

June 19, 2000

EA No: 00-125

Mr. G. Rainey, President
PECO Nuclear
Nuclear Group Headquarters
Correspondence Control Desk
P.O. Box 195
Wayne, Pennsylvania 19087-0195

SUBJECT: NRC'S PEACH BOTTOM REPORT 05000277/2000-002, 05000278/2000-002

Dear Mr. Rainey:

On May 20, 2000, the NRC completed an inspection at the Peach Bottom Atomic Power Station. The enclosed report presents the results of that inspection. The results of this inspection were discussed during an exit meeting on May 26, 2000, with Mr. Mark Warner 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. An examination of radioactive material processing, handling, storage, and transportation activities was also conducted during this inspection. Within these areas, the inspections consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

This report discusses an issue of low to moderate safety significance which your staff identified involving under-characterization of radioactive waste shipped for near-surface land disposal which is an apparent violation of NRC requirements. As described in Section PS2.2 of this report, on June 28, 1999, your staff shipped radioactive waste material to Chem Nuclear Systems, Barnwell, South Carolina, that had not been properly classified and characterized as required by 10 CFR 61.55. This issue was assessed using the Public Radiation Safety Significance Determination Process as an apparent significant finding that was preliminarily determined to be White, an issue with some increased importance to safety which may require additional NRC inspection. This issue has a low to moderate safety significance because accurate waste characterization is necessary for the proper disposal of radioactive waste materials.

Although we believe that we have sufficient information to make our final significance determination for the issue, we are giving you the opportunity to send us additional information including your position on the significance of the issue, the bases for your position, and whether you agree with the apparent violation. Also, please inform us if you would like to schedule a Regulatory Conference to discuss your evaluation and any differences with the NRC evaluation. A Regulatory Conference on this matter would be open for public observation. Accordingly, no enforcement is presently being issued for this inspection finding. Please contact Mr. John

White at (610-337-5114) within 10 days of the date of this letter to notify the NRC of your intentions. If we have not heard from you by telephone or in writing within 14 days regarding a conference, we will continue with our significance determination and enforcement decision and you will be advised by separate correspondence of the results of our deliberations on this matter.

The NRC also identified an issue involving improper closure of radioactive materials shipping packages that was evaluated under the Public Radiation Safety Significance Determination Process as of very low safety significance (Green). The issue was entered into your corrective action program and is discussed in the summary of findings and in the body of the inspection report. The issue involved a violation of NRC requirements, but because of the very low safety significance, the violation was not cited. If you contest this non-cited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, 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 Station.

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 ADAMS Public Library component on the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (The Public Electronic Reading Room).

Sincerely,

/RA/

Richard V. Crlenjak, Acting Director
Division of Reactor Projects

Docket Nos.: 05000277, 05000278
License Nos.: DPR-44, DPR-56

Enclosure: Inspection Report No. 05000277/2000-002, 05000278/2000-002

cc w/encl.:

J. Hagan, Senior Vice President, Nuclear Operations

J. Doering, Vice President, Peach Bottom Atomic Power Station

M. Warner, Plant Manager, Peach Bottom Atomic Power Station

J.A. Hutton, Director, Licensing, PECO Nuclear

G. D. Edwards, Chairman, Nuclear Review Board

R. Boyce, Director, Nuclear Quality Assurance

A. F. Kirby, III, External Operations - Delmarva Power & Light Co.

A. A. Winter, Manager, Experience Assessment

J. W. Durham, Sr., Senior Vice President and General Counsel

H. C. Kresge, Manager, External Operations, Connectiv

N. J. Sproul, Manager, Financial Control & Co-owner Affairs, Connectiv

R. McLean, Power Plant Siting, Nuclear Evaluations

D. Levin, Acting Secretary of Harford County Council

R. Ochs, Maryland Safe Energy Coalition

J. H. Walter, Chief Engineer, Public Service Commission of Maryland

Mr. & Mrs. Dennis Hiebert, Peach Bottom Alliance

Mr. & Mrs. Kip Adams

Commonwealth of Pennsylvania

State of Maryland

TMI - Alert (TMIA)

