April 29, 2002

Mr. John L. Skolds
President and CNO
Exelon Nuclear
Exelon Generation Company, LLC
4300 Winfield Road
5th Floor
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION - NRC INSPECTION REPORT 50-277/02-02, 50-278/02-02

Dear Mr. Skolds:

On March 30, 2002, the NRC completed an inspection at the Peach Bottom Atomic Power Station. The enclosed report documents the inspection findings which were discussed on April 11, 2002, with Mr. Gordon Johnston and other members of your staff.

This inspection was an examination of 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.

Based on the results of this inspection, the inspectors identified two issues of very low safety significance (Green) and one unresolved issue. One of these issues were determined to involve a violation of NRC requirements. If you deny any non-cited violation noted in this report, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Peach Bottom facility.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. This advisory was followed by additional advisories, and although the specific actions are not releasable to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more limited access of personnel and vehicles to the sites. The NRC has conducted various audits of your response to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design basis threat (DBT). On February 25, 2002, the NRC issued an Order to all nuclear power plant licensees, requiring them to take certain additional interim compensatory measures to address the generalized high-level threat environment. With the issuance of the Order, we will evaluate Exelon's compliance with these interim requirements.

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.html (the Public Electronic Reading Room).

If you have any questions, please contact me at 610-337-5209.

Sincerely,

/RA/

Mohamed Shanbaky, Chief
Projects Branch 4
Division of Reactor Projects

Docket Nos.: 50-277, 50-278
License Nos.: DPR-44, DPR-56

Enclosure: Inspection Report No. 50-277/02-02 and 50-278/02-02

Attachment: (1) Supplemental Information

Docket Nos. 50-277; 50-278
License Nos.: DPR-44, DPR-56

cc w/encl: Senior Vice President, Mid-Atlantic Regional Operating Group
Vice President, Mid-Atlantic Operations Support
Senior Vice President, Nuclear Services
Site Vice President, Peach Bottom Atomic Power Station
Plant Manager, Peach Bottom Atomic Power Station
Vice President - Licensing and Regulatory Affairs
Director, Licensing, Mid-Atlantic Regional Operating Group
Director, Nuclear Oversight
Regulatory Assurance Manager - Exelon Generation Company, LLC
Senior Vice President and General Counsel
D. Quinlan, Manager, Financial Control, PSEG
R. McLean, Power Plant Siting, Nuclear Evaluations
D. Levin, Acting Secretary of Harford County Council
R. Ochs, Maryland Safe Energy Coalition
Mr. & Mrs. Dennis Hiebert, Peach Bottom Alliance
Mr. & Mrs. Kip Adams
Chief, Division of Nuclear Safety
Vice President, General Counsel and Secretary
Correspondence Control Desk
Commonwealth of Pennsylvania
State of Maryland
TMI - Alert (TMIA)
Peach Bottom Township Board of Supervisors
R. Fletcher, Department of Environment, Radiological Health Program
J. Johnsrud, National Energy Committee, Sierra Club
Public Service Commission of Maryland, Engineering Division
Manager, Licensing - Limerick and Peach Bottom

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DATE	04/29/02		04/29/02		04/29/02	

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U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket Nos:	50-277, 50-278
License Nos:	DPR-44, DPR-56
Report Nos:	50-277/02-02, 50-278/02-02
Licensee:	Exelon Generation Company, LLC Correspondence Control Desk 200 Exelon Way, KSA 1-N-1 Kennett Square, PA 19348
Facility:	Peach Bottom Atomic Power Station Units 2 and 3
Location:	1848 Lay Road Delta, Pennsylvania
Dates:	February 17, 2002 through March 30, 2002
Inspectors:	A. Burritt, Senior Resident Inspector M. Buckley, Resident Inspector F. Jaxheimer, Regional Inspector
Approved by:	Mohamed M. Shanbaky, Chief Projects Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000277-02-02, IR 05000278-02-02, on 02/17-03/30/2002; Exelon Generation Company, Peach Bottom Atomic Power Station; Units 2 and 3. Heat sink performance, licensed operator requalification program.

This report was conducted by resident inspectors and a regional inspector. The inspection identified three findings of significance. The significance of most findings is indicated by the color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at: http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html.

