

July 25, 2002

Mr. Jack Skolds  
President and CNO  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
5<sup>th</sup> Floor  
Warrenville, IL 60555

SUBJECT: THREE MILE ISLAND STATION, UNIT 1 - NRC INTEGRATED INSPECTION  
REPORT 50-289/02-05

Dear Mr. Skolds:

On June 29, 2002, the NRC completed an inspection at your Three Mile Island Unit 1 facility. The enclosed report documents the inspection findings that were discussed on July 3, 2002, with Mr. Bruce Williams and other members of your staff.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

On the basis of the results of this inspection, no findings of significance were identified.

The NRC has increased security requirements at Three Mile Island in response to terrorist acts on September 11, 2001. Although the NRC is not aware of any specific threat against nuclear facilities, the NRC issued an Order and several threat advisories to commercial power reactors to strengthen licensees' capabilities and readiness to respond to a potential attack. The NRC continues to monitor overall security controls and will issue temporary instructions in the near future to verify by inspection the licensee's compliance with the Order and current security regulations.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARs) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Mr. J. Skolds

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We appreciate your cooperation. Please contact me at 610-337-5146 if you have any questions regarding this letter.

Sincerely,

/RA/

John F. Rogge, Chief  
Projects Branch 7  
Division of Reactor Projects

Docket No: 50-289  
License No: DPR-50

Enclosure: NRC Inspection Report 50-289/02-05  
Attachment 1: Supplemental Information  
Attachment 2: Documents Reviewed

cc w/encl:

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Manager, Regulatory Assurance  
Plant Manager  
Director-Licensing  
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U.S. NUCLEAR REGULATORY COMMISSION

REGION 1

Docket No: 50-289

License No: DPR-50

Report No: 50-289/02-05

Licensee: AmerGen Energy Company, LLC (AmerGen)

Facility: Three Mile Island Station, Unit 1

Location: P. O. Box 480  
Middletown, PA 17057

Dates: May 12 - June 29, 2002

Inspectors: J. Daniel Orr, Senior Resident Inspector  
Craig W. Smith, Resident Inspector  
Thomas F. Burns, Reactor Inspector, DRS  
Leonard S. Cheung, Senior Reactor Inspector, DRS  
Paul D. Kaufman, Senior Reactor Inspector, DRS  
Ronald L. Nimitz, Senior Health Physicist, DRS

Approved by: John F. Rogge, Chief  
Projects Branch 7  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000289/02-05, AmerGen Energy Company, LLC, on 5/12 - 6/29/2002, Three Mile Island Unit 1, integrated resident inspector report.

The report covered a seven-week period of inspection by resident and specialist inspectors. The significance of most findings is indicated by their color (green, white, yellow, red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. Inspector Identified Findings

- No findings of significance were identified.

### B. Licensee Identified Violations

- A violation of very low safety significance which was identified by the licensee has been reviewed by the inspector. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. The violation and corrective action tracking number are listed in Section 4OA7 of this report.

## Report Details

### Summary of Plant Status

AmerGen Energy Company, LLC (AmerGen), operated Three Mile Island, Unit 1 (TMI) at or near 100 percent power throughout the inspection period.

#### 1. **REACTOR SAFETY**

Initiating Events/Mitigating Systems/Barrier Integrity [REACTOR - R]

##### 1R02 Evaluations of Changes, Tests, or Experiments

###### a. Inspection Scope

The inspectors reviewed six safety evaluations associated with initiating events, mitigating systems, and barrier integrity cornerstones to verify that changes to the facility or procedures as described in the updated final safety analysis report (UFSAR) were reviewed and documented in accordance with 10 CFR 50.59, and that the safety issues pertinent to the changes were properly resolved or adequately addressed. The safety evaluations were selected based on the safety significance of the changes and the risk to structures, systems and components.

The inspectors also reviewed 12 screen-out evaluations for changes, tests and experiments for which the licensee determined that safety evaluations were not required. This review was performed to verify that the licensee's threshold for performing safety evaluations was consistent with 10 CFR 50.59.

In addition, the inspectors reviewed the administrative procedure that was used to control the screening, preparation, and issuance of the safety evaluations to ensure that the procedure adequately covered the requirements of 10 CFR 50.59.

