September 8, 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 SAFETY SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION REPORT 05000289/2005007

Dear Mr. Crane:

On July 29, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed a safety system design and performance capability team inspection at your Three Mile Island Unit 1 facility. The enclosed report documents the inspection findings which were discussed on July 29, 2005, with Mr. Rusty West 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 inspection team reviewed selected procedures and records, observed activities, and interviewed personnel.

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

In accordance with 10 CFR 2.390 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).

Sincerely,

/RA/

Lawrence T. Doerflein, Chief
Engineering Branch 2
Division of Reactor Safety

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

Enclosure: NRC Inspection Report 05000289/2005007
w/Attachment: Supplemental Information

cc w/encl:
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Plant Manager - TMI, Unit 1, AmerGen
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REGION I

Docket No.	50-289
License No.	DPR-50
Report No.	05000289/2005007
Licensee:	AmerGen Energy Company, LLC (AmerGen)
Facility:	Three Mile Island Station, Unit 1
Location:	PO Box 480 Middletown, PA 17057
Dates:	July 11-29, 2005
Inspectors:	Richard S. Barkley, P.E., Senior Reactor Inspector (Team Leader) Stephen Pindale, Senior Reactor Inspector Brice Bickett, Reactor Inspector Greg Bowman, Reactor Inspector Marlone Davis, Reactor Inspector Dr. Omar Mazzoni, Consultant Adam Ziedonis, Reactor Inspector (Trainee)
Approved by:	Lawrence T. Doerflein, Chief Engineering Branch 2 Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000289/2005007; July 11-29, 2005; Three Mile Island Unit 1; Engineering Team Inspection.

This inspection was conducted by five inspectors from the NRC's Region I Office and a NRC contractor. 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 and Self-Revealing Findings

None.

B. Licensee-Identified Violations

None.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Mitigating Systems and Barrier Integrity

1R21 Safety System Design and Performance Capability (SSD&PC) (IP 71111.21)

1. Inspection Basis

The NRC team performed an inspection to verify that the selected safety systems would achieve their design and performance capability. Additionally, the team assessed the ability of AmerGen to monitor the systems for age-related degradation that could result in the systems failing to fulfill their design requirement. The inspection effort reviewed AmerGen's programs and methods for monitoring the capability of selected safety systems to perform the current design basis functions. The scope of the team's inspection also included nonsafety-related structures, systems and components that provided functions required to support the selected systems' safety functions.

The systems reviewed during this inspection were selected by the inspection team using information from AmerGen's and the NRC's probabilistic risk analysis models. The models were used to identify the most risk significant systems, structures, and components, in the mitigating system and barrier integrity cornerstones, by determining which systems were the highest risk contributors to dominant accident sequences. The inspectors also used deterministic criteria in the selection process by considering previous SSD&PC sample selection, recent inspection history, site problem history, and operational experience. The two systems selected for review were:

- High Pressure Injection (HPI)
- Emergency Feedwater (EFW)

The inspection included review and examination of support systems, such as electrical power, instrumentation, and related structures and components. The inspectors assessed the adequacy of calculations, analyses, engineering processes, and engineering and operating practices that were used by the licensee to support the performance of the safety systems selected for review and the necessary support systems during normal, abnormal, and accident conditions. Acceptance criteria utilized by the NRC inspection team included NRC regulations, the technical specifications, applicable sections of the Updated Final Safety Analysis Report (UFSAR), applicable industry codes and standards as well as industry initiatives implemented by the licensee's programs. A complete list of documents reviewed is included in the attachment to this report.

