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**JUL 2 1 2015**

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

**SUSQUEHANNA STEAM ELECTRIC STATION  
REPLY TO A NOTICE OF VIOLATION; EA-15-022  
PLA-7363**

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**Docket Nos. 50-387  
and 50-388**

*Reference: 1) Letter from NRC (D. H. Dorman) to Susquehanna Nuclear, LLC (T. S. Rausch), "Final Significance Determination for a White Finding with Assessment Follow-up and Notice of Violation (Inspection Report No. 05000387/2015504 and 05000388/2015504) Susquehanna Steam Electric Station Units 1 and 2," dated June 22, 2015.*

In accordance with 10 CFR 2.201, Susquehanna Nuclear, LLC hereby submits the Reply to a Notice of Violation EA-15-022 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2 (Enclosure).

By letter dated June 22, 2015 (Reference 1), the Nuclear Regulatory Commission (NRC) cited Susquehanna Nuclear, LLC for failure to maintain in effect an Emergency Plan that met the standards of 10 CFR 50.47(b)(4) and the requirements in 10 CFR 50, Appendix E, Section IV.C.2. Specifically, SSES's interpretation of the 15-minute assessment and declaration period degraded its ability to make a timely Site Area Emergency declaration for a potential loss of the Reactor Coolant System barrier emergency action level.

Susquehanna Nuclear, LLC accepts the NRC's significance determination for the identified White finding. Susquehanna Nuclear, LLC also understands that the NRC plans to conduct a supplemental inspection in accordance with Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area." As discussed in the Enclosure to this letter, prompt action has been taken to return to compliance with 10 CFR 50.54(q)(2), 10 CFR 50.47(b)(4) and 10 CFR 50, Appendix E, Section IV.C.2.

Should you have any questions regarding this submittal, please contact  
Mr. Jeffery N. Grisewood, Manager – Nuclear Regulatory Affairs at (570) 542-1330.

There are no regulatory commitments identified in this letter.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. A. Franke', written in a cursive style.

J. A. Franke  
Enclosure

Copy: Regional Administrator, NRC Region I  
Mr. J. E. Greives, NRC Sr. Resident Inspector  
Mr. J. A. Whited, NRC Project Manager  
Mr. B. R. Fuller, DEP/BRP

## Enclosure

### Susquehanna Nuclear, LLC Reply to Notice of Violation EA-15-022

#### Restatement of the Violation

“During an NRC inspection conducted from January 12 - March 17, 2015, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 50.54(q)(2), requires that a holder of a nuclear power reactor operating license under this part, shall follow and maintain the effectiveness of an emergency plan that meets the requirements in Appendix E of this part and the standards in 10 CFR 50.47(b) and 10 CFR 50, Appendix E.

10 CFR 50.47(b)(4), requires a standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and state and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Appendix E, Section IV.C.2, requires that by June 20, 2012, nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15-minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an EAL that has been exceeded.

Contrary to the above, as of June 20, 2012, Susquehanna Nuclear, LLC (Susquehanna) failed to maintain in effect an emergency plan that met the standards in 10 CFR 50.47(b)(4) and the requirements in 10 CFR 50, Appendix E, Section IV.C.2. Specifically, Susquehanna’s interpretation of the 15-minute assessment and declaration period degraded their ability to make a timely Site Area Emergency (SAE) declaration for a potential loss of Reactor Coolant System (RCS) barrier emergency action level. Susquehanna interpreted the 15-minute assessment and declaration clock to start when operator actions were, or expected to be, unsuccessful in isolating an RCS leak. Susquehanna’s incorrect interpretation of the 15-minute assessment and declaration period degraded its ability to make timely a SAE declaration.

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



**Reply to a Notice of Violation EA-15-022**

Pursuant to the requirements of 10 CFR 2.201, Susquehanna Nuclear, LLC, submits the following information in reply to Notice of Violation EA-15-022.