The inspectors reviewed condition reports (CRs) associated with 10 CFR 50.59 issues to ensure that the licensee was identifying, evaluating, and correcting problems associated with these areas and that the corrective actions for the issues were appropriate. The inspectors also reviewed nine self-assessments related to 10 CFR 50.59 and plant modification activities at TMI.

The listing of the CRs and self-assessments reviewed, as well as the safety evaluations and screen-out evaluations reviewed, is provided in **Attachment 2**.

###### b. Findings

No findings of significance were identified.

## 1R04 Equipment Alignments

### .1 Decay Heat Closed Cooling Water Full System Walkdown

#### a. Inspection Scope

The inspectors conducted a complete system walkdown of the decay heat closed cooling (DHCC) water system in May 2002. The DHCC system was chosen because of its risk importance for supplying cooling water to high pressure injection or makeup pumps, decay heat removal pumps, and the decay heat removal heat exchangers. The DHCC system is the fourth most important system at TMI for its contribution to core damage frequency based on an independent failure. References and aspects of the DHCC system reviewed to verify the system was properly aligned and operable included the DHCC design basis document, operating procedure 1104-13, "Decay Heat Closed Cycle Cooling System," DHCC maintenance backlog, maintenance rule database, updated final safety analysis report, system engineer interviews, previously completed DHCC pump inservice testing surveillances, and a physical walkdown of all DHCC areas.

#### b. Findings

No findings of significance were identified.

### .2 Partial System Walkdowns

#### a. Inspection Scope

The inspectors conducted partial system walkdowns on the emergency feedwater system and the nuclear services and decay heat river water systems during maintenance activities. The emergency feedwater system was potentially impacted on May 30, 2002, while an anomaly with an emergency feedwater flow control valve, EF-V-30D, was investigated. The EF-V-30D valve anomaly was identified during routine heat sink protection system surveillance testing. The configuration of the safety-related river water systems were altered for the bi-annual clam treatment in June 2002. The clam treatment is important to prevent the associated systems from becoming fouled with biologic material. The inspectors verified that the emergency feedwater system and the river water systems were aligned in accordance with operating procedures "Emergency Feedwater System," 1106-6, "Nuclear River Water," 1104-30, "Decay Heat River Water System," 1104-32, and that operating parameters were normal.

#### b. Findings

No findings of significance were identified.

## 1R05 Fire Protection

### a. Inspection Scope

The inspectors conducted fire protection inspections for the following plant zones:

- intermediate building valve gallery and penetration room
- intermediate building 322 foot elevation
- auxiliary building 281 foot elevation reactor building penetration area
- auxiliary building nuclear services and decay heat closed cooling pump areas

The rooms and areas were selected based on enclosing equipment important to safety. The inspectors conducted plant walkdowns and verified the areas were as described in the fire hazard analysis report. The plant walkdowns performed the week of May 13, 2002, included observations of combustible material control, fire detection and suppression equipment operability, and compensatory measures established for degraded fire protection equipment.

### b. Findings

No findings of significance were identified.

## 1R07 Heat Sink Performance

### a. Inspection Scope

The inspectors assessed the heat removal capability of the safety-related nuclear service, decay heat removal, and reactor building emergency cooling river water systems and the non-safety related, but important to plant operation, fire service, secondary closed cooling, and circulating river water systems. The inspectors observed portions of AmerGen's biennial chemical treatment in June 2002, of the above river water systems for Asiatic clam ingestion conducted in accordance with AmerGen operating procedure 1104-65, "River and Circulating Water System Macrofouling Treatment." The inspectors verified adequate chemical treatment was applied and system manipulations during the chemical treatment assured all portions of the affected river water systems were sufficiently treated.

As part of the inspection, the inspectors reviewed NRC Generic Letter 89-13, "Service Water System Performance Problems Affecting Safety-Related Systems," and AmerGen's responses.

### b. Findings

No findings of significance were identified.