Distribution w/encl.: **(VIA E-MAIL)**

Region I Docket Room (with concurrences)
 Nuclear Safety Information Center (NSIC)
 NRC Resident Inspector
 H. Miller, RA (to M. Fudge)
 J. Wiggins, DRA (to G. Matakas)
 C. Cowgill, DRP
 D. Florek, DRP
 D. Cullison, DRP
 B. Platchek, DRP
 D. Holody, ORA
 W. Borchardt, OE
 J. Shea, OEDO
 E. Adensam, NRR
 J. Clifford, NRR
 M. Thadani, NRR
 B. Buckley, NRR
 W. Scott, NRR
 C. See, NRR
 Inspection Program Branch, NRR (IPAS)

DOCUMENT NAME: G:\BRANCH4\Peach Bottom\IR2000-02 rev 2.wpd

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/DRP	RI/ORA	RI/DRP	RI/DRP	RI/DRS
NAME	DFlorek	DHolody	CCowgill	JCrlenjak	Bholian
DATE	06/12/2000	06/15/2000	06 /15/2000	06/19/2000	06/15/2000

OFFICIAL RECORD COPY

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

License Nos. DPR-44
DPR-56

Report Nos. 2000-002

Docket Nos. 05000277
05000278

Licensee: PECO Energy Company
Correspondence Control Desk
P.O. Box 195
Wayne, PA 19087-0195

Facility: Peach Bottom Atomic Power Station Units 2 and 3

Inspection Period: April 2, 2000 through May 20, 2000

Inspectors: A. McMurtray, Senior Resident Inspector
M. Buckley, Resident Inspector
R. Nimitz, Senior Radiation Specialist

Approved by: Curtis J. Cowgill, Chief
Projects Branch 4
Division of Reactor Projects

SUMMARY OF FINDINGS

Peach Bottom Nuclear Power Plant
NRC Inspection Report 05000277/2000-002, 05000278/2000-002

The report covered a seven-week period of resident inspection. The significance of issues is indicated by their color (GREEN, WHITE, YELLOW, or RED) and was determined by the Significance Determination Process in Inspection Manual Chapter 0609 (See Attachment 1).

Cornerstone: Public Radiation Safety

- TBD - Preliminarily determined to be White. PECO Nuclear identified that it under-classified a shipment of radioactive waste sent to a licensed disposal facility on June 28, 1999. The waste was initially classified and described as 99 curies of Class A waste but later determined to contain 407 curies of Class B waste. The under-classification of radioactive waste for disposal was a matter having apparent low to moderate safety significance because accurate waste characterization is necessary to ensure proper near-surface disposal of radioactive waste materials. The inspector identified an apparent violation of 10 CFR 61.55 and 10 CFR 20.2006. (Section PS2.2)
- Green. The NRC identified two examples of failure to ensure proper closure of radioactive material shipping packages. The first example involved an April 25, 2000, shipment during which an incorrect procedure was used to secure the primary lid on a shipping cask being prepared for shipment. The procedure provided incorrect guidance for calculation of torque wrench settings used for closure of the cask. The second example involved a December 8, 1999, shipment during which PECO Nuclear did not ensure accuracy of leak testing equipment used to prepare a shipping cask. The two examples involved matters that had very low risk significance because no radiation limits were exceeded and there was no actual public health and safety consequences. The inspectors identified a non-cited violation of 10 CFR 71.5. (Section PS2.4)

