

June 20, 2005

Mr. Christopher M. Crane  
President and CEO  
AmerGen Energy Company, LLC  
200 Exelon Way, KSA 3-E  
Kennett Square, PA 19348

SUBJECT: THREE MILE ISLAND STATION UNIT 1 - NRC EVALUATED EMERGENCY  
PREPAREDNESS EXERCISE - INSPECTION REPORT NO.  
05000289/2005003

Dear Mr. Crane:

On May 6, 2005, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Three Mile Island Station Unit 1. The enclosed inspection report documents the inspection results, which were discussed on May 6, 2005, with Mr. R. West, Site Vice President, and other members of your staff.

The 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 emergency plan procedures, previous drill reports, observed the exercise activities, and interviewed selected emergency preparedness personnel from your staff.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10CFR2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) 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).

Sincerely,

*/RA/*

Raymond K. Lorson, Chief  
Plant Support Branch 1  
Division of Reactor Safety

Docket No. 50-289  
License No. DPR-50

Mr. Christopher M. Crane

2

Enclosure: Inspection Report No. 05000289/2005003  
w/Attachment: Supplemental Information

cc w/encl:

Chief Operating Officer, AmerGen  
Site Vice President - TMI Unit 1, AmerGen  
Plant Manager - TMI, Unit 1, AmerGen  
Regulatory Assurance Manager - TMI, Unit 1, AmerGen  
Senior Vice President - Nuclear Services, AmerGen  
Vice President - Mid-Atlantic Operations, AmerGen  
Vice President - Operations Support, AmerGen  
Vice President - Licensing and Regulatory Affairs, AmerGen  
Director Licensing - AmerGen  
Manager Licensing - TMI, AmerGen  
Vice President - General Counsel and Secretary, AmerGen  
T. O'Neill, Associate General Counsel, Exelon Generation Company  
J. Fewell, Esq., Assistant General Counsel, Exelon Nuclear  
Correspondence Control Desk - AmerGen  
Chairman, Board of County Commissioners of Dauphin County  
Chairman, Board of Supervisors of Londonderry Township  
R. Janati, Chief, Division of Nuclear Safety, State of PA  
J. Johnsrud, National Energy Committee  
E. Epstein, TMI-Alert (TMIA)  
D. Allard, PADER  
D. Hammons, RAC Chair, FEMA, Region III

Mr. Christopher M. Crane

3

Distribution w/encl:

- S. Collins, RA
- G. Matakas, ORA
- R. Bellamy, DRP
- D. Kern, DRP, Senior Resident Inspector
- P. Sauder, DRP, Resident OA
- S. Lee, RI OEDO
- R. Laufer, NRR
- D. Skay, PM, NRR
- T. Colburn, NRR
- Region I Docket Room (with concurrences)
- ROPreports@nrc.gov
- R. Kahler, NSIR/EPD
- S. LaVie, NSIR/EPD
- A. Blough, DRS
- R. Lorson, DRS
- D. Silk, DRS

DOCUMENT NAME: E:\Filenet\ML051710436.wpd

**SISP Review Complete: DMS (Reviewer's Initials)**

After declaring this document "An Official Agency Record" it **will** be released to the Public.

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RI/DRS	RI/DRP	RI/DRS				
NAME	DSilk (DMS)	RBellamy (RRB)	RLorson (RKL)				
DATE	06/03/05	06/03/05	06/20/05				

OFFICIAL RECORD COPY

U. S. NUCLEAR REGULATORY COMMISSION REGION I  
REGION I

Docket No: 50-289

License No: DPR-50

Report No: 05000289/2005003

Licensee: Exelon Nuclear, LLC

Facility: Three Mile Island Station Unit 1

Location: P. O. Box 480  
Middletown, Pennsylvania

Dates: May 3 - 6, 2004

Inspectors: D. Silk, Senior Emergency Preparedness Inspector, DRS (Lead)  
S. Barber, Senior Project Engineer, Projects Branch 6, DRP  
S. Barr, Senior Operations Engineer, DRS  
S. LaVie, Senior Emergency Preparedness Specialist, NSIR

Observers: C. Long, Reactor Engineer, Projects Branch 2, DRP  
B. Wittick, Reactor Engineer, Projects Branch 2, DRP

Approved by: Raymond K. Lorson, Chief  
Plant Support Branch 1  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000289/2005-003; 05/03/2005-05/06/2005; Three Mile Island Station Unit 1; Emergency Preparedness Exercise; Emergency Preparedness Performance Indicators.

This inspection was conducted by three region-based inspectors and an emergency preparedness specialist from NSIR. No findings of significance were identified. 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. NRC-Identified Findings**

Cornerstone: Emergency Preparedness

None.

### **B. Licensee-Identified Findings**

None.

## Report Details

### 1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01 - 1 Sample)

a. Inspection Scope

Prior to the exercise, an in-office review was conducted of the exercise objectives and scenario submitted to the NRC to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14). This inspection activity represents the completion of one sample on a biennial cycle.

