Weir Valves & Controls USA Inc.

29 Old Right Road
Ipswich, MA 01938-1119
USA

Tel: +1 978 744 5690
Fax: +1 978 741 3626
www.weirpowerindustrial.com

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June 28, 2013

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-001

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

SUBJECT: WVC Reply to NRC Response for Inspection Report 99900746/2013-201, dated May 8, 2013

Dear Mr. Roach:

This letter is to serve as a response to the Weir Valves and Controls Response to the U.S. Nuclear Regulatory Commission Inspection Report No. 99900746/2013-201, and Notice of Nonconformance, dated May 8, 2013. Throughout this letter, I address the request for clarification specified in the letter mentioned above.

NON 99900746/2013-201-01
Your response to NON 99900746/2013-201-01 stated that Weir Valves & Controls' (WVC) Engineering Department will review all the dedication packages dating back to August 1, 2012. Please clarify your response to indicate what other actions WVC will take to verify that the critical characteristics and acceptance criteria identified for dedications performed before August 1, 2012 can be appropriately traced back to a technical evaluation to provide reasonable assurance that the item would perform its intended safety function.

WVC Response
The review of parts included o-rings, gaskets, limit switch trip arms, and other standard parts dedicated by Weir. Weir wrote technical evaluations for all parts on the list, and then compared these technical evaluations to the original dedication pages with the original "technical justification" on the pages. Weir found that all of the physical critical characteristics were being captured, however the Commercial Grade Survey features were not covered. Based on the reviews conducted, Weir was able to confirm that the material was properly handled.

As part of the extent condition review, Weir will review the dedication pages back to January 1, 2010 to ensure the requirements of ASME NQA-1-2009 published August 31, 2009 and adopted on January 20, 2010 are meet. This action will be completed on or before August 31, 2013.

IE09
NRO

NON 99900746/2013-201-02, Point #3

Your response to NON 99900746/2013-201-02 stated that the dead weight tester error was conservative. If the gauges were tested at a higher pressure than intended, a gauge would have to provide a low reading to pass the erroneous expected pressure. A low-reading gauge could be non-conservative when testing requires a minimum pressure. Please provide the technical basis used by WVC to determine that the dead weight tester error was conservative. You also stated that WVC corrected the Weight Chart to reflect the correct values but did not indicate whether the document was properly controlled. Please clarify to indicate whether the Weight Chart is being controlled by your document control program.

WVC Response:

Weir has reviewed our previous response. Based on this review, Weir retracts our assertion that the values where conservative. After reviewing, Weir notes that the gages would be reading higher then the allowable test pressure. Reviewing the range for LLRTs, where these gages are used, the defined error would be approximately 2%. Based on the gage error (.25% of span 3A) and test pressure range, the additional error would create some potential concerns that some valves may have been tested with a pressure greater then allowed by the LLRT criteria.

Weir has done a review of TRICENTRICs which are torque seated Isolation valves, based on this review, the sealing load is provided by the actuator for high differential, at low differentials the impact of the increased test pressure is insignificant based on pressure area versus seating force. A good demonstration of the effect can be seen in the test report for 1-54536-S. The valve should have been tested at 1.1 psi in both directions. Based on the error the unit was tested at 2.1 psi. In the preferred (pressure pushing the disk into the seat) the leakage was .2 cc/min versus .93 allowable. In the reverse direction pushing the disk away from the seat the leakage was .25 cc/min. Based on this test, a 4 psi span had little impact on the results.

Weir has also performed a review of the impact the increase in pressure would have on check valves. Here the units are tested only in the reverse direction. The increase in pressure will have more of an impact, since only gravity holds the unit closed. Weir will have to review test reports to determine the impact of the pressure on a per test basis as disk weight varies on multiple factors. Weir will review the test reports to ensure pressure was under the maximum test pressure and that the rate of leakage was not marginal. Weir will complete this review by September 15th.

In regards to the Weight Chart, it will be added to procedure CP-M-22, "Calibration of Pressure gages with the Dead Weight Tester" so that it is a controlled document by July 19, 2013.

NON 99900746/2013-201-04

Your response to NON 99900746/2013-201-04 stated that the corrective action steps taken and completed included updating WVC procedure CP-Q-38 to include the inspection of fillet and tack welds in accordance with Section NC-4427 of Section III of the ASME Code, and training on the procedure revision and Code requirement. Although these corrective actions address the finding with respect to the inspection of fillet and tack welds in the future, it does not address whether the completed fillet and tack welds met the requirements of the ASME Code. Please clarify your response to indicate what other actions WVC will take to verify that the completed fillet and tack welds met the requirements of Section NC-4427 of the ASME Code.

WVC Response
All WVC welders were trained to remove all tack welds in lieu of incorporating them into the final weld. A re-inspection of approximately 100 fillet welds on the AP1000 project was performed and were found to be acceptable to the Engineering design documents.

NON 99900746/2013-201-06
Your response to NON 99900746/2013-201-06 states, in part, that "CAR [Corrective Action Request] 13-51 was issued to address the fact [that] C of C's [Certificates of Conformance] from a supplier did not address all of the certifying requirements. While WVC issued CAR 09-01 and closed this CAR, the NRC requested that a larger extent of condition review be performed which was agreed to by WVC. No evidence of this extent of condition review could be found at the time of the 2013 inspection." Please clarify your response to indicate whether WVC has performed an extent of condition to verify if others C of C's were inadequately verified by WVC receipt inspectors. In addition, please clarify the corrective steps that have been taken and the results achieved; the corrective steps that will be taken to avoid further noncompliance; and (4) the date when the corrective action will be completed.

WVC Response
Recently, WVC did find where the QA Records Coordinator was maintaining a list certification issues by suppliers to identify all documentation issues. WVC regrets that this was not made available at the time of the NRC Inspection. While the individual that was maintaining this list is no longer with WVC, going forward in an effort to perform a more thorough evaluation of our suppliers, certification issue are now documented in the NCR system .

NON 99900746/2013-201-06
Your response to NON 99900746/2013-201-06 stated that an extent of condition review was performed for open orders but the extent of condition did not include the root of the issue which was Kalsi Engineering. Please clarify your response to indicate whether the extent of condition will include all closed/shipped orders that used Kalsi Engineering.

WVC Response
At the time of the NRC Inspection, WVC had not performed an adequate Technical Evaluation for Kalsi Engineering but has since done so in order to close WVC CAR 12-36A, and to satisfy a 2012 NUPIC LSA Audit Finding. Kalsi Engineering was only used as a safety-related Supplier one time so there is no need to perform and extent condition review specific to Kalsi.

Conclusion
WVC apologizes for the tardiness of our reply to the NRC letter dated May 8, 2013. We hope that the points made above address the concerns of the NRC.

6/28/13

Todd McKinney
QA Manager
Weir Valves & Controls USA, Inc.