



September 8, 2009

NRC Document Control Desk
US Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: US NRC 10CFR Part 21 Notification

This is to notify the US Nuclear Regulatory Commission, in accordance with the provisions of 10 CFR Part 21 of a deviation identified by Flowserve US Inc.

On July 13, 2009, Flowserve US Inc, Raleigh, NC was notified by Exelon - Byron Nuclear Power Station that a Borg -Warner (BW/IP) Solenoid Valve (BW/IP Part No: 86868) received by Exelon was being tested by their Electrical Maintenance Technician who stated "That the coil works correctly, but the valve did not actuate".

On July 14, 2009 after inquiry by Flowserve, Exelon provided the following information: "The item was received and issued for installation. The Solenoid Valve was installed in the SV2 position on a PORV actuator that was removed from the plant and being rebuilt in the maintenance shop. When the PORV actuator was tested in the maintenance shop, the SR2 solenoid did not work correctly. This was on 7/09/2009. The failed solenoid was removed from the SV2 application and a new solenoid from stock installed in the SV2 application".

On July 15, 2009 Flowserve informed Exelon, Mr. Randal Ciesiel, via email that a Return Material Authorization was being issued to have the Solenoid Valve returned and that a Part 21 Evaluation was opened within the Flowserve Quality System. Furthermore, Flowserve identified that they did not have the capability to perform the evaluation of this deviation to determine if a defect exists that could create a substantial safety hazard, as Flowserve is not knowledgeable of the application in which the Solenoid Valve is used.

On July 24, 2009 Flowserve received correspondence from Exelon, Byron Nuclear Power Plant which outlined the problems encountered during a MS PORV actuator overhaul and how they concluded the subject Solenoid Valve was defective. Upon receipt of this information and return of the Solenoid Valves, Flowserve continued our evaluation.

Flowserve's evaluation discovered that on the returned Solenoid Valve "Body" part, there existed dimensional deviations that may cause the Solenoid Valve not to perform its intended

FLOWSERVE US INC.
FLOW CONTROL DIVISION

1900 S SAUNDERS
RALEIGH, NC 27603 USA

Telephone 919 831 0525
Facsimile: 919 831 3369
www.flowserve.com

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function. A check of these "Body" parts in the Flowserve inventory discovered that the dimensional deviation also existed on the 8 Body parts in the current inventory. It was determined that this part has been produced by the same subcontracted machining supplier since 2004, and therefore renders the Solenoid Valve Body parts suspect from that time. This Solenoid Valve Body part is used in Solenoid Valve assembly models identified by Borg-Warner / Flowserve Part Numbers:

| | |
|---------|---|
| 86868 | - Solenoid Valve Assembly – Normally Open |
| 86868-1 | - Solenoid Valve Assembly – Normally Closed |
| 90628 | - Solenoid Valve Assembly – Normally Open |
| 90628-1 | - Solenoid Valve Assembly – Normally Closed |

Based upon Flowserve, Raleigh information, Solenoid Valve Assemblies with the above model/part numbers have been provided to the following licensees and purchasers as Safety-Related products:

Exelon Company - Byron Station:

| | |
|-------------------------|---------------|
| P.O. 00000375 REL 13388 | Qty.: 3 each. |
| P.O. 00000375 REL 13573 | Qty.: 3 each. |
| P.O. 00000375 REL 13613 | Qty.: 3 each. |
| P.O. 00000375 REL 13650 | Qty.: 2 each. |

Exelon Company - Braidwood Station:

| | |
|-------------------------|---------------|
| P.O. 00000375 REL 13439 | Qty.: 1 each. |
| P.O. 00000375 REL 13514 | Qty.: 1 each. |
| P.O. 00000375 REL 13522 | Qty.: 1 each. |
| P.O. 00000375 REL 13566 | Qty.: 8 each. |
| P.O. 00000375 REL 13661 | Qty.: 2 each. |

Korea Hydro & Nuclear Power:

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|-----------------|---------------|
| P.O. U050425333 | Qty.: 6 each. |
|-----------------|---------------|

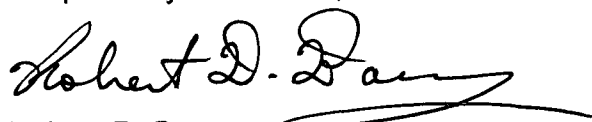
Control Components Inc.:

| | |
|-------------|---------------|
| P.O. 304835 | Qty.: 2 each. |
| P.O. 306820 | Qty.: 6 each. |

As Flowserve, Raleigh is not capable of determining if the defect could cause a substantial safety hazard based upon the service application which the Solenoid Valve Assembly may be in, the licensees / purchasers of the subject Solenoid Valve Assembly will need to evaluate their applications to make this determination.

Flowserve Raleigh is in the process of manufacturing the Solenoid Valve Assembly Bodies and will rebuild the Solenoid Valve Assemblies as they are returned by the licensees / purchasers. Please contact Gary Shaw (919-831-3331) or Edna Ulsamar (919-831-3331) to obtain a Return Material Authorization.

Respectfully Submitted,

A handwritten signature in black ink that reads "Robert D. Barry". The signature is fluid and cursive, with a long horizontal flourish at the end.

Robert D. Barry
Manager, Quality Assurance
Flowserve US Inc
Flow Control Division
Raleigh, NC 27603