

Part 21 (PAR)

Event # 51394

<b>Rep Org:</b> EMERSON PROCESS MANAGEMENT		<b>Notification Date / Time:</b> 09/15/2015 07:12 (EDT)	
<b>Supplier:</b> EMERSON PROCESS MANAGEMENT		<b>Event Date / Time:</b> 07/16/2015 (CDT)	
<b>Last Modification:</b> 10/30/2015			
<b>Region:</b> 3	<b>Docket #:</b>		
<b>City:</b> MARSHALLTOWN	<b>Agreement State:</b>	Yes	
<b>County:</b>	<b>License #:</b>		
<b>State:</b> IA			
<b>NRC Notified by:</b> GEORGE BAILINGER	<b>Notifications:</b>	SILAS KENNEDY	R1DO
<b>HQ Ops Officer:</b> STEVE SANDIN		BINOY DESAI	R2DO
<b>Emergency Class:</b> NON EMERGENCY		KENNETH RIEMER	R3DO
<b>10 CFR Section:</b>		THOMAS FARNHOLTZ	R4DO
21.21(a)(2)	INTERIM EVAL OF DEVIATION	PART 21/50.55 REACTORS	EMAIL
21.21(d)(3)(i)	DEFECTS AND NONCOMPLIANCE		

#### INTERIM PART 21 REPORT - ACTUATOR FAIL MODE DEVIATION AND POTENTIAL NON-CONSERVATIVE ACTUATOR SIZING

The following information was received via fax:

"Pursuant to 10 CFR 21.21(a)(2), Fisher Controls International LLC ('Fisher') is providing required written interim notification of a deviation or failure to comply in product shipped to the Krsko Nuclear Station ('Krsko') located in Slovenia.

On July 16, 2015, Fisher became aware of an issue with an actuator fail mode for an 8 [inch] 2052- Control Disc valve, Serial Number 19443837. The affected valve was supplied in a 'Fail Closed' configuration rather than the desired 'Fail Open' configuration. Fisher has corrected the configuration and retested the affected valve at the Krsko site. Krsko has since accepted the valve for installation.

"During the investigation, it was also noted there was an increase in one of the sizing factors for the valve that may have led to a non-conservative actuator sizing for this and other valves provided to this Krsko site. Fisher is currently performing an extent-of-condition review of safety-related rotary orders in order to confirm that correct orientations and actuator sizing were provided. Any identified deficiencies will be reported per the requirements of 10 CFR 21.21(b). This review is expected to be completed by October 23, 2015. Additionally, all current safety related rotary orders in-house are being reviewed prior to shipment. This notice affects only rotary valves with Fisher factory mounted actuators.

Corrective Action CAR 1756 has been opened to document corrective actions taken to prevent reoccurrence.

Should there be any further questions concerning this matter, please contact Benjamin Ahrens, Manager, Quality

IE19  
NRR

by email at Benjamin.Ahrens@Emerson.com or via phone at 641-754-2249.

\* \* \* UPDATE FROM GEORGE BAITINGER (VIA FAX) AT 1634 EDT ON 10/30/15 \* \* \*

As excerpted from the fax:

"Extent of condition investigations into both issues have determined that no additional valve configurations have shipped with these deficiencies."

Fisher issued Fisher Information Notice 2015-02 pertaining to the particulars of this event.

Notified R1DO (Cahill), R2DO (Bonser), R3DO (Duncan) and R4DO (Okeefe). NRR/NRO Part 21 group was notified via email.

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**Facsimile**

301 South First Ave  
Marshalltown, IA 50158

T 641-754-3011

F 641-754-2830

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To: NRC Operations Center - Attn: Bill Huffman  
Fax: 301-816-5151  
From: George Baitinger, Emerson Process Management  
Date: 10/30/2015  
Pages: 5  
(incl cover)

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Attachment: Fisher Information Notice – (FIN) 2015-02

For technical questions please contact George Baitinger at (641) 754-2026.



Fisher Controls International LLC  
301 South First Ave.  
P.O. Box 190  
Marshalltown, Iowa 50158-0190  
USA  
T (641) 754-3011  
F (641) 754-2830

October 30, 2015

To Whom It May Concern:

Attached is a Fisher Information Notice, (FIN) 2015-02.

