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

SUSQUEHANNA STEAM ELECTRIC STATION
RESPONSE TO NRC'S REQUEST FOR ADDITIONAL INFORMATION REGARDING REQUEST TO CHANGE TECHNICAL SPECIFICATION 3.3.6.1
PLA-7108

Docket No. 50-387
and No. 50-388

References: 1. PPL Letter (PLA-6990), titled "Proposed Amendment Number 314 to Unit 1 Operating License No. NPF-14 Proposed Amendment Number 286 to Unit 2 Operating License No. NPF-22 Change to Allow Only One Manual Trip System to be Operable for the RHR Shutdown Cooling System in Modes 4 and 5 for Unit 1 and Unit 2 Technical Specification 3.3.6.1," dated June 6, 2013.

2. NRC Letter, titled "Susquehanna Steam Electric Station, Units 1 and 2 – Request for Additional Information Regarding Request to Change Technical Specification 3.3.6.1," dated November 13, 2013.

The purpose of this letter is for PPL Susquehanna, LLC (PPL) to provide a response to the request for additional information contained in Reference 2. PPL's response follows:

RAI 1:

Describe the response to a loss of shutdown cooling system integrity assuming the loss occurs when operating in a mode where TS 3.3.6.1 applies.

PPL's Response:

The Residual Heat Removal (RHR) Shutdown Cooling System (SDC) is required to be operable in Modes 3, 4, and 5. Various isolation instrumentation is required to be operable in Modes 1 through 5. If the integrity of the RHR SDC were to be lost in any Mode, PPL's Off-Normal Procedures and Emergency Operating Procedures require the operators to isolate the leak through manual or automatic actions as follows:

Off-Normal Procedure ON-1(2)69-002, "FLOODING IN REACTOR BUILDING," directs operators to isolate the source of flooding as rapidly as possible, unless the source is required to assure adequate core cooling. Should a leak occur from RHR SDC that causes flooding in the reactor building operators would isolate RHR SDC to prevent a loss of core cooling caused by uncovering the core. Isolating RHR SDC will assure core

cooling by conserving vessel water inventory. Following the isolation of RHR SDC an alternative method of cooling the core is placed in service by implementation of Off-Normal Procedure ON-1(2)49-001, "LOSS OF RHR SHUTDOWN COOLING MODE."

Off-Normal Procedure ON-1(2)59-002, "CONTAINMENT ISOLATION," directs operators to verify the isolation of the RHR SDC penetration should operators receive the +13" isolation signal. If the isolation did not automatically occur, procedure guidance is to manually make the isolation occur.

Emergency Operating Procedure EO-000-004, "SECONDARY CONTAINMENT CONTROL," directs the operator to isolate all systems discharging into the area. This is triggered by a room flooded alarm.

In summary, by design of the RHR system, Susquehanna will have a loss of reactor coolant inventory through a penetration below the top of active fuel. Operators must take all actions necessary to isolate the leak. These actions would include automatic isolation of the penetration via an operable Primary Containment Isolation Valve (PCIV), manually closing an operable PCIV from the control room, manually closing either an inboard or outboard PCIV locally or closing the manual RHR SDC isolation valve inside containment depending on the Mode and location of the leak. The RHR SDC isolation instrumentation would not be solely relied upon to isolate the leak.

There are no regulatory commitments associated with this response.

If you have any questions or require additional information, please contact Mr. Duane L. Filchner (570) 542-6501.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: December 4, 2013

Sincerely,

J. A. Franke

Copy: NRC Region I
Mr. J. E. Greives, NRC Sr. Resident Inspector
Mr. J. A. Whited, NRC Project Manager
Mr. L. J. Winker, PA DEP/BRP