



July 27, 2015

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

cc: Edward H. Roach, Chief, Construction Mechanical Vendor  
Inspection Branch, Division of Construction Inspection and  
Operational Programs, Office of New Reactors

**Subject: Reply to a Notice of Nonconformance**

Reference NRC Inspection Report No. 99900905/2015-202  
Nonconformance 99900905/2015-202-01  
Nonconformance 99900905/2015-202-02

**Dear Sir/Madam:**

NTS Huntsville, AL has reviewed Nonconformance 99900905/2015-202-01 and Nonconformance 99900905/2015-202-02 and is enclosing response to said nonconformances.

Should there be any questions or need for additional information, NTS will be pleased to provide the same. I may be contacted by phone at (256) 716-4483, or by email at [rick.davis@nts.com](mailto:rick.davis@nts.com).

Sincerely yours,

NTS, Huntsville Operations

Rick Davis  
Manager, Quality Assurance

Attachment: Response to Notice of Nonconformance

Distribution: Tom Brewington, Keith Wilson

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RESPONSE TO NRC NOTICE OF NONCONFORMANCE  
Inspection Report 99900905/2015-202, dated June/25/15

## Nonconformance 99900905/2015-202-01

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at National Technical Systems (NTS) facility in Huntsville, Alabama, on May 11, 2015, through May 14, 2015, certain activities were not conducted in accordance with NRC requirements which were contractually imposed on NTS by its customers or by NRC licensees.

- A. Criterion XI, "Test Control," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," states, in part, that "Test procedures shall include provisions for assuring that all prerequisites for the given test have been met, that adequate test instrumentation is available and used."

Criterion V, "Instructions, Procedures, and Drawings," of Appendix B to 10 CFR Part 50 states, in part, that "Activities affecting quality shall be prescribed by documented instructions, procedures, and drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished."

Contrary to the above, as of May 14, 2015, NTS failed to ensure that test activities affecting quality were prescribed by documented instructions or procedures that shall include appropriate quantitative or qualitative acceptance criteria to assure that all prerequisites for the given test have been met.

Specifically, NTS failed to establish a procedure in its test program for verifying that the data acquisition system (DAS) functioned as designed. NTS performed both pre-and post-test verification and validation of the DAS to verify that the DAS software was accurately calculating and reporting those temperature and pressure values that would be used to determine the qualification of the safety-related AP1000 8-inch low pressure squib valves. However, NTS activities to validate the proper function of the DAS, a testing activity affecting quality, were not performed in accordance with written procedures containing the requirements and acceptance limits of the design documents to assure that all prerequisites for the given test have been met.

This issue has been identified as Nonconformance 99900905/2015-202-01.

**RESPONSES TO NRC NOTICE OF NONCONFORMANCE**  
**Inspection Report 99900905/2015-202-01, dated 6/25/15**

- (1) The reason for the noncompliance, or if contested, the basis for disputing the noncompliance.  
**NTS Response:**

All testing activities were performed with properly calibrated and verified testing equipment in accordance with NTS and Westinghouse requirements. A routine pre-test and post-test verification check (spanning) of the testing equipment was performed to ensure that the testing equipment was operating properly; however no formerly written, detailed procedure was established for these verification activities.

- (2) The corrective steps that have been taken and the results achieved.

**NTS Response:**

NTS shall establish and provide a formal written procedure with data sheets for the performance of the routine pre-test and post-test verification check (spanning) of the testing equipment.

- (3) The corrective steps that have been taken to avoid noncompliance.

**NTS Response:**

NTS shall re-train appropriate personnel on the specific Criterion XI, "Test Control," of Appendix B and Criterion V "Instructions, Procedures, and Drawings," of Appendix B to ensure future processes are properly documented.

- (4) The date when your corrective action will be completed.

**NTS Response:**

These activities shall be completed no later than August 31, 2015.

**RESPONSE TO NRC NOTICE OF NONCONFORMANCE**  
**Inspection Report 99900905/2015-202, dated June/25/15**

**Nonconformance 99900905/2015-202-02**

B. Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50 states, in part, that, "Measures shall be established to assure that purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents. These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery. The effectiveness of the control of quality by contractors shall be assessed by the applicant or designee at intervals consistent with the importance, complexity, and quantity of the product or services."

Contrary to the above, as of May 14, 2015, NTS failed to assure that the purchased services, purchased directly or through a contractor or subcontractors, conform to the procurement documents and failed to perform source evaluation and selection to verify the effectiveness of the control of quality by contractors and subcontractor at intervals consistent with the importance, complexity, and quality of the products and services.

Specifically, NTS failed to perform a commercial-grade survey or source surveillance of NALCO, a commercial supplier of water and process services, to verify the effectiveness of quality controls used in testing of the demineralized water to support safety-related valve testing. Additionally, NTS failed to assure that the validity of NALCO's water chemical analysis upon receipt will provide reasonable assurance that pH, conductivity, fluoride, and chlorides met the demineralized water quality specifications invoked in procurement documents. If out of specification, these impurities could degrade the stainless steel components ability to perform their safety-related function during plant operations. NTS has been testing and delivering safety/relief valves to U.S. nuclear power plants using demineralized water tested by NALCO, since October 2011.

This issue has been identified as Nonconformance 99900905/2015-202-02.

**RESPONSES TO NRC NOTICE OF NONCONFORMANCE**  
**Inspection Report 99900905/2015-202-02, dated 6/25/15**

- (1) The reason for the noncompliance, or if contested, the basis for disputing the noncompliance.

**NTS Response:**

NTS (formerly Wyle) had been using NALCO to check our deionized water for informational purposes. NALCO is the provider of our boiler chemicals and was able to perform this service as part of their routine activities. The responsible group manager failed to verify that NALCO was included in the proper Approved Vendors Listing (AVL) and to notify QA of these suppliers' services.

- (2) The corrective steps that have been taken and the results achieved.

**NTS Response:**

NTS immediately discontinued the use of NALCO for the testing of our deionized water until all proper documentation and approval has been accomplished to add this vendor to NTS AVL. This shall include a survey of the vendor's processes and QA program to be performed. In the event that NALCO cannot be approved or added to NTS AVL, another vendor shall be located, surveyed (if required) and added to the NTS's AVL for this service.

- (3) The corrective steps that have been taken to avoid noncompliance.

**NTS Response:**

NTS issued a directive to all Department Managers and Purchasing giving the direction that NALCO shall not be used for any analysis testing until further notice. Effective immediately ALL purchase orders for materials and services unitized on nuclear projects MUST contain QA requirements and be approved by QA prior to final purchase of material or services. All Department Managers and Purchasing shall be re-trained on NTS procedures for Vendor assessment and Purchasing of Safety related commercial grade materials and services.

- (4) The date when your corrective action will be completed.

**NTS Response:**

These activities shall be completed no later than August 31, 2015.