## 1R12 Maintenance Rule Implementation



a. Inspection Scope

The inspectors verified AmerGen's implementation of the maintenance rule for the following equipment performance problems:

- turbine driven emergency feedwater pump governor control valve steam trap deficiency on April 19, 2002
- 'B' control building chiller control vane problems on May 16, 2002
- 'A' emergency diesel generator lube oil filter gasket failure on March 15, 2002

The emergency feedwater pump and emergency diesel generator failures or problems involved risk significant functions, while the control tower chiller problem could have impacted risk significant equipment in the control tower.

The aspects of maintenance rule implementation inspected included safety significance classification, a(2) performance monitoring or a(1) goal setting and corrective actions, and maintenance preventable functional failure determinations. The inspectors referenced 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Plants," and AmerGen administrative procedure 1082, "NRC Maintenance Rule."

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed AmerGen's planning and risk assessments for the following risk significant activities:

- reactor building pressure recorder modifications in the main control room control panels performed the week of June 7, 2002
- main transformer cooling fans power cable modifications performed the week of June 7, 2002
- emergent troubleshooting on an emergency feedwater flow control valve, EF-V-30D, performed on May 30, 2002

The inspectors reviewed the risk assessment of these planned maintenance activities with respect to 10 CFR 50.65(a)(4). The inspectors referenced AmerGen administrative procedure 1082.1, "TMI Risk Management Program," and NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants."

b. Findings

No findings of significance were identified.

#### 1R14 Personnel Performance During Non-Routine Plant Evolutions

##### a. Inspection Scope

The inspectors evaluated the main control room operators' response to an unanticipated integrated control system (ICS) failure. The inspectors were present in the main control room on May 16, 2002, when reactor operators identified an unexpected ICS response. The ICS response was later identified to be caused by a failed 'A' reactor coolant flow indicator which adversely loaded down portions of the ICS. The plant transient was minor, reactor power and pressure momentarily increased. The inspectors observed that the reactor operators appropriately controlled the transient and placed the ICS in manual in accordance with operating procedure 1105-4, "Integrated Control System."

##### b. Findings

No findings of significance were identified.

#### 1R15 Operability Evaluations

##### a. Inspection Scope

The inspectors reviewed operability evaluations for the following degraded equipment issues affecting risk significant systems or components:

- Power range nuclear instrument, NI-6, calibration drift discovered on April 21, 2002
- 'A' emergency diesel generator high lube oil temperature alarm during surveillance testing on June 1, 2002
- 'B' emergency diesel generator low lube oil level alarm during surveillance testing on June 15, 2002

The inspectors verified the degraded conditions were properly characterized, the operability of the affected systems was properly justified, and no unrecognized increase in plant risk resulted from the equipment issues. The inspectors referenced Inspection Manual Part 9900, "Operable/Operability - Ensuring the Function Capability of a System Component," to determine acceptability of AmerGen's operability evaluations.

##### b. Findings

No findings of significance were identified.

#### 1R17 Permanent Plant Modifications

##### a. Inspection Scope

The inspectors reviewed nine risk-significant plant modification packages to verify that: (1) the design bases, licensing bases, and performance capability of risk significant

structures, systems or components had not been degraded through modifications; and, (2) modifications performed during increased risk configurations were appropriately assessed and managed by AmerGen.

The selected plant modifications were distributed among initiating events, mitigating systems, and barrier integrity cornerstones. For these selected modifications, the inspectors reviewed the design inputs, assumptions, and design calculations, such as instrument set-point, instrument uncertainty, and electrical loading calculations, to determine design adequacy. The inspectors also reviewed field change notices that were issued during the installation to confirm that problems associated with the installation were adequately resolved. In addition, the inspectors reviewed the post-modification testing, functional testing, and instrument calibration records to determine readiness for operations. Finally, the inspectors reviewed the affected procedures, drawings, design basis documents, and UFSAR sections to verify that the affected documents were appropriately updated.

For the accessible components associated with the modifications, the inspectors also walked-down the systems to detect possible abnormal installation conditions.

The inspectors also reviewed condition reports (CRs) associated with plant modification issues to ensure that the licensee was identifying, evaluating, and correcting problems associated with these areas and that the corrective actions for the issues were appropriate. The inspectors also reviewed nine self-assessments related to 10 CFR 50.59 and plant modification activities at TMI.