A. Inspector Identified Findings

Cornerstone: Mitigating Systems

- **Green**. The inspector identified a finding of very low safety significance regarding testing of the 2B, 2C, and 2D RHR heat exchangers. Specifically degradation of the 2D RHR heat exchanger performance was not recognized in a November 2000 test and the testing interval of the 2B and 2C heat exchangers exceeded the planned four years.

  The finding was determined to be of very low safety significance because the finding did not represent an actual loss of safety function because the heat exchangers were always operable. (Section 1R07)

Cornerstone: Barrier Integrity

- **Green**. The inspector identified a non-cited violation of technical specification 5.4.1 for an inadequate emergency operating procedure. Emergency operating procedure T-102, "Primary Containment Control" was inadequate because the procedure did not direct the operators to re-initiate drywell sprays after drywell sprays were terminated if containment pressure again increased.

  The finding was of very low safety significance because there was no actual open pathway in the physical integrity or actual reduction in the atmospheric control of the reactor containment. T-102 was only used during training and was not entered for conditions requiring actual use of drywell sprays. (Section 1R11)

Cornerstone: Emergency Preparedness

- **(URI)** The inspector identified that Exelon's final exercise report did not include any discussion regarding the potential untimely emergency classification by the exercise crew during the February 14, 2002, emergency preparedness exercise. The inspector did not have sufficient documentation available at the end of the inspection period to determine whether Exelon's final exercise report (Exelon's exercise critique) was adequate.

The failure to identify an error associated with an emergency classification during an exercise would be considered more than minor because it could have a credible impact on safety, in that, if not corrected, classification errors in an actual event could impact offsite agencies' abilities to implement protective actions for the public. (Section 1EP6)

Report Details

SUMMARY OF PLANT STATUS

UNIT 2

Unit 2 began this inspection period operating at 100% power and remained at or near that power except for scheduled power changes to support routine maintenance activities and rod pattern adjustments.

UNIT 3

Unit 3 began this inspection period operating at 100% power. On March 21, 2002, power was reduced to approximately 74% as a result of a condensate pump overcurrent trip and automatic recirculation pump runback. Following repairs, the unit power was increased and reached 100% on March 29, 2002. Unit 3 operated at approximately 100% power throughout the remainder of the inspection period except for scheduled power changes to support routine maintenance activities and rod pattern adjustments.

1. REACTOR SAFETY [R]
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdown

a. Inspection Scope

The inspector performed a partial system walkdown to verify system and component alignments and note any discrepancies that would impact system operability. The inspector verified selected portions of redundant or backup systems/trains were available while a system was out-of-service. The inspector reviewed selected valve positions, electrical power availability, and the general condition of major system components. The walkdown involved the following system:

- 2A and 2C residual heat removal subsystems with 2B and 2D residual heat removal subsystems out-of-service for planned maintenance

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown

a. Inspection Scope

The inspector also performed a complete system walkdown to verify that the selected system was properly aligned for operation. The inspector reviewed valve positions, electrical power availability, and the general condition of major system components. In addition, the inspector reviewed the Final Safety Analysis Report (FSAR), system design drawings, and issues tracked by the system health report (condition reports, work

orders, and action requests). These reviews were conducted to identify discrepancies that could impact system operability. The complete system walkdown was performed on the following:

- Emergency cooling water system

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Plant Area Tours

a. Inspection Scope

The inspector reviewed the Fire Protection Plan, Technical Requirements Manual and the respective Pre-Fire Action Plan procedures to determine the required fire protection design features, fire area boundaries, and combustible loading requirements for the areas examined during this inspection. The inspector then performed walkdowns of these area to assess control of transient combustible material and ignition sources, fire detection and suppression capabilities, fire barriers, and any related compensatory measures. The fire areas included:

- Unit 3 battery rooms (fire zone 117)
- Unit 3 emergency switchgear rooms (fire zone 117)
- Unit 3 recirculation pumps motor/generator rooms (fire zone 12C)
- Unit 2 and 3 cable spreading room
- Emergency cooling tower (fire zone 136)

b. Findings

No findings of significance were identified.