The onsite inspection consisted of the following review and assessment:

- The adequacy of Exelon's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) in 10 CFR 50.47 (b) (4), (5), (9) & (10) which are emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of Exelon's emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the control room simulator, the Technical Support Center (TSC), the Operations Support Center (OSC), and the Emergency Operations Facility (EOF).
- Other performance areas besides the RSPS, such as the emergency response organization's (ERO) recognition of abnormal plant conditions, command and control, intra- and inter-facility communications, prioritization of mitigation activities, utilization of repair and field monitoring teams, interface with offsite agencies, and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from NRC inspection reports and Exelon's drill reports to determine effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10CFR50.47(b)(14).
- The post-exercise critique to evaluate Exelon's self-assessment of its ERO performance during the exercise and to ensure compliance with 10CFR50 Appendix E.IV.F.2.g.

The inspectors reviewed the documents listed in Attachment 1 to this report.

Enclosure

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator (PI) Verification (71151- 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the EP PIs which are: (1) Drill and Exercise Performance (DEP); (2) ERO Drill Participation; and (3) Alert and Notification System (ANS) Reliability. The inspector reviewed supporting documentation from drills and ANS testing in the fourth quarter of 2004 and the first quarter of 2005 to verify the accuracy of the reported data. The review of these performance indicators was conducted in accordance with NRC Inspection Procedure 71151. The acceptance criteria used for the review were 10 CFR 50.9 and NEI 99-02, Revision 2, "Regulatory Assessment Performance Indicator Guidelines." This inspection activity represents the completion of three samples on an annual cycle.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152: 1 sample)

a. Inspection Scope

The inspectors reviewed Exelon's critique findings as documented in action reports (AR) from the 2003 exercise. Inspectors also reviewed four licensee drill/exercise reports from 2004. These reviews were conducted to determine if significant performance trends exist and to determine the effectiveness of licensee corrective actions based upon ERO performance during this exercise. The inspectors verified that issues identified during this exercise were entered into Exelon's corrective action program (Issue Report - IR) and are listed in the attachment to this report. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 01. 10 CFR 50.47(b)(14); and Appendix E IV.F.2.g were used as reference criteria.

b. Findings and Observations

No findings of significance were identified. The inspectors noted that the licensee was self-critical at identifying issues during this exercise.

40A6 Meetings, including Exit

The inspectors presented the inspection results to Mr. R. West, Site Vice President, and other members of the licensee's staff at the conclusion of the inspection on May 6, 2005. The licensee had no objections to the NRC observations. No proprietary information was provided to the inspectors during this inspection.



**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

R. Brady, Exercise Scenario Coordinator  
J. Hufnagel, Emergency Preparedness Manager, TMI  
J. Karkoska, Emergency Preparedness Manager, MAROG  
R. Kaminski, Drill/Exercise Coordinator  
S. Mannix, Facility and Equipment Coordinator

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened, Closed, Discussed

None

**LIST OF DOCUMENTS REVIEWED**

**Section 1EP1: Exercise Evaluation**

Three Mile Island Station Emergency Plan  
Emergency Plan Implementing Procedures

**Section 4OA2: Identification and Resolution of Problems**

**ARs From 2003 Exercise**

AR 0015562 Incorrect PAR & failure of 3 exercise objectives in the dose assessment area.  
AR 00157229 Simulator crew problems identified during annual exercise  
AR 00155856 Command and Control issues in the TSC  
AR 00155789 OSC continual staffing assignments for graded exercises  
AR 00155371 Inappropriate Controller Interjection  
AR 00155482 Exercise controller lacked data on personnel contamination  
AR 00158364 Controller inject required to stop player actions

**2004 Drill/Exercise Reports**

Three Mile Island June 2, 2004 Drill Findings and Observation Report  
 Three Mile Island August 25, 2004 Off-Year Exercise Findings and Observation Report  
 Three Mile Island October 13, 2004 Emergency Preparedness Drill and Exercise Performance  
 Training Drill Findings and Observation Report  
 Three Mile Island November 5, 2004 Drill Findings and Observation Report

<b>IR Number</b>	<b>Description of Condition</b>
331979	Crew unsatisfactorily demonstrated the ability to initiate the call out system within 15 minutes of a declared event
331982	Crew unsatisfactorily demonstrated the ability to provide periodic updates to the state in accordance with procedures
332525	There was a missed opportunity to debrief the maintenance crew that evacuated from the reactor building personnel hatch to obtain initial damage assessment
331981	The TSC unsatisfactorily demonstrated the ability to properly confirm the extent of fuel barrier degradation and confirm the appropriate classification
332426	Various TSC performance items
332422	OSC specific briefings and updates were not sufficient to ensure team member kept appraised of significant events
332425	The OSC did not adequately identify the as-found condition of the reactor building hatch and did not effectively communicate to the TSC the status of efforts to access and secure the hatch
332420	Command and control issues in the EOF
332544	Various EOF performance issues
332399	No documentation of relief or turnover activity for news center
332401	No indication in logs to support completion of news center staffing
332377	Various news center issues
332362	News center did not recognize the significance of the lack of either the Radiological Advisor or Radiological Spokesperson

**LIST OF ACRONYMS**

ANS	Alert and Notification System
AR	Action Report
CFR	Code of Federal Regulations
DEP	Drill and Exercise Performance
ERO	Emergency Response Organization
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
IR	Issue Report
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center