May 6, 2014

MEMORANDUM TO: James M. Trapp, Deputy Director
Division of Reactor Safety
Region I

FROM: Sher Bahadur, Deputy Director ***/RA/***
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: FINAL RESPONSE TO TASK INTERFACE AGREEMENT 2013-04, SUSQUEHANNA STEAM ELECTRIC STATION UNITS 1 AND 2 - STANDBY GAS TREATMENT SYSTEM AND SECONDARY CONTAINMENT BOUNDARY SURVEILLANCE REQUIREMENTS

By letter dated April 17, 2013 (Agencywide Documents Access and Management System Accession No. ML13108A081), the U.S. Nuclear Regulatory Commission Region I Office requested technical assistance from the Office of Nuclear Reactor Regulation (NRR) to determine if the Susquehanna Steam Electric Station (SSES) licensee's method for testing the standby gas treatment system (SGTS) and secondary containment boundary comply with its current design and licensing basis. In addition, Region I requested that NRR evaluate the existing design and licensing bases, including the current Technical Specification (TS) Surveillance Requirement (SR) for the SGTS and secondary containment boundary, to determine if additional test configurations and acceptance limits are needed to demonstrate the operability of internal boundaries during design-basis accidents (DBAs). The enclosed evaluation documents the NRR staff position regarding SSES SGTS and secondary containment current design and licensing basis and testing requirements.

During a review of a modification to the secondary containment boundary, the NRC triennial modifications inspection team identified a potential deficiency with the licensee's operability testing of the secondary containment and SGTS per TS SR 3.6.4.1.4 and 3.6.4.1.5. The team questioned whether the configurations used for secondary containment during SGTS testing adequately tested secondary containment for all potential post-accident configurations (e.g., during refueling outages when one unit has relaxed/opened containment or when the non-safety related ventilation system is in operation) following a DBA on each unit. Specifically, the team questioned whether the existing surveillance testing could mask potential leakage among the three secondary containment zones (i.e., shared internal boundaries), which could potentially render secondary containment inoperable.

In conducting its review of the licensee's current design and licensing basis for the SGTS and secondary containment and testing requirements, the NRR staff used the Standard TSs for General Electric plants, NUREG-1433, the TS conversion documents for the SSES TS conversion and IMC Part 9900, the content in SSES TS 3.6.4.1, TS 3.6.4.1 Bases, and

docketed correspondence. The NRR staff position is that the SR 3.6.4.1.4 and 3.6.4.1.5 text and testing methods were not sufficient to provide assurance that TS LCO 3.6.4.1 is met. The basis for this position can be found in Section 3.0 of the enclosure.

Enclosure:
Task Interface Agreement

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TASK INTERFACE AGREEMENT 2013-04

SUSQUEHANNA STEAM ELECTRIC STATION UNITS 1 AND 2

STANDBY GAS TREATMENT SYSTEM AND SECONDARY CONTAINMENT BOUNDARY

SURVEILLANCE REQUIREMENTS

1.0 INTRODUCTION

By letter dated April 17, 2013 (Agencywide Documents Access and Management System Accession No. ML13108A081), the U.S. Nuclear Regulatory Commission Region I Office requested technical assistance from the Office of Nuclear Reactor Regulation (NRR) to determine if the Susquehanna Steam Electric Station (SSES) licensee's method for testing the standby gas treatment system (SGTS) and secondary containment boundary comply with its current design and licensing basis. In addition, Region I requested that NRR evaluate the existing design and licensing bases, including the current Technical Specification (TS) Surveillance Requirement (SR) for the SGTS and secondary containment boundary, to determine if additional test configurations and acceptance limits are needed to demonstrate the operability of internal boundaries during design-basis accidents (DBAs). This evaluation documents the NRR staff position regarding SSES SGTS and secondary containment current design and licensing basis and testing requirements.

