

January 14, 2002

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

SUBJECT: Potential manufacturing problem with certain limit switch assemblies used in ASCO General Controls Hydramotor[®] Actuators.

Gentlemen:

In our letter of December 21, 2001, regarding the subject, a copy of which we have enclosed for your reference, we advised that a complete list of any potentially affected product, along with their purchasers, was being assembled and would be forwarded to you when complete.

That list is attached. ASCO will notify all purchasers of affected product of the potential problem. If the affected product is not in service, ASCO will offer to rework it at our factory at no charge. If the product is in service, ASCO will offer retrofit kits at no charge with complete instructions for installation of new limit switch assemblies.

Should you wish to discuss this further please let us know.

Very truly yours,
ASCO VALVE, Inc.


A. Gregory Byrne
Service Manager

GB:vep
Attachment

IE 20

NH95 and NH96 NEW PRODUCTS w/POSSIBLE TRAVEL LIMIT SWITCH NON-CONFORMANCE
From JAN. 00 to JAN. 02

CUSTOMER NAME	CUSTOMER PO #	CATALOG #	ASCO ORDER #	DATE SHIPPED	QTY.	SERIAL #
FRAMATOME ANP INC	108434	NH95T6602X0RCH305XXX00X00	638285	11-Dec-01	1	A592922
FRAMATOME ANP INC	92459	NH96T4602X0PNA301BJN68X00	425321	02-Feb-01	2	A402691
SAMKWANG AIR TECH CORP	NP210066	NH95T6602X0PCD304XXX00X00	473010	19-Sep-01	4	A514381
SAMKWANG AIR TECH CORP	NP210066	NH95T6602X0PCD306XXX00X00	474071	19-Sep-01	2	A495747
SAMKWANG AIR TECH CORP	NP210066	NH95T4602X0PCD301XXX00X04	474095	19-Sep-01	4	A514383
FRAMATOME ANP INC	75756REL96267	324133	477387	12-Jan-01	9	A402915
FRAMATOME ANP INC	97597	NH96T6602F5RND301BJQ66X00	496215	29-May-01	1	A490331
FRAMATOME ANP INC	75756REL98209	324132	507133	04-May-01	20	A468097
FRAMATOME ANP INC	102376	NH95T6602X0PCD305BCN68X00	557948	08-Jun-01	1	A493984
FRAMATOME ANP INC	102599	NH96T4602X0PNA301BJN68X00	562416	23-Aug-01	6	A528681
FRAMATOME ANP INC	103616	NH96T6602F5RND301BJQ66X00	584399	28-Sep-01	1	A552719
FRAMATOME ANP INC	75878	324272	177221	09-Feb-00	9	A203129
SOUTHERN CALIF EDISON CO	118041	324272	255184	28-Apr-00	4	A242792
FRAMATOME ANP INC	75756REL83963	324272	274769	12-May-00	17	A244023
FRAMATOME ANP INC	75756REL84326	324276	282293	10-Mar-00	2	A214438
COMMONWEALTH EDISON CO	B096999	NH95T4602X0PCD302BCN68X00	330724	18-May-00	1	A235029
FRAMATOME ANP INC	75756REL87782	324009	335941	24-Feb-00	38	A214183
FRAMATOME ANP INC	75756REL87782	324009	335941	29-Mar-00	32	A231737
FRAMATOME ANP INC	75756REL87782	324132	335962	28-Apr-00	48	A257571
FRAMATOME ANP INC	75756REL87782	324132	335962	11-Aug-00	12	A313469
FRAMATOME ANP INC	75756REL87507	324272	336132	15-Sep-00	16	A332961
FRAMATOME ANP INC	75756REL87507	324276	336134	11-Apr-00	6	A245800
FRAMATOME ANP INC	75756REL87506	324132	336234	31-Aug-00	63	A327952
FRAMATOME ANP INC	75756REL87506	324133	336235	08-Jun-00	11	A278622
FRAMATOME ANP INC	75756REL87502	324009	336880	29-Mar-00	54	A235057
FRAMATOME ANP INC	75756REL87502	324010	336883	11-May-00	15	A262494
FRAMATOME ANP INC	75756REL89021	324009	355301	28-Apr-00	75	A253477
FRAMATOME ANP INC	75756REL89021	324009	355301	10-Aug-00	21	A306054
FRAMATOME ANP INC	75756REL91817	324272	416688	14-Sep-00	8	A331388