.2 Temporary Instruction (TI) 2515/146

a. Inspection Scope

NRC Inspection Manual Temporary Instruction (TI) 2515/146, "Hydrogen Storage Locations," was performed to verify Peach Bottom’s compliance with applicable fire protection codes and license commitments pertaining to potentially hazardous conditions created by the proximity of the hydrogen storage locations to risk-significant structures, systems, and components (SSCs).

b. Findings

The inspector identified some instances where the licensee did not fully conform with guidance of the National Fire Protection Association code NFPA 50A; "Standard for Gaseous Hydrogen Systems at Consumer Sites." These non-conforming conditions were entered into Exelon's corrective action program. Continued plant operation with these non-conformances is acceptable, in accordance with the guidance of Generic Letter 91-18. The specific observations made by the licensee and inspector during this review will be forwarded to the NRC Office of Nuclear Reactor Regulation via separate correspondence. The inspection requirements of TI 2515/146 have been satisfied. This TI is closed.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

The inspectors observed heat exchanger performance testing for the 2B residual heat removal (RHR) system heat exchanger. The testing involved implementation of two separate routine tests: RT-O-010-660-2, "RHR Heat Exchanger Performance Test," for gathering of the data and RT-X-010-661-2, "RHR Heat Exchanger Performance Calculation Test," which determines if the heat removal capability of the heat exchanger meets design requirements. The inspectors reviewed documentation for potential deficiencies which could mask degraded performance and common cause performance problems.

The inspector also reviewed the previous maintenance and test records associated with all RHR heat exchangers to assess whether the licensee was meeting their commitments to Generic Letter (GL) 89-13, "Service Water System Problems Affecting Safety-Related Equipment."

b. Findings

The inspector identified a finding of very low safety significance (Green) regarding testing of the 2B, 2C, and 2D RHR heat exchangers. Specifically degradation of the 2D RHR heat exchanger performance was not recognized in a November 28, 2000, test and the testing interval of the 2B and 2C heat exchangers exceeded the planned four years.

The 2D RHR heat exchanger was tested in November 28, 2000, to determine whether maintenance and cleaning was required. Exelon considered the test data invalid since the data was outside the specified accuracy requirements. Moreover Exelon did not make a determination as to whether the heat exchanger was operable, needed maintenance or cleaning, or that the test needed to be immediately repeated. The inspector determined that although the November 28, 2000, test indicated that the heat exchanger was operable, the test results indicated that the heat exchanger performance had degraded to the point that it needed cleaning to assure that the heat removal design requirements could be met. Exelon performed another test of the 2D RHR heat exchanger in March 2001 and subsequently cleaned the heat exchanger.

The inspector identified that the 2B and 2C RHR heat exchangers were not tested on a planned four year frequency. The test interval for a valid test of the 2B RHR heat exchanger was about seven years (January 1993 to April, 2000) and was about five and a half years (March 1992 - November, 1997) for the 2C RHR heat exchanger. When Exelon performed the tests on the 2B and 2C heat exchanger, the test results were acceptable.

The issue regarding testing of the 2B, 2C, and 2D RHR heat exchangers is more than a minor issue because if left uncorrected under the same conditions it could become a more significant safety concern. Degradation of heat exchanger performance is monitored by planned testing of the heat exchangers to establish appropriate maintenance. If testing is not performed on the specified frequency or the test results are not appropriately analyzed, the degradation can develop to a point that the heat exchanger cannot perform its specified function. This issue was determined to affect the Mitigating Systems cornerstone because it involved degraded conditions that could influence the long term heat removal capability of the RHR system. The issue was determined to be of very low safety significance by the Significance Determination for Inspector Findings for At-Power Situations because the finding did not represent an actual loss of safety function because the heat exchangers were always operable. Exelon entered this issue into their corrective action program as Condition Report CR 102216. **(FIN 50-277;278/02-02-01)**

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

On March 18, 2002, the inspector observed a licensed operator annual simulator requalification examination to assess licensed operator performance and the evaluator's critique. The inspector also reviewed the adequacy of emergency operating procedure (EOP) T-102 "Primary Containment Control." T-102 is a flow charted EOP with specific requirements based the types of blocks used in the logic as well as the text within the block. Specifically, the inspector focused on the procedural direction associated with control of primary containment pressure. The inspector discussed the results with operators, operations management, and instructors.

The inspector reviewed the following documents:

- T-102, Primary Containment Control
- T-102, Primary Containment Control - Bases
- Plant Specific Technical Guidance, Appendix B
- TRIP/SAMP Curves, Tables & Limits - Bases

b. Findings

The inspector identified a non-cited violation of technical specification 5.4.1, that was determined to be of very low safety significance (Green), because emergency operating procedure T-102, "Primary Containment Control" was inadequate. The procedure did not direct the operators to re-initiate drywell sprays after drywell sprays were terminated if containment pressure again increased.

