



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I**  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

August 28, 2013

EA-12-216

Mr. Timothy S. Rausch  
Senior Vice President and Chief Nuclear Officer  
PPL Susquehanna, LLC  
769 Salem Boulevard, NUCSB3  
Berwick, PA 18603-0467

**SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION – NRC INSPECTION REPORT  
05000387/2013012 AND 05000388/2013012; AND NOTICE OF VIOLATION**

Dear Mr. Rausch:

This letter provides you the NRC enforcement decision for the apparent violations documented in Inspection Report 05000387/2013008 and 05000388/2013008, issued to PPL Susquehanna LLC's (PPL's) Susquehanna Steam Electric Station (SSES) on June 17, 2013 (ML13168A020)<sup>1</sup>. The apparent violations, associated with licensed reactor operator medical examinations and related NRC reporting requirements, were discussed with SSES representatives at an inspection exit meeting on May 22, 2013, and documented in the subject inspection report. The report also included a cross-cutting aspect assigned to a Green Reactor Oversight Process (ROP) finding associated with one of the apparent violations.

The June 17, 2013, NRC letter transmitting the inspection report also: (1) notified you that two of the apparent violations were being considered for escalated enforcement in accordance with the NRC Enforcement Policy; (2) noted that the report included the associated Green ROP finding for PPL not implementing effective corrective actions to prevent the recurrence of one of the violations; and (3) provided you with the opportunity to address these apparent violations by either attending a pre-decisional enforcement conference or by providing a written response before we made our final enforcement decision. In a letter dated July 17, 2013 (ML13199A179), PPL provided a response which acknowledged the violations, but also expressed disagreement with the cross-cutting aspect assigned to the Green ROP finding.

Based on the information developed during the inspection and the information that you provided in your July 17, 2013, letter, the NRC has determined that violations of NRC requirements occurred. These violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding them are described in detail in the subject inspection report and in the NRC's June 17, 2013, letter.

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<sup>1</sup> Designation in parentheses refers to an Agency-wide Documents Access and Management System (ADAMS) accession number. Documents referenced in this letter are publicly-available using the accession number in ADAMS.

The first violation involved multiple occurrences between August 2007 and June 2012, in which PPL: (a) did not restrict licensed reactor operators from performing licensed duties when they had disqualifying medical conditions; and (b) did not properly notify the NRC after learning of changes in licensed reactor operator medical conditions that involved permanent disabilities/illnesses. Specifically, four licensed reactor operators at SSES developed disqualifying medical conditions that were not properly evaluated by PPL staff. PPL did not restrict the operators from performing licensed duties or obtain NRC approval (by requesting conditioned licenses) for the operators to continue to perform licensed duties. Additionally, the NRC identified eight instances in which PPL did not notify the NRC within 30 days of learning of changes in licensed operator medical conditions that involved permanent disabilities/illnesses. This resulted in the operators performing licensed operator duties without their licenses being properly amended to add requirements to accommodate the medical conditions (such as requiring an operator to wear prescribed corrective lenses if (s)he did not meet the minimum vision requirements).

The second violation involved PPL's submittal of information to the NRC that was not complete and accurate in all material respects. Specifically, between 2010 and 2011, PPL submitted three licensed operator renewal applications and one initial license application, each of which certified the medical fitness of the applicants and that no restricting license conditions were necessary. However, the applicants, in fact, each had medical conditions that did not meet the minimum standards of 10 CFR 55.33(a)(1) and, therefore, required specific license conditions in order to perform licensed activities. Based, in part, on this inaccurate information, the NRC issued the licenses without the required restricting license conditions.

The NRC has concluded that both violations occurred as a result of PPL's failure to: (1) oversee the licensed operator medical examination process; (2) train staff on the applicable NRC requirements; and (3) implement an effective licensed operator medical program that maintained awareness of NRC and industry guidance. Specifically, when PPL's Medical Review Officer (MRO) assumed the position in 2007, he was not provided turnover or training from PPL regarding licensed operator medical requirements. The PPL MRO relied upon exams that were performed by a physician and his staff at a local hospital. Similarly, the physician that performed the exams at the local hospital had not been trained on, nor had knowledge of, the applicable NRC requirements. Accordingly, these violations have been categorized collectively as a SL III problem to emphasize the importance of providing suitable training, oversight, and focus on licensed operator medical requirements.

In accordance with the NRC Enforcement Policy, a base civil penalty in the amount of \$70,000 is considered for a Severity Level III problem. Because PPL has not been the subject of escalated traditional enforcement action within the last two years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. The NRC has concluded that credit is warranted for PPL's corrective actions. Specifically, PPL: (1) trained the MRO and the site nurse on the specific requirements; (2) revised the site implementing procedure to include requirements for the MRO and nurse to receive annual refresher training and to attend an industry conference; and (3) hired a contract company with specialized knowledge of the NRC requirements in this area, to temporarily oversee its licensed operator medical program.

