

Part 21 (PAR)

Event # 51907

Rep Org: ROTORK CONTROLS, INC.		Notification Date / Time: 05/04/2016 14:56 (EDT)	
Supplier: JOHNSON ELECTRIC		Event Date / Time: 01/25/2016 (EDT)	
Last Modification: 10/31/2016			
Region: 1	Docket #:		
City: ROCHESTER	Agreement State: Yes		
County:	License #:		
State: NY			
NRC Notified by: PATRICK SHAW		Notifications: FRED BOWER	R1DO
HQ Ops Officer: DONG HWA PARK		MIKE ERNSTES	R2DO
Emergency Class: NON EMERGENCY		NICK VALOS	R3DO
10 CFR Section:		JOHN KRAMER	R4DO
21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE		PART 21/50.55 REACTORS	EMAIL

PART 21 - ANOMALY RELATED TO MICRO SWITCHES

The following report was received via email:

"Based on test data, Rotork believes an unsafe condition may exist as defined under 10 CFR 21. The adhesive formulation used for the construction of V12 and K5 safety related micro switches was altered by the switch maker's sub-supplier. K5 switches have no reported failures, but are affected because of construction. The altered adhesive formulation outgases an insulating material at elevated temperatures, which coats the switch contacts as it cools and can prevent the conduction of electricity."

*** UPDATE AT 0938 EDT ON 10/31/16 FROM PATRICK A. SHAW TO S. SANDIN VIA FAX ***

"This letter provides an update to the Rotork Controls Inc. Part 21 filing submitted May 4th 2016; documented in U.S.NRC Event Number 51907.

"Rotork have developed versions of the V12 & K5 switches that eliminate adhesive from the materials of construction.

"Evaluation of pre-production V12 switches, by thermal aging for 10 days at 125°C (257F), demonstrate the switch non-metallic housing and plunger also outgas materials that contributed to the accumulated contamination observed on switch electrical contacts as reported in Event 51907. The cause of the new outgassing sources and extent of condition is currently being investigated. For the moment suitable replacement switches remain unavailable that correct the issue reported in Event 51907.

"At this point in time, Rotork do not have grounds to believe the extent of condition is altered from that reported in

IE19
NRR

Event Number 51907."

Notified R1DO (Schroeder), R2DO (Guthrie), R3DO (Daley), R4DO (Vasquez) and PART 21/50.55 REACTORS via email.

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To: NRC Operations Center **From:** Patrick A Shaw
Fax: (301) 816-5151 **Pagos:** (Including Cover Page) 2
Phone: (585) 770-1019 **Date:** 10/31/2016
Re: _____ **CC:** _____

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Dear Sir/Madame,

The attached letter is an update to the Rotork Part 21 notification filed May 4th 2016; documented in U.S. NRC Event Number 51907.

Sincerely
Patrick A. Shaw
Quality Manager

**ROTORK
Controls**

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U.S. Nuclear Regulatory Commission,
Washington, DC 20555-0001

From: Patrick A. Shaw, P.E
To: NRC Operations Center
Date: October 31st 2016

Subject: Update to U.S.NRC Event Number 51907

Dear Sir/Madame,

This letter provides an update to the Rotork Controls Inc. Part 21 filing submitted May 4th 2016; documented in U.S.NRC Event Number 51907.

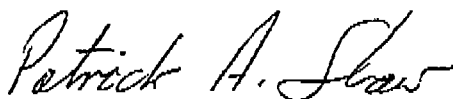
Rotork have developed versions of the V12 & K5 switches that eliminate adhesive from the materials of construction.

Evaluation of pre-production V12 switches, by thermal aging for 10 days at 125°C (257°F), demonstrate the switch non-metallic housing and plunger also outgas materials that contributed to the accumulated contamination observed on switch electrical contacts as reported in Event 51907. The cause of the new outgassing sources and extent of condition is currently being investigated.

For the moment suitable replacement switches remain unavailable that correct the issue reported in Event 51907.

At this point in time, Rotork do not have grounds to believe the extent of condition is altered from that reported in Event Number 51907.

Sincerely



Patrick A. Shaw, P.E
Quality Assurance Manager
Tel (585) 770-1019