2. System Needs

a. Inspection Scope

The team inspected the following attributes of the two systems and associated support systems: Process Medium, Energy Sources, Control Systems, Operations and Heat Removal. The inspectors verified the above attributes met the requirements and design basis specifications identified in the UFSAR, technical specifications, licensee commitments, design basis documents, vendor technical manuals and plant drawings. A complete list of documents reviewed is included in the attachment. The attributes verified to meet system requirements are described below:

Process Medium. The team verified that the EFW and HPI systems would supply the required flow rate and pressure to the steam generators and the reactor coolant system, respectively, following normal transients and design basis events and that sufficient water was available to meet design requirements. The team also verified that adequate net positive suction head (NPSH) existed for the EFW and HPI pumps and that air entrainment and vortexing would not be experienced as the pumps draw down the inventory of their associated water supplies.

Energy Sources. The team verified that electric, steam, control power and air supplies for the EFW and HPI systems would be available during a design basis event (DBE) and were adequately designed to energize/actuate the associated equipment during the DBE.

Control Systems. The team reviewed the automatic and manual controls for the EFW and HPI systems to assure that the automatic and manual control functions would be available for initiation, control and shutdown actions. Additionally, a review of alarms and indicators was performed to ensure that operator actions could be accomplished in accordance with the design assumptions.

Operations. The team reviewed normal, abnormal and emergency operating procedures to verify that operator actions for the EFW and HPI systems assumed in the design bases could be completed. Those operator actions that were identified by the licensee as risk significant were reviewed. Additionally, the team verified that operators were able to manually initiate the system, monitor components and system indications, automatically or manually control system functions and shutdown the system.

Heat Removal. The team verified that the pumps and area cooling systems provided sufficient heat removal capability for the EFW and HPI systems to maintain pump operability. Additionally, the team verified that the temperature rise on system components was limited such that component temperature qualification was not exceeded.

b. Findings

No findings of significance were identified.

3. System Condition and Capability

a. Inspection Scope

The inspectors inspected the following attributes of the EFW and HPI systems and associated support systems: Installed Configuration, Operation, Design, and Testing. The inspectors verified the above attributes met the requirements and design basis specifications identified in the UFSAR, technical specifications, licensee's commitments, design basis documents, vender technical manuals, calculations and plant drawings. The attributes were verified to meet system requirements as described below:

Installed Configuration. The team confirmed that the installed configuration of the EFW and HPI systems were in agreement with design basis assumptions by performing detailed system walkdowns of accessible portions of the systems. The walkdowns focused on the installation and configuration of piping and instruments; component material condition; licensee identified deficiencies; the placement of protective barriers; the susceptibility to flooding, fire, or other environmental concerns; physical separation of redundant trains; and provisions for seismic and other pressure transient concerns. The team compared their observations of the current installation configuration of the systems with the design and licensing bases to assure that the system would be capable of functioning during plant transients or accident conditions. Additionally, the team confirmed whether AmerGen had identified system deficiencies and entered them into the corrective action program.

Operation. The team performed a procedure walk-through of selected, risk significant manual operator actions to confirm that the operators had the ability, access and tools necessary to accomplish actions credited in the design basis. The team verified that system alignments and the performance of operations procedures were consistent with the design and licensing basis, which included ensuring operator actions could be performed within the assumed timeframe. The team also verified that the necessary instrumentation and alarms were available to the operators to support system operations.

Design. The team reviewed the mechanical, electrical, and instrumentation design of the EFW and HPI systems to verify that the systems and subsystems would function as required under design conditions. This included a review of the design basis, design changes, design assumptions, calculations, boundary conditions, and models as well as a review of selected modification packages. Instrumentation was reviewed to verify appropriateness of applications and setpoints based on the required equipment function. Additionally, the inspectors performed limited independent calculations and analyses in several areas to verify the appropriateness of the design values.

Testing. The team reviewed records of selected periodic testing including inservice testing, post maintenance tests and calibration procedures. The team verified that the results obtained by system and component testing adequately demonstrated that the systems met operability requirements. The test results were compared against system

calculations, drawings, and procedures. Test results were also reviewed to ensure automatic initiations occurred within required times and that testing was consistent with design basis information.

b. Findings

No findings of significance were identified.