Emerson Process Management – Fisher Valves complies with the reporting requirements of 10 CFR Part 21 Section 21.21 (b) and 10 CFR Part 50.55 (e) by informing the U.S. Nuclear Regulatory Commission Licensees or Purchaser of deviations or failures to comply.

Please review the attached FIN notice for applicability to your facility.

A handwritten signature in black ink, appearing to read 'M. Wedemeyer', written over a horizontal line.

Michael Wedemeyer  
Global Quality Manager, Engineering and Special Processes

Attachments





**EMERSON**  
Process Management

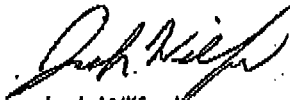
Fisher Controls International LLC  
301 South First Ave  
P.O. Box 100  
Marshalltown, Iowa 50158-0190  
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**Fisher Information Notice: FIN 2015-02**

**27 October 2015**

**Subject:** Updated Incorrect Safety Related Actuator Configuration and Non-Conservative Actuator Sizing

**From:**



Josh Willford  
Vice President of Engineered Products  
Fisher Controls International LLC  
301 South First Avenue  
Marshalltown, IA 50158  
Fax: (641) 754-2854

**Equipment Affected by this Information Notice:**

***Items subject to this Fisher Information Notice (FIN) were provided to Krsko Nuclear Station (Krsko) per Krsko Order 41052406 (Fisher Order 416 -41634008).***

***Specifically, Fisher supplied (2) 6" control disc valves / 2052 actuator assemblies, (serial number 19443836, 19443835) and (2) 8" control disc valves / 2052 actuator assemblies (serial number 19443837, 19445013) ("Equipment"). The Equipment was supplied with inadequate non-conservative sizing. Additionally, the actuator provided with serial number 19443837 was supplied in a "Fail Closed" configuration rather than the desired "Fail Open" configuration.***

***An extent-of-condition investigation has determined that no additional valve configurations have shipped with the aforementioned deficiencies. This FIN applies only to the Equipment supplied to Krsko per the aforementioned order.***

**Fisher Information Notice: FIN 2015-02****Purpose:**

The purpose of this FIN is to alert Krsko that as of 16 July 2015, Fisher Controls International LLC (Fisher) became aware of a situation which may affect the performance of the Equipment, including its safety-related function. An interim report was issued 14 September 2015 (ML 15259A526).

Fisher is informing Krsko of this circumstance in accordance with Section 21.21 (b) of 10 CFR 21.

**Discussion:**

The Equipment supplied used non-conservative valve torque factors, resulting in inadequate sizing. This may result in an actuator that fails to properly stroke the valve.

Additionally, the Equipment supplied with serial number 19443837 was supplied in a "Fall Closed" configuration rather than the desired "Fall Open" configuration.

Upon review of the order, it was concluded these assemblies and their construction were new and first of their kind, which led to an increased potential of human error.

Extent-of-condition investigations into both issues have determined that no additional valve configurations have shipped with these deficiencies. This FIN applies only to the Equipment supplied to Krsko per the aforementioned order.

**Actions:**

The fall direction of serial number 19443837 has been corrected to a PDTC configuration. The corrected Equipment was retested at the Krsko site and the Equipment is confirmed to fall in the correct direction.

Fisher will work with Krsko to replace the non-conservatively sized Equipment with correctly sized replacements. Appropriate valve torque factors are now published and are implemented in all current and future sizing activities. Corrective Action Request (CAR 1756) has been initiated to prevent reoccurrence of these issues. This aims to verify that the issues were not widespread and thus, isolated to this order. This will also verify that order processing quality and procedures have been appropriately enhanced for all orders including but not limited to new or non-standard constructions.

**Fisher Information Notice: FIN 2015-02**

**10 CFR 21 Implications:**

Fisher requests that the recipient of this FIN review it and take appropriate action in accordance with 10 CFR 21. If there are any technical questions or concerns, please contact:

Ben Ahrens  
Quality Manager  
Emerson Process Management  
Fisher Controls International LLC  
301 South 1st Avenue  
Marshalltown, IA 50158  
Phone: (641) 754-2249  
[benjamin.ahrens@emerson.com](mailto:benjamin.ahrens@emerson.com)