



UNITES STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

Facsimile Request

Date: 12/17/04

Message to: Mr Schneider / Mr Mangan

Organization: _____

Fax Number: _____

Number of Pages: _____

(Including this cover sheet)

Message from: K. Jenison

Comments:

THE SYSTEM ENGINEER AND THE LICENSING
ENGINEER BOTH HAVE ALL OF THE
ENCLOSED DOCUMENTS

B/24

1. CURRENT TS REVISION
PAGE FOR TS 6.8.1 DAVE
PERRY
2. VALUE VENDOR LETTER THAT
INDICATED K FACTOR WAS IN
ERROR - 199X - AND PROVIDED NEW
ONE TO Millstone et al.
3. CA IMPLEMENTED AS A RESULT
OF RECEIVING VENDOR LETTER
w/ corrective actions indicated
4. NS2
COVER SHEET OF A MAIN STEAM
SAFETY INSITU ~~THE~~ SURVEILLANCE
THAT USES THE VENDOR TEST
DEVICE AND K FACTOR.
5. THE PAGE IN ABOVE SURVEILLANCE
THAT CONTAINS THE VENDOR
CONVERSION ^K FACTOR.
MILLSTONE UNIT 2
6. ENTIRE DOCUMENT THAT ADDRESSES THE
QA REVIEW AND APPROVAL OF SURVEILLANCE
~~THE~~ IN SAFETY RELATED DOCUMENT

From: Kenneth Jenison
To: Paul Prescott
Date: 11/4/04 5:18PM
Subject: Re: Millstone MSSV App B Issue

Mr. Prescott,

It is not clear to me why you are inspecting this issue, but if you are going to, it would have been nice to talk to me to gain a feeling for the issue. It is traditional to allow the inspector who identified a violation dispose of it.

At any length, I am fully aware of NUPIC and the qualified vendor process. That is not the issue. The vendor supplied a conversion factor which was employed in a licensee quality document - not a vendor document and not CMTR is involved. The factor was accepted without review by the licensee. Subsequently the factor was determined to be in error by the vendor and was changed. The new factor was supplied to the licensee who again accepted it without review. The licensee did not implement a corrective action or an audit to ensure that this second factor was correct and simply loaded it into their procedure. There are clearly four or five issues here that have nothing to do with NUPIC or the qualified vendor program. I have already determined that three of them are violations and have communicated those findings to Mr. Schneider.

1. Establishing and Implementing a quality procedure without an adequate review of the factors in it.
2. Establishing and implementing a quality procedure without an adequate review of the new factor after being informed that the initial factor supplied by the vendor was in error.
3. Corrective action to determine what broke down in the qualified vendor's process to allow it to generate bad design data.
4. The method that the vendor used to develop the factor was a statistical curve fitting scheme that carries with it a certain level of experimentally determined error. This error was not incorporated into the licensee's procedures or test results.
5. The licensee used a piece of test equipment that does not have calibration data back to NIST and suffers from problems 1 through 4 also.
6. When the licensee compared the test data to UL data on Unit 3 some of the data fell outside of the acceptance band indicating that the precision and repeatability of the K factor may be OK but the accuracy may be off.

It would be my strong recommendation that you do not close this URI. I will object through my management if the URI is closed without my concurrence.

>>> Paul Prescott 11/04/04 08:25AM >>>
To whom it may concern,

A teleconference was held between myself, the Millstone SRI and PM on Thursday, November 4, 2004. The issue was the testing of main steam safety valves based on information supplied by the vendor. The vendor had supplied a conversion factor table to be used in the subsequent post maintenance test to be conducted by the licensee. An Inspector questioned if the licensee verified the data in the table. The licensee stated that the vendor was an approved Appendix B supplier; therefore, it was not necessary for them to re-verify the table's data.

As an Appendix B supplier, vendors are periodically audited by NUPIC to verify that they are implementing a quality program that meets the requirements of Appendix B. If the vendor is on the licensee's approved Appendix B supplier's list, the vendor would not need to conduct a verification of the table's data. The

vendor would have provisions within their quality program for appropriate design control measures.

Paul Prescott
Senior Operations Engineer
Plant Support Branch (IPSB)
NRR

CC: Marie Miller; Max Schneider

CR Summary Report

Tuesday, December 21, 2004

Page 1 of 3

CR number: CR-04-09086

AR number: 04005976

Sig: N

Date: 12/06/2004

Investigator: Eric Bookmiller

x 0519

Department: MGRSITEENG

Problem Statement: During a recent NRC inspection an unresolved item (URI) is being opened on Main Steam Code Safety Valve Testing at Millstone on Unit 2.