4. System Components

a. Inspection Scope

The inspectors selected several risk significant components in the EFW and HPI systems to ensure equipment at the component level met design requirements. The components selected for detailed review included:

- Makeup Discharge Isolation Valves, MU-V-16 A & C
- Borated Water Storage Tank Suction Valves, MU-V-14B & MU-V-36
- Decay Heat to Makeup System Flow Isolation Valve, DH-V-7B
- EFW Flow Control Valve, EFW-V-30 A-D
- HPI pumps A, B & C
- Borated Water Storage Tank

The inspectors inspected the following attributes of these EFW and HPI components: Component Degradation, Environmental Qualifications, Protection, Input/Output and Operating Experience. The inspectors verified the above attributes met the requirements and design basis specifications identified in the UFSAR, technical specifications, licensee's commitments, design basis documents, vender technical manuals, calculations and plant drawings. A complete list of documents reviewed is included in the attachment. The attributes were verified to meet system requirements as described below:

Component Degradation. The team reviewed the licensee's maintenance and operations procedures to determine how potential age-related degradation of the selected components were monitored and corrected. The team verified that component and/or component materials replacement are scheduled prior to exceeding its expected qualified life or allowed number of cycles. Additionally, the team verified that deficiencies that could potentially reduce the life expectancy of the components such as boric acid corrosion were evaluated and corrected.

Environmental Qualification. The team verified that the equipment was qualified to operate in the environment in which it may be subjected to under normal and accident conditions. The team reviewed design information, specifications, and documentation to ensure that the EFW and HPI components were qualified to operate within its normal and accident environments. These included a review of the temperatures, pressures, humidity and radiation fields the components are exposed to while installed in the system.

Protection. The team verified that the EFW and HPI system components were adequately protected from natural phenomenon and other hazards, such as high energy line breaks, fire and floods. The inspectors reviewed design information, specifications, and documentation to ensure that system components were adequately protected from those hazards identified in the UFSAR which could impact their ability to perform their safety function.

Input/Output. The team verified that selected EFW and HPI system component inputs and outputs (e.g., coolant flow, electrical voltage and control air) were adequate to the receiving component during normal, event and accident conditions.

Operating Experience. The team verified that insights from TMI and industry operating experience have been incorporated into procedures affecting the selected components.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Inspection Scope

The team reviewed a sample of EFW and HPI system problems that were identified by the licensee and entered into the corrective action program. The inspectors reviewed these issues to verify an appropriate threshold for identifying issues and to evaluate the effectiveness of corrective actions related to design or qualification issues. In addition, condition reports written on issues identified during the inspection were reviewed to verify adequate problem identification and incorporation of the problem into the corrective action system. The specific corrective action documents that were sampled and reviewed by the team are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

The lead inspector presented the inspection results on July 29, 2005, to Mr. Rusty West and other members of the licensee's staff. The inspection team verified that this inspection report does not contain proprietary information.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

M. Bensel, System Engineer - Electrical
G. Chick, Plant Manager
R. Dantulari, Electrical Design Engineer
C. Demars, Corrective Action Coordinator
E. Eilola, Director - Site Engineering
R. Ezzo, Manager - Electrical / I&C Design Engineering
M. Fauber, IST Coordinator
K. Heisey, System Engineer
B. Irvin, PRA Specialist
E. Johnson, System Engineer
P. Kopicki, Electrical Design Engineer
R. Masaero, HPI System Engineer
A. Miller, Licensing Engineer
D. Palofaro, System Engineer
J. Piazza, Manager - Mechanical & Structural Engineering
T. Rausch, Director - Corporate Engineering
M. Reed, EFW System Engineer
B. Shumaker, System Engineering Supervisor
C. Smith, Licensing Manager
W. McSorley, Operations Engineer
J. Valent, System Engineering Supervisor
R. West, Site Vice President
T. Wickel, Senior Manager - Design Engineering
V. Zeppos, Mechanical Design Engineer

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

None.

