TMI-2 CNRB include the following:

2.17.1.1 Review trends of information obtained through PDMS surveillance and inspections to ascertain the overall stability of TMI-2 systems, structures and components.

2.17.1.2 Review evaluations made pursuant to 10 CFR 50.59, audit reports, corrective action program reports, Independent On-Site Safety Review Group Reports, and any other license related material forwarded by Exelon Generation Company to the GPU Nuclear Cognizant Officer to ensure that operational related concerns have been properly resolved.

2.17.1.3 Review Exelon Generation Company activities associated with TMI-2 Technical Specification 6.5.1 "Technical Review and Control" to ensure that any GPU Nuclear concerns associated with this Technical Specification are identified.

2.17.1.4 Review activities and events at other permanently shutdown nuclear power plants and related facilities to determine if a similar event could occur at TMI-2 and make appropriate recommendations.

2.17.1.5 Conduct periodic physical walk-downs of the facility to independently assess the overall stability of TMI-2 systems, structures and components. Walk-downs may include independent monitoring and sampling.

2.17.1.6 Assess the impact of TMI-1 activities that interface with TMI-2.

2.17.1.7 Identify work required to preserve the stability of TMI-2 and report the need for such work to the GPU Nuclear Cognizant Officer.

2.17.1.8 Provide an independent annual report to the FirstEnergy Nuclear Committee of the Board.

2.17.2 The collective expertise/qualifications for the TMI-2 CNRB shall include:

2.17.2.1 Quality Assurance

2.17.2.2 Radiological

2.17.2.3 Environmental

2.17.2.4 Decommissioning

2.17.2.5 Civil structural

2.17.2.6 Industrial safety

2.17.2.7 Management

2.18 An Employee Concerns Program is provided for GPU Nuclear. The Vice President GPU Nuclear Oversight is responsible for the program and will appoint an individual to administer the program. If necessary this individual will have access to the Chief Nuclear Officer and the FirstEnergy Nuclear Committee of the Board.

This individual is accessible on a confidential basis, if desired, to anyone in the company or its contracted employees having a nuclear or radiation safety concern 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. This individual will reply to the person who raised the concern.

3.0 DESIGN CONTROL

3.1 TMI-2 was originally designed and constructed in compliance with appropriate 10 CFR 50 Codes and Standards. Due to the non-operating and defueled status of TMI-2 during PDMS, there will no longer be any structures, systems, or components which perform a safety function. However, the TMI-2 Technical Specifications do identify certain structures, systems, and components required to be operable. Such structures, systems, and components are considered within PDMS QA Plan Scope and, thus, require the application of design controls on a graded basis should modifications be required. Systems and major components within PDMS QA Plan Scope are identified in a Component Record List (CRL) document.

3.2 To the extent defined in Section 2.0, measures shall be established for PDMS to ensure design criteria are included or correctly translated into design documents. These measures, as a minimum, shall ensure that applicable design inputs are identified and documented. Changes from approved design inputs shall be identified, approved, documented, and controlled. Inputs shall be translated into design output documents containing the technical and quality requirements that must be satisfied.

3.3 To the extent necessary, design control measures shall be implemented by controlled written procedures. Such procedures may address the following design activities:

3.3.1 The organizational structure, authority, and responsibility of personnel involved in preparing, reviewing, and approving design documents.

3.3.2 Design input requirements necessary to permit the correct performance of design process activities. ALARA considerations, if appropriate, shall be specified.

3.3.3 Design process activities sufficient to ensure that design inputs are correctly translated into specifications, drawings, procedures, or instructions.

3.3.4 Internal and external design interface controls and lines of communication among participating design organizations and across technical disciplines.

3.3.5 Design verification methods such as design review or alternate calculations. Verification may be performed by any competent party not responsible for the original design.

3.3.6 Design and specification changes, including field changes, subject to design control measures.

3.3.7 Records of design activities shall be generated in sufficient detail to permit Nuclear Safety Assessment auditing as required by this Plan.

3.4 Methods shall be employed to ensure that adequate precautions or evaluations are in place during PDMS activities (including the installation and/or removal of hardware) to preclude damaging, impeding operational movements, or in any way adversely impacting the ability of items required by the Technical Specifications to maintain the plant in a safe and stable PDMS condition.

3.5 Measures shall be provided to assure that responsible plant personnel are made aware of design changes and/or modifications which may affect the performance of their duties.

4.0 PROCUREMENT DOCUMENT CONTROL

4.1 During the PDMS period, minimal procurement activities are anticipated. Nevertheless, QA measures shall apply to the procurement of materials including new and spare parts, replacement parts, and consumables, as established by engineering and consistent with the scope of this Plan.

4.2 Procurement of material, equipment, and services which are considered within PDMS QA Plan Scope shall be performed in accordance with written policies, procedures, and instructions which shall establish methods to comply with applicable regulatory requirements.

4.3 Procurement documents shall, as applicable:

4.3.1 Provide, where necessary, a description of the items or services to be provided by the supplier.

4.3.2 Specify technical requirements by reference to the specific drawings, specifications, codes, regulations, procedures, or instructions including revisions thereto that describe the items or services to be furnished.

4.3.3 Specify QA requirements commensurate with the importance to quality of the items and services within PDMS QA Plan Scope being performed.

4.3.4 Provide for GPU Nuclear or designee access to supplier and lower-tier supplier facilities and records for inspection or audit.

4.3.5 Identify those records which suppliers shall retain, maintain, and control and those which shall be delivered prior to use or installation of the item.

4.4 Review of procurement documents shall:

4.4.1 Be performed by competent personnel who have access to pertinent information.

4.4.2 Ensure that appropriate technical, quality, and administrative requirements have been included.

4.4.3 Procurement document changes shall be subject to the same degree of control as utilized in the preparation of the original documents.