**1) Reason for the Violation (NOV) or, if contested, the basis for disputing the violation**

Susquehanna Nuclear, LLC, incorrectly implemented the 15-minute assessment, classification, and declaration period for a potential loss of Reactor Coolant System (RCS) barrier Emergency Action Level (EAL). Specifically, the 15-minute assessment, classification, and declaration clock was interpreted to start when operator actions were, or were expected to be, unsuccessful in isolating a RCS leak rather than upon exceeding the EAL thresholds. This potentially degraded SSES's ability to make a timely Site Area Emergency declaration for one postulated scenario involving an unisolable primary coolant system leak outside of primary containment.

A root cause analysis was performed under Condition Report (CR) 2015-11640 for the identified violation. The following two root causes were identified.

- The Emergency Planning Department manager did not provide adequate oversight during the NRC Rulemaking process regarding the 15-minute emergency declaration period timeliness criteria implemented in 10 CFR 50, Appendix E, Section IV.C.2 on June 20, 2012.

At the time the NRC issued the Preliminary Rulemaking change to the timeliness criteria in 2010, SSES's Emergency Planning Department developed an action plan (under Action Request 1338345) to evaluate the emergency declaration timeliness criteria to ensure compliance with the new Rulemaking. The AR was subsequently closed stating that SSES met the emergency declaration timeliness requirement as described in the 2010 preliminary rulemaking. This identifies that SSES interpreted the existing EAL bases document for Table F – Fission Product Barrier Degradation as being in compliance with the NRC Rulemaking and that no additional guidance regarding the 15-minute assessment, classification and declaration period was necessary.

- Procedure NDAP-00-0706, "Process for Issues Involving Significant Regulatory Interaction," did not drive an adequate review process to challenge the implementation of the 2012 Emergency Preparedness Rulemaking regarding the 15-minute emergency declaration period timeliness criteria.

## 2) Corrective steps that have been taken and the results achieved

The following immediate compensatory actions have been implemented:

- Provided a read and acknowledge memo to the Emergency Response Organization (ERO) that states that the measured trigger time for the Potential Loss 2 - RCS EAL begins with the temperature or radiation readings in the table exceeding the maximum normal levels.
- Revised procedure EP-RM-004, "EAL Classification Bases," Attachment F, "Fission Product Barrier Degradation Bases," Potential Loss 2 – RCS section, to state the following:

Potential Loss 2 – RCS is based on primary system leakage outside the drywell determined from procedure EO-000-104, "Secondary Containment Control" area temperatures or radiation levels shown in Table F-1, "Max Normal Reactor Building Temperature," and F-2, "Max Normal Reactor Building Radiation Monitor."

NRC regulations require the SSES to establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded (EAL "trigger").

Max Normal conditions shall be assumed to be from RCS leakage until proven otherwise.

- EAL "trigger" for this threshold begins when one or more of the above Max Normal Reactor Building Radiation or Temperature Limits are exceeded.
- If subsequent actions taken to isolate the leak are successful within the 15 minutes classification period, this EAL should not be declared.
- If subsequent investigation, within the 15-minute classification period, reveals that the Max Norm conditions are not due to RCS leakage, this EAL should not be declared.

If it cannot be determined within 15 minutes of the EAL "trigger" that the leak is isolable and not the result of a condition previously described, then the EAL shall be declared.

**3) Corrective steps that will be taken**

- Review selected EALs that require action to ensure they meet the 15-minute timeliness definition as identified in the White Finding and NSIR/DPR-ISG-01.
- Revise procedure NDAP-00-0706, "Process for Issues Involving Significant Regulatory Action," to add a process detailing how to identify the level of risk for proposed NRC Rulemaking. Based on the identified risk, determine necessary team members and required level of senior management oversight.

**4) Date when full compliance will be achieved**

PPL is in full compliance with the requirements of 10 CFR 50, Appendix E, Section IV.C.2.