

March 12, 2001

EA-01-012

Mr. Robert G. Byram  
Senior Vice President, Nuclear  
PPL Susquehanna, LLC  
Susquehanna Steam Electric Station  
2 North Ninth Street  
Allentown, PA 18101

SUBJECT: FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING AND  
NOTICE OF VIOLATION AT SUSQUEHANNA  
(NRC Integrated Report 05000387/2000-009, 05000388/2000-009)

Dear Mr. Byram:

The purpose of this letter is to provide PPL Susquehanna, LLC (PPL) with the final results of our significance determination of the preliminary White finding identified during an NRC inspection conducted between November 12, 2000, and December 31, 2000. The results of the inspection were discussed with members of your staff at an exit meeting on January 12, 2001. The inspection finding was assessed using the significance determination process and was preliminarily characterized as White, an issue with low to moderate increased importance to safety that may require additional NRC inspections. This preliminary White finding was described in the subject inspection report that was previously sent to you on January 30, 2001, and concerned an apparent substantial potential for personnel to sustain external radiation exposures in excess of occupational radiation exposure limits in 10 CFR 20, due to the failure to adequately evaluate radiological hazards as required by 10 CFR 20.1501(a).

Specifically, workers performed work on irradiated reactor hardware disposal equipment and tools that were contaminated with highly radioactive particles. While PPL took action to evaluate some aspects of the radiological hazards posed by these highly radioactive particles, PPL's organization and program: (1) did not adequately evaluate and characterize the radiation exposure hazards posed by these particles; and (2) did not establish and implement adequate radiological controls to assure that both shallow-dose and deep-dose equivalent personnel exposures would not exceed regulatory requirements. While no personnel exposures in excess of 10 CFR 20 occupational limits occurred, the radiological conditions were such that a minor alteration in exposure circumstances could have resulted in personnel exposures in excess of regulatory limits.

At PPL's request, a Regulatory Conference was held on March 1, 2001, to discuss your perspective on this issue. During the conference, you did not contest the NRC's characterization of the issue as a White finding or that a violation had occurred. You discussed the radiological controls in effect at the time, including root causes and corrective actions. Your slides that were used for your presentation during the Regulatory Conference are enclosed.

After consideration of the information developed during the inspection and the information you provided at the conference, the NRC has concluded that the inspection finding is appropriately characterized as White, an issue with low to moderate increased importance to safety that may require additional NRC inspections. You have 10 business days from the date of this letter to appeal the staff's determination of significance for the identified White finding. Such appeals will be considered to have merit only if they meet the criteria given in NRC Inspection Manual Chapter 0609, Attachment 3.

The NRC has also determined that PPL violated the requirements of 10 CFR 20.1501(a) as cited in the enclosed Notice of Violation (Notice), because PPL did not perform adequate surveys that were necessary to comply with the occupational dose limits specified in 10 CFR 20.1201, and that were reasonable under the circumstances, to evaluate potential radiological hazards posed by these highly radioactive particles. Your failure to adequately evaluate this condition resulted in the potential that a minor alteration in exposure circumstances could have resulted in an occupational exposure in excess of the regulatory limits of 10 CFR 20.1201. The circumstances surrounding the violation were discussed in the subject inspection report. In accordance with the NRC Enforcement Policy, NUREG-1600, the Notice of Violation is considered escalated enforcement action because it is associated with a White finding. The Enforcement Policy is available at the Office of Enforcement website at <http://www.nrc.gov/OE/>.

You are not required to respond to this letter because the NRC has sufficient information on the docket (PPL Regulatory Conference Slides) from the Regulatory Conference that was held on March 1, 2001. These slides, as well as your presentation, provided your corrective actions to prevent recurrence of the violation and included: (1) stopping work, including termination of all high-risk evolutions; (2) establishing a defense-in-depth approach to control of radioactive particles; (3) enhancing sensitivity to radioactive particle issues; (4) establishing better control of particles at the source; (5) implementing enhanced radiological monitoring; (6) improving management oversight of high risk evolutions; and (7) improving independent oversight.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures 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 for**

Hubert J. Miller  
Regional Administrator

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

Enclosures:

1. Notice of Violation
2. PPL Regulatory Conference Slides

cc w/encls:

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G. T. Jones, Vice President - Nuclear Engineering and Support  
R. Ceravolo, General Manager - SSES  
R. M. Peal, Manager, Nuclear Training  
G. D. Miller, General Manager - Nuclear Assurance  
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Commonwealth of Pennsylvania

Mr. R. G. Byram

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## NOTICE OF VIOLATION

PPL Susquehanna, LLC  
Susquehanna Steam Electric Station

Docket Nos. 50-387, 50-388  
License Nos. NPF-14, NPF-22  
EA-01-012

During an NRC inspection conducted between November 12, 2000, and December 31, 2000, and as discussed with PPL during an exit meeting on January 12, 2001, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG 1600, the violation is listed below:

10 CFR 20.1501(a) requires that each licensee make or cause to be made, surveys that may be necessary for the licensee to comply with the regulations in Part 20 (such as the occupational dose limits specified in 10 CFR 20.1201), and that are reasonable under the circumstances, to evaluate potential radiological hazards. 10 CFR 20.1003, defines survey as an evaluation of the radiological conditions and potential hazards incident to the presence of radioactive material or other sources of radiation.

Contrary to the above, during the period between September and December 2000, PPL encountered several highly radioactive particles while working with contaminated reactor hardware disposal equipment and tools, but did not perform an adequate evaluation of the radiological hazards associated with these particles that were reasonable under the circumstances and necessary to assure that the occupational dose limits specified in 10 CFR 20.1201 would not be exceeded. Specifically, the licensee's evaluation did not recognize that given the radiation levels of these particles, a minor alteration in exposure circumstances (i.e., location or intensity) had the potential to result in radiation exposure to workers in excess of the occupational dose limits.

This violation is associated with a White Significance Determination Process finding.

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 your slides used during the Regulatory Conference held on March 1, 2001, and in the NRC inspection report. 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 12 th day of March 2001