

January 5, 2017

Mr. Gary Felicetti, Quality Assurance Manager
Clark Dynamics, LLC
1801 Route 51
Jefferson Hills, PA 15025

SUBJECT: CLOSURE OF ITAAC-RELATED FINDING FOR CLARK DYNAMICS
INSPECTION REPORT NO. 99901412/2012-201

Dear Mr. Felicetti:

On March 23, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff completed an inspection at the Clark Dynamics, LLC facility (hereafter referred to as Clark) in Jefferson Hills, PA. The purpose of the technically-focused, limited scope inspection related to Clark's activities associated with the vibrational aging and seismic qualification of worm gear actuators and electrical penetrations associated with inspections, tests, analyses, and acceptance criteria (ITAAC) 2.2.01.05.ii, 2.2.02.05a.ii, 2.2.05.05a.ii, 2.3.02.05.ii, 2.3.07.05.ii, and 2.7.01.05.ii from Revision 19 of the Westinghouse AP1000 pressurized-water reactor certified design.

In Inspection Report 99901412/2012-201, dated May 10, 2012, the NRC staff issued one Notice of Nonconformance (NON) 99901412/2012-201-02, that is material to the acceptance criteria of the ITAAC.

NON 99901412/2012-201-02 documents a finding against Criterion XI, "Test Control" for Clark's failure to ensure that adequate test instrumentation was used during the vibrational aging of the Limitorque HBC series worm gear actuator and the seismic testing of the LV-1 low voltage electrical penetration.

In a letter dated June 4, 2012 (ADAMS No. ML12157A346), Clark described their corrective actions to address the issues identified in NON 99901412/2012-201-02. In a letter dated June 22, 2012, (ADAMS No. ML12170B084), the NRC staff requested additional information (RAI) from Clark to provide clarification related to the calibration technician's qualification and additional training. In a letter dated July 16, 2012 (ADAMS No. ML12205A108), Clark provided additional information to address the NRC's RAI.

The NRC staff reviewed Clark's response to the RAI that supports the corrective action taken to address the issue identified in NON 99901412/2012-201-02. Based on review, the NRC has determined that the corrective actions taken by Clark are adequate to address the identified nonconformance. NON 99901412/2012-201-02 is closed and no additional inspection follow-up is required to verify completion/adequacy of the corrective actions.

Please contact either of the individuals listed as contacts to resolve any questions or issues.

CONTACTS: Raju B. Patel, NRO/DCIP/QVIB-2
301-415-3511

Sincerely,

/RA/

John Burke, Chief
Quality Assurance Vendor Inspection Branch-2
Division of Construction Inspection
and Operational Programs
Office of New Reactors

Enclosure:
Summary of NRC Inspection of Clark Dynamics
Affecting ITAAC

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ADAMS ACCESSION NO: ML16357A725 NRO-002

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|-------------|-----------------|-----------------|-----------------|
| OFC | NRO/DCIP/QVIB-2 | NRO/DCIP/QVIB-2 | NRO/DCIP/QVIB-2 |
| NAME | RPatel | RMcIntyre | JBurke |
| DATE | 01/03/17 | 01/05/17 | 01/05/17 |

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**Summary of NRC Inspection of Clark Dynamics
Affecting ITAAC**

1. AFFECTED INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA

The U.S. Nuclear Regulatory Commission (NRC) inspectors identified the following inspections, tests, analyses, and acceptance criteria (ITAAC) related to components being tested by Clark Dynamics, LLC facility (hereafter referred to as Clark). At the time of the inspection, Clark was involved in qualification testing of Limatorque HBC series worm gear actuators for the AP1000 reactor design. For the ITAAC listed below, the NRC staff reviewed Clark's corrective actions in response to Notice of Nonconformance (NON) 99901412/2012-201-02. The ITAAC's design commitment referenced below are for future use by the NRC staff during the ITAAC closure process; the listing of these ITAAC design commitments does not constitute that they have been met and closed. The NRC inspection team did not identify any findings associated with the ITAAC identified below.

| Source Document | ITAAC Index No. | ITAAC | Acceptance Criteria |
|---|------------------------|---------------|---|
| Appendix C from the Combined License for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 | No. 99 | 2.2.01.05.ii | A report exists and concludes that the seismic Category I equipment can withstand seismic design basis dynamic loads without loss of structural integrity and safety function |
| Appendix C from the Combined License for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 | No. 127 | 2.2.02.05a.ii | A report exists and concludes that the seismic Category I components can withstand seismic design basis loads without loss of safety function. |
| Appendix C from the Combined License for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 | No. 260 | 2.2.05.05a.ii | A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function |
| Appendix C from the Combined License for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 | No. 292 | 2.3.02.05.ii | A report exists and concludes that the seismic Category I equipment can withstand seismic design basis dynamic loads without loss of safety function. |
| Appendix C from the Combined License for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 | No. 397 | 2.3.07.05.ii | A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function. |
| Appendix C from the Combined License for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 | No. 685 | 2.7.01.05.ii | A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function |

2. FINDINGS AND OBSERVATIONS

Based on review of the additional information, the NRC has determined that the corrective actions taken by Clark in response to NON 99901412/2012-201-02 is adequate to address the identified nonconformance. NON 99901412/2012-201-02 is closed and no additional inspection follow-up is required to verify Completion/adequacy of the corrective actions.

3. ITEMS OPENED, CLOSED, AND DISCUSSED:

| <u>Item Number</u> | <u>Status</u> | <u>Type</u> | <u>Description</u> | <u>Applicable ITAAC</u> |
|----------------------|---------------|-------------|--------------------|---|
| 99901412/2012-201-02 | Closed | NON | Criterion XI | 2.2.01.05.ii 2.2.02.05a.ii 2.3.02.05.ii 2.3.07.05.ii 2.7.01.05.ii |