During a review of a modification to the secondary containment boundary, the NRC triennial modifications inspection team identified a potential deficiency with the licensee's operability testing of the secondary containment and SGTS per TS SR 3.6.4.1.4 and 3.6.4.1.5. The team questioned whether the configurations used for secondary containment during SGTS testing adequately tested secondary containment for all potential post-accident configurations (e.g., during refueling outages when one unit has relaxed/opened containment or when the non-safety related ventilation system is in operation) following a DBA on each unit. Specifically, the team questioned whether the existing surveillance testing could mask potential leakage among the three secondary containment zones (i.e., shared internal boundaries), which could potentially render secondary containment inoperable.

In conducting its review of the licensee's current design and licensing basis for the SGTS and secondary containment and testing requirements, the NRR staff used the Standard TSs for General Electric plants, NUREG-1433, the TS conversion documents for the SSES TS conversion and IMC Part 9900, the content in SSES TS 3.6.4.1, TS 3.6.4.1 Bases, and docketed correspondence.

2.0 BACKGROUND

SSES's secondary containment is divided into three zones. Zone 1 is associated with Unit 1, Zone 2 is associated with Unit 2, and Zone 3 encompasses the refueling floor/spent fuel pool area.

ENCLOSURE

These zones are normally maintained ≥ 0.25 inches of vacuum, water gauge (≥ 0.25" vacuum w.g.) via the normal non-safety related ventilation lineup. This ventilation lineup discharges to the atmosphere via an unfiltered but monitored release path. As stated in the updated final safety analysis report (UFSAR) Sections 6.5.1.1.1 and 6.2.3.2.3, during a DBA, the secondary ventilation system is designed to isolate the affected unit zone and spent fuel pool zone, and place those zones on recirculation with discharge through the SGTS. The unaffected unit's zone does not isolate and remains on the normal ventilation lineup. Additionally, during a DBA with a loss-of-offsite power, all three zones would isolate and be placed on recirculation with discharge via the SGTS.

TS SR 3.6.4.1.4 specifies the maximum time in which the SGTS can draw down the secondary containment to ≥ 0.25" vacuum w.g. to be considered operable. TS SR 3.6.4.1.5 specifies the maximum SGTS flow at which the system can maintain that secondary containment vacuum to be considered operable. The team reviewed the surveillance procedure used to meet the testing requirements of SR 3.6.4.1.4 and 3.6.4.1.5. The team found that any of three ventilation line-ups were allowed in the procedure. The acceptable configurations were;

1. All three zones on recirculation connected to the SGTS.
2. Zone 1 (2) and Zone 3 on the recirculation system connected to the SGTS with Zone 2 (1) operable (>0.25" water column vacuum) and on normal ventilation.
3. Zone 1 (2) and Zone 3 on the recirculation system connected to the SGTS with Zone 2 (1) inoperable (atmospheric pressure).

If the SGTS can maintain the tested zone at ≥ 0.25" vacuum w.g. in the required time, (TS 3.6.4.1.4) and the flow rate through the SGTS is less than the established limit (TS 3.6.4.1.5), then the SRs are considered met. Note that these three configurations were listed in the Revision 0 of the TS Bases (i.e., not in the TS SR) that had been submitted to the NRC when the licensee upgraded to Improved TS (ITS). The team noted that a subsequent revision to the TS Bases combined Configurations 2 and 3 and eliminated the reference to the configuration of the zone on the unit not being tested. Configuration 2 now states "Zone 1 (2) and Zone 3 on the recirculation system connected to the SGTS."

The team reviewed the documents submitted during SSES's upgrade to ITS. The team found that the licensee had included the three configurations listed above in the TS Bases section. The submitted TS Bases documents stated, "Only one of the above listed configurations needs to be tested to confirm secondary containment OPERABILITY." Additionally, the team found that the TS Bases document for the SR states, "To ensure that all fission products are treated, SR 3.6.4.1.4 verifies that the SGTS will rapidly establish and maintain a pressure in the secondary containment that is less than the pressure external to the secondary containment boundary. This is confirmed by demonstrating that one SGTS train will draw down the secondary containment to ≥ 0.25" vacuum w.g. in less than or equal to the maximum time allowed. This cannot be accomplished if the secondary containment is not intact."