Therefore, to encourage prompt and comprehensive correction of violations, and in recognition of the absence of previous escalated traditional enforcement action, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding: (1) the reasons for the violations; (2) the actions planned or already taken to correct the violations and prevent recurrence; and (3) the date when full compliance was achieved, is already adequately addressed on the docket in Inspection Report 05000387/2013008 and 05000388/2013008, the NRC letter dated June 17, 2013, the PPL letter dated July 17, 2013, and in this letter. Therefore, you are not required to respond to this Notice. 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 provide additional information, you should follow the instructions specified in the enclosed Notice.

The NRC evaluated PPL's disagreement with the Problem Identification and Resolution – Evaluation P.1(c) cross-cutting aspect (CCA) assigned to the Green ROP finding for the lack of effective corrective actions to prevent the recurrence of this issue following the issuance of similar violations in 2009 and 2011. In part, PPL stated that Human Performance – Decision Making H.1(b) would be a more appropriate CCA, due to PPL's failure to take prompt actions to restrict affected operators from licensed duties. Although the NRC acknowledges that non-conservative decision-making was a factor, we maintain that PPL's failure to appropriately evaluate the issue was the most significant contributing cause.

PPL also indicated that the issue was not indicative of current performance because of improvements to PPL's condition report procedure, which governs the performance of root cause evaluations. While the NRC did not fully agree with the basis provided in your letter, we did consider that NRC Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Section 03.15 states that, in some rare or unusual cases, other considerations can be applied to determine if a CCA is reflective of current performance. As one example, a CCA can be considered to not reflect current performance if the performance characteristic has been corrected or eliminated (i.e., the performance deficiency would not likely occur today under similar circumstances due to changes made to licensee programs and processes). The NRC acknowledges that, during the time period between identification of this most recent issue until the inspection exit and ultimate report issuance, PPL made significant process and procedure changes associated with medical examinations and reporting (beyond changes to the referenced condition report procedure) previously described in this letter. As such, the stated performance deficiency (PPL's failure to implement adequate corrective actions to prevent this recurrence) was no longer considered indicative of current performance. As a result, the NRC has concluded that a CCA should not be assigned to the Green finding.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room and in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information.

T. Rausch

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If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

The NRC also includes significant enforcement actions on its Web site at (<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>).

Sincerely,

**/RA/**

William M. Dean  
Regional Administrator

Docket Nos. 50-387; 50-388  
License Nos. NPF-14; NPF-22

Enclosure: Notice of Violation

cc w/enclosure: Distribution via ListServ

If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

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Sincerely,

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William M. Dean  
Regional Administrator

Docket Nos. 50-387; 50-388  
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Enclosure: Notice of Violation

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ENCLOSURE  
NOTICE OF VIOLATION

PPL Susquehanna, LLC  
Susquehanna Steam Electric Station

Docket Nos. 05000387; 388  
License Nos. NPF-14; 22  
EA-12-216

During an NRC inspection conducted between August 28, 2012, and April 5, 2013, for which an exit meeting was conducted on May 22, 2013, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- I. 10 CFR 55.3 requires, in part, that a person must be authorized by a license issued by the Commission to perform the function of a licensed operator or a licensed senior operator as defined in Part 55.

10 CFR 55.21 requires, in part, that individual licensed operators and senior operators shall have a medical examination by a physician every two years, and that the physician shall determine that the operator meets requirements of Section 55.33(a)(1). 10 CFR 55.33(a)(1) requires, in part, that an applicant's medical condition and general health will not adversely affect the performance of assigned operator job duties or cause operational errors endangering public health and safety. 10 CFR 55.33(b) states, in part, that if the general medical condition of an applicant does not meet the minimum standards under 10 CFR 55.33(a)(1), the Commission may approve the application and include conditions in the license to accommodate the medical defect.

10 CFR 55.23 requires, in part, that an authorized representative of the facility licensee shall certify the medical fitness of an applicant by completing and signing an NRC Form-396, "Certification of Medical Examination by Facility Licensee." On its Form 396, facility licensees must certify, in part, the guidance that was used to determine the medical fitness of its applicants. PPL certified on its Form 396 that it used the guidance in American National Standards Institute/American Nuclear Society (ANSI/ANS) 3.4-1983, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants."