5.0 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

5.1 During the PDMS period, activities within PDMS QA Plan Scope shall be prescribed by and accomplished in accordance with written instructions, procedures, or drawings of a type appropriate to the circumstances. Procedural adherence shall be mandatory.

5.2 Standard guidelines for the format, content, review, and approval of instructions, procedures, and drawings shall be specified in division/department administrative procedures. Procedural documentation shall be prepared, reviewed, and approved by individuals knowledgeable in the area affected by the procedure. Technical and independent reviews shall be in accordance with the TMI Review and Approval Matrix.

5.3 Typical procedure types that shall be established, as necessary, are:

5.3.1 Administrative Procedures - Organizational responsibilities, interface relationships, and general plant administrative implementation controls are specified.

5.3.2 Operating Procedures - Provide instructions in sufficient detail to safely operate plant systems and components required to be operable per the PDMS Technical Specifications.

5.3.3 Surveillance and Test Procedures - Provide detailed instructions for implementing PDMS Technical Specification surveillance and test requirements.

5.3.4 Maintenance Procedures - These include both corrective and preventive maintenance. Skills normally possessed by qualified maintenance personnel may not require detailed step-by-step delineation in written procedures.

5.3.5 Radiation Protection Procedures - Provide for implementation of the Radiation Protection Plan.

5.3.6 Engineering Procedures - Provide administrative controls for the technical activities necessary to support a safe PDMS condition.

5.3.7 Chemistry Procedures - Provide laboratory procedures and administrative controls necessary to support a safe PDMS condition.

5.3.8 QA Program Procedures - Provide detailed implementation requirements governing the activities of monitoring, inspection, surveillance, audit, and review.

5.4 If appropriate, instructions, procedures, and drawings shall include quantitative (such as dimensions, tolerances, and operating limits) and qualitative (such as workmanship samples) acceptance criteria sufficient for determining that activities within PDMS QA Plan Scope have been satisfactorily accomplished.

5.5 Instructions, procedures, and drawings shall be reviewed and approved in accordance with administrative requirements prior to their implementation. Review and approval activities shall be documented.

5.6 Procedural documentation shall be periodically reviewed for adequacy as set forth in administrative procedures. A revision of a procedure may fulfill the periodic review requirement provided the results of the review are documented.

5.7 Applicable procedures shall be reviewed following any significant operator error, malfunction, or system/component modification.

6.0 DOCUMENT CONTROL

6.1 Documents which specify quality requirements or prescribe activities within PDMS QA Plan Scope shall be controlled in a manner appropriate to the circumstances. Such documents include, but are not limited to, those instructions, procedures, and drawings necessary to implement the QA Program defined in Section 2.0 of this Plan.

6.2 Document control measures shall be established in written procedures. These procedures shall address the following elements of document control, as necessary:

6.2.1 Measures to assure that documents within PDMS QA Plan Scope, including changes thereto, have been reviewed and approved for release by authorized personnel.

6.2.2 Changes to documents have been reviewed and approved by the same organizations that performed the original review and approval unless otherwise specified by those organizations.

6.2.3 Distribution lists shall be established and maintained current. Organizations participating in activities within PDMS QA Plan Scope shall receive or have convenient access to documentation governing that activity.

6.2.4 The issuance of documents within PDMS QA Plan Scope is performed in a controlled manner in accordance with written procedures.

6.2.5 A system to identify the latest issue of documents shall be established in written procedures. Document control procedures shall be established to assure that proper documents are accessible and are being used.

6.2.6 The user of a document is responsible for ensuring that the latest issue of the document is used to perform work within PDMS QA Plan Scope. Users are also responsible for removing voided, superseded, or obsolete documents from the work place to prevent their inadvertent use.

6.2.7 Measures to ensure that the periodic and mandatory (e.g., a system modification) document reviews required by Section 5.0 of this Plan have been conducted.

6.2.8 In the special case of documents containing information pertaining to plant security, provisions shall be made to prohibit unauthorized disclosure of certain safeguards information. These provisions shall include identification of the documents, restrictions on their distribution, and storage in locked security storage containers.

6.2.9 Documents that are distributed for information purposes only shall not be utilized to perform activities within PDMS QA Plan Scope.

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

7.1 During the PDMS period, measures shall be established to assure that purchased material, equipment, and services conform to the procurement documents. The degree to which control measures will be employed shall be based upon the significance to quality of the item or service being supplied.

7.2 Procurement sources shall be evaluated and selected considering the item or service being supplied. Methods may include any or all of the following:

7.2.1 Review of supplier histories

7.2.2 Evaluation of current quality records.

7.2.3 Direct evaluation of the supplier's facilities.

7.3 If appropriate, a manufacturing assurance program will be implemented. This program may include:

7.3.1 If required by procurement documents, GPU Nuclear or designee approval of supplier's drawings, procedures, and manufacturing plans.

7.3.2 Review of supplier records documentation for completeness and acceptability.

7.3.3 Source inspection, surveillance, or audit of supplier quality activities relative to the procurement specifications.

7.4 Material acceptance requirements shall be established at the plant site to assure that:

7.4.1 The item's handling and shipping requirements have been observed by the supplier and maintained by the carrier.

7.4.2 The items provided meet the technical and quality requirements specified in applicable receiving inspection plans.

7.4.3 The item's quality records package or compliance certification is complete and adequate.

7.4.4 Items delivered which are not in compliance with procurement documents are identified and controlled in accordance with nonconformance control procedures.