The team then reviewed SSES's custom (pre-ITS) TS SR 4.6.5.1.c. (1, 2, and 3). This SR described the acceptable surveillance tests to be used to determine system operability prior to the approval of the site-specific ITS. The team determined that the custom TS SR described the three configurations listed above in the TS SR, which also stated that only one of the three configurations be tested in order to meet the SR. The team also determined that this was the

basis for the configurations submitted in the ITS bases document. Finally, the team noted that because of the licensee's proposal that only one of these configurations was necessary to demonstrate operability of secondary containment, the licensee's ITS Bases differed from the intent of NUREG 1433, "Standard Technical Specifications, General Electric Plants," BWR/4, Revision 1, which stated that the associated TS SR would demonstrate secondary containment operability. The team concluded that use of only one of the permitted test configurations as listed in the site-specific ITS Bases did not, in the team's view, demonstrate operability as discussed in TS SR 3.6.4.1.4 and 3.6.4.1.5. The team also observed that the ITS submittal represented an opportunity for the licensee to identify that all of the secondary boundary (common/internal walls in particular) were not fully tested.

Finally, the team reviewed the UFSAR to determine the design basis for the secondary containment and the SGTS. The following sections of the UFSAR are applicable to this system.

> 6.2.3 Secondary Containment Functional Design. The secondary containment comprises the exterior structure of reactor building and the interior walls and floors that separate the three ventilation zones.
>
> 6.2.3.1 Design Basis. The functional capability of the ventilation system to maintain negative pressure in the secondary containment with respect to outdoors is discussed in Subsections 6.5.1.1 and 9.4.2.
>
> 6.2.3.2.3 Secondary Containment Bypass Leakage. The secondary containment structure completely encloses the primary containment structure such that a dual-containment design is utilized to limit the spread of radioactivity to the environment during a design basis loss-of-coolant accident (LOCA). **Following a LOCA, the secondary containment structure is maintained at a negative pressure, so that leakage from primary containment to secondary containment can be collected and filtered prior to release to the environment. SGTS performs the function of maintaining a negative pressure within secondary containment, as well as, collecting and filtering the leakage from primary containment, as described in Section 6.5.** The use of a dual-containment design results in the potential for Secondary Containment Bypass Leakage (SCBL). SCBL is defined as that leakage from primary containment which can bypass the leakage collection/filtration systems of secondary containment and escape directly to the environment. Similarly, a potential SCBL pathway is defined as any process line that penetrates both primary and secondary containment, or a process line that penetrates primary containment only, with a branch line connection that penetrates secondary containment. Consequently, a valid SCBL pathway is any process line or branch line that penetrates both primary and secondary containment which does not contain a barrier that eliminates bypass leakage from being released directly to the environment. All potential SCBL pathways have been evaluated. It has been determined that the bypass leakage which could occur following the design-basis LOCA results in a conservatively calculated dose within regulatory limits, as described in Section 15.6.5.

6.5.1.1.1 Design Bases. The SGTS is designed to accomplish the following safety related objectives:

a) Exhaust sufficient filtered air from the reactor building to maintain a negative pressure of about 0.25" vacuum w.g. in the affected volumes following secondary containment isolation (see Subsection 9.4.2 for the secondary containment isolation signals) for the following design basis events:

    (1) spent fuel handling accident in the refueling floor area; and
    (2) LOCA.

b) Filter the exhausted air to remove radioactive particulates and both radioactive and non-radioactive forms of iodine to limit the offsite dose to the guidelines of 10 CFR 50.67.

9.4.2.1.3 Safety Evaluation. The Reactor Building Ventilation system is housed within the Seismic Category I reactor building. Wind and tornado protection is discussed in Section 3.3. Flood design is discussed in Section 3.4. Missile protection is discussed in Section 3.5. Protection against dynamic effects associated with the postulated rupture of piping is discussed in Section 3.6. Environmental design considerations are discussed in Section 3.11. The secondary containment isolation is the only active safety-related function of the normal operation of the reactor building HVAC system. The system passive safety-related function is the use of related ductwork in the reactor building recirculation mode which is discussed in Subsection 6.5.3.

