

Part 21 (PAR)

Event # 52324

Rep Org: EMERSON FISHER CONTROLS INTL LLC	Notification Date / Time: 10/27/2016 16:43 (EDT)
Supplier: EMERSON FISHER CONTROLS INTL LLC	Event Date / Time: 08/30/2016 (CDT)
	Last Modification: 02/24/2017
Region: 3	Docket #:
City: MARSHALLTOWN	Agreement State: Yes
County:	License #:
State: IA	
NRC Notified by: KIM SAGAR	Notifications: BLAKE WELLING R1DO
HQ Ops Officer: DANIEL MILLS	EUGENE GUTHRIE R2DO
Emergency Class: NON EMERGENCY	PATTY PELKE R3DO
10 CFR Section:	THOMAS FARNHOLTZ R4DO
21.21(a)(2) INTERIM EVAL OF DEVIATION	PART 21/50.55 REACTORS EMAIL
	PART 21 MATERIALS EMAIL

PART 21 - POTENTIAL ISSUE WITH SEISMIC QUALIFICATION OF TYPE 546NS ELECTRO-PNEUMATIC TRANSDUCERS

The following was received via email:

"Pursuant to 10 CFR 21.21(a)(2), Fisher Controls International LLC ('Fisher') is providing required written interim notification of a potential failure to comply concerning Type 546NS Electro-Pneumatic Transducer Qualification Reports.

"On August 30, 2016, Fisher became aware of a potential issue with the past qualification of the Type 546NS Transducers. Fisher's published seismic literature and certifications, based on testing by a 3rd party laboratory, exhibit inconsistencies when compared to more recent testing completed by Fisher. Regardless of these discrepancies, the Type 546NS Transducer remains qualified to perform before and after seismic loading. The scope of this investigation pertains only to operability during seismic events.

"An extent-of-condition investigation is underway and 546NS testing data is being evaluated to determine if further testing is required. Fisher will complete the investigation by November 27, 2016 and, if necessary, will complete additional testing by February 10, 2017.

"Should there be any further questions concerning this matter, please contact Benjamin Ahrens, Manager, Quality by email at Benjamin.Ahrens@Emerson.com or via phone at 641-754-2249."

*** UPDATE AT 0919 EST ON 11/23/16 FROM KIM SAGAR TO JEFF HERRERA ***

The following was received via email:

JE19
NRR

"Pursuant to 10 CFR 21.21(a)(2), Fisher Controls International LLC ("Fisher") is providing an update to a previous written interim notification of a potential failure to comply concerning Type 546NS Electro-Pneumatic Transducer Qualification Reports.

"On August 30, 2016, Fisher became aware of inconsistencies exhibited by prior qualification reports of the 546NS. A review of all previous Type 546 qualifications has been completed to reaffirm the qualification of the device for operation during seismic events. Based on this review, the 546NS remains qualified to perform before and after seismic loading. Additional testing is required to confirm if the device is capable of operating during an event. This additional testing is scheduled to be completed by February 10, 2017.

"Once this additional testing has been completed and operability status determined, an appropriate announcement will be made pursuant to 10CFR21 reporting requirements.

"Should there be any further questions concerning this matter, please contact Benjamin Ahrens, Manager, Quality by email at Benjamin.Ahrens@Emerson.com or via phone at 641-754-2249."

Notified the R1DO (Dwyer), R2DO (Heisserer), R3DO (McCraw), R4DO (Taylor), Part 21/50.55 Reactors (via email) and Part 21 Materials (via email).

*** UPDATE PROVIDED BY KIM SAGAR TO JEFF ROTTON AT 1704 EST ON 02/24/2017 ***

The following is a summary of information that was received via email:

"Pursuant to 10CFR21.21(a)(2), Fisher Controls International LLC ("Fisher") is providing required written interim notification of a potential failure to comply concerning Type 546NS Electro-Pneumatic Transducer Qualification Reports. This notification serves as a follow-up to a similarly titled report dated October 27, 2016.

"Fisher initiated in-house seismic testing to analyze the performance of the device and associated mounting hardware when exposed to high-level seismic activity. These tests concluded on February 10, 2017.

"Test data analysis is still underway. However, at the time of this publication, preliminary observations and conclusions can be made. The device itself, when rigidly mounted, does not exhibit natural frequencies in the tested frequency range consistent with previous qualification literature. When mounted to the standard 546 mounting bracket, the tested assemblies do not exhibit natural frequencies below 60 Hz.

"During the course of testing, additional questions were raised regarding the configuration of the mounting bracket. These questions are currently being investigated. Questions regarding 546NS mounting will be addressed on a case-by-case basis with individual customers.

"Further analysis and verification of the test data is needed before Fisher can make specific claims regarding the operability of the 546NS during high-level seismic loading. Fisher will complete the investigation by April 13th, 2017.

"Should there be any further questions concerning this matter, please contact Benjamin Ahrens, Manager, Quality by email at Benjamin.Ahrens@Emerson.com or via phone at 641-754-2249."

Notified the R1DO (Powell), R2DO (Bartley), R3DO (Jeffers), R4DO (Pick), Part 21/50.55 Reactors (via email) and Part 21 Materials (via email).



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February 24, 2017

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk

Subject: Fisher Controls 10CFR21 Interim Report
Type 546NS Qualification

Dear Sir or Madam:

Pursuant to 10 CFR 21.21(a)(2), Fisher Controls International LLC ("Fisher") is providing required written interim notification of a potential failure to comply concerning Type 546NS Electro-Pneumatic Transducer Qualification Reports. This notification serves as a follow-up to a similarly titled report dated October 27, 2016.

On August 30, 2016, Fisher became aware of a potential issue with the past qualification of the Type 546NS Transducers. Fisher's reported seismic literature and certifications, based on testing by a 3rd party laboratory, exhibit inconsistencies when compared to more recent testing completed by Fisher.

To resolve these inconsistencies, Fisher initiated in-house seismic testing to analyze the performance of the device and associated mounting hardware when exposed to high-level seismic activity. These tests concluded on February 10, 2017.

Test data analysis is still underway. However, at the time of this publication, preliminary observations and conclusions can be made. The device itself, when rigidly mounted, does not exhibit natural frequencies in the tested frequency range consistent with previous qualification literature. When mounted to the standard 546 mounting bracket, the tested assemblies do not exhibit natural frequencies below 60 Hz.

During the course of testing, additional questions were raised regarding the configuration of the mounting bracket. These questions are currently being investigated. Questions regarding 546NS mounting will be addressed on a case-by-case basis with individual customers.

Further analysis and verification of the test data is needed before Fisher can make specific claims regarding the operability of the 546NS during high-level seismic loading. Fisher will complete the investigation by April 13th, 2017.

Should there be any further questions concerning this matter, please contact Benjamin Ahrens, Manager, Quality by email at Benjamin.Ahrens@Emerson.com or via phone at 641-754-2249.

Regards,

A handwritten signature in black ink, consisting of a stylized 'S' followed by a horizontal line and another stylized 'L'.

Scott Lustyk
Manager, Nuclear Business Unit
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Marshalltown, IA 50158
Fax: (641) 754-2854