The listing of CRs, self-assessments, and the nine modifications reviewed is provided in **Attachment 2**.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed post-maintenance tests performed by AmerGen in conjunction with two separate engineered safeguards actuation system (ESAS) relay contact repairs. One ESAS relay contact replacement on May 21, 2002, involved the start signal for the 'A' emergency diesel generator on a manual ESAS initiation and the other contact replacement on May 14, 2002, involved a control room panel indicating status light. The inspectors reviewed post-maintenance testing for a modification to replace the main control room post-accident reactor building pressure recorder with a digital display. The inspectors verified that the post-maintenance test procedures and test activities were adequate to verify operability and functional capability as described in NRC Inspection Procedure 71111.19, "Post-Maintenance Testing," prior to the affected systems being returned to service.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors observed portions of and reviewed the results of the decay heat closed cooling system, nuclear services closed cooling water system, and reactor building spray system inservice testing surveillances. Each surveillance test was performed at a quarterly frequency and observed in June 2002. The inspectors used the associated AmerGen inservice surveillance testing procedure to verify acceptability for each surveillance performance. The inspectors reviewed AmerGen's corrective action process (CAP) for problems identified during previous performances of the tests to determine if problems involving surveillance testing were being identified and resolved at an appropriate threshold.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

On June 5, 2002, AmerGen performed a leak seal injection on a spent fuel cooling system valve, SF-V-19, which cross-ties to the borated water storage tank for recirculation. The leak seal was performed by contractors under the oversight of AmerGen and was intended to stop a leak at the body to bonnet flange. The inspectors observed the leak seal operation and reviewed the valve modification to verify that there were no adverse effects on system operability.

b. Findings

No findings of significance were identified.

## 2. **RADIATION SAFETY**

Occupational Radiation Safety [OS]

2OS1 Access Control to Radiologically Significant Areas

a. Inspection Scope

The inspector reviewed performance in the area of access controls to radiologically significant areas. Specific performance for calendar year 2001 was reviewed including performance during the 2001 refueling outage. The following activities and documents were reviewed, based on radiological risk significance, to determine the effectiveness of access controls to radiologically significant areas.

- The inspector toured Unit 1 interior and exterior facilities. The inspector challenged five locked high radiation area access points to determine if access controls were sufficient to preclude unauthorized entry. Independent radiation measurements were made to determine adequacy of radiological controls postings and barricades. Areas toured were the Unit 1 auxiliary building, low level waste storage facilities, and outdoor yard areas.
- The inspector observed personnel exiting radiological controls access points to determine adequacy of monitoring practices, including use of monitoring equipment for the current radiological source term.
- The inspector reviewed and discussed selected personnel occupational radiation exposures. The inspector reviewed accrued and maximum total effective dose equivalent, maximum deep dose equivalent, maximum shallow-dose and lens dose equivalent, and maximum potential committed dose equivalent. In particular, as appropriate, the inspector reviewed calculational methodology, circumstances surrounding exposures and corrective actions, as necessary. Potential internal exposures, attributable to difficult-to-detect radionuclides, was evaluated as was selection of radionuclide source term for use in calculating potential shallow dose attributable to discrete radioactive particles.
- The inspector reviewed recent changes to program procedures associated with control of access to locked high radiation areas including high dose rate high radiation areas and very high radiation areas. The inspector conducted an audit of locked high radiation area keys to determine adequacy of control and discussed controls for access to very high radiation areas.
- The inspector reviewed self-assessments (tour observations) and audits related to the access control program since the last inspection in this area to determine if identified problems were entered into the CAP for resolution, as appropriate (Continuous Assessment Report , February 1, 2002).
- The inspector reviewed corrective action reports in this area to determine if problems were reviewed for reportability, risk ranking, and prioritization and whether potential repetitive problems were identified including contributing causes. A selection of corrective action documents was reviewed (CR 110569, CAP T2000-410, CR 93187, CR 85811, CR 82132, CR 84682, CR 82184, CR 81664, CR 80067, CR 75948, CR 74852, CR 81785).