Licensee's Position:

The licensee's current position is that they are testing the SGTS and secondary containment in accordance with NRC approved configurations and the testing meets the TS surveillance requirements. The licensee's evaluation of the issue found the following:

The original Unit 1 TS for secondary containment (TS 3.6.5) needed to be revised in 1984 to accommodate the commercial operation of Unit 2. The proposed revisions to the secondary containment drawdown and inleakage testing were contained in licensee letters PLA 1992, 2018, 2049, and 2097. The NRC approved the proposed secondary containment drawdown and inleakage testing in NRC Amendment 21 to Unit 1 TS (ADAMS Accession No. ML010020085). The testing was included in the original Unit 2 TS. The NRC-approved drawdown and inleakage testing included a test for Zone 1 and 3 with Zone 2 operable (note that the TS required a minimum vacuum of 0.25" vacuum w.g. for a zone to be considered operable) and Zone 2 and 3 with Zone 1 operable. The NRC SER associated with Amendment 21 allows for secondary containment testing to be performed in a Zone 1/3 and 2/3 configuration with the opposite zone's normal ventilation fan in operation.

In August 2002, ITSs were approved for SSES. The secondary containment TS is contained in Section 3.6.4.1. The TS Bases included the same testing configurations that were presented in the original TS. During the NRC review of ITSs, the NRC requested additional information concerning the secondary containment testing contained in TS SR 3.6.4.1.4 and 3.6.4.1.5. In

response to these questions, the licensee placed the previously NRC approved testing configurations into the TS Bases. The surveillance testing was approved again by the NRC.

The licensee believes that the concern of the NRC 50.59 inspection team is the statement in the TS Bases "…SR 3.6.4.1.4 verifies that the SGTS will rapidly establish and maintain a pressure in the secondary containment that is less than the pressure external to the secondary containment boundary." The licensee stated that the NRC's contention is that since the reactor building Zone 1/2 fans maintain a negative pressure in these zones that the licensee does not comply with the TS SR statement. There are three reasons the licensee believes they are in compliance with the testing requirements.

First, the approved TS change in 1984 and the approved ITS secondary containment testing specifically states that the secondary containment testing surveillance is with Zone 1/2 operable for the two zone testing. Per the TS SR, a secondary containment zone can only be operable if at least 0.25" vacuum w.g. is maintained in the required zone. In order to consider the untested zone operable, a vacuum of at least 0.25" vacuum w.g. would need to be maintained in order to comply with the TS. Therefore, the licensee believes that it is reasonable to assume that it was understood that a negative pressure would be maintained in the opposite zone.

The second reason is that the licensee does comply with the following TS Bases requirement "…SR 3.6.4.1.4 verifies that the SGTS will rapidly establish and maintain a pressure in the secondary containment that is less than the pressure external to the secondary containment boundary." Since the untested zone is operable per the TS (maintaining a vacuum of 0.25" vacuum w.g.), the untested zone is part of secondary containment per TS. Therefore, since the untested zone is part of the secondary containment boundary, the relevant pressure external to the secondary containment boundary is not the internal untested zone pressure but the pressure external to all operable secondary containment boundaries. During the secondary containment test, the licensee assures that the pressure in secondary containment (including the untested zone) is less than the pressure external to secondary containment. Therefore, the current secondary containment testing meets the TS statement (note that this discussion was not presented to the NRC inspection team).

The third reason is that UFSAR Section 6.2.3 states, "The functional capability of the ventilation system to maintain negative pressure in the secondary containment with respect to outdoors is discussed in Subsections 6.5.1.1 and 9.4.2." The UFSAR statement is specific that the ventilation systems will maintain a negative pressure with respect to outdoors. Thus, an operable secondary containment zone would be expected to be negative. Additionally, UFSAR Table 6.5-4 acknowledges that under certain conditions, contaminated air may be drawn into the non-LOCA zone (Zone 1 or 2) and that the operators would simply align that zone to SGTS. This UFSAR statement is consistent with the licensee's current testing practice in which the testing is performed with the untested zone operable.

The licensee has concluded that the above discussion addresses the concerns communicated by the inspection team. They further concluded that, based on the above, it appears that the TS Bases, UFSAR, and current testing practice are in alignment.

