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Feb 16, 2005

Documents Control Desk
United States Nuclear Regulatory Commission
Washington, DC 20555

Subject: Potential non-conformance of diaphragm disc used in certain ASCO scram pilot valves and rebuild kits

Gentlemen:

We enclose information relating to diaphragm discs used in certain ASCO scram pilot valves and rebuild kits As you will see from the enclosed materials, there is the possibility of a manufacturing deficiency with these discs, which may affect the operation of the scram pilot valves. ASCO was alerted to this problem upon evaluation of a disc removed from one of several valves undergoing accelerated life tests in ASCO's laboratory. All affected scram pilot valves and rebuild kits were sold to GE Energy. We have notified GE of this potential problem. As described in the attached, all 31 rebuild kits have been returned to ASCO for correction and ASCO is performing accelerated life tests to qualify the valves, installed at Hope Creek, for continued service until such time as they can be conveniently replaced.

ASCO does not have adequate knowledge of the actual installation and operating conditions of these valves to determine whether their malfunction could create a "substantial safety hazard" as defined in 10CFR21.3. We are likewise unable to conduct the evaluation necessary to make such a determination. Nevertheless, we furnish this information to keep you apprised of our investigation.

Should you wish to discuss this further, or obtain any additional information, please let us know. Should any additional information become available we will forward it to you.

Very truly yours,
ASCO VALVE, Inc.

Robert W. Kemple Jr.
Vice-President Sales and Marketing

Enclosure

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POTENTIAL NON-CONFORMANCE OF DIAPHRAGM DISC USED IN CERTAIN ASCO SCRAM PILOT VALVES AND REBUILD KITS

NAME AND ADDRESS OF INDIVIDUAL INFORMING THE COMMISSION:

Robert W. Kemple Jr.
Vice-President Sales & Marketing
ASCO VALVE, Inc.
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IDENTIFICATION OF THE ITEMS SUPPLIED:

Diaphragm disc, ASCO part number 103889-013. supplied as a component of 31 rebuild kits, ASCO 316929 and 14 Scram Pilot Valves, ASCO HV268000-001, sold to GE Energy.

NATURE OF THE FAILURE AND POTENTIAL SAFETY HAZARD:

These discs are from a lot received at ASCO in May of 2004. The non-conformance was discovered during evaluation of a disc, from the May, 2004 receipt, removed from one of several valves undergoing accelerated life tests in ASCO's laboratory. The valve from which the disc was removed had been aged the equivalent of 40 years. A TGA (Thermogravimetric Analysis) was performed on the disc material. The TGA results suggested that the material was non-conforming because the values exceeded those specified on the disc drawing. Specifically, the drawing calls for weight loss on the TGA to be less than 0.2%. (Ref. ASCO Valve Engineering Data Sheet 226). The TGA on the tested disc had a weight loss of 1.4% when tested in the ASCO Valve Q.A. lab. Two of the remaining valves on life test were disassembled and TGAs performed on one of the diaphragm discs from each. Weight loss for both was approximately .7%. Both of these discs were from the May, 2004 lot.

A review of the receiving records for the parts revealed that for the lot received in May 2004, a TGA test had not been performed during incoming inspection at ASCO, nor had it been performed by the vendor as required by ASCO. This was the result of equipment problems at the vendor and an oversight at ASCO's incoming inspection. A review of receiving records revealed that all previous receipts of diaphragm discs had been properly tested and documented in accordance with ASCO drawings and procedures, and were within specification.

ASCO also performed TGA testing on a diaphragm disc from the May, 2004 lot that had not been exposed to testing, which essentially represented an "as received" part. The results of this test revealed TGA values in excess of those specified on the disc drawing. Values ranged from .5% to .7%.

To insure the accuracy of the TGA readings, the test equipment manufacturer (TA) was brought in to review the test methodology and evaluate the test equipment for accuracy. TA found that our test methodology was acceptable, and accuracy of the equipment was found to be within .1%.

Although ASCO is unable to determine if this non-conformance would have an adverse affect on valve performance, there is the possibility that this non-conformance could result in degradation of valve response time or, in worst case, failure of the diaphragm to move off the valve seat. It was, therefore, our recommendation that this product be retrieved from the field and replaced with product incorporating conforming discs.

THE CORRECTIVE ACTION WHICH IS BEING TAKEN:

All 31 rebuild kits containing diaphragm discs from the May 2004 lot have been returned to ASCO from GE's inventory and will be replaced. 10 of the 14 valves that included discs from the May 2004 lot have been installed at Hope Creek Nuclear Power Generating Station. ASCO has begun accelerated qualification testing to determine if the installed valves can remain in operation until they can be conveniently replaced. We expect the results of this testing to be available week ending Feb. 18, 2005. The 4 uninstalled valves will be returned to ASCO for retrofit.

We are working with our disc vendor to determine why they produced apparently non-conforming parts, and what they have to do to produce conforming parts. They have put additional controls in place, including multiple sign-offs on shop orders to insure required testing has been performed and properly documented prior to shipment.

ASCO's operation sheet for this part has been revised to include the requirement that TGA and other required tests be performed on each lot, and to include the requirement that the vendor must supply their test results with the material. In addition, the disc drawing will be changed to include the requirement that the vendor provide their test results for each lot and that ASCO must perform TGA and other required tests testing on each lot.