March 23, 2001

Mr. Oliver D. Kingsley
Chief Nuclear Officer
Exelon Generation Company, LLC
1400 Opus Place
Downers Grove, IL 60515-5701

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION REACTOR OPERATOR AND SENIOR REACTOR OPERATOR INITIAL EXAMINATIONS REPORT NOS. 05000277/2000-301 and 05000278/2000-301

Dear Mr. Kingsley:

This report transmits the results of the reactor operator (RO) and senior reactor operator (SRO) licensing examinations conducted by the NRC during the period of February 5-12, 2001. These examinations addressed areas important to public health and safety and were developed and administered using the guidelines of the "Examination Standards for Power Reactors" (NUREG-1021, Revision 8).

Based on the results of the examinations, one of three RO applicants and six of eight SRO applicants passed all portions of the examinations. Examination results indicated that a relatively high percentage of the applicants were not well prepared for the exam. Your facility is identifying and reviewing the causes of the problem. Performance insights observed during the examination and as a result of your root cause analysis were discussed between Mr. R. Conte and Mr. G. Johnston and others on February 28, 2001. Your staff indicated that, preliminarily, the causes were not related to examination validity and reliability. This is further substantiated by the number and nature of facility comments on the examination as reflected in your organization's letter of February 22, 2001 (Attachment 1 to the report). The final exam results were given during a telephone call on March 8, 2001.

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). These records include the final examination (Written-Accession No. ML010650264; Operating Section A-Accession Nos. ML010650269 and ML010650301; Operating Section B-Accession No. ML010650330; Operating Section C-Accession No. ML010660006). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Should you have any questions regarding this examination, please contact me at (610) 337-5183, or by E-mail at RJC@NRC.GOV.

Sincerely,

/RA/

Richard J. Conte, Chief
Operational Safety Branch
Division of Reactor Safety

Docket Nos. 05000277 and 05000278
License Nos. DPR-44 and DPR-56

Enclosure: Initial Examination Report Nos. 05000277/2000-301 and 05000278/2000-301 with Attachments 1-3

Attachments: (1) Facility Comments on the Written Exams
(2) NRC Resolution of the Facilities Comments
(3) Simulator Facility Report

cc w/encl; w/Attachments 1-3:
M. Alfonso, Director - Training

cc w/encl; w/o Attachments 1-3:
J. Hagan, Senior Vice President, Nuclear Operations
J. Skolds, Chief Operating Officer
J. Doering, Vice President, Peach Bottom Atomic Power Station
G. Johnston, Plant Manager, Peach Bottom Atomic Power Station
J. A. Benjamin, Licensing - Vice President, Exelon Nuclear
J. A. Hutton, Director, Licensing, Exelon Generation Company
G. Hunger, Chairman, Nuclear Review Board
P. Chabot, Director, Nuclear Oversight
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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)

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OFFICE	RI/DRS		RI/DRP		RI/DRS					
NAME	JWilliams		CCowgill (DJF for)		RConte					
DATE	03/08/01		03/21/01		03/16/01					

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U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos:	05000277 and 05000278
Report Nos:	05000277/2000-301 and 05000278/2000-301
License Nos:	DPR-44 and DPR-56
Licensee:	Exelon Generation Company, LLC
Facility:	Peach Bottom Atomic Power Station
Location:	Delta, PA
Dates:	February 5-9, 2001 (Operating Test Administration) February 12, 2001 (Written Exam Administration) February 26-27, 2001 (Examination Grading)
Examiners:	J. Williams, Senior Operations Engineer (Chief Examiner) C. Sisco, Operations Engineer J. Caruso, Operations Engineer
Approved By:	Richard J. Conte, Chief Operational Safety Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000277/2000-301 and 05000278/2000-301; on February 5-9 and February 12, 2001; Peach Bottom Atomic Power Station; Initial Operator Licensing Examinations. One of three RO applicants passed the examination. Four of five SRO instant applicants and two of three SRO upgrade applicants passed the examination - overall, seven of the eleven license candidates passed the examination.