The review in the above areas was against applicable licensee procedures, 10 CFR 20, and applicable technical specifications.

b. Findings

No findings of significance were identified.

## 2OS2 ALARA Planning and Controls

### a. Inspection Scope

The inspector reviewed the adequacy and effectiveness of the program to reduce occupational radiation exposure to as low as is reasonably achievable (ALARA). In particular, the inspector reviewed the licensee's exposure reduction efforts for calendar year 2001 including the 2001 refueling outage.

The following matters were reviewed:

- The inspector reviewed current exposure trends and three-year rolling average collective exposures to assess current performance and exposure challenges.
- The inspector reviewed AmerGen's understanding of plant radiation source terms, its source term control strategy, and prioritization and implementation of source term reduction initiatives. The inspector focused on AmerGen reviews of elevated radiation levels and mitigation strategies.
- The inspector compared estimated versus actual doses for calendar year 2001 and the associated 2001 outage to determine the adequacy and effectiveness of its estimation methods. The exposure tracking system was reviewed to determine whether the level of exposure tracking detail was sufficient to support ongoing monitoring and intervention if the rate of exposure accumulation unexpectedly increased.
- The inspector reviewed the post-job evaluations for reactor vessel head work, steam generator work including scope additions, refueling activities, seal plate installation, and in-service inspection. Also reviewed was accrued radiation exposures for selective work groups.
- The inspector reviewed the Station ALARA Council Meeting Minutes (October 19, 2001, November 28, 2001, April 16, 2002, May 23, 2002), the TMI Exposure Reduction Plan, and the TMI Micro-ALARA Planning Initiative.
- The inspector reviewed corrective action reports in this area to determine if problems were reviewed for reportability, risk ranking, and prioritization and whether potential repetitive problems were identified including contributing causes. A selection of corrective action documents was reviewed (CR 79608, CR 90044, CR 90687).

The evaluation of licensee performance in this area was against criteria contained in applicable procedures, 10 CFR 20, and applicable technical specifications.

### b. Findings

No findings of significance were identified.

### 2OS3 Radiation Monitoring Instrumentation and Protective Equipment

#### a. Inspection Scope

The inspector selectively reviewed elements of the radiation monitoring instrumentation calibration and checking program to determine the accuracy and operability of radiation monitoring instruments that are used for the protection of occupational workers. The inspector reviewed the calibration and checking of selected radiation monitoring instruments and the operation, calibration and checking of personnel contamination monitoring equipment. Radiation calibration sources used were reviewed for adequacy including traceability to National Institute of Standards Technology. Calibration records were reviewed to evaluate the adequacy of calibration and conformance with applicable calibration procedures and programs. The calibration and checking of the following instruments was reviewed:

Portable:

- RSO-50E (Sn. B241Y, B713R, B314V, B255Y, B353U, B239Y)
- E-140N (Sn. 1140)

Personnel Contamination:

- PCM-1B (Sn. 398, 1058)
- PM-7 (Sn. 445, 446, 448)
- PM-6 (Sn. 183, 187)

The inspector reviewed corrective action reports in this area to determine if problems were reviewed for reportability, risk ranking, and prioritization and whether potential repetitive problems were identified including contributing causes. A selection of corrective action documents was reviewed (CR 73831, CR 85811).

The review was against criteria contained in applicable licensee procedures, 10 CFR 20, applicable technical specifications, and industry standards.

#### b. Findings

No findings of significance were identified.

## 4. **OTHER ACTIVITIES**

### 4OA1 Performance Indicator Verification

#### .1 Occupational Exposure Control Effectiveness

##### a. Inspection Scope

The inspector reviewed implementation of the Occupational Exposure Control Effectiveness Performance Indicator (PI) Program in the occupational radiation safety cornerstone for the last four quarters. Specifically, the inspector reviewed CAP records for occurrences involving high radiation areas, very high radiation areas, and unplanned personnel occupational radiation exposures since the last inspection in this area. The inspector reviewed 20 instances where personnel exceeded 100 millirem, during entries under radiation work permits for the 2001 outage, to determine if applicable radiation work permit occupational dose limits had been exceeded and personnel had potentially received unplanned radiation exposures. The review was against applicable criteria specified in NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 2, to verify that all occurrences, that met the NEI criteria, were recognized and identified as Performance Indicators by the licensee.

b. Findings

No findings of significance were identified.

