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July 19, 2002

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

**SUBJECT:** Potential Performance Problem with Certain Pump Kits used in ASCO General Controls NH95 Actuators

Gentlemen:

Our Mr. Clark Hale, in his letter of June 19, advised that we were investigating a potential problem with certain pump replacement kits used in ASCO General Controls Hydramotor Actuators. Enclosed is a copy of that letter for your reference. We advised at that time that we anticipated completing our investigation and providing you with the results during the week beginning July 15.

Due to unforeseen circumstances, the progress of our investigation has not proceeded as quickly as we had expected. However, our investigation is continuing and it appears now that we will be in a position to provide you a report of our results during the week ending August 2, 2002.

We apologize for this delay. Should you wish to discuss this further, please let us know.

Very truly yours,  
ASCO VALVE, Inc.

A handwritten signature in black ink, appearing to read "A. Gregory Byrne". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

A. Gregory Byrne  
Service Manager

AGB:vep  
Enclosure

7/19

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**SUBJECT:** Potential Performance Problem with Certain Pump Kits used in ASCO General Controls NH95 Actuators

Gentlemen:

We enclose information relating to certain Pump replacement kits used in ASCO General Controls Hydramotor actuators. As you will see from the enclosed materials, there is a possibility of a performance problem with certain of these kits, which may affect the operation of the Hydramotor actuators. ASCO was alerted to this potential problem upon examination of pump kits, recently returned to ASCO, which had apparently failed during post installation tests at Palo Verde Nuclear Power Plant, Clinton Nuclear Power Plant and Framatome ANP.

Although the condition described in the attachment would present itself immediately upon testing, it is conceivable there are Hydramotors which were rebuilt in the field and returned to service without being tested, and could, therefore, be exhibiting excessive recycling.

We believe that a typical application of these Hydramotor Actuators is to control ventilation dampers. However, ASCO does not have adequate knowledge of the actual installation and operating conditions of these actuators to determine whether excessive recycling could create a "substantial safety hazard" as defined in 10CFR21.3. We are likewise unable to conduct the actual installation/operational evaluation necessary to make such a determination. Nevertheless, we furnish this information to keep you apprised of our internal investigation.

We anticipate completing our investigation during the week beginning July 15, 2002, and will provide you the results at that time. In the meantime, we are in the process of identifying purchasers of affected pump kits so that we are prepared should our findings indicate a field notification is warranted.

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.

A handwritten signature in black ink that reads "Clark Hale". The signature is written in a cursive, slightly stylized font.

Clark Hale  
President ASCO Valve - Domestic

GB:vep  
Enclosure

**POTENTIAL MANUFACTURING PROBLEMS WITH  
PUMP KITS USED IN ASCO GENERAL CONTROLS  
HYDRAMOTOR® ACTUATORS**

**NAME AND ADDRESS OF INDIVIDUAL INFORMING THE COMMISSION:**

Clark Hale  
President ASCO Valve - Domestic  
ASCO VALVE, Inc.  
50-60 Hanover Road  
Florham Park, NJ 07932

**IDENTIFICATION OF THE ITEMS SUPPLIED:**

A total of 129 replacement pump kits used in Series NH95 Model B Hydramotor Actuators

**NATURE OF THE FAILURE AND POTENTIAL SAFETY HAZARD:**

ASCO has received several reports from the field of what appears to be possible operational difficulties with certain pumps supplied in pump kits and intended for installation in NH95 Model B Hydramotor Actuators.

Framatome ANP and Clinton Nuclear Power Plant have reported that, during testing of NH95 series Hydramotor actuators following installation of a new pump kit, recycling of the Hydramotor in excess of the allowable was experienced. (Recycling refers to the actuation and de-actuation of the pump required to maintain adequate pressure to keep the Hydramotor shaft in its "powered" position. A certain amount of recycling is not abnormal.)

Palo Verde Nuclear Power Station reported, also during testing following installation of a pump kit, that the Hydramotor shaft would not maintain its powered position after the pump motor shut off. This report, although stated differently, we believe describes the same symptoms reported by Clinton and Framatome.

ASCO has obtained the pumps which reportedly exhibited the above-described performance at these three locations, as well as Framatome's entire inventory of NH95 Model B pump kits, and ASCO is in the process of a thorough evaluation to attempt to duplicate the condition reported, to determine whether or not it is abnormal, and if so, to establish its root cause.

Initial analysis of some returned product suggests that the problem may be related to excessive internal pump leakage. Although all these pumps are thoroughly tested prior to shipment, some of the returned pumps, when tested following their return to ASCO, did not meet ASCO's acceptance criteria during leakage tests. That is, the leakage measured was in excess of the allowable. In addition to ASCO's investigation to try to determine why this is so, ASCO is testing to verify the degree of correlation between leakage of a pump unit during production testing and its performance when installed in a Hydramotor. The maximum allowable leakage in the stand-alone pump test is, we believe, very conservative and it is unclear whether failure of a pump to meet this criterion necessarily translates into excessive recycling when installed in a Hydramotor Actuator.

Therefore, in addition to our stand-alone tests of the returned pumps, those units which do not meet ASCO's acceptance criteria for leak tests will be further tested in complete Hydramotor Actuators.

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**NATURE OF THE FAILURE AND POTENTIAL SAFETY HAZARD:** (continued)

ASCO has no reason to believe that this potential problem extends to product other than NH95 Model B pumps. ASCO has shipped a total of 129 kits since ASCO acquired this product line from ITT in 1996. Of these, 30 have been returned to ASCO from Framatome ANP inventory, and 5 used pumps have been returned following reported malfunction after installation from Palo Verde, Clinton and Framatome. Therefore, the total population of potentially affected kits in the field is 94, which may or may not be installed in Hydramotor actuators.

All of the reported field problems occurred immediately at the start of testing of a Hydramotor following installation of a new pump kit, and prior to returning the Hydramotor to service. As such, ASCO does not believe that Hydramotors in which new pump kits have been installed, and which are in service operating properly are affected by this potential problem.

Our investigation is continuing and ASCO will advise you the results, as well as any significant developments that arise during the course of this investigation.