Event: NRC INSPECTION

Investigation: An unresolved item (URI) is being opened to determine how information supplied by Appendix B certified vendors is reviewed, if Dominion can trace the M&TE equipment to a national standard and whether it is acceptable to test main steam code safeties with the test apparatus following an actual lift of the relief valve. (URI 05000336/2004007-05).

Millstone Unit 2 main steam code safety valve TS surveillance testing is implemented in part by SP-2730B, Main Steam Code Safety Valve Test. The inspectors questioned the following based on a review of the surveillance procedure and supporting documentation:

Issue 1:

The surveillance procedure contained a conversion factor for the main steam code safety valves that was developed by a 10 CFR Appendix B qualified vendor, however, the developmental data was not available for NRC inspection and had not been independently reviewed by Dominion. Additionally, the conversion factor does not indicate tolerances such as testing assurance, variation or error related to the development of the conversion factor and the surveillance did not address testing assurance, variation or error related to the measurement and test equipment (MT&E).

Millstone Power Station did not validate the vendors methodology for the determination of the Valve Constant "K". The "K" value is used in the determination of the MSSV set pressure when using the Hydroset.

Discussion

Both Millstone Unit 2 and 3 have Dresser (Consolidated) base model number 3707R MSSVs. Both units MSSVs have R orifices and use the same disc. Both units use the Dresser 1566-2 Hydroset Testing Devices for MSSV set pressure confirmation. The Hydroset is used to confirm the set pressure of the MSSVs to meet Technical Specification and IST program requirements.

The original "K" value was identified as being incorrect in Dresser 10CFR Part 21 File 90-01. Millstone Power Station addressed this Part 21 under Control Routing 7887. At that time Millstone Power Station revised the applicable procedures to incorporate the new "K" value (Millstone Unit 2 was shutdown at the time of the Part 21 and identified a number MSSVs that were out of tolerance. These MSSV were reset using the new "K" value).

During recovery the NRC questioned Millstone Unit 3 as to the assist device only providing a representation of simmering on the valve, and not actually the set pressure. Millstone Unit 3 responded to this issue by performing set pressure confirmation testing using a MSSV that was at Wyle Labs. The set pressure testing consisted of testing the valve on a test stand using a limited travel steam lift set pressure method (standard method for determining set pressure post valve overhaul and permit by the code), then performed set pressure confirmation using a Hydroset and then performed additional limited travel steam lift set pressure method to confirm set pressure. This testing is documented in Technical Evaluation M3-EV-98-0183 Rev 0. The Technical Evaluation concluded that use of the Hydroset did provide accurate set pressure results.

Based on the above information Millstone Power Station does not believe there is any need to validate/verify the vendors methodology for the determining the Valve Constant "K" (conversion factor). The new Valve Constant "K", was provided to Millstone Power Station as part of the vendors Appendix B program. Millstone Power Stations also has in house operational experience, that shows the use of the Hydroset to confirm MSSV set pressure provides an accurate method of determining set pressure of MSSVs. The IST code requires testing M&TE have an overall

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closed end of
12/21/04
David Perry
x5274

CR Summary Report

Tuesday, December 21, 2004

Page 2 of 3

combined accuracy of +2% to -1% as documented in section 2.3 of Millstone procedure SP 2730B

Issue 2:

There was no indication in the Dominion surveillance that the M&TE used during the implementation of the surveillance was calibrated and traceable to a National Bureau of Standards (NIST) standard.

All of the M&TE used for MSSV set pressure testing and calibrated at the Millstone Metrology Laboratory shop is traceable to NIST. For equipment or M&TE that is not calibrated on site the requirements for calibration traceable to NIST is invoked by the QA purchase order.

Issue 3:

The vendor technical manual that was related to the M&TE used in the Millstone Unit 2 surveillance indicated that the M&TE is to be used only for confirming valve set pressure once the valve has been set by the use of full system over pressure ("full lift") testing. Dominion documentation indicates that the M&TE was used on several main steam code safety valves following full valve lifts that resulted from plant transients.

Discussion

The above issue is based on the following statement in VTM 25203-190-006A Introduction section, "It is recommended that the 1566 Hydroset be used only for confirming valve set pressure once the valves have been adjusted by the use of full steam overpressure." Millstone personnel reviewed this statement and the second part of the paragraph where this statement is made. The second section of this paragraph states, "Initial settings with the Hydroset is not recommended if the capability exists in the system to overpressure and adjust the safety valves."