.2 High Pressure Safety Injection System Unavailability

a. Inspection Scope

The inspectors verified data submitted by AmerGen for the high pressure safety injection system unavailability performance indicator in the mitigating systems cornerstone. The inspectors reviewed operating logs, maintenance rule records, and the corrective action process database to verify the accuracy and completeness of the reported unavailability data. Records were reviewed for reported performance indicator data covering the last two quarters of 2001 and the first quarter of 2001.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

The inspectors devoted about 10% to 15% of inspection time in each baseline inspection procedure assessing AmerGen's problem identification and resolution appropriate to each inspection area. There were no findings of significance identified.

4OA5 Other Activities

The inspectors reviewed the January 2002 Institute of Nuclear Power Operations final report documenting their March 2001 plant evaluation of the Three Mile Island Nuclear Station Unit 1 facility.

4OA6 Management Meetings

Exit Meeting Summary



On July 3, 2002, the resident inspectors presented the inspection results to members of AmerGen management led by Mr. Bruce Williams. The permanent plant modification program and occupational radiation safety inspection results were previously presented to members of AmerGen management. AmerGen acknowledged the findings presented. AmerGen did not indicate that any of the information presented at the exit meetings was proprietary.

#### 4OA7 Licensee-Identified Violations

The following violation of very low safety significance (green) was identified by the licensee and is a violation of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a non-cited violation.

- Technical Specification 6.12.1 requires that each high radiation area in which the intensity of radiation at 30 cm (11.8") is greater than 100 mrem/hr be barricaded and conspicuously posted as a high radiation area. On November 20, 2001, two swing gate barriers, demarcating a high radiation area in which radiation dose rates exceeded 100 mr/hr at 30 cm within the Unit 1, D-ring area in the reactor building, were found propped open. As a result, the access point was no longer barricaded or conspicuously posted. Because this was not an ALARA issue, no overexposure occurred, no substantial potential for an overexposure was present, and the ability to assess dose was not compromised, this violation is not more than of very low safety significance (green). The licensee placed this finding into its CAP (CR 83606) and initiated various corrective actions.

## ATTACHMENT 1

**SUPPLEMENTAL INFORMATION**a. Key Points of Contact

M. Bruecks, Site Security Manager  
 G. Gellrich, Plant Manager  
 L. Clewett, Director, Site Engineering  
 D. McDermott, Director, Maintenance  
 G. Rumbold, Manager, Regulatory Assurance  
 S. Queen, Senior Manager, Plant Engineering  
 J. Robertson, Plant Operations Director  
 B. Williams, Vice President, TMI Unit I

b. Items Opened, Closed and Discussed

None

c. Acronyms

ADAMS	Agencywide Documents and Management System
ALARA	As Low As is Reasonably Achievable
AmerGen	AmerGen Energy Company, LLC
CAP	Corrective Action Process
CFR	Code of Federal Regulations
CR	Condition Report
DHCC	Decay Heat Closed Cooling
ECR	Engineering Change Request
EDG	Emergency Diesel Generator
ESAS	Engineered Safeguards Actuation System
ICS	Integrated Control System
IR	Inspection Report
LER	Licensee Event Report
NCV	Non-cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PARs	Publicly Available Records
PI	Performance Indicator
SDP	Significance Determination Process
TMI	Three Mile Island, Unit 1
UFSAR	Updated Final Safety Analysis Report

## ATTACHMENT 2

**DOCUMENTS REVIEWED**10 CFR 50.59 Safety Evaluations

SE 410094-001	ICS ULD Module Upgrade
SE 113202-946	Effects of Installing 90% Open Torque Switch Bypass (GL 89-10), Revision 0
SE-000214-018	Building Spray System Design Flow of 1350 GPM
SE-1200067-001	Control Building Habitability Modification
SE-410081-001	Replacement of Auxiliary Transformers 1A and 1B
SE-000700-008	Degraded Voltage Relay Setpoint Tolerance Revision