TABLE OF CONTENTS

SUMMARY OF FINDINGS	ii
TABLE OF CONTENTS	iii
SUMMARY OF PLANT STATUS	1
1. REACTOR SAFETY	2
1R04 Equipment Alignments	2
1R05 Fire Protection	2
1R12 Maintenance Rule Implementation	2
1R13 Maintenance Risk Assessments and Emergent Work	3
1R14 Personnel Performance During Nonroutine Plant Evolutions	3
1R15 Operability Evaluations	3
1R16 Operator Workarounds	4
1R19 Post-Maintenance Testing	4
1R20 Refueling and Outage Activities	5
1R22 Surveillance Testing	5
2. RADIATION SAFETY	6
2PS2 Radioactive Material Processing and Transportation	6
.1 System Walkdown	6
.2 Waste Characterization and Classification	7
.3 Shipment Preparation	9
.4 Shipment Records and Documentation	9
.5 Identification and Resolution of Problems	11
4. OTHER ACTIVITIES (OA)	11
4OA1 Identification and Resolution of Problems	11
4OA4 Other	11
.1 Inadvertent Actuation of Peach Bottom Emergency Planning Alert and Notification Sirens in York County, PA	11
4OA5 Management Meetings	12
.1 Exit Meeting Summary	12
LIST OF ACRONYMS USED	13
ITEMS OPENED, CLOSED, AND DISCUSSED	13
ATTACHMENT 1	14

Report Details

SUMMARY OF PLANT STATUS

Unit 2

Unit 2 began this inspection period at 100% power.

- May 7 Unit 2 load was reduced to approximately 90% power after the 2 'A' circulating water pump was removed from service due to high motor upper guide bearing temperatures.
- May 8 Unit 2 was returned to 100% power.
- May 11 Unit 2 load was reduced to approximately 98% due to unexpected speed changes on the 2 'B' recirculation pump while raising or lowering pump speed. Unit 2 was returned to 100% power later that same day.
- May 15 Unit 2 load was reduced to approximately 86% to isolate the 'B' feedwater heater string due to a leak in the 'B2' feedwater heater.
- May 19 Unit 2 was placed in cold shutdown (Mode 4) to facilitate repairs of the 'B2' feedwater heater tube leaks.

At the end of the inspection period Unit 2 was critical in startup (Mode 2).

Unit 3

Unit 3 began this inspection period at 100% power.

- May 10 Unit 3 load was reduced to approximately 35% power after the 3 'B' recirculation pump was removed from service due to low motor oil level.
- May 11 Unit 3 power was further reduced to approximately 19% on to allow entry into the drywell to support adding oil to the 3 'B' recirculation pump motor, repair of an instrument nitrogen leak, and replacement of all inboard main steam isolation valves DC solenoids.
- May 13 Unit 3 was returned to 100% power and remained at that level for the rest of the period.

1. REACTOR SAFETY**Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity**1R04 Equipment Alignmentsa. Inspection Scope

The inspectors performed a partial walk down of the emergency service water system to verify operability of the system and note any discrepancies that would impact the function of the system and therefore potentially increase risk.

b. Issues and Findings

There were no findings identified.

1R05 Fire Protectiona. Inspection Scope

The inspectors performed walkdowns of the following plant areas to assess control of transient combustible material and ignition sources, fire detection and suppression capabilities, fire barriers, and any related compensatory measures:

- Unit 2 control rod drive equipment area and corridor, drywell access and isolation valve compartment
- Unit 3 turbine building wing areas
- Units 2 and 3 13.2 kV switchgear areas,
- Units 2 and 3 emergency switchgear rooms, and
- Main control room, cable spreading room, fan room (165' elevation)

b. Issues and Findings

There were no findings identified.

1R12 Maintenance Rule Implementationa. Inspection Scope

The inspectors reviewed actions taken by PECO to address problems with the emergency cooling water system and determined whether the system is within the scope of the maintenance rule, system classification, appropriateness of performance criteria, goals, and corrective actions for the system.

b. Issues and Findings

There were no findings identified.

1R13 Maintenance Risk Assessments and Emergent Work

a. Inspection Scope

The inspectors evaluated the effectiveness of risk assessments performed during planning of work activities and how risk was controlled during these work activities for the following:

- Preparation and staging for the of the 'B' emergency service water pump replacement
- Replacement of the Unit 2 'D' reactor plant indication power supply
- 2 'B' residual heat removal system vibration and relief valve operation resolution
- Station Blackout line work
- Outage work during shutdown of Unit 2

b. Issues and Findings

There were no findings identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

On May 10, the inspectors observed the performance of operations personnel in response to the low motor oil level on the 3 'B' recirculation pump. Operations personnel shut down the 3 'B' pump and entered single loop operation on Unit 3. Reactor power was lowered to approximately 35% during this nonroutine evolution.

b. Issues and Findings

There were no findings identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following operability evaluations and discussed these evaluations with cognizant engineering personnel:

- Internal Failure of Battery Charger 3CD003-02

- Unit 3 reactor protection system main steam isolation valve scram function during failure of the 3 'D' inboard position switch
- Unit 2 residual heat removal and reactor coolant system isolation valves with system pressure greater than the stayfill system

b. Issues and Findings

There were no findings identified.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors reviewed PECO's definitions of operator workarounds and operator challenges. The inspectors also reviewed the process used by operations to track and report operator workarounds and challenges to plant management.

