



E-26219
March 3, 2008

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

Subject: Final Report for a Failure to Comply under the Provisions of 10 CFR 21

- References:
1. Transnuclear Letter E-25576 to U. S. Nuclear Regulatory Commission, Evaluation of a Deviation for Notification under the Provisions of 10 CFR 21, dated 9/19/07.
 2. Transnuclear Letter E-25623 to U. S. Nuclear Regulatory Commission, Notification of a Failure to Comply under the Provisions of 10 CFR 21, dated 9/26/07.
 3. Transnuclear Letter E-25784 to U. S. Nuclear Regulatory Commission, Interim Report for a Failure to Comply under the Provisions of 10 CFR 21, dated 11/5/07.
 4. Transnuclear Letter E-25967 to U. S. Nuclear Regulatory Commission, ASME Code Alternative Request, Temporary Welded Attachment Records, Docket 72-1030, dated 12/27/07.
 5. Transnuclear Letter E-25976 to U. S. Nuclear Regulatory Commission, Interim Report for a Failure to Comply under the Provisions of 10 CFR 21, dated 1/4/08.
 6. U. S. Nuclear Regulatory Commission Letter (TAC L24163) to Transnuclear, ASME Code Alternative Request, Temporary Welded Attachment Records, Docket 72-1030, dated 1/9/08.

To Whom It May Concern:

The purpose of this letter is to provide the staff with a final report as discussed in Reference 5 and required per 10CFR21.21(d)(4) of a condition identified by Transnuclear, Inc. (TN) as a failure to comply with the license conditions for Certificate of Compliance for Spent Fuel Storage Casks, No. 1030 including Appendix A, NUHOMS[®] HD System Generic Technical Specifications. TN had initially identified and documented in Supplier Finding Report 2007-111 that our fabricator, GE-Hitachi Nuclear Energy Americas (GHNEA) located in Canonsburg, PA, had provided inadequate fabrication records resulting in a nonconforming condition relative to the possibility of undocumented Temporary Weld Attachments (TWAs) to the confinement boundary of a loaded NUHOMS[®] 32PTH Dry Shielded Canister (DSC) at the Dominion Surry Power Station (DSC S/N DOM-32PTH-001-C).

This initial condition reported as a failure to comply in Reference 2 involved a lack of documentation for use of qualified welders, approved welding procedures, approved weld filler material and compatible TWA base material, as well as a lack of the required liquid penetrant surface examination report subsequent to TWA removal. Such documentation is required per Article NB-4435 of the ASME B&PV Code Section III, which is a design feature embedded in the Technical Specifications for the NUHOMS[®] HD license. Therefore, the nonconforming TWAs constituted a Code violation such that the affected DSC was not compliant with the NUHOMS[®] HD Technical Specifications.

Subsequent to the initial extent of condition performed by our fabricator, TN identified an additional instance of an undocumented TWA application, which was previously believed to have been isolated to a single DSC. Upon further investigation by our fabricator and extensive review by TN, it was concluded that undocumented TWAs had most likely been utilized on the surface of the inner bottom covers installed in DSC S/Ns DOM-32PTH-001-C and DOM-32PTH-003-C for fixturing purposes in support of machining operations. This determination resulted in a revised notification to the NRC Operations Center on 12/20/07 that undocumented TWAs had most likely been utilized on the inner bottom covers for DSCs S/N DOM-32PTH-001-C and DOM-32PTH-003-C, currently loaded with spent fuel at the Surry Power Station.

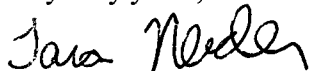
Two interim reports were submitted to the NRC in References 3 and 5 while TN completed our evaluation including corrective actions previously identified in Reference 2. Regarding the corrective actions remaining to be completed from Reference 2, TN has reconfirmed the extent of condition review for prior DSCs fabricated by GHNEA and has determined the reportable condition is limited to the two subject DSCs loaded at Surry Power Station (DSC S/N DOM-32PTH-001-C and DOM-32PTH-003-C). Additionally, TN admonished our fabricator regarding their ineffective extent of condition evaluation initially performed for the TWA issue. GHNEA subsequently implemented programmatic improvements within their corrective action program to strengthen their ability to perform accurate and comprehensive extent of condition evaluations.

In Reference 4, TN in coordination with our client Dominion submitted to the NRC a request for exception to the ASME Code requirements for the subject loaded DSCs, as well as five other DSCs not yet loaded. Specific to the scope of this 10 CFR 21 report, TN requested approval of an alternative to the ASME B&PV Code Section III, Subsection NB, paragraph NB-4435 for TWAs made to the shell and inner bottom cover of DSC S/N DOM-32PTH-001-C and to the inner bottom cover only of DSC S/N DOM-32PTH-003-C. For similar DSCs which were accessible for inspection, specialized NDE was performed to demonstrate that proper weld filler material and TWA base material had been utilized. Implementation of the process controls defined in the GHNEA weld control program was extended to the loaded inaccessible DSCs to support the same conclusion. Additionally, a flaw evaluation was performed to demonstrate that even assuming a defect had existed in the area of TWA removal equivalent to the typical depth of the combined TWA weld puddle and heat affected zone, the resultant DSC component stresses would be maintained below ASME Code allowable design values, such that the DSC confinement boundary would not be adversely affected. In Reference 6, NRC responded with approval for use of the proposed ASME Code alternative and provided a safety evaluation report concluding that the subject DSCs remain capable of performing their design function. The approved alternative provides an acceptable level of quality and safety such that the affected DSCs have been re-certified by TN to U.S. Nuclear Regulatory Commission 10 CFR 72 Certificate of Compliance for Spent Fuel Storage Casks, No. 1030, Amendment 0 with the Code alternative as approved in Reference 6. Therefore, the affected loaded DSCs are fully operable under the general license provisions of 10 CFR 72.

The corrective actions outlined in Reference 2 have been completed. Therefore, this letter constitutes the final evaluation of the reportable condition to be submitted within 180 days of initial discovery, which was established as 9/7/07 in Reference 1.

Any questions you may have regarding this matter should be directed to Steven C. White, Director Corporate Quality Assurance at 410-910-6870.

Very truly yours,



Tara Neider
President – Transnuclear Inc.

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