The examination was conducted by three NRC region-based examiners. There were no inspection findings associated with the examination.

Report Details

1. REACTOR SAFETY

Mitigating Systems - Reactor Operator (RO) and Senior Reactor Operator (SRO) Initial License Examinations

a. Scope of Review

The NRC examination team reviewed the written and operating initial examinations submitted by the Peach Bottom training staff to verify or ensure, as applicable, the following:

- The examinations were prepared and developed in accordance with the guidelines of Revision 8 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors" and they met the overall quality goals (range of acceptability) of these standards. The review was conducted both in the Region I office and at the Peach Bottom training facility. Final resolution of comments and incorporation of test revisions was conducted during and following the onsite preparation week.

- Simulation facility operation was proper.

- Facility licensee completed a test item analysis on the written exams for feedback into the systems approach to training program.

- Examination security requirements were met.

- Facility licensee conducted a root cause analysis to determine the cause of the poor performance on the written exams.

The NRC examiners administered the operating portion of the exam to all applicants from February 5-9, 2001. The written examinations were administered by the Peach Bottom training staff on February 12, 2001.

b. Findings

Grading and Results

Seven of the eleven applicants for the NRC operator (RO/SRO) licenses passed all portions of the examinations and were issued licenses. Four applicants failed the written exam. Two of three RO applicants and two of eight SRO applicants failed the written exam. One SRO applicant failed the administrative topics portion of the operating test.

The facility submitted to the NRC two post-examination comments on the written exam (Attachment 1). NRC agreed with both comments and revised the answer keys for the written exams accordingly. (Attachment 2)

Examination Preparation and Quality

The examinations met the quality goals of NUREG-1021, Revision 8.

Examination Administration and Performance

The operating tests were well planned and scheduled. There was little time spent waiting for the opportunity to perform Job Performance Measures (JPMs). This allowed the tests to move along smoothly.

After the dynamic simulator scenarios, the control room supervisor (CRS) was asked to classify the event. For one scenario the classification was scripted as a "Site Area Emergency". One CRS classified the event as a "General Emergency," based upon reactor pressure vessel (RPV) water level dropping below minus 200 inches for several minutes. Discussions occurred between an NRC examiner and facility personnel with respect to Peach Bottom's procedures (ERP-101, "Classification of Emergencies," Rev. 22 and T-116, "RPV Flooding," Sheet 1 of 2, Rev. 11) and plant conditions in the scenario. Both classifications could be considered correct. The facility identified this procedure problem associated with RPV water level dropping below minus 200 inches in PEP No. I0012229, "Inability to Make Accurate and Timely Emergency Classifications," on January 11, 2001.

There were no generic weaknesses observed during the performance of the operating test. However, two SRO applicants failed the JPM dealing with making a protective action recommendation (PAR) and two SRO applicants failed the JPM associated with lining up the backup nitrogen supply to the ADS valves.

The facility licensee conducted a test item analysis on the written exam and indicated their intent to provide remediation on the missed subject areas.

4OA6 Exit Meeting Summary

On March 8, 2001, the NRC provided conclusions and examination results to Peach Bottom management representatives, via telephone. License numbers for the seven applicants who passed all portions of the exam were also provided during the meeting.

The NRC expressed appreciation for the cooperation and assistance that was provided during the preparation and administration of the exam by the licensee's training staff.

PARTIAL LIST OF PERSONS CONTACTED

PEACH BOTTOM ATOMIC POWER FACILITY

M. Alfonso	Director of Training
B. Birley	Manager, Operations Training
J. Bouck	Manager, Operations
B. Campbell	Shift Supervisor
J. Goodbred	Principal Initial Training Instructor
G. Johnston	Plant Manager
P. Nielsen	NRC Exam Development Coordinator
T. Van Wyen	Principal Requal Training Instructor

NRC

J. Williams	Senior Operations Engineer, Examiner/Inspector
C. Sisco	Operations Engineer, Examiner/Inspector
J. Caruso	Operations Engineer, Examiner/Inspector