The inspectors verified that PECO had identified degraded or non-conforming conditions, which would complicate the operation of plant equipment and would be compensated for by operator action. The inspectors also verified that PECO had identified these conditions at an appropriate threshold and had incorporated them into the corrective action program.

b. Issues and Findings

There were no findings identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed and observed portions of the following post-maintenance testing:

C0193502	TI-2445	Post Replacement of Torus Temperature Indication
C0191657	TRT 00-126	Post Replacement of 'B' Emergency Service Water Pump
C0191408	ST-M-01A-471-3	Post Replacement of Unit 3 Inboard Main Steam Isolation Valve (MSIV) DC Solenoid Coils
C0193497	ST-O-60F-405-3	Post Replacement of the Unit 3 'D' Inboard MSIV Position Limit Switch
C0193337	ST-O-51H-200-2	Station Blackout Line Operability Verification

b. Issues and Findings

There were no findings identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspectors reviewed the preparation activities, downpower, cooldown and cooldown controls for Unit 2 outage. The unit was taken to cold shutdown to facilitate repair of the 'B2' feedwater heater, to clean both recirculation pumps motor/generator lube oil coolers, and to replace the solenoids on all four of the outboard main steam isolation valves. The inspectors verified that the PECO maintained adequate control of required emergency core cooling and power systems during this outage.

b. Issues and Findings

There were no findings identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed and observed portions of the following surveillance testing activities:

ST-O-013-301-2	Reactor Cooling Isolation Cooling Pump, Valve, Flow and Unit Cooler Functional and Inservice Test
ST-O-033-300-2	Emergency Service Water Valve, Unit Cooler, and Emergency Cooling Tower Fans Functional Inservice Test
ST-O-60F-405-3	MSIV Partial Closure and RPS Input Functional Test
ST-O-052-314-2	E4 Emergency Diesel Generator Slow Start Full Load and Inservice Testing Test
ST-M-57B-763-2	Battery Charger 2CD003-2 Capability Test

b. Issues and Findings

There were no findings identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the temporary modification to the 3 'A' recirculation pump to bypass the 30% speed limiter due to the emergency shutdown of the 3 'B' pump on May 10. The speed limiter was bypassed so that reactor feedwater flow could be lowered to less than 20% to bring reactor power to approximately 20% and still allow the 'A' recirculation flow to maintain circulation of reactor coolant in the idle 'B' loop.

The inspectors also reviewed a temporary modification that installed a jumper to bypass the less than 90% open relays for the 3 'D' main steam isolation valve (MSIV). The inspectors verified that the jumper was installed during MSIV testing of the less than 90% open scram signal of the reactor protection system and that the logic would still cause a reactor scram if required through a set of redundant switches and relays.

b. Issues and Findings

There were no findings identified.

2. **RADIATION SAFETY** **Cornerstone: Public Radiation Safety**

2PS2 Radioactive Material Processing and Transportation

.1 System Walkdown

a. Inspection Scope

The inspector walked down accessible portions of the station's radioactive liquid and radioactive solid waste collection, processing, and storage systems/locations. Areas reviewed included Radwaste Building, Low Level Waste Storage Building, and storage areas exterior to the station. The inspector reviewed the following matters:

- the status of non-operational or abandoned in-place radioactive waste process equipment and administrative and physical controls for the systems;
- changes made to radioactive waste processing systems and potential radiological impact;
- current processes for transferring radioactive waste resin and sludge to shipping containers and mixing and sampling of the waste;
- radioactive waste and material storage and handling practices;
- sources of radioactive waste at the station, processing (as appropriate) and handling of the waste;
- the general condition of facilities and equipment.

