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Your ref: LTR-NRC-13-77
Our ref:

November 22, 2013

Subject: Closure of Westinghouse Interim Report Event No. 49303

Reference:

1. Letter from James A. Gresham to U.S. NRC Document Control Desk, LTR-NRC-13-62, "Interim Report of the Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)," August 23, 2013

Gentlemen:

On August 23, 2013, Westinghouse submitted an Interim Report (Reference 1), pursuant to the requirements of 10 CFR Part 21, regarding the evaluation of an identified deviation which could not be completed in 60 days from the discovery of the deviation. The deviation evaluated by Westinghouse concerns technical specifications which have time response surveillance requirements that cannot be directly measured due to logic pathways where overlap with another protective function occurs. Westinghouse also evaluated and confirmed that the other reactor trip and engineered safeguards actuation system protective functions which have a credited time response in the Safety Analysis for the AP1000[®] plant have a measurable time response surveillance requirement in the Technical Specifications.

The purpose of this letter is to close Interim Report Event No. 49303. Westinghouse has determined that this issue is not reportable because the identified deviation could not have resulted in a substantial safety hazard were it to remain uncorrected.

If you have any questions regarding this matter, please contact me at (412) 374-4643.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James A. Gresham', written over a horizontal line.

James A Gresham, Manager
Regulatory Compliance

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Interim Report Event No. 49303 (Closeout)**SUBJECT:**

Closure of Interim Report Event No. 49303 regarding an evaluation of a Deviation Pursuant to 10 CFR 21.21 (a)(2)

TITLE:

10 CFR Part 21 Interim Report – Technical Specification Time Response Surveillance Requirements for the AP1000 plant

BASIC COMPONENT SUPPLIED BY:

Westinghouse Electric Company

BASIC COMPONENT DESCRIPTION:

The basic component that was delivered is the time response surveillance requirements identified in Chapter 16 of the AP1000 plant Design Control Document (DCD), Revision 19, listed in Table 3.3.1-1 (Reactor Trip System Instrumentation) and Table 3.3.2-1 (Engineered Safeguards Actuation System Instrumentation).

NATURE OF DEVIATION:

Pursuant to the AP1000 plant DCD, Chapter 16, Revision 19, time response surveillance requirements (SR) are identified in Table 3.3.1-1(SR 3.3.1.13) and Table 3.3.2-1 (SR 3.3.2.6) for various protection functions. Westinghouse has evaluated potentially incomplete or untestable SR for these protection functions that have a credited time response in the Safety Analysis.

EVALUATION:

The AP1000 Technical Specifications (Tech Spec) contain several instances where a reactor trip or engineered safeguards actuation system (ESF) protective function are not testable with respect to SR 3.3.1.13 or SR 3.3.2.6. An Evaluation was performed that 1) traced the affected logic from the initiating function down to the actuation signal to ensure that a time response SR can be tested for relevant protective function logic path(s), and 2) that protective functions having a time response assumption in the Safety Analysis are covered by an associated time response SR.

The Evaluation revealed the following:

1. The following five protective functions either have an overlap with other logic path(s) that are testable and have an associated time response SR (ESF functions) or are testable using the intended input signals (reactor trip function):
 - a. Tech Spec Table 3.3.2-1 - Function 2.d: Core makeup tank (CMT) actuation due to automatic depressurization system (ADS) stages 1, 2, 3 actuation
 - b. Tech Spec Table 3.3.2-1 - Function 11.a: Reactor coolant pump (RCP) trip due to ADS stages 1, 2, 3 actuation
 - c. Tech Spec Table 3.3.2-1 - Function 13.d: PRHR due to ADS stages 1, 2, 3 actuation

- d. Tech Spec Table 3.3.1-1 - Function 22: Reactor trip due to passive residual heat removal (PRHR) actuation
 - e. Tech Spec Table 3.3.2-1 - Function 14.a: Steam generator (SG) blowdown isolation due to PRHR actuation
2. The AP1000 PMS functional requirements document (FRD) contains reactor trip and ESF time response requirements that list the safety analysis assumed time response correlated with sensed protection system input parameters. This listing was compared with reactor trip and ESF functions contained in Tech Spec Table 3.3.1-1 and Table 3.3.2-1 respectively. The Evaluation confirmed that all response times credited in the safety analysis have a corresponding reactor trip or ESF protective function with an associated time response SR (i.e., SR 3.3.1.13 or SR 3.3.2.6).

CONCLUSION:

Based on the above evaluation results, it has been determined that the deviation could not have resulted in a substantial safety hazard were it to remain uncorrected pursuant to the requirements delineated in 10 CFR Part 21 (or a non-compliance under 10 CFR 50.55(e) to the extent applicable). Markups to the Tech Specs and Tech Spec Bases have been completed such that time response testing is either not required or can be accomplished using the intended input signals for the five protection functions listed above.

cc: E. Lenning (NRC MS O-11-F1)
B. Whitley (SNC)
A. Paglia (SCANA)