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

VIA OVERNIGHT DELIVERY:
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2746

Subject: Interim Report- 10CFR 21 Evaluation regarding potential deficiencies in Seismic Qualifications for PV-62

The purpose of this letter is to provide the NRC a report in general conformity to the requirements of 10CFR 21 Part 21.21 (a)(2).

This report is a result of NRC Inspection Report No. 99901431/2013-201 dated 20 August 2013 and Pentair Corrective Action Report (CAR 673). In general CAR 673 determined that required seismic testing was improperly performed and delivered to the customer. The subject valve (PV-62) of CAR 673 was returned to Pentair and successfully retested. The customer did not have an active reactor.

This report is to inform the NRC of the potential 10CFR 21 evaluation. Pentair Valves and Controls US LP, dba Anderson Greenwood Crosby is notifying the NRC of this potential and the affected licensees of the results of the 10CFR 21 evaluation.

Required information as per 10CFR Part 21.21 (d)(4) follows:

(i) Name and Address of the individual or individuals informing the Commission:

Brian L. Martin
Quality Assurance Manager
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- (ii) Identification of the facility, the activity, or basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Safety valve PV-62 seismic testing.

- (iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

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- (iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

PV-62 is a valve that had a QME-1 requirement of seismic load testing. The valve was sent out for a natural frequency scan to identify if the valve is considered a rigid body. The requirement for rigid body is no natural frequencies below 33 Hz. If the valve meets the rigid body requirement, the valve can proceed to a static load test (versus a dynamic load test). PV-62 meets the requirement of no natural frequencies below 33 Hz. PV-62 is not completely symmetrical and has different natural frequencies in the different directions. Therefore, one direction is more rigid than the other.

The requirement for the static load test is to test PV-62 in the least rigid axis. PV-62 was not tested in the least rigid axis, according to the natural frequency scan. PV-62 was shipped to the customer, not having met the requirement of a static load test in the least rigid axis. The customer has an inactive reactor. The testing of PV-62 in the incorrect axis had the potential for indeterminate functionality of PV-62 during a seismic event.

- (v) The date on which the information of such defect or failure to comply was obtained.

27 June 2013

- (vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured or being manufactured for one or more facilities or activities subject to the regulations in this Part.



Tag Serial Number	Serial Number	Site
APP-RCS-PL-V005A	00-0001	Sanmen Unit 1/Haiyang Unit 1
APP-RCS-PL-V005B	00-0002	Sanmen Unit 1/Haiyang Unit 2
APP-RCS-PL-V005A	00-0003	Sanmen Unit 1/Haiyang Unit 3
APP-RCS-PL-V005B	00-0004	Sanmen Unit 1/Haiyang Unit 4
APP-RCS-PL-V005A	00-0005	Sanmen Unit 1/Haiyang Unit 5
APP-RCS-PL-V005B	00-0006	Sanmen Unit 1/Haiyang Unit 6
APP-RCS-PL-V005A	00-0007	Sanmen Unit 1/Haiyang Unit 7
APP-RCS-PL-V005B	00-0008	Sanmen Unit 1/Haiyang Unit 8
APP-RCS-PL-V005A	00-0009	Vogtle
APP-RCS-PL-V005B	00-0010	Vogtle
APP-RCS-PL-V005A	00-0011	VC Summer
APP-RCS-PL-V005B	00-0012	VC Summer
APP-RCS-PL-V005A	00-0013	VC Summer
APP-RCS-PL-V005B	00-0014	VC Summer
APP-RCS-PL-V005A	00-0015	VC Summer
APP-RCS-PL-V005B	00-0016	VC Summer
APP-RCS-PL-V005A	00-0001	Sanmen NPP Unit 2
APP-RCS-PL-V005B	00-0002	Sanmen NPP Unit 2
APP-RCS-PL-V005A	00-0001	Haiyang NPP Unit 2
APP-RCS-PL-V005B	00-0002	Haiyang NPP Unit 2

- (vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action and the length of time that has been or will be taken to complete the action.

A Pentair Corrective Action Request (CAR 673) was created for the non-conformance. CAR 673 should have initiated, at time of discovery (27 June 2013), a 10CFR21 evaluation as PV-62 was delivered to a customer while it did not meet required specifications. The customer's reactor was and is not active and there is no potential installation of PV-62. PV-62 was returned to Pentair Mansfield to correct testing. The test procedure (VQT-38173) was modified to create a linking process between the natural frequency scan and the identification of the least rigid axis, "Engineering must verify the direction of the least rigid axis against the results of the natural frequency test for each valve and advise the test engineer which direction to apply the seismic load. A photograph of the test setup is required." The static load was applied to PV-62 in the least rigid axis.

PV-62 successfully passed the seismic test, thereby confirming the adequacy of the design, and has been returned to the customer. There is no 10 CFR 21 reportable.



- (viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

None. PV-62 had no potential of being installed in an active plant. PV-62 was returned to Pentair Mansfield and testing was corrected.

- (ix) In the case of an early site permit, the entities to whom an early site permit was transferred.

Not applicable.

If you have any questions or wish to discuss this matter or this report, please feel free to contact me.

Sincerely,


Brian L. Martin
Quality Assurance Manager