7.5 Sufficient records documentation shall be maintained at the plant site to identify the specific requirements, such as codes, standards, and specifications met by purchased material and equipment within PDMS QA Plan Scope.

8.0 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, & COMPONENTS

8.1 Materials, parts, and components, including partially fabricated subassemblies, necessary to support a safe PDMS condition, shall be identified and controlled in accordance with written procedures appropriate to the circumstances.

8.2 Item identification requirements, when specified by engineering in procurement documents, shall be verified prior to installation as a condition of acceptance.

8.3 Physical identification shall be used to the maximum extent possible. The location and method of identification shall be specified so as not to affect the form, fit, function, or quality of the item being identified. Where physical identification on the item is either impractical or insufficient, physical separation, procedural control, or other appropriate means shall be employed.

8.4 When required by codes, standards, or specifications, traceability of materials, parts, or components to specific inspection, test, or other records shall be provided for and verified.

8.5 Where specified, items having limited calendar or operating life or cycles shall be identified and controlled to preclude use of items whose shelf life or operating life has expired.

8.6 Provisions shall be made for the control of item identification consistent with the planned duration and conditions of storage, such as:

8.6.1 Maintenance or replacement of markings and identification records, if necessary, due to aging.

8.6.2 Protection of identifications on items subject to excessive deterioration due to environmental exposure.

8.7 Correct identification of materials, parts, and components shall be verified prior to release for fabrication, shipping, installation, or testing.

9.0 CONTROL OF SPECIAL PROCESSES

9.1 During the PDMS period, special processes associated with items and activities within PDMS QA Plan Scope shall be controlled by written procedures or instructions. Special processes, as defined by engineering, are those that require interim in-process controls in addition to final inspection to assure quality including, but not limited to, such processes as welding, heat treating, chemical cleaning, and nondestructive examination (NDE).

9.2 Special process procedures or instructions shall be established to assure that special processes are accomplished under controlled conditions in accordance with applicable codes, standards, applications criteria, and other special requirements including the use of qualified personnel, procedures, and equipment, if necessary.

9.3 Procedures or instructions for the control of special processes shall contain appropriate process acceptance criteria and be reviewed and approved by qualified personnel.

9.4 Personnel, procedures, and equipment performing special processes may require qualification. Organizational responsibilities for defining qualification requirements and for implementing qualification programs shall be specified.

9.5 For special processes not covered by the existing codes or standards or when item quality requirements exceed the requirements of established codes or standards, the necessary qualifications of personnel, procedures, and equipment shall be defined in the procedures.

9.6 Qualification records of personnel, procedures, and equipment associated with special processes shall be established, maintained, and kept current. Records of the performance of special processes shall be maintained in accordance with applicable requirements.

10.0 INSPECTION

10.1 A program for the inspection of activities within PDMS QA Plan Scope conducted during the PDMS period shall be established. This program shall provide for suitable levels of independent verification to assure quality, and is a Level I verification activity as defined in Section 2.0 of this Plan. Inspection program activities will be controlled by written procedures appropriate to the circumstances.

10.2 Inspection personnel (including NDE specialists) who verify conformance of work activities for purposes of acceptance shall be qualified to perform the assigned inspection task. Qualification levels shall be established in accordance with applicable codes, standards, and GPU Nuclear or designee training programs. Records of personnel qualification and certification shall be maintained and kept current. If individuals assigned to perform inspections are not part of the responsible Quality Verification (Inspection Services, Quality Control, etc.) or engineering NDE/ISI organizations, the procedures and personnel qualification criteria shall be reviewed and concurred with by the Quality Verification (Inspection Services, Quality Control, etc.)/engineering NDE/ISI organization as appropriate prior to the initiation of the activity.

10.3 Inspections may be conducted by second-line supervisory personnel or by other qualified personnel not assigned first-line supervisory responsibility for the conduct of work. Inspections to verify quality shall not be conducted by individuals who performed the work or the first-line supervisor responsible for the activity.

10.4 Work authorizing documents used to implement work in the field within PDMS QA Plan Scope shall be reviewed by Quality Verification (Inspection Services, Quality Control, etc.) personnel when the need for the following is determined by engineering:

10.4.1 Inspections and/or process monitoring.

10.4.2 Inspection points.

10.5 The inspection program shall require inspection and/or test of items for work operations where such is necessary to verify conformance to applicable instructions, procedures, and drawings for accomplishing the activity. If inspection of processed items is impossible or disadvantageous, indirect control by monitoring of process shall be required. Both inspection and process control shall be performed when required by applicable code, standard, or specification.

10.6 Mandatory inspection hold points shall be included in appropriate documentation. When Quality Verification (Inspection Services, Quality Control, etc.) hold points have been established, either contractually, by procurement, or internally by plant procedures, work may not proceed beyond the hold point until either inspection is performed or waived by the responsible Quality Verification (Inspection Services, Quality Control, etc.) organization.

10.7 Inspection activities shall be planned and controlled by procedures, instructions, or checklists. These documents shall include, as required:

10.7.1 The characteristic or activity to be inspected.

10.7.2 Prerequisites and/or special conditions associated with the inspection.

10.7.3 Measuring and test equipment needed and the accuracy requirements.

10.7.4 Inspection methods or procedures to be used. Where verification of prior inspection is to be performed, a sampling inspection plan approved by Quality Verification (Inspection Services, Quality Control, etc.) may be used.

10.7.5 Provisions for recording the results of inspection hold points and approvals for work to continue.

10.7.6 Acceptance criteria for evaluating results.

10.7.7 Provisions for recording inspection data evaluation results and administrative information.

10.8 Inspection data and results shall be evaluated by qualified personnel to assure that inspection requirements have been satisfied. Inspection results shall be approved by authorized personnel.

