12/07/2007

U.S. Nuclear Regulatory Commission Operations Center Event Report

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| General Ir | nformation or Other (PAR) | | Event # | 43826 |
|---------------------------------------|---|---|---|-------------------|
| | ROSEMOUNT NUCLEAR ROSEMOUNT NUCLEAR | Êv | ion Date / Time: 12/06/2007 14: ent Date / Time: 11/15/2007 st Modification: 12/06/2007 | 03 (EST) (CST) |
| Region: City: County: State: | CHANHASSEN | Docket #: Agreement State: \ License #: | | |
| HQ Ops | fied by: DAVID T. ROBERTS Officer: JASON KOZAL Y Class: NON EMERGENCY Section: | Notifications: | RICHARD BARKLEY RANDY MUSSER CHUCK CAIN PART 21 GROUP -EMAIL | Ŕ1 R2 R4 |
| 21.21 | UNSPECIFIED PARAGRAPH | , · · · | JULIO LARA | R3 |
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PART 21 - POTENTIAL INSUFFICIENT THREAD ENGAGEMENT FOR CERTAIN PRESSURE TRANSMITTERS

Rosemount Nuclear Instruments, Inc. (RNII) reported that certain Model 1152, 1153 Series B and D, and 1154, and 1154 Series H Pressure Transmitters may have inadequate thread engagement between the electronics housing and sensor module. Transmitters affected by this notification may not confirm to RNII specifications under accident conditions. Supplier testing has determined that no immediate risk exists, however it is RNII's opinion that two threads of engagement may not be sufficient to assure that the product will perform its intended safety function over the qualified life of the transmitter.

The following are the potentially affected licensees: Oyster Creek, Calvert Cliffs, Kewaunee, North Anna, Millstone, Surry, Turkey Point, Vogtle, Diablo Canyon, Shearon Harris, South Texas Project, Browns Ferry, and Wolf Creek.

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ROSEMOUNT[®] Nuclear

Facsimile

Rosemount Nuclear Instruments, Inc. 8200 Market Boulevard Chanhassen, MN 55317

> Telephone 1 (952) 949-5234 Fax 1 (952) 949-5201 David.Roberts@Emerson.com

| To: | NRC Operations Center | |
|---------------|--------------------------------|---|
| Company: | | |
| Fax Number: | (301) 816-5151 | |
| Date: | 12/6/07 | • |
| From: | David Roberts, Quality Manager | |
| No. of Pages: | 15, Including cover page | |

Rosemount Nuclear Instruments is submitting the attached notification as required by 10 CFR Part 21. Please contact me if you have any questions.

Sincerely,

Darl T Rff

David T. Roberts Quality Manager Rosemount Nuclear Instruments, Inc.



Rosemount Nuclear Instruments, Inc. 8200 Market Boulevard Chanhassen, MN 55317 USA

Tel 1 (952) 949-5210 Fax 1 (952) 949-5201 www.RosemountNuclear.com

6 December 2007

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

Re: Notification under 10 CFR Part 21 for certain Models 1152, 1153 Series B & D, 1154, and 1154 Series H Pressure Transmitters

Pursuant to 10 CFR Part 21, section 21.21(b), Resemount Nuclear Instruments, Inc. (RNII) is writing to inform you that Models 1152, 1153, and 1154 pressure transmitters listed in Appendix 2 and shipped to your facility between August 28, 2006 and September 29, 2006 may have inadequate thread engagement between the electronics housing and sensor module. Transmitters affected by this notification may not conform to RNII's published specifications under accident conditions.

1.0 Name and address of the individual providing the information:

Mr. Marc D. Bumgarner Vice President & General Manager Rosemount Nuclear Instruments, Inc. 8200 Market Blvd Chanhassen, MN 55317

2.0 Identification of items supplied:

Models 1152, 1153, and 1154 pressure transmitters identified in Appendix 2.

3.0 Identification of firm supplying the item:

Rosemount Nuclear Instruments, Inc. 8200 Market Blvd Chanhassen, MN 55317

4.0 Nature of the failure and potential safety hazard:

In mid-November 2007, RNII received specific feedback from a customer regarding an 1154 series H transmitter. Photos indicated that the thread engagement between electronics housing and sensor module was roughly 1.5+2 threads.

Testing was conducted on four transmitters: two units assembled to the worst case condition, and two units assembled with nominal thread engagement. Resonance frequency testing was performed to assess the impact on seismic qualification. A leak check was then performed to assess the environmental qualification. There were no significant differences in resonant frequency or amplitude, and no leaks were detected.