Under emergency conditions of high primary containment (drywell and torus) pressure, T-102 step PC/P-9 directed operators to terminate the use of drywell sprays prior to drywell pressure dropping below 2 psig. Drywell sprays are necessary when torus pressure exceeds 9 psig to prevent the adverse affects associated with cyclic condensation of steam, otherwise known as chugging, at the exit of the drywell to torus downcomer openings. After the actions in step PC/P-9 are performed there was no clear direction in T-102 to re-initiate drywell sprays if containment pressure again increased to above 9 psig.

The inspector determined that the inadequate emergency operating procedure was more than a minor issue since it had a credible impact on safety in that adequate direction would not have been available during some emergency conditions to prevent damage to primary containment components. The finding affects the Barrier Integrity cornerstone because the inadequate emergency operating procedure could affect the integrity of the reactor containment when the reactor containment integrity was being challenged in some emergency conditions. The finding was assessed using the Significance Determination of Reactor Inspection Findings for At-Power Situations. The finding was of very low significance because there was no actual open pathway in the physical integrity or actual reduction in the atmospheric control of the reactor containment. T-102 was only used during training and was not entered for conditions requiring actual use of drywell sprays.

Technical Specification 5.4.1 requires that written procedures be established, implemented, and maintained covering the activities listed in Reg Guide 1.33, which includes procedures for emergencies. Emergency operating procedure T-102, "Primary Containment Control" was inadequately established because the procedure did not direct the operators to re-initiate drywell sprays after drywell sprays were terminated if containment pressure again increased. The violation of Technical Specification 5.4.1 is being treated as an NCV consistent with the NRC enforcement policy. Exelon entered this issue into the corrective action process by initiation of condition report CR 00100550. **(NCV 50-277;278/02-02-02)**

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspector reviewed the follow-up actions for issues identified on systems, structures, or components (SSCs) and the performance of these SSCs, to assess the effectiveness of Exelon's maintenance activities. In addition, the inspector reviewed selected SSC classification, performance criteria and goals, and corrective actions to verify that the actions were reasonable and appropriate. The following systems, equipment problems, and documents were reviewed:

Systems

- Recirculation pump discharge valve MO 53A - motor operator failure
- Emergency cooling water pump 0OP186 discharge check valve stuck open
- Emergency core cooling system NLI inverters
- 3B residual heat removal torus spray valve MO-3-10-038B - valves stroked too fast

Procedures and Documents

- Peach Bottom System Health Overview Reports
- Peach Bottom Maintenance Rule Bases Documentation
- Maintenance Rule Systems, Structures, and Components (SSCs) Bases Information Document
- Action Requests (A1355640, A1353786, A1353215, A1329727 and A1326773, Eval 1)
- AG-CG-028.1, Rev 8, "Maintenance Rule Implementation Program"
- AG-CG-028.1-5, Rev 1, "PECO Energy Approach to Use Maintenance Preventable Functional Failures for Maintenance Rule Performance Monitoring"
- AG-CG-028.1-9, Rev 6, "Guidance for Identifying and Evaluating Maintenance Preventable Functional Failures (MPFFS)"
- AG-CG-028.1-3, Rev 3, "Rules for Governing Expert Panel Activities"
- AG-CG-028.1-6, Rev 0, "PECO Energy Approach to Setting Acceptable Performance Levels for Monitoring Maintenance Preventable Functional Failures"

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspector reviewed Exelon's risk evaluations and contingency plans for selected planned and emergent work activities to verify that appropriate risk evaluations were performed and to assess Exelon's management of overall plant risk. The inspector compared the risk assessments and risk management actions against the requirements of 10 CFR 50.65(a)(4) and the recommendations of NUMARC 93-01 Section 11, "Assessment of Risk Resulting from Performance of Maintenance Activities." The inspector verified that risk assessments were performed when required and appropriate risk management actions were identified.