10.9 Items and activities failing to conform to inspection requirements shall be identified and controlled in accordance with established nonconformance control procedures.

11.0 TEST CONTROL

11.1 A test program shall be established to assure that items will perform satisfactorily in service and that a safe and stable PDMS condition is maintained. Test procedures shall incorporate or reference the requirements and acceptance limits contained in applicable design and licensing documents.

11.2 The PDMS test program shall cover required tests including:

11.2.1 Surveillance tests and inspections required by the PDMS Facility License and Technical Specifications to demonstrate conformance with operability requirements.

11.2.2 Tests required to demonstrate satisfactory performance following plant maintenance and modifications within PDMS QA Plan Scope. Testing shall be sufficient to confirm that the changes reasonably produce expected results and that the change does not reduce the safety or stability of the PDMS condition.

11.3 A schedule for all identified tests and inspections within PDMS QA Plan Scope shall be established and maintained. This schedule shall be monitored, as necessary, to ensure that required tests and inspections are performed, evaluated, and reported on a timely basis.

11.4 Test procedures or instructions shall provide for the following, as required:

11.4.1 A description of test objectives.

11.4.2 Test prerequisites (e.g., calibrated instrumentation, environmental conditions, trained personnel, etc.).

11.4.3 Instructions for performing the test or surveillance inspection including cautionary or safety notes and equipment control measures.

11.4.4 Identification of mandatory hold or witness points.

11.4.5 Documentation of corrective actions performed on nonconformances identified.

11.4.6 Acceptance criteria for evaluating test results.

11.4.7 Documenting the evaluation of test results.

11.5 Results shall be evaluated and their acceptability determined by an authorized individual or group.

11.6 Unacceptable test results shall be identified in accordance with established nonconformance control procedures.

11.7 Records of PDMS testing activities shall be maintained as required by the Technical Specifications.

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 A program to control the measuring and test equipment (M&TE) used to support PDMS activities within PDMS QA Plan Scope shall be established. M&TE includes tools, gauges, instruments, reference and transfer standards, and other measuring and testing devices, including NDE equipment. The M&TE control program shall be implemented by use of written procedures.

12.2 Major elements of the control program are:

12.2.1 Identification of all M&TE within the scope of the program.

12.2.2 Inspection and verification of accuracy upon receipt of equipment calibrated off site.

12.2.3 Measures to control, calibrate, adjust, and maintain M&TE at prescribed intervals or prior to use.

12.2.4 Traceability of calibration test data to nationally recognized standards or approved and documented alternatives.

12.3 Installed operations M&TE requiring calibration shall be labeled, tagged, or otherwise controlled in accordance with written procedures to ensure that approved calibration intervals are not exceeded. Portable M&TE may be similarly controlled but shall, as a minimum, be clearly labeled to indicate the date on which the current calibration expires. M&TE that has exceeded the approved calibration interval shall not be used for measurements or tests until recalibrated.

12.4 The calibration frequency for M&TE shall be based on required accuracy, purpose, degree of usage, stability characteristics, and/or any other condition which may affect the measurement. A calibration recall system shall be implemented to assure recalibration within the required period for each piece of M&TE covered under the scope of this program.

12.5 Calibration procedures shall delineate any necessary environmental controls, limits, or compensations in excess of those which may be inherent to the general program. Calibration of M&TE shall be against standards that have an accuracy that assures the equipment being calibrated will be within required tolerance.

12.6 NDE equipment shall be controlled and calibrated in accordance with the industry code governing its use.

12.7 When M&TE is found to be out of calibration, the validity of previous tests and calibrations that utilized the item since its last calibration shall be evaluated. Such evaluations shall be documented in suitable form. Corrective actions shall be taken as necessary. If any item of M&TE is consistently found to be out of calibration, it shall be repaired or replaced.

12.8 Special calibrations shall be performed should the accuracy of any item of M&TE become questionable.

12.9 Rulers, tape measures, levels, and other such devices may not be included in the M&TE control program if normal commercial practices provide for adequate accuracy.

12.10 Sufficient records shall be maintained to provide objective evidence that M&TE control program activities have been implemented.

13.0 HANDLING, STORAGE AND SHIPPING

13.1 The handling, storage, shipping, cleaning, and preservation of material and equipment within PDMS QA Plan Scope necessary to support PDMS shall be controlled in accordance with written instructions, procedures, and drawings to prevent damage, deterioration, or loss.

13.2 Special handling tools and equipment shall be provided where necessary to assure that items can be handled safely and without damage. Handling operations will be performed by suitably trained personnel.

13.3 Storage practices shall provide for methods of storage and the control of items in storage which will minimize the possibility of damage or deterioration during storage. The release of items for installation shall be procedurally controlled.

13.4 Special measures shall be established for the storage of chemicals, reagents, lubricants, and other consumable materials.

13.5 Controls shall be established to ensure that items whose shelf life has expired will not be used.

13.6 Shipping control measures shall be established that conform to standard industry practices appropriate to the item involved.

13.7 Cleaning requirements shall be included in design and procurement documents, specifications, and procedures, if appropriate.

13.8 Preservation requirements shall be included in design and procurement documents, specifications, and procedures, if appropriate.

14.0 INSPECTION, TEST AND OPERATING STATUS

14.1 During PDMS, a program to identify the inspection, test, and operating status of structures, systems, components, and individual items within PDMS QA Plan Scope shall be established and implemented by written procedures.

14.2 The inspection and test status of individual items shall be maintained through the use of status indicators such as physical location and tags, markings, shop travelers, stamps, inspection records, labels, routing cards, or other suitable means. Only items that have passed required inspections and tests are used, installed, or operated.