LIST OF DOCUMENTS REVIEWED

Calculations/Analysis/ECR

C-1101-211-E540-076, Letdown Line Break, Structural & Dynamic Assessment, Rev. 1
C-1101-211-E540-077, RELAP 5 Analysis of Letdown Line Break in the Aux. Building, Rev. 1
C-1101-211-5320-002, TMI Makeup System Flow Analysis, Rev. 0
C-1101-211-5320-004, TMI-1 HPI Flow Analysis, Rev. 1
C-1101-211-E410-100, TMI-1 Expected MU Flow During LOCA, Rev. 0

C-1101-211-E540-076, Letdown Line Break, Structural and Dynamic Assessment, Rev. 1
C-1101-211-E540-085, TMI-1 Makeup Tank Gas Entrainment Determination, Rev. 0
C-1101-211-E540-091, TMI-1 IST Acceptance Criteria for HPI Pump, Rev. 0
C-1101-211-E610-060, Makeup Tank Volume, Rev. 0
C-1101-211-E610-066, TMI-1 Make-Up System Flow Analysis, Rev. 0
C-1101-211-E610-066, TMI-1 Make-up System Flow Analysis, Rev. 8
C-1101-211-E610-068, Makeup System Model for MUP NPSH Calculation, Rev. 0
C-1101-212-5360-043, Load of the ECCS pumps during LOCA, Rev. 2
C-1101-424-5360-042, Calculation for EFW Min Recirc Deadheading, Rev. 0
C-1101-424-E610-062, EFW Flow Requirements for DBAs, Rev. 1
C-1101-424-E610-066, FW Line Break at 2568 MWth with 20% SG Tube Plugging, Rev. 0
C-1101-224-E610-070, Loss of Feedwater with 20% SG Tube Plugging, Rev. 4
C-1101-424-5310-054, EFW Pump Brake Horsepower During an LBLOCA/LOOP, Rev. 1
C-1101-645-E610-002, Loss of Feedwater with Diverse Scram System with 20% SG Tube Plugging, Rev. 0
C-1101-224-E610-069, Station Blackout with 20% SG Tube Plugging, Rev. 1
C-1101-421-E610-013, Minimum Required Condensate Inventory, Rev. 0
C-1101-422-5360-004, Feedwater Pump Trip Actuation of EFW, Rev. 0
C-1101-424-E410-069, TMI Unit 1 EFW Multi-Use Flow Model, Rev. 0
C-1101-424-E410-075, TMI-1 EFW Pump NPSH and Suction Design Basis Lineups, Rev. 0
C-1101-424-E540-065, IST Acceptance Criteria for EFW Pumps, Rev. 2
C-1101-424-5310-054, EFW Pump Brake Horsepower During an LBLOCA/LOOP Event, Rev. 1
C-1101-624-5350-002, Makeup Tank Level (MU14-LT & Mu-LT778) – Loop Error & Baseline Calibration, Rev. 5
C-1101-700-E510-010, TMI-1 AC Voltage Regulation Study, Rev. 5
C-1101-723-E220-003, Risk Evaluation of Installation of Auxiliary Transformers with Automatic Tap Changers, Rev. 0
C-1101-732-5350-005, Protective Relays Class 1E Switchgear, Rev. 1
C-1101-733-5350-003, Class 1E 480V Unit Substations Settings for Conversion to Solid State Trip Units, Rev. 3
C-1101-734-5350-003, VTMI-1 Battery Capacity Sizing and Voltage Drop for DC Systems, Rev. 1
C-1101-735-5350-002, 120V Vital AC System Coordination Study, Rev. 2
C-1101-735-5350-003, Vital A.C. Panel VBA Voltage Drops, Rev. 1
C-1101-735-5350-004, Vital A.C. Panel VBB Voltage Drops, Rev. 1
C-1101-735-5350-005, Vital A.C. Panel VBC Voltage Drops, Rev. 1
C-1101-735-5350-006, Vital A.C. Panel VBD Voltage Drops, Rev. 1
C-1101-900-E220-080, TMI AOV Program System Calculation, Rev. 1
C-1101-900-E410-039, MOV Delta P and Basis, Rev. 9
C-1101-900-E410-046, Risk Ranking for the MOV Program in Response to GL 89-10, Rev. 1
C-1101-900-E410-047, Thrust and Setpoint Calculation for GL 89-10 Gate Valves, Rev. 4A
C-1101-900-E410-048, GL 89-10 Butterfly MOV Design Basis Torque Requirements and Setpoints, Rev. 3
C-1101-900-E410-063, Thrust and Setpoint Calculation for GL 89-10 Globe Valves with Rising, Non-Rotating Stems, Rev. 3
C-1101-900-E420-162, ACE AOV Design Basis Capability Calculations, Rev. 2
C-1101-900-E420-200, ACE AOV Setpoint Evaluation for MS-V-6, Rev. 0