The inspector attended planning meetings and discussed the risk management of the activities with operators, maintenance personnel, system engineers, and work coordinators to verify that risk management action thresholds were identified correctly. The inspector also verified that appropriate implementation of risk management actions were performed. The following planned and emergent work activities were reviewed:

- 2B and 2D residual heat removal subsystems out-of-service for planned maintenance
- RT-O-010-660-2, 2B Residual Heat Removal Heat Exchanger Performance Test, (isolation of high-pressure service water to the 2D residual heat removal heat exchanger)
- Scheduled and postponed testing during unplanned emergency diesel generator outage

In addition, the inspector reviewed the assessed risk configurations against the actual plant conditions and any in-progress evolutions or external events to verify that the assessments were accurate, complete, and appropriate for the issues. The inspector performed control room and field walkdowns to verify that compensatory measures identified by the risk assessments were appropriately performed.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance Related to Non-routine Plant Evolutions and Events (71111.14)

a. Inspection Scope

The inspector reviewed plant computer and recorder data, operator logs and approved procedures and observed control room operators while evaluating the performance of operations personnel in response to non-routine evolutions. The inspector assessed personnel performance to determine whether the operator response was appropriate and in accordance with procedures and training. The following non-routine evolution was observed and reviewed:

- 3B condensate pump trip with partial recirculation system runback

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspector reviewed four operability evaluations to assess the adequacy of the evaluations, the use and control of compensatory measures, compliance with the Technical Specifications, and the risk significance of the issues. The inspector verified that the operability determinations were performed in accordance with NOM-C-11.1, Rev. 1, “Operability” and A-C-901, Rev. 10, “Control of Nonconformances.” The inspector used the Technical Specifications, Technical Requirements Manuals, the Final Safety Analysis Report, and associated Design Basis Documents as references during these reviews. The issues reviewed included:

- Unit 3 high-pressure coolant injection with suction from torus and test value throttled ST-O-023-301-3, Rev. 29
- Residual heat removal leak to the 2C high-pressure service water system/environment
- Scram discharge volume (inboard and outboard) isolation drain valves - solenoid valves beyond the recommended preventative maintenance interval (A1353939, A1353945)
- E2 and E3 emergency diesel generators - gas bubbles in the jacket water heat exchangers, jacket water leaks, and cylinder temperature differences outside of procedure limit (A1353972, 3, 5, & 7)

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds (71111.16)

a. Inspection Scope

The inspector reviewed both units for the aggregate effects of operator work-arounds and equipment deficiencies on the reliability, availability, and potential for misoperation of systems. The inspector evaluated the cumulative effects of these items on the ability of operators to respond in a correct and timely manner to plant transients and accidents. The inspector also reviewed these deficiencies to determine if any items complicating the operators' ability to implement emergency operating procedures had not been identified by Exelon as an operator work-around. The items included:

- Unit 2 high-pressure service water contaminated pipe alarm
- Rosemount 710 analog trip unit oscillations (A1354540)

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspector observed portions of post-maintenance testing activities in the field and reviewed selected test data at the job site. The inspector observed whether the tests were performed in accordance with the approved procedures and assessed the adequacy of the test methodology based on the scope of maintenance work performed. In addition, the inspector assessed the test acceptance criteria to verify whether the test demonstrated that the tested components satisfied the applicable design and licensing bases and the Technical Specification requirements. The inspector reviewed the recorded test data to evaluate whether the acceptance criteria were satisfied. The specific activity reviewed included:

- E4 emergency diesel generator run after oil leak repair

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspector reviewed and observed portions of following surveillance tests, and compared test data with established acceptance criteria to verify the systems demonstrated the capability of performing the intended safety functions. The inspector also verified that the systems and components maintained operational readiness, met applicable Technical Specification requirements, and were capable of performing the design basis functions. The observed or reviewed surveillance tests included:

- 2C Residual Heat Removal Heat Exchanger Leak Test (RT-010-630-2, Rev. 6)
- Unit 2 High-Pressure Coolant Injection Test From Alternate Control Panels (RT-O-023-750-2, Rev. 11)
- Unit 3 Standby Liquid Control Functional Test for Inservice Test (ST-O-011-301-3, Rev. 16)

b. Findings

No findings of significance were identified.

EMERGENCY PREPAREDNESS [EP]

1EP6 Exercise Evaluation (71114.06)

a. Inspection Scope

On February 14, 2002, the inspector observed an emergency preparedness exercise that included activation of all licensee emergency response facilities. The site specific simulator was used to provide dynamic information during the exercise. Although the exercise was conducted for training, it was credited toward the Drill and Exercise Performance (DEP) NRC performance indicator. The inspector evaluated the conduct of the exercise, from the simulated control room and the technical support center. The inspector also evaluated the adequacy of Exelon's critique of DEP performance to determine if exercise problems were properly identified and placed into Exelon's corrective action program. The inspector reviewed the DEP analysis, available controller logs, condition reports associated with exercise issues, and the final exercise report issued March 18, 2002.

b. Findings

The inspector identified that Exelon's final exercise report did not include any discussion regarding the potential untimely classification by the exercise crew. The inspector did not have sufficient documentation available at the end of the inspection period to determine whether Exelon's final exercise report (Exelon's exercise critique) was adequate.