14.3 Procedures shall be provided to require identification of the operating status of structures, systems, components, controls, or support equipment in order to prevent inadvertent or unauthorized operation. These procedures shall require control measures such as locking or tagging to secure and identify equipment in a controlled status. The procedures shall also require that the status of inspections and test performed upon individual items be indicated by the use of markings such as stamps, tags, labels, routing cards, or other suitable means.

14.4 Permission to release equipment or systems for maintenance or modification shall be granted by designated operating personnel. Granting of such permission shall be documented. After permission has been granted to remove equipment from service, it shall be made safe to work on. Measures shall provide for the protection of equipment and workers.

14.5 When equipment is ready to be returned to service, operating personnel shall place the equipment in operation and verify and document its functional acceptability.

14.6 Control measures for temporary modifications, such as temporary bypass lines, electrical jumpers, lifted electrical leads, and temporary trip point settings, shall be established. A log shall be maintained of the current status of temporary modifications.

14.7 The use of status indicators shall be controlled by written procedures. These procedures will specify the authority for application and removal of tags, markings, labels, stamps, or other indicators.

14.8 Where required documentary evidence of acceptability is not available, the associated equipment or materials will be considered nonconforming. Items not installed shall be appropriately controlled. Nonconforming items shall be identified in accordance with established nonconformance control procedures.

15.0 NONCONFORMING MATERIALS, PARTS, OR COMPONENTS

15.1 Nonconforming materials, parts, components, services, or activities within the scope of the GPU Nuclear PDMS QA Program shall be identified and controlled in accordance with written procedures. The procedures shall include instructions for identification, documentation, segregation, review, disposition, and notification to affected organizations, as appropriate.

15.2 Nonconformances include both hardware problems involving materials, parts, components, or systems which do not comply with established requirements and non-hardware problems such as failure to comply with the Facility License and Technical Specifications, procedures, regulations, and/or other established requirements. It is the responsibility of all organizations and individuals involved with TMI-2 PDMS functions to identify and report nonconformances which may affect structures, systems, equipment, materials, parts, and components within PDMS QA Plan Scope.

15.3 Nonconformance reports shall be used to identify nonconforming materials, parts, components, and activities; and shall be used to identify items or activities whose status is indeterminate due to lack of documentation. Nonconformance report documentation shall provide for the following, as necessary:

15.3.1 Identification of the nonconforming item or activity.

15.3.2 Description of the nonconformance.

15.3.3 Cause of the nonconformance.

15.3.4 Disposition of the nonconformance.

15.3.5 Notification to the affected organization of the nonconformance.

15.3.6 Documenting the controls applied to nonconforming items (e.g., hold tags, segregation, etc.)

15.3.7 Evidence of review for reportability per the Technical Specifications.

15.3.8 Administrative data, including reviews and approvals.

15.4 Measures shall be established to procedurally control further processing, delivery or installation of a nonconforming item or continuation of a nonconforming service or activity, pending a decision on its disposition. Nonconforming items shall be appropriately identified and controlled until their acceptability for use has been established. In order to prevent their inadvertent use or installation, nonconforming items shall be identified by marking or tagging and shall be physically segregated, where practical. If physical segregation is not practical, identification of items as nonconforming by marking or tagging shall be acceptable.

15.5 The responsibility and authority for the evaluation and disposition of nonconforming items, services, and activities shall be procedurally defined. Personnel performing evaluations to determine a disposition shall be competent in the specific area being evaluated. Nonconforming items, services or activities shall be reviewed and accepted, rejected, repaired, or reworked. Appropriate administrative corrective actions shall be applied to non-hardware issues.

15.6 Repaired or reworked items shall be reinspected and/or retested in accordance with original inspection and test requirements, or acceptable alternatives as determined by engineering. For items dispositioned "repair" or "use-as-is," a description of the change, waiver, or deviation shall be documented to record the change and, if applicable, denote the as-built condition. Documentation verifying the acceptability and approval of such items shall be required.

15.7 When all necessary actions associated with the disposition of nonconforming items, services, or activities have been completed and verified, nonconformance reports shall be administratively closed. Records of nonconformance report documentation shall be maintained in accordance with the Technical Specifications and governing administrative procedures.

16.0 CORRECTIVE ACTION

16.1 Section 15.0 of this Plan describes the program that will be established to identify and control nonconforming items, services, and activities within PDMS QA Plan Scope during the PDMS period. Integral to the program to control nonconformances, requirements to accomplish prompt and effective corrective action shall be established. Requirements for the corrective action program shall be included in appropriate written procedures.

16.2 Nonconformances shall be evaluated to determine the cause of the condition and the need for corrective action. Evaluations and resulting dispositions shall be made by competent personnel. Nonconformances shall be dispositioned "scrap," "repair," "rework," "use-as-is," or an appropriate administrative correction. Corrective action necessary to preclude recurrence of nonconformances shall also be determined and implemented, as appropriate.

16.3 Management controls shall be established to ensure that required corrective actions are being addressed by responsible organizations in a timely manner. Disputes regarding corrective action issues shall be escalated to appropriate levels of management for resolution, if necessary. Follow-up activities shall be conducted to verify implementation of corrective actions and to close-out corrective action documentation.

16.4 Significant nonconformances (e.g., violations reportable to the NRC) shall be documented and reported to appropriate levels of GPU Nuclear management. Such reports shall identify the nonconformance, its cause, and the corrective action taken.

16.5 Records of nonconformances and their associated corrective actions shall be maintained in accordance with the Technical Specifications and governing administrative procedures. Periodically, these records shall be reviewed and analyzed to identify adverse quality trends, if any. Results of significant adverse trends will be reported to the appropriate levels of management.