The licensee also stated that during Unit 1 plant start-up, testing was performed on Zone 1 and 3 without an operable Zone 2 (Unit 2 was still under construction). This testing confirmed that the drawdown and inleakage requirements could be met. UFSAR Section 6.5 states that the recirculation system prevents the spread of radioactivity from Zone 3 to Zone 1 or Zone 2 after a refueling floor accident. This implies that Zone 3/1 or 2 boundary does not contain any openings. This assumption would have been verified in the start-up testing. Additionally, the Zone 1/2 boundary integrity would also have been verified. Since there are no openings (all penetrations are sealed) in the boundary, there would be little incremental benefit in testing this boundary by shutting down ventilation on an operating or shutdown unit. Shutting down the operating ventilation system can impact building accessibility due to radon build-up and can also challenge equipment temperature limits depending on plant and outside air conditions. It should be noted that a brief search did not immediately yield any similar secondary containment isolation configurations. An enhancement to the current drawdown test procedure that should be considered is a walkdown of the Zone 1/2 and 3/1 and 2 boundary to identify any openings. Based on this discussion, the licensee concluded that the current testing is appropriate.

The licensee stated that it is also important to understand the current available margin in the testing. The latest Zone 1/3 and 2/3 drawdown tests were reviewed to determine the pressure difference between the normal operating ventilation zone and the isolated zones. For the latest Zone 1/3 test (latest 'A' test March 2012, and latest 'B' test August 2011), the maximum pressure differential between Zone 1/3 (isolated Zones) and Zone II (normal operating zone) was 0.05" vacuum w.g. (or 0.002 psi). For the latest Zone 2/3 test, (latest 'A' test July, 2009 and latest 'B' test February, 2012), the maximum pressure differential between Zone 2/3 and Zone 1 was 0.09" vacuum w.g. (or 0.003 psi). These pressure differentials are not providing an assist during the drawdown. It should be noted that the last 'A' Zone 2/3 test, Zone 3 was a greater vacuum than Zone 1.

Given the NRC inspection team's concern, the licensee sought to understand the risk significance of the issue. The licensee stated that the on-line PRA model does not include secondary containment or SGTS. Therefore, these systems are not risk significant systems and the current testing is adequate for the risk significance of the system.

3.0 EVALUATION

The SSES TS are an appendix to the licensee's Operating License and the TS must meet the requirements of 10 CFR 50.36. The regulation requires that the TS include items in the following specific categories: (1) safety limits, limiting safety systems settings, and limiting control settings (50.36(c)(1)); (2) limiting conditions for operation (LCO) (50.36(c)(2)); (3) SRs (50.36(c)(3)); (4) design features (50.36(c)(4)); and (5) administrative controls (50.36(c)(5)). The regulation at 10 CFR 50.36(c)(3) states that SRs are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

LCO 3.6.4.1 states that the secondary containment shall be OPERABLE during MODES 1, 2, and 3, and during movement of irradiated fuel assemblies in secondary containment, CORE ALTERATIONS, and operations with the potential for draining the reactor vessel. For the secondary containment to be considered OPERABLE, it must have adequate leak tightness to

ensure that the required vacuum can be established and maintained. SRs 3.6.4.1.4 and 3.6.4.1.5 are required to provide assurance that the secondary containment required vacuum can be established and maintained, that is, that LCO 3.6.4.1 is met. A test used to meet the requirements of SRs 3.6.4.1.4 and 3.6.4.1.5 must provide assurance that the LCO will be met during design basis accident conditions.

The SSES three zone secondary containment design leads to multiple possible test configurations for the secondary containment. Testing in only one configuration means that some boundaries may not be tested. Data from such a test could not be used to rule out the possibility of secondary containment bypass leakage through the untested boundaries. To demonstrate that the UFSAR statements are met, the secondary containment is operable and LCO 3.6.4.1 is met, the TS surveillance test must demonstrate the capability of the system to perform its specified safety function in any of the credited operating configurations. For instance, the SR must demonstrate that secondary containment performs its specified safety function in all expected operating configurations to ensure that the interior walls and floors are maintaining the integrity of the secondary containment boundary.

