

Part 21 (PAR)

Event # 48976

Rep Org: ITT ENGINEERED VALVES, LLC	Notification Date / Time: 04/26/2013 17:25 (EDT)
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	Last Modification: 04/26/2013
Region: 1	Docket #:
City: LANCASTER	Agreement State: Yes
County:	License #:
State: PA	
NRC Notified by: STEPHEN DONONHUE	Notifications: JUDY JOUSTRA R1DO
HQ Ops Officer: BILL HUFFMAN	MARVIN SYKES R2DO
Emergency Class: NON EMERGENCY	DAVID HILLS R3DO
10 CFR Section:	JACK WHITTEN R4DO
21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE	PART 21 GROUP (RX) E-MAIL

DIAPHRAGMS USED IN CERTAIN VALVES MAY NOT BE QUALIFIED FOR SPECIFIC RADIATION DESIGN CONDITIONS

The following report was received from ITT Engineered Valves, LLC via facsimile:

"It is my duty as the Responsible Officer of ITT Engineered Valves, LLC (ITT) to inform the Nuclear Regulatory Commission of a defect with certain items of our nuclear diaphragm valve product line which may be considered Basic Components. The components are ITT's Nuclear M1 diaphragms, sizes 3 inch and 4 inch that may have been sold to certain customers for specific design conditions. The defect does not affect all 3 inch and 4 inch M1 diaphragms that have been sold. It only applies to those that were sold for a particular service condition of Code Case N31 (250°F and 220 psi with 40 year radiation exposure of 1E8 Rad).

"The nature of the defect is best described by 10 CFR Section 21.3 Defect Definition #5, as 'an error, omission or other circumstance in a design certification or standard design approval that... could create a substantial safety hazard.' In this case, ITT inadvertently qualified the 3 inch and 4 inch M1 diaphragms for a design condition that includes the effect of radiation when in fact our recommendation was erroneously based on diaphragm testing that did not include irradiated diaphragm test results for those sizes. The potential safety hazard stems from the fact that if one of these diaphragms sees radiation in this particular service, there is no data to indicate that the diaphragm will perform its function in that service condition. Until such time that we can conduct additional irradiated diaphragm testing to additional sample diaphragms and test for this condition, we need to consider the parts that are in this service as potentially unsafe.

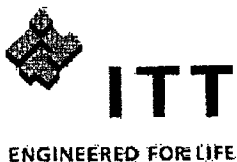
"ITT is in the process of identifying all facilities for which the diaphragms were sent, either as spare parts or diaphragms incorporated into valve assemblies. We are also preparing to do further verification tests of the 3 inch and 4 inch M1 diaphragms in an attempt to ascertain the true performance rating at the noted condition.

IE19
NRR

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"Per 10 CFR 21 policy guidelines, this initial notification will be followed by a written notification by May 27, 2013."



ITT Engineered Valves, LLC

33 Centerville Road
Lancaster, PA 17603
tel 717.509.2200

April 26, 2013

NRC Operations Center
Washington, DC
Fax 301-816-5151

It is my duty as the Responsible Officer of ITT Engineered Valves, LLC (ITT) to inform the Nuclear Regulatory Commission of a defect with certain items of our Nuclear diaphragm valve product line which may be considered Basic Components. The components are ITT's Nuclear M1 diaphragms, sizes 3" and 4" that may have been sold to certain customers for specific design conditions. The defect does not affect all 3" and 4" M1 diaphragms that have been sold, it only applies to those that were sold for a particular service condition of Code Case N31 (250°F and 220 psi with 40 year radiation exposure of 1.0E8 Rad).

The nature of the defect is best described by 10 CFR section 21.3 *Defect* definition #5, as "an error, omission or other circumstance in a design certification or standard design approval that... could create a substantial safety hazard". In this case, ITT inadvertently qualified the 3" and 4" M1 diaphragms for a design condition that includes the effect of radiation when in fact our recommendation was erroneously based on diaphragm testing that did not include radiated diaphragm test results for those sizes. The potential safety hazard stems from the fact that if these diaphragm see radiation in this particular service, there is no data to indicate that the diaphragm will perform its function in that service condition. Until such time that we can conduct additional radiated diaphragm testing to additional sample diaphragms and test for this condition, we need to consider the parts that are in this service as potentially unsafe.

ITT is in the process of identifying all facilities for which the diaphragms were sent, either as spare parts or diaphragms incorporated into valve assemblies. We are also preparing to do further verification tests of the 3" and 4" M1 diaphragms in an attempt to ascertain the true performance rating at the noted condition.

Per 10 CFR 21 policy guidelines, this initial notification will be followed by a written notification by May 27, 2013. In the meantime, please do not hesitate to contact me with any questions or issues regarding this matter.

Regards,

S. T. Donohue

stephen.donohue@itt.com

Senior Staff Engineer

ITT Engineered Valves, LLC