The review was against criteria contained in the station's UFSAR, 10 CFR Part 20, 10 CFR 61, the Process Control program (PCP), and applicable station procedures. The inspector performed selected radiation surveys at radioactive material and waste

storage areas and interviewed personnel involved with various waste handling and processing activities.

b. Issues and Findings

There were no findings identified.

.2 Waste Characterization and Classification

a. Inspection Scope

The inspector reviewed the following matters:

- radio-chemical sample analysis results for radioactive waste streams;
- the development of scaling factors for difficult to detect and measure radio nuclides;
- methods and practices to detect changes in waste streams;
- implementation of applicable NRC Branch Technical Positions on waste classification, concentration averaging, waste stream determination, and sampling frequency;
- current waste streams and their processing relative to descriptions contained in the UFSAR and the station's approved Process Control Program(PCP);
- revisions of the PCP and the UFSAR to reflect changes (as appropriate);

The review was against criteria contained in 10 CFR 20, 10 CFR 61, 10 CFR 71, the UFSAR, the PCP, applicable NRC Branch Technical Positions, and PECO Nuclear procedures. The inspector interviewed various waste processing personnel including system operators and reviewed applicable documentation.

b. Issues and Findings

From review of the PECO Nuclear's problem identification and corrective action program, the noted that on June 28, 1999, PECO Nuclear transferred radioactive waste material (Shipment No. 99-013) to the Chem-Nuclear Systems licensed disposal facility (CNS) in Barnwell, South Carolina, that was not properly classified in accordance with the requirements of 10 CFR 20.2006 and 10 CFR 61.55. Specifically, as a result of non-representative sampling of the of the waste (Reactor Water Clean-Up resin), the material was under-characterized as 99 curies of Class A waste. Later analysis, performed in July 1999, determined that the material consisted of 407 curies of Class B waste. Subsequently, on July 22, 1999, PECO Nuclear provided a corrected Uniform Low-Level Radioactive Waste Manifest (NRC Form 540) to CNS to support near-surface disposal of the waste material.

Upon arrival of the shipment at the CNS facility on (or about) June 30, 1999, CNS informed PECO Nuclear of minor documentation discrepancies involving the Uniform Low-Level Radioactive Waste Manifest (NRC Form 540) that described the material. CNS identified that the Waste Manifest for the shipment had the incorrect proper shipping name, i.e., Radioactive Material, LSA, (UN 2912). Since the dose rate at three

meters from the unshielded container exceeded 1 R/hr, the shipment should have been identified as Radioactive Material, NOS (UN2982). PECO Nuclear subsequently noted that the Transport Index (TI) on the Waste manifest was also incorrectly stated. PECO Nuclear provided a corrected manifest to CNS; entered this issue into its corrective action program as PEP No. I0010073; and effected corrective actions, including revision of applicable procedures and enhanced personnel training. This particular matter constituted a violation of minor significance and is not subject to normal enforcement action.

Subsequently, PECO Nuclear initiated action to reassess the entire preparation process for this shipment, including reanalysis of the waste samples. PECO Nuclear determined that the original sample was acquired in a manner that was not representative of the radio nuclide content of the material. The reanalysis determined that the shipment actually contained 407 curies, and should have been classified as Class B waste in accordance with the specifications in 10 CFR Part 61.55. PECO Nuclear issued PEP No. 10010073 to include this matter for corrective action development; and subsequently established an improved sampling guideline, enhanced the training of personnel responsible for sample collection, and provided for oversight of sampling activities by chemistry personnel.

There was no actual safety consequence as a result of this occurrence. Notwithstanding discrepancies in the material description on the waste manifest, the shipment was properly packaged, labeled, and transported to CNS in accordance with DOT requirements. Institutional controls at CNS are such that all waste materials are overpacked prior to burial, and there is essentially no difference in the handling process affecting the disposition of Class A and Class B waste. The Class B waste material was appropriately buried in a trench designated for Class B waste.