Further, the tests must provide a clear demonstration that the safety related SGTS alone is causing or maintaining the vacuum in each tested area and that non-safety related normal ventilation system is not a contributing source or vacuum during the test. A test that tests only portions of the secondary containment would not provide assurance that it is OPERABLE and therefore not provide assurance that LCO 3.6.4.1 is met. Such a test would not meet the 10 CFR 50.36 requirements for SRs and would be insufficient to assure plant safety.

Although the licensee has shown that it obtained a license amendment to change its required testing configurations, the history of when or how the SR language was placed in the TS does not obviate the fact that the surveillance currently is not sufficient to demonstrate the quality of the system as required by 10 CFR 50.36. AL 98-10, “Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety” (ADAMS Accession No. ML031110108) provides guidance to licensees on disposition of TS when they are found to contain nonconservative values or specify incorrect actions. The licensee should take actions to permanently address the inadequacy via a license amendment and revision of procedures to meet the SRs as well as take actions during the interim to ensure the inadequacy is accounted for.

The SSES TS as amended by Amendment 21 were the source of the current SRs 3.6.4.1.4 and 3.6.4.1.5. The NRC staff approved these TS SRs. A TS conversion is a licensing action which allows a licensee to adopt an improved format for their TS requirements without materially changing the requirements. Generally, the NRC staff does not reexamine or question the licensing basis of a plant during a TS conversion unless the licensee requests a deviation from the format and content of the STS that is not justified by existing configuration or capability. In the July 30, 1998, SSES TS conversion SE and attached tables, the SR 3.6.4.1.4 and SR 3.6.4.1.5 language and methodology for the SR were not called out as either less restrictive or more restrictive. Therefore, the licensing basis was determined by the NRC staff to be consistent with the existing CLB, so the staff did not re-evaluate it as a change to the CLB. In effect, the existing licensing basis error was carried forward during the TS conversion.

In Summary:

1) The SR test methodology for the secondary containment and SGTS was approved by the NRC staff with SSES TS Amendment 21 on March 23, 1984. Based on the July 30, 1998, TS Conversion Safety Evaluation, the licensing basis was not reevaluated by the staff during the TS conversion.

2) The TS surveillance test must be performed in all secondary containment configurations at assumed DBA conditions to ensure that the interior walls and floors are tested and the entire secondary containment is operable.

3) The current TS SRs 3.6.4.1.4 and 3.6.4.1.5, as written, are inadequate to demonstrate the operability of the SGTS and secondary containment under DBA conditions. The tests must provide a clear demonstration that the safety related SGTS alone is causing or maintaining the vacuum in each tested area and that non-safety related normal ventilation system is not a contributing source of vacuum during the test.

4) The current text for SSES SRs 3.6.4.1.4 and 3.6.4.1.5 does not adequately demonstrate the quality of the secondary containment and that the limiting conditions for operation will be met.as required by 50.36.

The SSES secondary containment and SGTS design bases have not changed. The current licensing basis contains language that is inadequate to provide assurance that the secondary containment LCO will be met and therefore does not assure plant safety. AL 98-10 contains guidance for non-conservative values or incorrect actions. In this case the text for the SR is nonconservative. In a similar manner to dispositioning items with AL 98-10, the licensee should take actions to permanently address the inadequacy via a license amendment and revision of procedures to meet the SRs as well as take actions during the interim to ensure the inadequacy is accounted for.

3.1 Backfit Discussion

The staff evaluated whether “imposition” of the TIA position on the Susquehanna licensee would represent backfitting, and how the requirements of the Backfit Rule, 10 CFR 50.109 could be met if the NRC imposition represented backfitting. The staff has determined: (i) the imposition of the TIA position on the Susquehanna licensee would not represent backfitting; and (ii) even if the imposition were treated as backfitting, it may be justified as backfitting needed for compliance with 10 CFR 50.36 and 10 CFR Part 50, Appendix B, and therefore excepted under 10 CFR 50.109(a)(4)(i)from the need to prepare a backfit analysis.