SUMMARY OF ITEMS OPENED, CLOSED AND DISCUSSED

ITEM NUMBER	TYPE	DESCRIPTION

NONE

Attachment 2

NRC RESOLUTION OF FACILITY COMMENTS ON THE WRITTEN EXAM

Question ID3 143 (SRO 19)

Unit 2 has been operating at full power when a loss of feedwater heating event occurs. The URO reports that maximum value of MFLCPR from an OFFICIAL 3D P1 edit is 1.19. The current MCPR operating limit from the Core Operating Limits Report (COLR) is 1.30. The scram times are within Technical Specification limits and all other equipment is operating normally.

Use the attached Technical Specifications to determine the response for this value of MFLCPR.

A NO actions are required, MCPR is within limits.

B Investigate an error with the 3D P1 Program. CPR should not be affected by a loss of feedwater heating.

C Restore MCPR within limits within two hours OR reduce thermal power to <25% RTP within four hours.

D Restore MCPR within the safety limit value within two hours AND insert all control rods within two hours.

Answer given is D.

NRC Resolution

Answer “D” is the proper response for a Tech Spec Safety Limit violation. However, since the Tech Spec Safety Limit (MCPR greater than or equal to 1.09) was not violated, the correct response is answer choice “C”.

Agree with the facility comment and change the correct answer from “D” to “C”.

Question ID# 162 (SRO 24 and RO 21)

Peach Bottom Unit 2 has experienced a Loss of Off-Site Power (LOOP). The Emergency Diesel Generators have all started and are powering their 4KV busses. Due to a lowering reactor water level, the CRS directs you to use the "Arm and Depress" pushbutton to start the Core Spray system.

After arming and depressing "CS B INITIATION" pushbutton (14A-S10B), what is the expected response of the Core Spray system?

A "A", "B", "C", and "D" Core Spray pumps start immediately

B "A", "B", "C", and "D" Core Spray pumps start after a time delay.

C "B" and "D" Core Spray pumps start immediately.

D "B" and "D" Core Spray pumps start after a time delay.

Answer is given as "C"

NRC Resolution:

The answer was given as "C", with the explanation that time delays are not active when the 4KV busses are powered from the Diesel Generators. However, as stated in SO 14.7.A-2, "CORE SPRAY SYSTEM AUTOMATIC RESPONSE DURING LOCA AND MANUAL SYSTEM INITIATION UPON AUTOMATIC INJECTION FAILURE", Section 4.0, Item 3, "All Core Spray Pumps start after a 6 second time delay with an initiation signal present AND diesel power available. The "B" pushbutton starts only the "B" and "D" core spray pumps. Therefore, the correct answer is "D".

Agree with the facility comment and change the correct answer from "C" to "D".

Attachment 3

Simulation Facility Report

Facility Licensee: Exelon Generation Company, LLC

Facility Docket Nos: 05000277 and 05000278

Operating tests Administered on: February 5-9, 2001

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and, without further verification and review, are not indicative of noncompliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information that may be used in future evaluations. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating test, examiners observed the following items:

ITEM	DESCRIPTION
Alarm H-1 201	In one scenario the crew was directed to perform RT-O-001-400-2, "Individual Full Closure of Main Turbine Stop Valves" as a normal event. Steps 6.3.1, 6.4.1, 6.5.1 and 6.6.1 direct the operator to close the turbine main stop valves. A procedure note indicates that Alarm H-1 201 "Feedwater Field Instrument Trouble" will alarm when a main stop valve is stroked closed. The alarm did not come in when the turbine main stop valve was closed. This problem did not significantly impact the test.
Sporadic Simulator S/D	About midway through one scenario, the simulator shutdown. The simulator was restarted within minutes and the test continued. The impact on the test was minimal.
Sporadic Hi Pressure Spike	During the third run of one scenario a sporadic high pressure spike caused a reactor scram on high RPV pressure. The malfunction impacted the test, but did not result in a need to run another scenario.

The facility is investigating each of these simulator problems.