

Brian Martin

Quality Assurance Manager

PENTAIR VALVES & CONTROLS

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March 27, 2014

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 justification of use of prorate spring in 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 674). In general CAR 674 determined that customer was not properly informed of the reason for the use of a prorated spring used for testing the valve. The subject valve (PV-62) of CAR 674 and its test procedure were modified to explicitly state the use of the prorate spring for testing due to the limitations of the test facility. The customer did not have an active reactor. The customer approved the test procedure and the resulting test report.

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:



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(ii) Identification of the facility, the activity, or basic component supplied for such facility or such activity within the Unites 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.

Pentair Valves and Controls US LP, dba Anderson Greenwood Crosby Mansfield Operations 55 Cabot Blvd Mansfield, MA 02048

(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 static seismic load was not applied to PV-62 at the full set pressure of 2485 psig. PV-62 was tested with a prorate spring at a prorate pressure of 900 psig. The test facility is not capable of testing PV-62 at the full set pressure of 2485 psig.

The test procedure (T-16093) did not make the customer fully aware of the limitations of the test facility. However, T-16093 did make the customer aware of the testing being performed with a prorated spring at a prorated pressure.

(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 Report (CAR 674) was created for the non-conformance. The use of prorate springs to test the valve within the capabilities of the test facility is a common practice among valve manufacturers and does not invalidate the test findings. Customer has been made aware of the test facility limitations. The test report (T-16093) has been updated and approved to reflect the limitations of the test facility. 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