

REPLY TO A NOTICE OF NONCONFORMANCE

November 16, 2009

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

Subject: Reply to Notice of Nonconformance
NRC Inspection Report No. 99900293/2009-201
Nonconformance 99900293/2009-201-02

Dear Sir:

Pursuant to the instructions in the notice of nonconformance, please find herein Anderson Greenwood Crosby's response.

Nonconformance 99900293/2009-201-02 is the failure of AG Crosby to implement its procedures for design control as required by Criterion III, "Design Control", of Appendix B to 10 CFR Part 50. Specifically:

- (1) Records for safety valves in Purchase Order 45606428 provided no evidence that AG Crosby had evaluated the conditions in Regulatory Guide 1.84 for ASME Code Case N-100, "Pressure Relief Valve Design Rules. Section III, Division 1, Class 1, 2, and 3," in accordance with the AG Crosby QA Manual.
- (2) Records for relief valves in Purchase Orders QP081141 and 102530 provided no evidence that the applications engineer had completed the design checklist in accordance with Section 3.3.2.2 of the AG Crosby QA Manual.
- (3) Records for relief valves in Purchase Order QP081141 provided no evidence that the calculation for determining the relieving capacity of the relief valves was documented, approved, or reviewed in accordance with the AG Crosby QA Manual.

Our response to the nonconformance is as follows.

Reason for the violation

- (1) Regulatory Guide 1.84 requires that if stress limits are used in excess of those specified for the upset operating condition, it should be demonstrated how the pressure relief function is ensured. The design report of the subject safety valves, AG Crosby Engineering Calculation EC-1475, analyzed the upset operating condition and found that the resulting stresses did not exceed allowable stress for normal conditions – including mechanical loads for both the close and the open (full discharge) position, in conjunction with the design conditions. Stress limits in excess of those specified for the upset operating condition were not used. Thus, there is no nonconformance with the requirements of RG 1.84 in the use of Code Case N-100.
- (2) Purchase Order QP081141 for the Farley Nuclear Plant was for an additional valve to the original order QP060172. The design checklist could not be found for the original order. Purchase Order 10213530 for the Indian Point Nuclear Plant was an additional valve to the original order S 96 80306 in 1996. The

IE09
NR

design checklist had not been completed by the applications engineer at the time. No systemic violation of the Quality Assurance Manual occurred; a review of the thousands of other order files indicates these were isolated incidents. Annual internal audits also check files for the presence of completed design check lists, and have not uncovered any.

- (3) The relieving capacity of AG Crosby's pressure relief valves are published in catalogs, as well as in National Board publication NB-18, "Pressure Relief Device Certifications", as required by NB/NC/ND-7738 of Section III of the ASME B&PV Code. It was felt that there was no need to perform an engineering analysis of a published relieving capacity that has been certified by the National Board of Boiler and Pressure Vessel Inspectors.

Corrective steps that have been taken and the results achieved

- (1) Going forward, to remove any doubt about compliance with the requirements of RG 1.84, a statement will be added to the EC file that stress limits in excess of those specified for the upset operating conditions were not used.
- (2) The design check list has been completed for the original sales order G000740000 for the Southern Nuclear PO QP060172 and placed in the order file. The design check list for the original sales order NV6000594, New York Power Authority PO S 96 80306, has also been completed and placed in the order file.
- (3) A calculation of the relieving capacity of the Farley Nuclear Plant relief valve has been prepared and approved and placed in the order file. Going forward, all design analysis prepared in accordance with Section 3.3.2.2 of QC-110 will include a calculation of the relieving capacity.

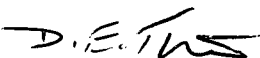
Corrective steps that will be taken to avoid further violations

- (1) The AG Crosby internal audit checklist will be modified to check for the statement in every EC created from this date forward.
- (2) The annual internal audits will continue to check for completed design check lists in order files. A special follow-up internal audit will be completed six months from this date.
- (3) The AG Crosby internal audit checklist will be modified to check for the relieving capacity calculation in every EC created from this date forward.

Date when full compliance will be achieved

Full compliance has been achieved for all three instances of nonconformance.

Sincerely,



David E. Tuttle
Quality Assurance Manager
Anderson Greenwood Crosby

cc: Juan Peralta, Chief
Quality and Vendor Branch 1
Division of Construction Inspection
& Operational Programs
Office of New Reactors