The issue concerning PECO Nuclear's ability to properly characterize radioactive waste materials, is more than minor in that, if left uncorrected, it could become a more significant safety concern because accurate waste characterization is necessary to ensure proper near-surface disposal of radioactive waste materials. The issue affected the Public Radiation Safety cornerstone. It involved an occurrence in PECO Nuclear's radioactive material transportation program that was contrary to the requirements of 10 CFR 61.55 and 10 CFR 20.2006, involved low-level burial ground access, and constituted under-classification of radioactive waste materials. Using the Public Radiation Safety Significance Determination Process our preliminary evaluation of this issue is that it is a matter having low to moderate safety significance (White). In accordance with NRC Enforcement Policy and Significance Determination Process this matter is considered an apparent violation. **(AV 50000277/2000-002-01; 50000278/2000-002-01, EA-00-125)**

During review of this area, the inspector also identified several minor inconsistencies between applicable vendor documents and the PECO Nuclear's operating procedures. In response, the PECO Nuclear documented these matters in their corrective action process for resolution (PEP No. I0011119).

.3 Shipment Preparation

a. Inspection Scope

The inspector observed and reviewed the preparation and shipment of an LSA II (laundry) and LSA III (de-watered resin) shipment on April 19, 2000 (No. 041-00) and April 25, 2000 (No.00-001), respectively. The inspector observed loading of the de-watered resin shipment into its transport package and its closure. The following aspects of the shipments were reviewed:

- packaging of shipment;
- labeling of shipping containers;
- placarding of the transport vehicle;
- conduct of vehicle checks;
- provision of driver emergency instructions;
- completion of shipping paper/disposal manifest;
- evaluation of cask as specification 7A container;
- conformance with procedure for cask loading, closure and use requirements, (including consistency with cask vendor approved procedures).

The inspector observed workers and radwaste personnel preparing the shipments and reviewed training provided personnel involved in radioactive waste processing and shipping activities.

The review was against criteria contained in 10 CFR 71; applicable Department of Transportation requirements, as contained in 49 CFR 170-189 for the above areas; and station procedures.

b. Issues and Findings

There were no findings identified.

.4 Shipment Records and Documentation

a. Inspection Scope

The inspector selected and reviewed the records associated with six non-excepted shipments of radioactive material including the records associated with the April 19, 2000 LSA II and April 25, 2000 LSA III shipments discussed in Section 3 (above). The following aspects of the radioactive waste and radioactive material packaging and shipping activities were reviewed for the shipments;

- implementation of applicable shipping requirements including completion of waste manifests;
- implementation of the specifications in the applicable Certificates of Compliance (C of C) for the approved shipping casks including limits on package contents;
- use of NRC approved shipping casks;
- implementation of recent NRC and DOT shipping requirements rule changes;
- implementation of specific radioactive material shipping requirements;

The review was against criteria contained in 10 CFR 61 and 71, 49 CFR 100-189, the applicable disposal facility licenses, and applicable Certificates of Compliance for various shipping casks.

b. Issues and Findings

On April 25, 2000, the inspector identified that PECO Nuclear used a procedure (RW-C-240, Rev.3), containing an incorrect equation, for guidance in securing the primary lid on a shipping cask (CNS 14-215H), being prepared for shipment (No. 00-0011), contrary to 10 CFR 71.5 and 49 CFR 173.475. 49 CFR 173.475 requires, in part, that before each shipment of any Class 7 (radioactive) materials package, the shipper must ensure that the closure device of the package is properly installed. The primary lid of the cask was to be secured to the cask with ratchet binders that were to be torqued to a manufacture's recommended setting (100 +/- 10 ft-lbs). However, PECO Nuclear's procedure did not take into account the increased effective length of the ratchet binder when using a vendor supplied ratchet binder torque adapter. Consequently, the use of the torque adapter resulted in generation of lid closure torque values in excess of 110 ft-lbs. PECO Nuclear suspended closure of the package pending revision of the procedure equation and recalculation of the torque values. The issue was placed into the corrective action system (PEP No. I0011155). Also, a corrective action document was initiated to identify this finding as part of an apparent negative trend in radwaste performance (PEP No. 10011119).

