

October 23, 2001

EA-01-188 (Peach Bottom)
EA-01-189 (Limerick)

Mr. Oliver D. Kingsley, President
Exelon Nuclear
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-E
Kennett Square, PA 19348

SUBJECT: NOTICE OF VIOLATION
(NRC Office of Investigations Report 1-2000-033)
(Peach Bottom Atomic Power Station / Limerick Generating Station)

Dear Mr. Kingsley:

This letter refers to an investigation initiated by the NRC's Office of Investigations (OI) on September 27, 2000, at the Peach Bottom Atomic Power Station (PBAPS) and the Limerick Generating Station (LGS). The purpose of the investigation was to determine if two former Exelon Infrastructure Services (EIS) maintenance technicians fabricated siren testing maintenance records, performed deficient siren tests on the offsite emergency preparedness response sirens, and intentionally installed jumper wires in the siren boxes disabling important system functions. The investigation was initiated after you identified the issue and reported it to the NRC.

Based on the evidence developed during its investigation, OI substantiated that two former EIS technicians deliberately falsified siren maintenance records to reflect that required activities had been performed, when, in fact, they had not been performed. OI also substantiated that one of the former EIS technicians installed jumper wires in the siren boxes to bypass failure detection circuitry. These conclusions were noted in a factual summary of the OI report that was sent to you in a letter dated August 15, 2001.

In our August 15, 2001, letter, we provided you the opportunity to address the OI findings and the apparent violations before we made our final enforcement decision by either attending a predecisional enforcement conference or by providing a written response. On October 1, 2001, a conference was conducted with Mr. J. Hagan and other members of your staff in the Region I office (King of Prussia, PA) to discuss the apparent violations, their significance, root causes, and your corrective actions. At the conference, your staff described its investigation, root cause evaluation and corrective actions. Your staff agreed that there was a failure to maintain complete and accurate maintenance and testing records as required by 10 CFR 50.9, but they contended that the requirements of 10 CFR 50.47(b)(5) and (b)(8) were met because the emergency preparedness planning standards were met. Further, your staff maintained that as a result of a population coverage analysis, the safety significance of this issue was low because more than 95% of the populace in the Emergency Planning Zones (EPZ) for LGS and PBAPS would have been notified. The slides that Exelon used during the enforcement conference

have been entered in the NRC's document system (ADAMS) and are accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> under Accession Number ML012840024.

After careful consideration of the information developed during the investigation and the information that you provided during the conference, the NRC has concluded that violations of NRC requirements occurred. These violations are cited in the enclosed Notice of Violation (Notice). The first violation involved creation of inaccurate and incomplete records by two former EIS contractors. Specifically, both individuals falsified a number of "Siren Report - Routine Maintenance Checklist" records indicating that they had completed all of the maintenance steps, when in fact they had not. The second violation involved deficiencies with providing early notification to the populace surrounding PBAPS and LGS in the event of an emergency. Specifically, siren failure detection circuitry in 10 of 97 sirens surrounding PBAPS and 4 of 165 sirens surrounding LGS were intentionally bypassed by installing jumpers. As a result, a false indication was provided that the sirens were working properly when, in fact, they were not. One of the former EIS contractors admitted to installing approximately ten jumper wires in LGS and PBAPS siren boxes between November 1999 and September 2000 to specifically bypass the failure detection circuitry. Therefore, despite your contention that 10 CFR 50.47(b)(5) was met, the NRC determined that as a result of these deliberate acts, the original design of the siren system was modified. Installation of the jumpers compromised the ability to detect, for certain sirens, any malfunction of this system which is used to provide early notification to the populace surrounding PBAPS and LGS. The siren system was compromised in that the jumpers prevented detection of certain inoperable sirens, which would have delayed, or possibly precluded you from taking compensatory actions to alert certain areas of the local populace in the event of an emergency. Therefore, the NRC maintains that 50.47(b)(5) was not met.

The safety significance of the violations was low because you estimated that you maintained over 95% siren coverage of the population in the vicinity of LGS and PBAPS. Therefore, these violations would normally be categorized at Severity Level IV. However, because the violations were caused by the willful actions of contractor employees, these violations have been categorized collectively in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600 as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$55,000 is considered for a Severity Level III violation or problem. Because the Severity Level III problem was deliberate, the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy. In this case, the NRC decided that credit for *Identification* is warranted because you identified the misconduct and informed the NRC. Credit for *Corrective Action* is also warranted because your corrective actions were considered prompt and comprehensive and included testing and corrective maintenance to restore sirens to a fully operable condition, performing a root cause evaluation, and terminating the employment of both contract technicians.