ECR 01-00738, Supplemental Closing Air to MU-V-18, Rev. 0
ECR 01-00758, EF-P-2A Miscellaneous Pump Upgrades, Rev. 0
ECR 01-00825, EF-P-2A Bearing Housing Preparation and Coating, Rev. 0
ECR 01-00981, EF-P-2A Balance Disc Shim & Hardened Parts, Rev. 0
ECR 02-00017, IST Reference Values for MU-P-1A/1B/1C, dated 03/19/02
ECR 02-01114, EF-P-1 Labyrinth Oil Seals - Install, Rev. 0
ECR 02-01116, EF-P-2B Black Oil Elim & Oilrite Coolers, Rev. 0
ECR 03-00669, MU-V-32 AOV Setpoint Evaluation, Rev. 0
ECR 03-00700, Change EF-V-A&B Motor Operator Gear Ratio, Rev. 0
ECR 03-00877, EF-V-2A Motor Replacement and Space Heater Removal, Rev. 0
ECR 04-00414, MU-V-16A, B, C, D Valve and Actuator Replacement, Rev. 0
ECR 04-00542, Posting of Calculation for ECR 03-00877, Rev. 0
ECR 05-00316, 5/26/05 revision to C-1101-735-5350-003
EDS 02-0370-1058, Pressure and Temperature Conditions Following a High Energy Line Break in the Intermediate Building, Rev. 2
EER 90-016-E, MU-P-1A/B/C Bearing Lube Oil Tygon Replacement, Rev. 1
MIDACALC Motor-Operated Valves Torque/Thrust Calculations for MU-V-36, MU-V-16A, MU-V-16C, MU-V-14B, DH-V-7B
T1-CCD-000211-001, Replacement of Thermal Sleeve for the B HPI Line, Rev. 0
Topical Report BAW-10222P, TMI-1 2772 MWt ECCS Analysis with RELAP5/MOD2, Rev. 0
TM 02-00657 001, Install Replacement Breakers, 3/2/04

Procedures

1107-11, TMI Grid Operations, Rev. 14
1107-2A, Emergency Electrical System, 4 kV and 480 V, Rev. 11
1302-6.17, HSPS Emergency Feedwater Initiation on Loss of Feedwater, Rev. 21
1303-4.16, TMI Unit 1 Surveillance Procedure, Emergency Power System, Rev. 107
1303-11.11, Station Battery Load Test, Rev. 30
1303-11.42B, EFW Capacity Test, Rev. 7
1303-11.10, Surveillance Test Procedure, 11/24/03, ES System Emergency Sequence and Power Transfer Test
C2005302, Diagnostic Test and Evaluation Results - EF-V-30A, October 2003
C2005782, Diagnostic Test and Evaluation Results - EF-V-30D, July 2004
EFW System Pumps 13R Surveillance test Results, October 1999
ER-AA-300-1001, MOV Program Performance Indicators, Rev. 2
ER-AA-302-1001, MOV Rising Stem Motor-Operated Valve Thrust and Torque Sizing and Set-Up Window Determination Methodology, Rev. 3
FW-PS-542, FW-P-1A Stop Valve Hydraulic Oil Pressure Low Trip (HSPS input), 8/20/98
FW-PS-543, instrument calibration form, FW-P-1A Stop Valve Hydraulic Oil Pressure Low Trip (HSPS input), 8/20/98
FW-PS-829, instrument calibration form, FW-P-1A Stop Valve Hydraulic Oil Pressure Low Trip (HSPS input), 8/20/98
FW-PS-830, instrument calibration form, FW-P-1A Stop Valve Hydraulic Oil Pressure Low Trip (HSPS input), 8/20/98
LS-AA-104, Exelon 50.59 Review Process, Rev. 4
LS-AA-120, Issue Identification and Screening Process