On April 25, 2000, the inspector determined that PECO Nuclear did not confirm or verify that the leak testing gauges used for preparation of a Type B shipping cask (Model CNS 8-120B) for a Type B shipment (99-029) of Class 7 (radioactive materials) conformed to the accuracy requirements referenced in the applicable Certificate of Compliance No. 9168. Section 8.2.2.2 of the application, referenced by Certificate of Compliance No. 9168, required leaking testing gauges to exhibit a full scale accuracy within 1%. Notwithstanding, PECO Nuclear did not confirm or otherwise verify that the leak testing gauges used for package preparation met the accuracy specification. PECO Nuclear placed this matter into its corrective action system (PEP No. I0011119); and contacted the cask vendor to review this issue. The vendor subsequently provided documentation which indicated that the leak test gauges used for this shipment exhibited within 1% accuracy, notwithstanding that the vendor's calibration acceptance criteria for accuracy ranged between 2% and 10%. The cask vendor informed PECO Nuclear that action had been initiated to revise the gauge calibration procedure to conform to the accuracy specifications of the Certificate of Compliance.

The issue of PECO Nuclear's ability to assure proper closure and leak testing of shipping casks is more than a minor issue since such inabilities could be a precursor to more significant events. The finding affects the Public Radiation Safety Cornerstone since it involves matters incidental to the preparation of a package of radioactive materials for transport. In these cases, no radiation limits were exceeded, and there was no actual public health and safety consequences associated with these matters. Very low safety significance is attributed to these matters (Green). In accordance with the NRC Enforcement Policy and the Public Radiation Safety Significance Determination process, the failure to adhere to 10 CFR 71.5 is being treated as a Non-Cited violation,

consistent with Section VI.A. of the Enforcement Policy, issued on May 1, 2000 (65 FR 25368). **(NCV 05000277/2000-002-02; 05000278/2000-002-02)**

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed assessments of the radioactive waste handling, processing, storage, and shipping programs. Also reviewed were assessments of the Process Control Program. The inspector also reviewed corrective action documents written against the radioactive material shipping programs since the previous inspection.

The review was against criteria contained in the UFSAR and applicable station audit and surveillance procedures.

b. Issues and Findings

There were no findings identified.

4. OTHER ACTIVITIES (OA)

4OA1 Identification and Resolution of Problems

While performing the new NRC Reactor Inspection procedures during this report period, the inspectors noted that problems identified during activities reviewed or observed were placed in the corrective action systems by station personnel.

4OA4 Other

.1 Inadvertent Actuation of Peach Bottom Emergency Planning Alert and Notification Sirens in York County, PA

On May 2, 2000, a supervisor at the York County "911" center inadvertently activated the York County portion of the alert and notification sirens. There were no problems at Peach Bottom Atomic Power station and both units remained at 100% power during this siren activation. PECO initiated PEP I0011201 to develop corrective actions to address this inadvertent actuation and to improve communications with the local public.

4OA5 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the results of the inspection to Mr. M. Warner and members of PECO's management on May 26, 2000. PECO management acknowledged the findings presented.

LIST OF ACRONYMS USED

AV	apparent violation
CFR	Code of Federal Regulations
CNS	Chem Nuclear Systems
DC	direct current
HP	health physics
kV	kilovolt
MSIV	main steam isolation valve
NCV	non-cited violation
NRC	Nuclear Regulatory Commission
OA	other activities
PBAPS	Peach Bottom Atomic Power Station
PCP	process control program
PECO	PECO Nuclear
PEP	performance enhancement process
RCA	radiologically controlled area
RPS	reactor protection system
SDP	significance determination process
UFSAR	Updated Final Safety Analysis Report

ITEMS OPENED, CLOSED, AND DISCUSSEDOpened

05000277(278)/2000-002-01 AV Failure to classify waste in accordance with 10 CFR 61.55
(EA-00-125)

Opened/Closed

05000277(278)/2000-002-02 NCV Use of an incorrect procedure to secure shipping cask and
failure to ensure proper leak test of a shipping cask

Discussed

None

ATTACHMENT 1

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.