17.0 QUALITY ASSURANCE RECORDS

17.1 Records of items and activities within PDMS QA Plan Scope shall be generated, supplied, and maintained during PDMS in accordance with written procedures. Sufficient records and documentation shall be maintained to provide evidence of the quality of items or activities.

17.2 The TMI-2 Technical Specifications, design specifications, procurement documents, and procedures identify the records necessary to comply with regulatory requirements, industry codes and standards, and GPU Nuclear management control requirements. Documents that are designated records shall be legible, accurate, and completed appropriate to the work accomplished. Documents shall be considered valid records only if stamped, initialed, or signed and dated by authorized personnel or otherwise authenticated.

17.3 Records within PDMS QA Plan Scope shall be included in an indexing system with sufficient information to permit identification between the record and the item(s) or activities to which it applies. The system shall also include retention times and the location of the record within the record system.

17.4 Records shall be classified as either "lifetime" or nonpermanent" records and retained accordingly. Retention times for nonpermanent records shall be specified in writing and shall be of sufficient duration to assure the ability to reconstruct significant events and satisfy statutory requirements.

17.5 Records within PDMS QA Plan Scope may be corrected subject to the review and approval of the originating organization or as authorized in written procedures.

17.6 Organizations responsible for receiving records shall be identified and shall implement an appropriate receipt control system. These organizations shall provide for the protection of records from damage or loss while the records are in their custody.

17.7 Records shall be stored in predetermined location(s) that meet the requirements of applicable standards, codes, and regulatory agencies. Appropriate single or dual facility methods of storage may be used. The facilities shall be constructed and maintained in a manner which minimizes the risk of damage or destruction from the following:

17.7.1 Natural disasters such as winds, floods, or fires.

17.7.2 Environmental conditions such as high and low temperatures and humidity.

17.7.3 Infestation of insects, mold, or rodents.

17.8 Storage methods shall protect records from damage due to moisture, temperature, or pressure. Provisions, as required, shall be made for special processed records, (such as radiographs, photographs, negatives, and microfilm) to prevent damage from excessive light, stacking, electromagnetic fields, and temperature. Measures shall be established to preclude the entry of unauthorized personnel into storage areas.

17.9 Records shall be identifiable and retrievable. Lists shall be established and maintained identifying those personnel having access to record files. The removal of records from storage areas shall be controlled.

18.0 AUDITS

18.1 During PDMS, a system of planned and scheduled audits shall be established for both GPU Nuclear and supplier functions which affect items and activities within PDMS QA Plan Scope. Audits include an objective evaluation of practices, procedures, and instructions including an independent review of activities, items, and records within PDMS QA Plan Scope which demonstrate effective implementation. The audit system shall be defined and implemented in accordance with written procedures and is a Level III verification activity as defined in Section 2.0 of this Plan.

18.2 Audit areas required by Appendix B shall be scheduled and conducted in compliance with Appendix A. Audit schedules shall be periodically reviewed and revised, as necessary, to ensure that appropriate audit coverage is maintained. Unscheduled audits may be conducted at any time or as requested by responsible GPU Nuclear management.

18.3 An individual audit plan describing the audit to be performed shall be developed and documented by the auditing organization. This plan shall identify the audit scope, the requirements, the activities to be audited, the applicable documents, and written procedure or checklists to be used in performing the audit.

18.4 Audits shall be performed by trained and qualified personnel not having direct responsibilities in the areas being audited. Qualification and training requirements shall be established and documented, and records of qualifications shall be maintained and kept current. Personnel selected for audit assignments shall have experience or training commensurate with the scope, complexity, or special nature of the activities to be audited. For each audit, an appropriately qualified individual shall be appointed as audit team leader. Other audit team members shall be utilized as required and will be classified as either auditors or technical specialists, depending on their function on the audit team.

18.5 Audits shall be conducted in accordance with approved procedures and/or checklists. Audited organizations shall provide sufficient support to assure the accuracy of audit results. Selected elements of the QA program shall be audited to the depth necessary to determine whether or not they are being implemented effectively. Objective evidence shall be examined. Conditions requiring prompt corrective action shall be reported immediately to management of the audited organization. At the conclusion of the audit, a post-audit conference shall be held with management of the audited organization to discuss audit results and present any adverse audit findings (i.e., nonconformances).

18.6 Audit reports shall be issued in a timely manner following performance of the audit. Reports shall contain a summary of audit results, an evaluation of QA Program implementation, and a description of adverse findings, if any. Audit reports shall be distributed to responsible management in both the audited and the auditing organizations. In addition, all audit reports shall be distributed to the Vice President GPU Nuclear Oversight and the GPU Nuclear Cognizant Officer.

18.7 Management of the audited organization or activity shall review and investigate any adverse audit findings to determine and schedule appropriate corrective action including action to prevent recurrence. A response shall be made as requested by the audit report, giving results of the review and investigation. Responsible Audit organizations shall conduct follow-up activities to verify that appropriate corrective actions have been taken in a timely manner.

18.8 Audit findings shall be periodically reviewed and analyzed to identify adverse quality trends, if any. Results of these reviews shall be reported to management and the Vice President GPU Nuclear Oversight and the GPU Nuclear Cognizant Officer. Section 16.0 of this Plan addresses trending activities associated with other types of nonconformance report documentation.

18.9 Records of audit activities shall be maintained as required by the Technical Specifications and audit system implementing procedures.

APPENDIX A
Audit Frequencies

The conformance of unit operations to provisions contained within the Technical Specifications and applicable license conditions. The audit frequency shall be at lease once per 24 months.