Modifications Reviewed

ECR 01-01035	NR-P-1A Nuclear River Water Pump Replacement
ECR 01-00130	Modify Control Circuit - Containment Isolation A OTSG MS ISOL VLV OP
ECR 01-00094	Replacement of Analog Module for Integrated Control System Unit Load Demand with Framatome Digital STAR MODULE
ECR 01-00278	Control Room Habitability/Environmental Envelope
MD-J007-001	Control Building Habitability/Damper Modification
ECR TM 01-00406	Building Spray Flow Orifice Replacement, Revision 0
ECR 01-00119	Replace Both Auxiliary Transformers in 1R14
ECR 01-01009	1E and 1A Undervoltage Transfer Setpoint Change
ECR 02-00067	Prevent Overvoltage Transfers of the Main Inverters

10 CFR 50.59 Safety Screens

SE 000531-010	Replacement of Nuclear River Water Pumps NR-P-1A, B and C, Revision 1
SE 000221-009	Repair of Leaking Thermocouple Nozzle Penetrations in the Reactor Pressure Vessel Closure Head, Revision 0
SE 000221-008	Modification of Reactor Pressure Vessel Closure Head for Leaking CRDM Nozzles, Revision 0
SE 02-00263	Removal of Nuclear River Water Pump Upper Thrust Restraints, Revision 0
ECR 01-01124	Inverter AC Over-Current Disconnect Modification, Revision 1
SE 000735-005	Prevent Overvoltage Transfers of Main Inverters, Revision 0
ECR 01-01009	EE-INV-1E and 1A Undervoltage Transfer Setpoint
ECR 01-01075	EE-INV-1E and 1A Overcurrent (Undervoltage) Setpoint Change
SE-000826-025	Control Room Habitability/Environmental Envelope, Revision 0
ECR 01-00278	Control Room Habitability/Environmental Envelope
ECR 01-01076	MS-V-13A/B- Solenoid Valve Replacement, Revision 0
ECR 01-00877	Replace MS-V-13A/B IA Pressure Regulators & Increase Setpoint, Revision

Procedures

CC-AA-103	Configuration Change Control, Revision 2
CC-AA-102	Design Input and Configuration Change Impact Screening, Revision 3
CC-MA-102-100	Design Input and Configuration Change Impact Screening - Implementation, Revision 1

### Condition Reports

CR 00089645	Additional Guidance Desirable for 50.59 Screening Process
CR 00096729	No Cover Sheet on 50.59 Evaluation for ECR TM 01-01188
CR 00097145	Responses to 50.59 Screening Questions Missing (ECR 01-01198)
CR 00089786	Generic Guidance for Preparers of 50.59 Evaluations
CR 00086310	Further Documentation Required for ECR 01-01124, Inverter AC Overvoltage Disconnect Circuit Modification
CR 00108526	1C Inverter Transferred to DC, May 17, 2002
CR 00108934	Electrical Load Data Form not Issued with Inverter Mod, May 21, 2002
CR 00083476	Vital Inverter Unnecessary Transfer on 480V Overvoltage, October 27, 2001
CR 00080972	Late Addition of Inverter and Transformer Work, October 30, 2001
CR 00081907	November 15, 2001
CR 00085711	December 28, 2001
CR 00088858	January 11, 2002
CR 00108567	May 17, 2002

### Self-assessments

SA-2001-1201	10 CFR 50.59 Implementation of Exelon 10 CFR 50.50 Process, January 9, 2002
NOSA-TMI-01-1Q	Nuclear Oversight Continuous Assessment Report, June 1, 2001
NOSA-TMI-01-2Q	Nuclear Oversight Continuous Assessment Report, July 31, 2001
NOSA-TMI-01-3Q	Nuclear Oversight Continuous Assessment Report, October 14, 2001
NOSA-TMI-01-4Q	Nuclear Oversight Continuous Assessment Report, February 1, 2002
NOSA-TMI-02-1Q	Nuclear Oversight Continuous Assessment Report, April 19, 2002
95971-OB-00-003	Modification Turnover, September 30, 2000
95971-OB-00-007	Modifications, June 22, 2000
95971-OB-00-020	Modifications, August 31, 2000