**NH 95 and NH 96 REPAIRED PRODUCTS w/ POSSIBLE TRAVEL LIMIT SWITCH NON-CONFORMANCE
FROM JAN. 00 to JAN. 02**

CUSTOMER NAME	CUSTOMER PO #	CATALOG #	ASCO ORDER #	DATE SHIPPED	QTY.	SERIAL #
COMMONWEALTH EDISON CO.	B26500	NH95T4602X0PCL302BCX00X00	371087	03-Oct-00	1	A246812
CLEVELAND ELECTRIC ILLUM. CO.	CLE24092	NH95T8602F5RCD306BCN68X00	454622	20-Oct-00	1	A348098
CLEVELAND ELECTRIC ILLUM. CO.	CLE24092	NH95T8602F5RCD306BCN68X00	454627	23-Oct-00	1	A348099
CLEVELAND ELECTRIC ILLUM. CO.	CLE24092	NH95V8673F5RCD305BJQ66X00	454894	07-Nov-00	1	A348103
CLEVELAND ELECTRIC ILLUM. CO.	CLE24092	NH95V8673F5RCD306BJQ66X00	454966	20-Oct-00	1	A348107
COMMONWEALTH EDISON CO.	TC101600	NH95T4602X0PCL302BCX00X00	469890	27-Dec-00	1	A379179
COMMONWEALTH EDISON CO.	TC101600	NH95T4602X0PCL302BCX00X00	469901	29-Dec-00	1	A379185
DETROIT EDISON	NR351155	NH95T6602X0PCD305BCN68X00	473087	28-Dec-00	1	A383202
DETROIT EDISON	NR351155	NH95T6602X0PCD305BCN68X00	473096	28-Dec-00	1	A383203
COMMONWEALTH EDISON CO.	B26500	NH95T4602X0PCL302BCX00X00	371096	28-Jun-00	1	A246813
COMMONWEALTH EDISON CO.	B26500	NH95T4602X0PCL302BCX00X00	371107	11-May-00	1	A246814
COMMONWEALTH EDISON CO.	B26500	NH95T4602X0PCL302BCX00X00	371145	28-Jun-00	1	A246815
COMMONWEALTH EDISON CO.	B26500	NH95T4602X0PCL302BCX00X00	371191	29-Jun-00	1	A246816

December 21, 2001

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

SUBJECT: Potential Manufacturing Problem With Certain Limit Switch Assemblies Used in ASCO General Controls Hydramotor[®] Actuators.

Gentlemen:

We enclose information relating to certain Limit Switch assemblies used in ASCO General Controls Hydramotor[®] actuators. As you will see from the enclosed materials, there is the possibility of a manufacturing deficiency with certain of these assemblies, which may affect the operation of the Hydramotor[®] actuators. ASCO was alerted to this problem upon examination of a limit switch, recently returned to ASCO, which had failed during post installation tests at the Palo Verde Nuclear Power Station. This condition may result in the failure of the actuator piston to retract when the Hydramotor[®] is powered. A complete list of any potentially affected actuators, along with their purchasers, is being assembled and will be forwarded to you when complete.

ASCO does not have adequate knowledge of the actual installation and operating conditions of these actuators 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.

Our investigation of this potential problem is continuing. We are in the process of identifying purchasers of limit switch kits, controller kits, and complete actuators in which these assemblies may be used. We will notify these purchasers as soon as possible.

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.