The performance of QA Assessment activities provided by the PDMS contractor. The audit frequency shall be at least once per 24 months and shall be conducted by GPU Nuclear or a third party contractor other than Exelon Generation Company.

The performance of activities required by the PDMS QA Plan. The audit frequency shall be at least once per 24 months.

The Radiation Protection Plan and applicable implementing procedures. The audit frequency shall be at least once per 24 months.

The Fire Protection Program and implementing procedures at least once per 24 months.

An independent fire protection and loss prevention program inspection and technical audit shall be performed once per 24 months utilizing either qualified licensee personnel or an outside fire protection firm.

An inspection and audit of the fire protection and loss prevention program by an outside qualified fire consultant at intervals no greater than 3 years.

The ODCM and implementing procedures at least once per 24 months.

Any other area of unit operation considered appropriate by the PDMS Manager, Vice President GPU Nuclear Oversight or the GPU Nuclear Cognizant Officer.

APPENDIX B
***Former Technical Specification Requirements**

6.5 REVIEW AND AUDIT

6.5.1 TECHNICAL REVIEW AND CONTROL

The GPU Nuclear Cognizant Officer shall be responsible, through its contracted agent, the TMI-1 License holder for ensuring the preparation, review, and approval of documents required by the activities described in Sections 6.5.1.1 through 6.5.1.7 as assigned in the TMI Review and Approval Matrix. Implementing approvals shall be performed at the cognizant manager level or above.

ACTIVITIES

6.5.1.1 Each procedure required by Section 6.7 of the Technical Specifications and other procedures including those for tests and experiments and SUBSTANTIVE CHANGES thereto shall be prepared by a designated individual(s) or group knowledgeable in the area affected by the procedure. Each such procedure, and SUBSTANTIVE CHANGES thereto, shall be given a technical review by an individual(s) or group other than the preparer, but who may be from the same organization as the individual who prepared the procedure or change.

6.5.1.2 Proposed changes to the Technical Specifications shall be reviewed by a knowledgeable individual(s) or group other than the individual(s) or group who prepared the change.

6.5.1.3 Proposed tests and experiments shall be reviewed by a knowledgeable individual(s) or group other than the preparer but who may be from the same division as the individual who prepared the tests and experiments.

6.5.1.4 Proposed modifications to unit structures, systems, and components necessary to maintain the PDMS condition as described in the PDMS SAR 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(s)/group other than the individual/group which designed the modification but may be from the same group as the individual who designed the modification.

6.5.1.5 Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence, shall be reviewed by a knowledgeable individual(s)/group other than the individual(s)/group which performed the investigation.

6.5.1.6 All REPORTABLE EVENTS shall be reviewed by an individual/group other than the individual/group which prepared the report.

6.5.1.7 Individuals responsible for reviews performed in accordance with Section 6.5.1.1 through 6.5.1.6 shall include a determination of whether or not additional cross disciplinary review is necessary. If deemed necessary, such review shall be performed by the appropriate personnel. Individuals responsible for reviews considered under Sections 6.5.1.1, 6.5.1.3, and 6.5.1.4 shall render determinations in writing with regard to whether or not NRC approval is required pursuant to 10CFR50.59.

* This Appendix contains material that was transferred verbatim from the TMI-2 Technical Specification in accordance with Amendment No. 63 to Facility Possession –Only License No. DPR-73 (Technical Specification Change Request No. 86). Accordingly, the original section numbering has been retained. The words "of the Technical Specifications" were added when references were made to sections of the Technical Specifications that were not transferred to this Appendix.

RECORDS

6.5.1.8 Written records of activities performed in accordance with Sections 6.5.1.1 through 6.5.1.7 shall be maintained in accordance with Section 6.9 of the Technical Specifications.

QUALIFICATIONS

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

6.5.2 INDEPENDENT SAFETY REVIEW

FUNCTION

6.5.2.1 The GPU Nuclear Cognizant Officer shall be responsible, through its contracted agent, the TMI-1 License holder, for ensuring the independent safety review of the subjects described in Section 6.5.2.5, as assigned in the TMI Review and Approval Matrix.

6.5.2.2 Independent safety review shall be completed by an individual or 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 or group performing the original work.

6.5.2.3 GPU Nuclear, Inc. shall collectively have access to the experience and competence required to independently review subjects in the following areas:

a. Nuclear Unit operations
b. Nuclear engineering
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. Other appropriate fields such as radioactive waste management operations associated with the unique characteristics of TMI-2.

6.5.2.4 Consultants may be utilized as determined by the GPU Nuclear Cognizant Officer to provide expert advice.

RESPONSIBILITIES

6.5.2.5 The following subjects shall be independently reviewed by Independent Safety Reviewers (ISRs):

a. Written evaluations of changes in the facility as described in the Safety Analysis Report, of changes in procedures as described in the Safety Analysis Report, and of tests or experiments not described in the Safety Analysis Report, which are completed without prior NRC approval under the provisions of 10 CFR 50.59(c) (1). This review is to verify that such changes, tests or experiments did not involve a change in the Technical Specifications or require NRC approval pursuant to 10 CFR 50.59. Such reviews need not be performed prior to implementation.

b. Proposed changes in procedures, proposed changes in the facility, or proposed tests or experiments, any of which involves a change in the Technical Specifications or requires NRC approval pursuant to 10 CFR 50.59. Matters of this kind shall be reviewed prior to submittal to the NRC.

c. Proposed changes to Technical Specifications or license amendments shall be reviewed prior to submittal to the NRC for approval.

d. Violations, deviations, and reportable events which require reporting to the NRC in writing. 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 form such investigations to prevent or reduce the probability of recurrence of the event.

e. Written summaries of audit reports in the areas specified in Section 6.5.3.

f. Any other matters involving the plant which a reviewer deems appropriate for consideration or which is referred to the independent reviewers.