The TIA position, if imposed on the Susquehanna licensee, does not constitute a new or changed staff position with respect to the requirements of 10 CFR 50.36 and Appendix B. 10 CFR 50.36 requires applicants and licensee to develop, maintain and comply with technical specifications governing the operation of a facility. ***10 CFR 50.36(c)(3) states, in part that SRs are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met. As discussed***

above, the staff's position is that the current text for Susquehanna Steam Electric Station surveillance requirements 3.6.4.1.4 and 3.6.4.1.5 does not adequately demonstrate the quality of the secondary containment and that the limiting conditions for operation will be met as required by 10 CFR 50.36(c)(3). 10 CFR Part 50, Appendix B, Criterion XVI, requires licensees to take prompt corrective action with respect to significant conditions adverse to quality. The corrective action must be directed at precluding repetition of the condition. Administrative Letter 98-10 contains NRC staff expectations for licensee action when Technical Specifications (TSs) insufficient to assure plant safety are discovered. As set forth in NRC Administrative Letter 98-10, the staff expects that a licensee should implement administrative controls as a short term corrective action, and to provide a timely submission of a license amendment request to correct the insufficient TSs. The corrected TSs serve (in part) as the long term corrective action precluding repetition of the significant condition adverse to quality. If the licensee does not resolve the TSs insufficiency and make changes to the TS, then it is the staff's position that the licensee is in non-compliance with both 10 CFR 50.36 (because the TS does not comply with that section) and Criterion XVI of Appendix B (because the licensee failed to take corrective action in a timely fashion to preclude repetition of a significant condition adverse to quality).

The staff also considered whether there is backfitting**,** because the NRC previously approved the licensee's technical specification and is now requiring the licensee to change the technical specification, which represents a new staff position. The staff has determined that because the NRC previously approved the licensee's technical specification, the imposition of the staff's current position (that the technical specification is not acceptable) would constitute backfitting under 10 CFR 50.109(a)(1). However, the staff believes that such backfitting, to correct the earlier erroneous staff's approval of the technical specification, can reasonably be regarded as needed for compliance. Reiterating what is described above, the licensee was subject to both 10 CFR 50.36 and Criterion XVI at the time its operating license was issued. Thus, the staff's position is that the licensee was – from the time of issuance of its operating license - under two separate but complementary regulatory obligations: 1) to have technical specifications which meet the requirements of 10 CFR 50.36; and 2) to correct significant condition adverse to quality in accordance with Criterion XVI. The staff's interpretation of what is needed to demonstrate compliance with both 10 CFR 50.36 and Criterion XVI has not changed. Therefore, the staff believes that even if the imposition of the TIA position is considered backfitting, it can reasonably be regarded as needed for compliance, thereby falling under the compliance exception in 10 CFR 50.109(a)(4)(i).

4.0 REGULATORY REQUIREMENTS

Section 182a of the Atomic Energy Act (the Act) requires applicants for nuclear power plant operating licenses to include TS as part of the application. The TS ensure the operational capability of structures, systems, and components that are required to protect the health and safety of the public. The regulatory requirements related to the content of the TS are contained in 10 CFR 50.36. That regulation requires that the TS include items in the following specific categories: (1) safety limits, limiting safety systems settings, and limiting control settings (50.36(c)(1)); (2) LCO (50.36(c)(2)); (3) SRs (50.36(c)(3)); (4) design features (50.36(c)(4)); and (5) administrative controls (50.36(c)(5)).

10 CFR 50.36(c)(3) states, in part:

> Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

Page 3.0-3 of the TS contains SR 3.0.1, which states:

> SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

5.0 CONCLUSION

The licensee's method for testing the SGTS and secondary containment boundary does not comply with its current design basis. That is, the method does not ensure that the LCO will be met.

The NRC staff's review of the TS Bases and approval of the TS SR during the TS conversion did not include an approval of the current surveillance configurations/test methodology. TS SR 3.6.4.1.4 for vacuum and TS SR 3.6.4.1.5 for SGTS flow, as written, are inadequate to demonstrate the operability of the SGTS and secondary containment. However, the staff has determined that there is no immediate safety concern and, hence, changes to the testing methodology should be entered into the licensee's corrective action program and modified commensurate with safety significance of the issue.

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Date: May 6, 2014