Clark Hale
President ASCO Valve - Domestic

GB:vep
Enclosure

**POTENTIAL MANUFACTURING PROBLEMS WITH
LIMIT SWITCH ASSEMBLIES USED IN ASCO GENERAL CONTROLS
HYDRAMOTOR® ACTUATORS**

1. 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

2. IDENTIFICATION OF THE ITEMS SUPPLIED:

A still to be determined number of ASCO General Controls Limit Switch Assemblies sold separately or as part of Hydramotor® actuators.

3. NATURE OF THE FAILURE AND POTENTIAL SAFETY HAZARD:

During post-installation testing of an ASCO General Controls Hydramotor® actuator assembly at Palo Verde Nuclear Power Station, the Hydramotor® actuator failed to operate correctly, resulting in no output when power was applied. The Limit Switch Assembly was removed from the actuator and returned to the ASCO facility in Aiken, South Carolina.

Analysis of the returned Limit Switch Assembly (see attachment 1) revealed that the shaft on which the position sensing lever operates was not secured tightly to the plate, causing wobble of the shaft. This wobble may result in the rotation of the lever past its actuation point, which would leave the switch contacts in the normally open (N.O.) position. This condition will result in the failure of the actuator piston to retract when the Hydramotor® is powered. The shaft is staked to the plate assembly. Manufacturing instructions for this assembly defines the maximum pressure to be applied for the staking press, but no minimum value. This led to variation of the staking process, which resulted in inconsistent and incomplete attachment of the shaft to the plate. (See attachment 2). In addition to the field return, Asco has found several limit switch assemblies in our inventory with this condition.

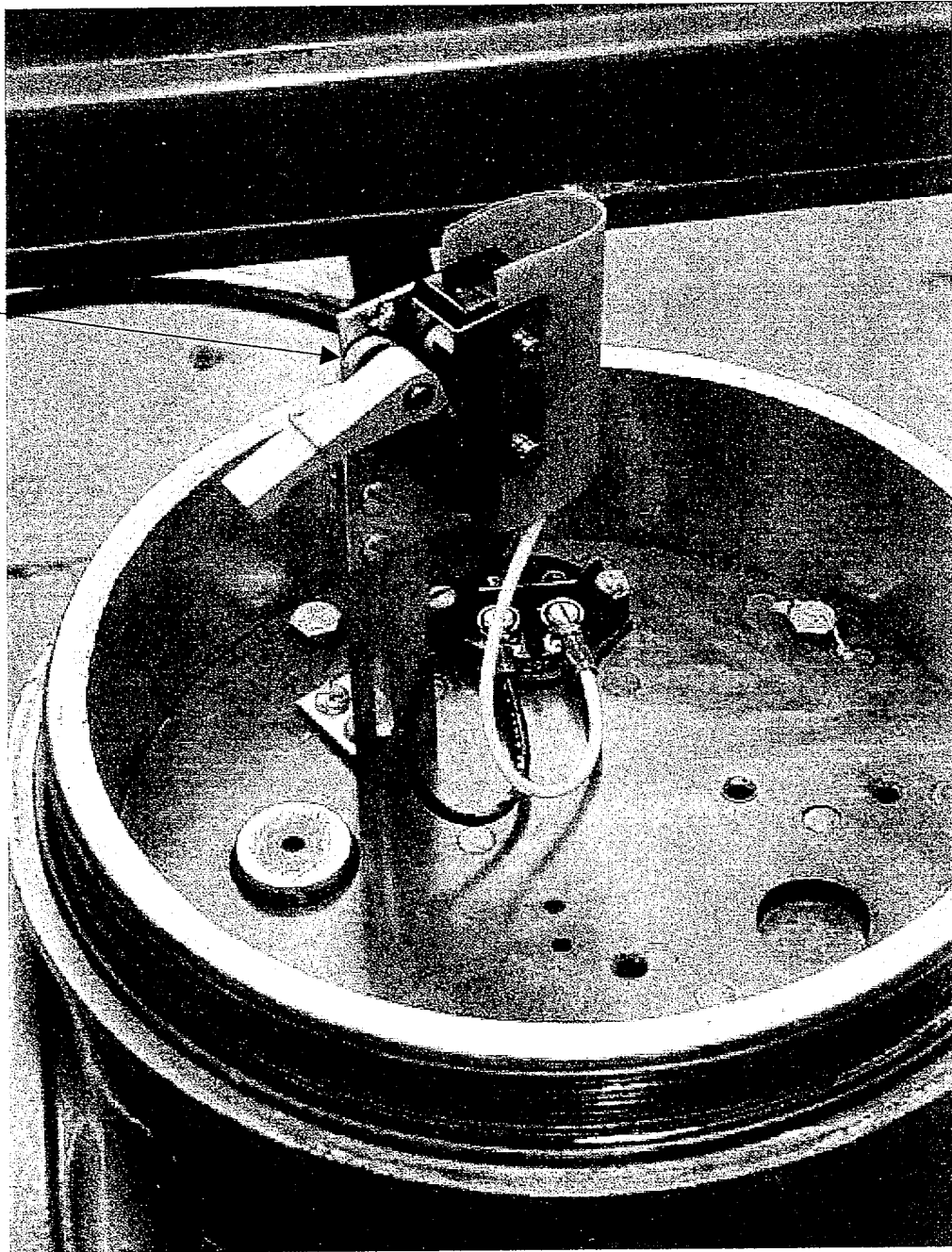
The rotation of the lever past its actuation point will result in the failure of the actuator piston to retract when the Hydramotor® is powered. We believe that in most, if not all, cases the return of the piston to the spring-extended position is considered the fail-safe condition for the Hydramotor® actuator. As such, the described failure of the Limit Switch assembly would result in the unit moving to the fail-safe condition. Depending on the nature of the application, the utility should determine what the fail-safe mode of the Hydramotor® is.