QUALIFICATIONS

6.5.2.6 The ISRs 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 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.

RECORDS

6.5.2.7 Reports of reviews encompassed in Section 6.5.2.5 shall be maintained in accordance with Section 6.9 of the Technical Specifications.

6.5.3 AUDITS

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

a. The conformance of unit operations to provisions contained within the Technical Specifications and applicable license conditions.

b. The performance of activities required by the PDMS QA Plan.

c. The Radiation Protection Plan and applicable implementing procedures.

d. The Fire Protection Program and implementing procedures.

e. An independent fire protection and loss prevention program inspection and technical audit shall be performed utilizing either qualified licensee personnel or an outside fire protection firm.

f. An inspection and audit of the fire protection and loss prevention program by an outside qualified fire consultant.

g. The ODCM and implementing procedures.

h. Any other area of unit operation considered appropriate by the PDMS Manager or the GPU Nuclear Cognizant Officer.

RECORDS

6.5.3.2 Audit reports encompassed by Section 6.5.3.1 shall be forwarded for action to the management positions responsible for the areas audited and the GPU Nuclear Cognizant Officer within 60 days after completion of the audit. Upper management shall be informed in accordance with the TMI-2 PDMS QA Plan.

6.5.4 DELETED

EXHIBIT 1

Terms and Definitions

This Exhibit contains certain terms and their definitions needed to achieve a uniform understanding of PDMS QA Program requirements. It is not intended that this Exhibit be considered as a comprehensive listing of terminology used in the Program. Therefore, additional terms and their definitions may be included in related GPU Nuclear policies, plans, and procedures.

ACCEPTANCE (as used in relation to acceptance of a document): Generally approved, believed, or recognized. Does not require signature of person accepting.

ACCEPTANCE CRITERIA: Specified limits placed on characteristics of an item, process, or service defined in codes, standards, or other requirement documents.

ALARA: (Acronym for As Low As Reasonably Achievable) - a method of analysis of the performance of activities in radiological areas to determine specific methods for reducing man-rem exposure.

ARCHITECT/ENGINEERING (A/E): A firm under contract to provide engineering or design services.

APPROVAL: An act of endorsing and adding positive authorization (signature) to a document by the person(s) responsible for the document.

AS-BUILT DATA: Documented data that describes the condition actually achieved in a product.

COMPONENT RECORD LIST (CRL): The controlled document used to record the identification of systems and major components subject to the requirements of the PDMS QA Plan.

CONCURRENCE: Written agreement that the provisions in a document for which review has been requested are acceptable for implementation within, or from the standpoint of, the signer's area of responsibility.

CONTRACTOR: Any organization under contract for furnishing items or services. It includes the term vendor, supplier, designee, subcontractor, fabricator and subcontractor levels, where appropriate.

CONTROLLED DOCUMENT: A document which is assigned and distributed to an individual or organization and requires that individual or organization to be accountable for the document and to acknowledge receipt of the document in writing. The distributing agent is responsible for providing the recipients with current revisions to the document and for maintenance of the return acknowledgment receipts.

CORRECTIVE ACTION: Measures taken to rectify conditions adverse to quality and, where necessary, to preclude repetition.

DOCUMENT: Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures or results. A document is not considered to be a QA record until it is completed and contains the required signatures.

EXTERNAL ORGANIZATIONS: Any organization participating in the project which is not a part of GPU Nuclear or the TMI-2 on-site organization. This term includes vendors, A/E's, and contractors.

EXHIBIT 1

ENGINEERING CHANGE DOCUMENT (ECD): A document which is generated in the field requesting engineering approval of a drawing, specification, or procedure change.

EVALUATED VENDOR LIST: A list of suppliers who have been evaluated by the Quality Assurance Department, or its designee, for their capabilities to produce or provide items, equipment, or services for nuclear power plants.

MONITORING/SURVEILLANCE: An act of assuring compliance of activities to program requirements by direct observation or record review. Generally, monitoring is performed on site and surveillance is performed at a vendor's facility.

PROCUREMENT DOCUMENT: Purchase requisitions, purchase orders, drawings, contracts, specifications, or instructions used to define requirements for purchase.

QA PLAN (Plan): The basic document which describes the method and extent of compliance of the QA Program to the applicable regulatory and GPU Nuclear requirements.

QA PROGRAM (Program); The planned and systematic actions which constitute compliance with regulatory quality assurance requirements and the controlled documents which describe and prescribe those actions.

QA RECORD: A completed document that furnishes evidence of the quality of items and/or activities affecting quality.

QUALIFICATION (Personnel): The characteristics or abilities gained through education, training, or experience as measured against established requirements, such as standards or tests, that qualify an individual to perform a required function.

QUALIFICATION (Procedures): An approved procedure that has been demonstrated to meet the specified requirements for its intended purpose.

SPECIAL PROCESS: A process, the results of which are highly dependent on the control of the process or the skill of the operators, or both, and in which the specified quality cannot be readily determined by inspection or test of the product.

SUPPLIER: Any individual or organization who furnishes items or services in accordance with a procurement document. An all-inclusive term used in place of any of the following: vendor, seller, contractor, subcontractor, fabricator, consultant, and their subtier levels.

TRACEABILITY: The ability to trace the history, application, or location of an item and like items or activities by means of recorded information.

TREND ANALYSIS: A quantitative method of collecting and analyzing nonconformance/deviation events with the goal of systematically determining programmatic/procedural weaknesses.

VERIFICATION: An act of confirming, substantiating, and assuring that an activity or condition has been implemented in conformance with the specified requirements.