During this exercise the inspector observed that the crew had correctly identified a loss of the primary containment barrier (one fission produce barrier) but had not recognized the control room indications that, for about a two minute period, reactor water level was below the top of active fuel. The reactor water level below the top of active fuel is an Exelon established criteria for loss of the reactor coolant fission product barrier and a potential loss of the fuel fission product barrier. Failure of two fission product barriers with the potential loss of the third requires a General Emergency classification in accordance with section 3.5 of procedure ERP-101, "Classification of Emergencies." Additionally, EP-MA-125-1002, "Collection and Evaluation of Data for Indicator DEP.01, Drill and Exercise Performance," states that a classification is considered timely providing that it is made within 15 minutes of the availability of indications to make the classification. The inspector observed that the declaration of a General Emergency was made about 20 minutes after reactor water level went below the top of the active fuel. This potential problem with timely classification was not documented in the final exercise report (exercise critique).

The failure to identify an error associated with an emergency classification during an exercise would be considered more than minor because it could have a credible impact on safety, in that, if not corrected, classification errors in an actual event could impact offsite agencies' abilities to implement protective actions for the public.

This issue remains unresolved pending Exelon providing relevant facts, including a detailed timeline which includes key plant parameters, operator actions, declarations, and the subsequent NRC review and determination of the accuracy and timeliness of the General Emergency classification during the February 14, 2002 exercise. **(URI 50-277; 50-278/02-02-03)**

4. OTHER ACTIVITIES [OA]

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope (71151)

The inspector reviewed selected station's records to assess the accuracy and completeness of the selected NRC Performance Indicator (PI) data listed below. The information contained in the data reviewed was compared against the criteria contained in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 1, to verify that conditions met the NEI criteria, were recognized, identified, and accurately reported as a Performance Indicator. The specific indicators reviewed included:

- Units 2 and 3 unplanned scrams
- Units 2 and 3 scrams with loss of normal heat removal
- Units 2 and 3 unplanned power changes per 7000 critical hours

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting Summary

The inspectors presented the results of the inspection to Mr. G. Johnston and members of Exelon's management on April 11, 2002. Exelon management acknowledged the findings presented. No proprietary information was identified.

.2 Annual Assessment of Safety Performance

On March 12, 2002, the NRC met with Exelon, in the Peach Bottom Inn in Delta, PA to discuss NRC's annual assessment of the safety performance of the Peach Bottom Atomic Power Station. The meeting was open to the public. A copy of the slides can be found in ADAMS (Ascension Number ML020730285).

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

a. Key Points of Contact

Exelon Generation Company

J. Doering, Site Vice President
G. Johnston, Plant Manager
C. Hardee, Supervisor Emergency Preparedness
W. Trump, Nuclear Security Manager
D. Henry, Manager, Regulatory Assurance
C. Behrend, Manager, Engineering

b. List of Items Opened, Closed, and Discussed

Closed

2515/146	TI	Hydrogen Storage Locations

Opened/Closed

50-277;278/02-02-01	FIN	Degradation of the 2D RHR heat exchanger performance was not recognized in a November 2000 test and the testing interval of the 2B and 2C heat exchangers exceeded the planned four years.
50-277;278/02-02-02	NCV	A non-cited violation of Technical Specification 5.4.1 for an inadequate emergency operating procedure which did not direct re-initiation of drywell sprays at an appropriate primary containment pressure.

Opened

50-277;278/02-02-03	URI	The Exelon emergency preparedness critique of the February 14, 2002 exercise did not discuss a potential problem regarding timely emergency classification.

c. List of Acronyms

CR	Condition Report
DBT	Design Basis Threat
DEP	Drill and Exercise Performance
EOP	Emergency Operating Procedures
FSAR	Final Safety Analysis Report
GE	General Emergency
GL	Generic Letter
MPFFS	Maintenance Preventable Functional Failures
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
PI	Performance Indicator
RHR	residual heat removal
SDP	significance determination process
SSCs	systems, structures, or components
TI	temporary instruction
TSC	technical support center