ANSI/ANS 3.4-1983, states, in part, that the primary responsibility for assuring that qualified personnel are on duty rests with the facility licensee. In addition, the health requirements set forth within the standard provide the minimum necessary to determine that the physical condition and general health of the individuals are not such as might cause operational errors endangering public health and safety. The specific health requirements and disqualifying conditions are described in Section 5.3, "Disqualifying Conditions," and Section 5.4, "Specific Minimum Capacities Required for Medical Qualifications."

10 CFR 50.74(c) requires, in part, that each facility licensee notify the appropriate NRC Regional Administrator within 30 days of a permanent disability or illness as described in 10 CFR 55.25 involving a licensed operator or senior operator.

10 CFR 55.25 requires, in part, that if a licensed operator or licensed senior operator develops a permanent physical condition that causes the licensee to fail to meet the requirements of 10 CFR 55.21, the facility must notify the NRC within 30 days of learning of the diagnosis. For conditions where a license condition is required, the facility licensee must

provide medical certification on NRC Form 396, "Certification of Medical Examination by Facility Licensee."

Contrary to the above, between August 2007 and June 2012, eight licensed reactor operators performed licensed duties when they had permanent disabilities or illnesses that caused them to not meet the requirements of 10 CFR 55.33(a)(1) (four of whom had medical issues defined by ANSI/ANS 3.4-1983 as disqualifying conditions), and the NRC licenses for these operators were not restricted, nor was the NRC notified within 30 days of PPL learning of these medical concerns. Specifically:

- a. On separate occasions between May 2011 and June 2012, PPL learned that three ROs and one SRO each had permanent disabilities or illnesses specified as disqualifying conditions in ANSI/ANS 3.4-1983 (asthma, chronic obstructive pulmonary disease, or stress-related anxiety); however, PPL did not restrict these licensed operators from performing licensed operator duties, report these changes in permanent medical condition to the NRC within 30 days, or request amended licenses with conditions to account for the medical issues.
  - b. On separate occasions between August 2007 and July 2011, PPL learned that two ROs and two SROs each had permanent disabilities or illnesses (sleep apnea, corrective lenses, or prescribed medication); however, PPL did not report these changes in permanent medical condition to the NRC within 30 days nor did PPL request amended licenses with conditions to account for the medical issues.
- II. 10 CFR 50.9 requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects.

10 CFR 55.21 requires, in part, that individual licensed operators and licensed senior operators shall have a medical examination by a physician every two years, and that the physician shall determine that the licensee meets requirements of Section 55.33(a)(1). 10 CFR 55.33(a)(1) requires, in part, that an applicant's medical condition and general health will not adversely affect the performance of assigned operator job duties or cause operational errors endangering public health and safety. 10 CFR 55.33(b) states, in part, that if the applicant's general medical condition does not meet the minimum standards under 10 CFR 55.33(a)(1), the Commission may approve the application and include conditions in the license to accommodate the medical defect.

10 CFR 55.23 requires, in part, that an authorized representative of the facility licensee shall certify the medical fitness of an by completing and signing an NRC Form-396, "Certification of Medical Examination by Facility Licensee." NRC Form-396, when signed by an authorized representative of the facility licensee, certifies that, based on the results of the physical examination, including information furnished by the applicant, the physician has determined that the applicant's physical condition and general health are such that the applicant would not be expected to cause operational errors endangering public health and safety, and documents whether the applicant's license should be conditioned with restrictions.

Contrary to the above, on four occasions, PPL provided information to the NRC that was not complete and accurate in all material respects. Specifically, on December 23, 2010, PPL



submitted an NRC-Form 396 for one licensed operator initial application and on December 6, 2011, PPL submitted an NRC Form 396 for three NRC licensed operator renewal applications, each of which certified the medical fitness of the applicants and that no restricting license conditions were necessary. This information was inaccurate in that the applicants, in fact, each had medical conditions that did not meet the minimum standards of 10 CFR 55.33(a)(1) and required restricting license conditions to perform licensed activities.

These two violations represent a Severity Level III problem (Section 6.4)

The NRC has concluded that information regarding: 1) the reasons for the violations; 2) the actions planned or already taken to correct the violations and prevent recurrence; and 3) the date when full compliance was achieved, is already adequately addressed on the docket in Inspection Report 05000387/2013008 and 05000388/2013008, the NRC letter dated June 17, 2013, the PPL letter dated July 17, 2013, and in the letter transmitting this Notice of Violation (Notice). Therefore, you are not required to respond to this Notice. 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 EA-12-216," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, 2100 Renaissance Boulevard, Suite 100, King of Prussia, PA 19406, and a copy to the NRC resident inspector at Susquehanna Steam Electric Station, within 30 days of the date of the letter transmitting this Notice.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. 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 of receipt.

Dated this 28<sup>th</sup> day of August, 2013