However, while these results indicate that no immediate risk exists, it is RNII's opinion that two threads of engagement may not be sufficient to assure that the product will perform its intended safety function over the qualified life of the transmitter. As a result, notification is being made under 10CFR21 to the customers that purchased a transmitter from the potentially affected population.

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The potentially affected population was determined from a previously issued internal corrective action request pertaining to the module / electronics housing thread engagement, which isolated the affected population to a single operator (see Attachment 2). At that time, the known worst case thread engagement was determined to have sufficient design margin to assure that the transmitter could fulfill its intended safety function.

A procedure has been developed so that thread engagement can be checked in the field without any disassembly or removal of the pressure transmitter. This procedure is provided in Attachment 1.

5.0 The corrective action which is taken, the name of the individual or organization responsible for that action, and the length of time taken to complete that action:

- RNII held shipments of all transmitters while the potentially affected population was identified.
- All potentially affected transmitters in finished goods were inspected and reworked if necessary.
- All transmitters in-process were inspected for the desired thread engagement and reworked if necessary.
- Corrective actions, which included incorporation of a set of go / no-go gauges at mechanical assembly, were implemented to ensure that the electronics housing would be assembled with the desired thread engagement.
- Customers affected by this notification should perform a dimensional check to confirm adequate thread engagement. Instructions are provided in Attachment 1.
- Transmitters that do not meet the dimensional criteria may not have adequate thread engagement and should be reworked in accordance with the operating manual or returned to RNII for rework.

6.0 Any advice related to the potential failure of the item:

The end user is advised to determine the impact of this defect upon its plant's operation and safety, and take action as deemed necessary. The electronics housing can be removed and re-installed in accordance with the operating manual. Alternatively, affected transmitters can be returned to RNII for rework at no charge.

Rosemount Nuclear Instruments, Inc. is committed to the nuclear industry and remains dedicated to the supply of high quality products to our customers. If you have any questions, or require additional information related to this issue, please contact: Mike Dougherty (208) 865-1112, Gerard Hanson (952) 949-5233, Bob Cleveland (952) 949-5206, or Matt Doyle (952) 949=5204.

Sincerely,

Marc D. Bumgarner Vice President & General Manager Rosemount Nuclear Instruments, Inc.



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APPENDIX 1: Inspection for acceptable thread engagement

(A) For Model 1152, 1153 Series B & D, and 1154 Pressure Transmitters

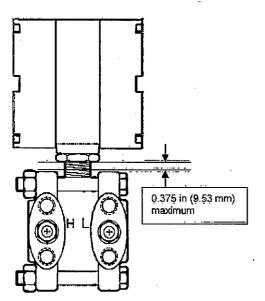
1. Using machinist parallels, gage blocks, or equivalent, measure the distance between the top of the flanges and the bottom of the lock nut as indicated in the figure below.

2. If the distance is greater than 0.375 inches, the transmitter should be reworked in accordance with the operating manual or returned to RNII for rework.

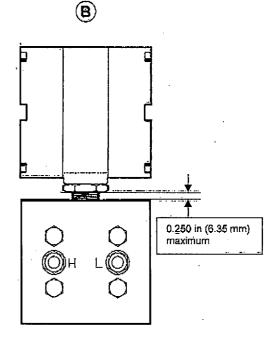
(B) For Model 1154 Series H Pressure Transmitter

(A)

- 1. Using machinist parallels, gage blocks, or equivalent, measure the distance between the top of the metal shroud and the bottom of the lock nut as indicated in the figure below.
- 2. If the distance is greater than 0.250 inches, the transmitter should be reworked in accordance with the operating manual or returned to RNII for rework.



Model 1152, 1153 Series B & D, and 1154



Model 1154 Series H



Amergen Energy Co LLC

| Sales Order | Purchase Order | Model Number | \$/N | Ship Date | Site |
|----------------|------------------------|--------------|-----------------|-----------|------------------|
| 1741689 | 80 102205 REV 1 REL 41 | 1153DB4RJ | 533218 | 31-Auġ-06 | Oyster Creek NGS |
| 1741689 | 80 102205 REV 1 REL 41 | 1153DB4RJ | 533 <u>2</u> 19 | 31-Auġ-06 | Oyster Creek NGS |

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Constellation Nuclear

| Sales Order | Purchase Order | Model Number | 8/N | Ship Date | Site |
|----------------|----------------|----------------|----------------|-----------|----------------|
| 1745042 | 418436 | 11548H9RBN0034 | 53317 <u>2</u> | 11-Sep-06 | Calvert Cliffs |

