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

From: Patrick A. Shaw, P.E  
To: NRC Documentation Center  
Date: 03/18/2016

Subject: Rotork Controls Inc. Ref. NCR173472, Forty (40) Day Extension Request for Part 21 Investigation,

Dear Sir/Madame,

On January 25th, 2016 Rotork Controls Inc. opened a formal Part 21 investigation into an anomaly reported by Duke Energy relating to a Basic micro switch - Pt No N69-921, description "V12". The anomaly occurred at Kinectrics Ltd. Canada, during the evaluation of four (4) Rotork Safety Related NA Range electric actuators. The reported anomaly was "switch did not change state". The anomaly was observed after ten (10) days of thermal aging at 125 Centigrade (257 Fahrenheit).

Rotork reproduced the anomaly by heat cycling switches and established the formulation of an adhesive, used within the V12 switch construction, was altered by the switch maker's sub-supplier. The altered adhesive formulation outgases at elevated temperatures and deposits an insulating material layer onto the switch internal electrical contacts as it cools. Rotork is currently conducting tests to characterize the range of conditions which produce the insulating layer and evaluating its potential impact on switch continuity (i.e. temperature, duration, voltage, current, etc...). Completion of this testing will exceed the permitted 60 day investigation period, which expires March 25<sup>th</sup>, 2016.

Rotork thus formally requests a forty (40) day extension to complete all measurements and tests.

Sincerely

Patrick A. Shaw, P.E  
Quality Assurance Manager  
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Robert Arnold, P.E  
President

IEZO  
NRR