LS-AA-125, Corrective Action Program (CAP) Procedure
LS-AA-126, Self-Assessment Program
MAP-AA-2-8, Rev. 12, Alarm Response Procedure
MA-AA-716-012, Post-Maintenance Testing, Rev. 5
MA-AA-723-300, Diagnostic Testing and Inspection of Motor-Operated Valves, Rev. 2
OP-TM-211-000, Makeup and Purification System, Rev. 6
OP-TM-211-201, IST of MU Pumps and Valves, Rev. 1
OP-TM-211-205, IST of MU-P-1A, Rev. 1
OP-TM-211-206, IST of MU-P-1B, Rev. 1
OP-TM-211-208, IST of MU-P-1C, Rev. 0
OP-TM-211-211, HPI Test, Rev. 1
OP-TM-211-201, IST of MU Pumps and Valves, Rev. 1
OP-TM-211-221, IST of ECCS Bypass Valves - MU-V-14A and MU-V-14B, Rev. 1
OP-TM-211-231, IST of ECCS Bypass Valves - MU Pump Discharge, Rev. 2
OP-TM-211-241, Shutdown IST of Letdown Isolation Valves, Rev. 1
OP-TM-211-242, Shutdown IST of MU-V-18, Rev. 2
OP-TM-211-243, Shutdown of MU-V-20, Rev. 0
OP-TM-211-244, Shutdown IST of MU-V-33, Rev. 0
OP-TM-211-245, Shutdown IST of MU-V-217, Rev. 0
OP-TM-211-246, Shutdown IST of MU-V-3, MU-V-25, and MU-V-26, Rev. 2
OP-TM-211-261, MU Pump Suction Leak Check, Rev. 2
OP-TM-211-262, HP Injection Lines VT-2 Exam, Rev. 1
OP-TM-424-000, EFW System Operations Procedure, Rev. 1
OP-TM-424-101, Shifting EFW From plant S/D to Standby Mode, Rev. 0
OP-TM-424-151, Shifting EFW From Standby to Plant S/D Mode, Rev. 0
OP-TM-424-201, IST of EF-P-2A, Rev. 2
OP-TM-424-202, IST of EF-P-2B, Rev. 2
OP-TM-424-203, IST of EF-P-1 and Valves, Rev. 1
OP-TM-424-212, IST of EF-V-30s and EF-V-52s, Rev. 0
OP-TM-424-213, IST of CO--V-14s and CO-V-111s, Rev. 0
OP-TM-424-231, Capacity Test of EFW System, Rev. 2
OP-TM-424-271, Standby Lineup & Flow Path Verification Check of EFW, Rev. 0
OP-TM-EOP-006, LOCA Cooldown, Rev. 3
OP-TM-EOP-010, Emergency Procedure Rules, Guides, and Graphs, Rev. 3
R2009773, Surveillance Test Procedure Number OP-TM-211-211, dated 10/25/03
R2052849, Surveillance Test Procedure Number OP-TM-211-201, dated 08/20/04
R2056628, Surveillance Test Procedure Number OP-TM-211-201, dated 11/19/04
R2060518, Surveillance Test Procedure Number OP-TM-211-201, dated 02/25/05
R2065273, Surveillance Test Procedure Number OP-TM-211-201, dated 06/03/05
ST-1300-4H, ITS of ASME Class 2 & 3 Relief Valves
ST-1303-11.39, EFW/HSPS Train “B” Auto Initiation, June 2005
TP 273/3, EFW Turbine and Motor Driven Pump Functional Test, 1973