Therefore, to encourage prompt identification and corrective actions of problems that existed, I have been authorized, after consultation with the Director, Office of Enforcement, to not propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

You are not required to respond to this letter because the NRC has sufficient information on the docket concerning this issue, including details in a combined NRC inspection report dated August 30, 2001 (50-277/01-012; 50-278/01-012 and 50-352/01-013; 50-353/01-013), and your slides from the conference. These slides, as well as your presentation, provided your immediate and long term corrective actions to prevent recurrence of the violation. Your immediate corrective actions were described above, while your long term corrective actions included, but were not limited to: (1) the development of a training program and procedure for contract owners; (2) the strengthening of licensee procedures and terms for contracts; (3) the development of guidelines for monitoring contracts; (4) the development of a Siren Program Manual; and (5) the correction of performance indicator data submitted to the NRC. 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/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/ James T. Wiggins Acting For

Hubert J. Miller
Regional Administrator

Enclosure: As Stated

Docket Nos. 50-277, 50-278; 50-352, 50-353
License Nos. DPR-44, DPR-56; NPF-39, NPF-85

cc w/encl:

J. J. Hagan, Senior Vice President, Exelon Generation Company, LLC
W. Bohlke, Senior Vice President - Nuclear Services
J. Cotton, Senior Vice President - Operations Support
J. Skolds, Chief Operating Officer
G. Hunger, Chairman, Nuclear Review Board
M. Gallagher, Director - Licensing, Exelon Generation Company, LLC
J. Benjamin, Vice President - Licensing and Regulatory Affairs
W. Levis, Vice President - Limerick Generating Station
R. C. Braun, Plant Manager, Limerick Generating Station
K. Gallogly, Manager, Experience Assessment
Chief - Division of Nuclear Safety
Secretary, Nuclear Committee of the Board
E. Cullen, Vice President, General Counsel
Correspondence Control Desk
Commonwealth of Pennsylvania
J. Doering, Vice President, Peach Bottom Atomic Power Station
G. Johnston, Plant Manager, Peach Bottom Atomic Power Station
P. Chabot, Director, Nuclear Oversight
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
State of Maryland
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EAdensam, NRR

CGratton, PM, NRR

JBoska, PM, NRR (Backup)

HMiller, RA

JWiggins, DRA

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DScrenci/NSheehan, PAO-RI

BFewell, RI

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GMatakas, RI

MShanbaky, DRP

ABurritt, DRP - Senior Resident Inspector

Region I Docket Room (with concurrences)

RConte, DRS

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AMcMurtray, DRP - NRC Resident Inspector

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DATE	10/09/01		10/16/01		10/11/01		10/10/01		10/12/01	
OFFICE	RI/DRS		RI/ORR		HQ/OE		RI/RA			
NAME	Wlanning (WDL)		Bfewell (JBF)		FCongel (RJu for) *		Hmiller (JTW for)			
DATE	10/15/01		10/15/01		10/18/01		10/23/01			

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* Concurrence by J. Luehman via e-mail from P. Prescott

NOTICE OF VIOLATION

Exelon Generation Company, LLC
Peach Bottom Units 2 and 3

Docket No. 50-277; 50-278
License No. DPR-44, DPR-56
EA-01-188

Limerick Units 1 and 2

Docket No. 50-352, 50-353
License No. NPF-39, NPF-85
EA-01-189

During an investigation conducted by the NRC Office of Investigations, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

- A. 10 CFR 50.9 states, in part, that information required by the Commission's regulations, orders or license conditions to be maintained by a licensee shall be complete and accurate in all material respects.

10 CFR 50.54(q) states, in part, that a licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b).

Exelon's Nuclear Emergency Plan describes the philosophy, organization, facilities, and equipment necessary to ensure preparedness for emergencies at PBAPS and LGS. Section 5.2.14 describes the Public Alert/Notification System as a siren system that is maintained and tested regularly by Exelon to ensure its operability.

Common Emergency Preparedness Administrative Procedure EP-C-7, "The Maintenance and Testing of the Offsite Alert and Notification (Siren) Systems," Rev. 3, requires, in part, that routine maintenance and corrective maintenance shall be performed by the service provider on LGS and PBAPS siren systems at the direction of the Manager-EP; corrective maintenance shall be generated by the results of daily siren and county controller polls and failures that are indicated by full scale tests; and the records of routine testing shall be maintained by the site Nuclear Records Management Systems.

Contrary to the above, records of routine maintenance and testing performed on sirens in various locations surrounding LGS and PBAPS were not complete and accurate in all material respects. Specifically, from April/May 2000 until October 2000, two former Exelon Infrastructure Services (EIS) contractors falsified numerous "Siren Report - Routine Maintenance Checklist" records indicating that they had completed all of the routine maintenance steps, when, in fact, they had not.

- B. 10 CFR 50.47(b)(5) states, in part, that means to provide early notification to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Contrary to the above, for an undetermined period of time prior to October 2000, 10 of 97 sirens surrounding PBAPS and 4 of 165 sirens surrounding LGS contained jumpers that bypassed failure detection circuitry, thereby demonstrating that those sirens were working properly when, in fact, they were not. Therefore, the means to provide early notification to the populace within the plume exposure pathway Emergency Planning Zone would have been compromised because the jumpers prevented detection of sirens that were not working properly, which would have delayed or possibly precluded alerting certain portions of the local populace.

These violations have been categorized collectively as a Severity Level III problem.
(Supplement VIII)

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance was achieved is already adequately addressed on the docket in a combined NRC inspection report dated August 30, 2001, (50-277/01-012; 50-278/01-012 and 50-352/01-013; 50-353/01-013), and Exelon slides used during the October 1, 2001, predecisional enforcement conference. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region I, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be made 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/NRC/ADAMS/index.html> (the Public Electronic Reading Room). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 23rd day of October, 2001