Millstone personnel reviewed both of these statements and determined that the statement in question is the vendor informing the user that the Hydroset should only be used for set pressure confirmation and not for determination. This means that if a MSSV is overhauled (disassembled) or rings (blowdown, accumulation) have been adjusted that the valve needs to set pressure tested on a test stand, using no hydraulic assist lift type device (i.e. Hydroset). Millstone personnel discussed this issue with the vendor and the vendor concurred with Millstone Power Station personnel determination on the proper use of the Hydroset. Therefore Millstone Power Station uses the 1566-2 Hydroset per the manufacturers Vendor Technical Manual and directions.

Extent of Condition: BOTH MILLSTONE UNIT 2 AND 3 HAVE DRESSER (CONSOLIDATED) BASE MODEL NUMBER 3707R MAIN STEAM SAFETY VALVES (MSSVS). BOTH UNITS' MSSVS HAVE "R" ORIFICES AND USE THE SAME DISC. BOTH UNITS USE THE DRESSER 1566-2 HYDROSET TESTING DEVICE FOR MSSV SET PRESSURE CONFIRMATION. THE HYDROSET IS USED TO CONFIRM THE SET PRESSURE OF THE MSSVS TO MEET TECHNICAL SPECIFICATION AND IST PROGRAM REQUIREMENTS.

Initiator Feedback: Initiator notified

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	CATEGORY	?	PERSONNEL ERROR PRECURSOR
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	WHATHAP	CFMT	CONFIGURATION MANAGEMENT DEGRADATION

From: Paul Prescott
To: Max Schneider; Victor Nerses
Date: 11/4/04 8:25AM
Subject: Millstone MSSV App B Issue

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Paul Prescott
Senior Operations Engineer
Plant Support Branch (IPSB)
NRR

CC: Dale Thatcher; Richard McIntyre

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The original "K" value was identified as being incorrect in Dresser 10CFR Part 21 File 90-01. Millstone Power Station addressed this Part 21 under Control Routing 7887. At that time Millstone Power Station revised the applicable procedures to incorporate the new "K" value (Millstone Unit 2 was shutdown at the time of the Part 21 and identified a number MSSVs that were out of tolerance. These MSSV were reset using the new "K" value).

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combined accuracy of +2% to -1% as documented in section 2.3 of Millstone procedure SP 2730B

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All of the M&TE used for MSSV set pressure testing and calibrated at the Millstone Metrology Laboratory shop is traceable to NIST. For equipment or M&TE that is not calibrated on site the requirements for calibration traceable to NIST is invoked by the QA purchase order.

Issue 3:

The vendor technical manual that was related to the M&TE used in the Millstone Unit 2 surveillance indicated that the M&TE is to be used only for confirming valve set pressure once the valve has been set by the use of full system over pressure ("full lift") testing. Dominion documentation indicates that the M&TE was used on several main steam code safety valves following full valve lifts that resulted from plant transients.

Discussion

The above issue is based on the following statement in VTM 25203-190-006A introduction section, "It is recommended that the 1566 Hydrosset be used only for confirming valve set pressure once the valves have been adjusted by the use of full steam overpressure." Millstone personnel reviewed this statement and the second part of the paragraph where this statement is made. The second section of this paragraph states, "Initial settings with the Hydrosset is not recommended if the capability exists in the system to overpressure and adjust the safety valves."

Millstone personnel reviewed both of these statements and determined that the statement in question is the vendor informing the user that the Hydrosset should only be used for set pressure confirmation and not for determination. This means that if a MSSV is overhauled (disassembled) or rings (blowdown, accumulation) have been adjusted that the valve needs to set pressure tested on a test stand, using no hydraulic assist lift type device (i.e. Hydrosset). Millstone personnel discussed this issue with the vendor and the vendor concurred with Millstone Power Station personnel determination on the proper use of the Hydrosset. Therefore Millstone Power Station uses the 1566-2 Hydrosset per the manufacturers Vendor Technical Manual and directions.

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Cause Number: 1 Apparent Cause

Causal Factor: NA

Cause: Not applicable / undetermined

Detail: Due to the investigation there are no corrective actions required this is a differing professional opinion between the NRC and Millstone

Trend Codes: _____

Corrective Actions

1

Corrective Action Coordinator: _____ Date: _____

Process Owner (designee): _____ Date: _____

MPO / CR Owner (level 1 only): _____ Date: _____