Issue/Corrective Action Reports

CR 356020*	IR 166681	IR 199428	IR 348086
CR 357176*	IR 166882	IR 210938	IR 348674
CR 357178*	IR 166828	IR 212206	IR 349030
CR 357412*	IR 167099	IR 229088	IR 352246*
CR 357413*	IR 167108	IR 229586	IR 352254*
CR 357727*	IR 180232	IR 230113	IR 352707*
CR 357848*	IR 182855	IR 241269	IR 353228*
CR 357859*	IR 182936	IR 250268	IR 353304*
IR 145162	IR 183094	IR 253310	IR 355389*
IR 164725	IR 183109	IR 267630	IR 357174*
IR 164844	IR 183133	IR 287997	IR 357373*
IR 164875	IR 184167	IR 295849	IR 357799*
IR 164885	IR 184948	IR 311313	IR 357838*
IR 165028	IR 186223	IR 321373	IR 357852*
IR 165321	IR 186811	IR 344067	IR 357853*
IR 165679	IR 186956	IR 347921	IR 357855*
IR 166598			

* Denotes Issue/Corrective Action Reports generated during this inspection.

Drawings

04-5130-C-308-905, Makeup Tank Level and Pressure Transmitter, Rev. 5
201-043, Sh. 2, 480 V Control Center, 1A Engineered Safeguards, Rev. 22
201-043, Sh. 3, 480 V Control Center, 1A Engineered Safeguards, Rev. 29
201-043, Sh. 1, 480 V Control Center, 1A Engineered Safeguards, Rev. 33
201-044, Sh. 3, 480 V Control Center, 1B Engineered Safeguards, Rev. 29
201-044, Sh. 2, 480 V Control Center, 1B Engineered Safeguards, Rev. 26
201-044, Sh. 1, 480 V Control Center, 1B Engineered Safeguards, Rev. 30
201-052, Sh. 1, 480 V Control Center, 1A Engineered Safeguard Valves, Rev. 41
201-052, Sh. 2, 480 V Control Center, 1A Engineered Safeguard Valves, Rev. 29
201-053, Sh. 1, 480 V Control Center, 1B Engineered Safeguard Valves, Rev. 40
201-053, Sh. 2, 480 V Control Center, 1B Engineered Safeguard Valves, Rev. 27
201-069, Sh. 2, 480 V Control Center, 1C Engineered Safeguard Valves, Rev. 32
201-069, Sh. 1, 480 V Control Center, 1C Engineered Safeguard Valves, Rev. 31
208-168, Sh. 1, E. S. Bus 1D Undervoltage & Potential Circuits, Rev. 24
208-168, Sh. 2, E. S. Bus 1D Undervoltage & Potential Circuits, Rev. 5
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208-213, Electric Schematic, 4160 V Switchgear (E5)(1D7), Make-Up Pump MU-P1A, Rev. 6
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R2030199, DH-V-7B: Perform GL 96-05 PM/PVT MOV PM, November 2003
R2031576, MU-V-16A: Perform GL 96-05 PM/PVT MOV PM, May 2003

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
AmerGen	AmerGen Energy Company, LLC
AR	Action Request
CR	Corrective action Report
DBE	Design Basis Event
EFW	Emergency Feed Water
HPI	High Pressure Injection
IP	Inspection Procedure
IR	Issue Report
MCC	Motor Control Center
MOV	Motor Operated Valve
MU	Makeup System
NPSH	Net Positive Suction Head
NRC	Nuclear Regulatory Commission
PARS	Publically Available Records
TMI	Three Mile Island
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report