Dominion Energy Kewaunee

| Sales Order | Purchase Order | Model Number | S/N | Ship Date | Site |]. |
|----------------|----------------|-------------------|--------|-----------|----------|----|
| 1747213 | 45450382 | 1152HP5L22T1805PM | 533012 | 29-Aug-06 | Kewaunee | 1 |



Dominion Generation

| Sales Order | Purchase Order | Model Number | S/N | Ship Dațe | Site |
|----------------|----------------|--------------|--------|-----------|--------------------------|
| 1743278 | 45448949 | 1153HB6PA | 533195 | 28-Aug-06 | North Anna Power Station |
| 1736453 | 45446441 | 1154GP7RH | 533165 | 30-Aug-06 | Millstone Power Station |
| 1729026 | 45443188 | 1152DP3N22PB | 533203 | 30-Aug-06 | Surry Power Station |



Florida Power and Light Co

| Sateş Order | Purchase Order | Model Number | \$/N | Ship Date | Site |
|----------------|----------------|----------------|--------|-----------|----------------------------|
| 1744793 | 95897 | 1153HD5PAN0065 | 533251 | 31-Aug-06 | Turkey Point Nuclear 3 & 4 |
| 1744793 | 95897 | 1153HD5PAN0065 | 533252 | 31-Aug-06 | Turkey Point Nuclear 3 & 4 |
| 1744793 ` | 95897 | 1153HD5PAN0065 | 533253 | 31-Aug-06 | Turkey Point Nuclear 3 & 4 |

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Georgia Power Co

| Sales Order | Purchase Order | Model Number | S/N | Ship Date | Site |
|----------------|----------------|--------------|--------|-----------|----------------------------------|
| 1745987 | 7072754 | 1154SH9RH | 533222 | 6-Sep-06 | Vogtle Electric Generating Plant |
| 1745987 | 7072754 | 1154SH9RH | 533223 | 6-Sep-06 | Vogtle Electric Generating Plant |

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Pacific Gas and Electric Co

| Sales Order | Purchase Order | Model Number | S/N | Ship Date | Site |
|----------------|----------------|--------------|--------|-----------|---------------|
| 1732406 | 130124 | 1152DP5N92PB | 533289 | 18-Sep-06 | Diablo Canyon |
| 1732406 | 130124 | 1154DH5RC | 533257 | 18-Sep-06 | Diablo Canyon |
| 1732406 | 130124 | 1154DH5RC | 533258 | 18-Sep-06 | Diablo Canyon |
| 1732406 | 130124 | 1154DH5RC | 533259 | 18-Sep-06 | Diablo Canyon |
| 1732406 | 130124 | 1154DH5RC | 533260 | 18-Sep-06 | Diablo Canyon |
| 1732406 | 130124 | 1154DH5RC | 533261 | 18-Sep-06 | Diablo Canyón |
| 1732406 | 130124 | 1154DH5RC | 533262 | 18-Sep-06 | Diablo Canyon |

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APPENDIX 2: 10 CFR Part 21 Notification - 6 December 2007.

Progress Energy Carolinas Inc

| Sáles Order | Purchase Order | Model Number | S/N | Ship Date | Site |
|----------------|----------------|--------------|--------|-----------|------------------------------|
| 1732337 | 276495 | 1153GB8RA | 533221 | 5-Sep-06 | Shearon Harris Nuclear Plant |



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STP Nuclear Operating Co

| Saleş Order | Purchase Order | Model Number | S/Ņ | Ship Date | Site |
|----------------|----------------|--------------|--------|-----------|-------------------------|
| 1733177 | 77428 | 1153GD9RB | 533220 | 31-Aug-08 | South Texas Project EGS |



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APPENDIX 2: 10 CFR Part 21 Notification - 6 December 2007.

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| 1 | Bales Order | Purchase Order | Model Number | S/N | Ship Date | Site |
|----|----------------|--------------------|--------------|--------|-----------|----------------------------|
| 17 | 42540 | 00000151 REL 00220 | 1152DP3N22PB | 533205 | 29-Sep-06 | Browns Ferry Nuclear Plant |



Wolf Creek Nuclear Operating Corp

| Sales Order | Purchase Order | Model Number | S/N | Ship Date | Site |
|----------------|----------------|--------------|--------|-----------|------------|
| 1732811 | 735109 REV 4 | 1154DP4RG | 533254 | 14-Sep-06 | Wolf Creek |
| 1732811 | 735109 REV 4 | 1154DP4RG | 533255 | 14-Sep-06 | Wolf Çreek |
| 1732811 | 735109 REV 4 | 1154DP4RG | 533256 | 14-Sep-06 | Wolf Creek |

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