4. THE CORRECTIVE ACTION WHICH IS BEING TAKEN:

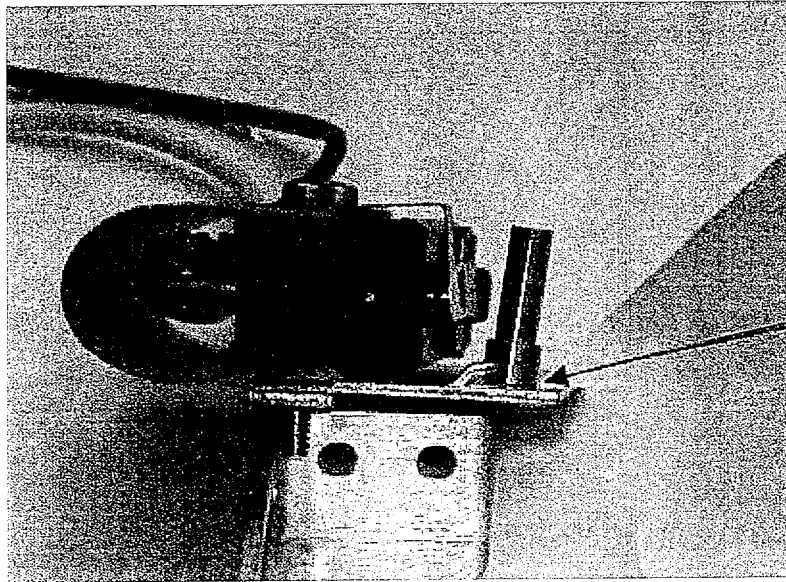
ASCO will notify all purchasers of affected product of the potential problem. If the affected product is not in service, ASCO will offer to rework it at our factory at no charge. If the product is in service, ASCO will offer retrofit kits at no charge with complete instructions for installation of new limit switch assemblies. The method of forming this staked joint is being revised to ensure complete and consistent assembly of the shaft to the plate. In addition, the manufacturing instructions are being revised to fully define the parameters of this process as well as the testing necessary to confirm the reliability of the shaft-to-plate joining process.

ASCO General Controls

Limit Switch
Assembly

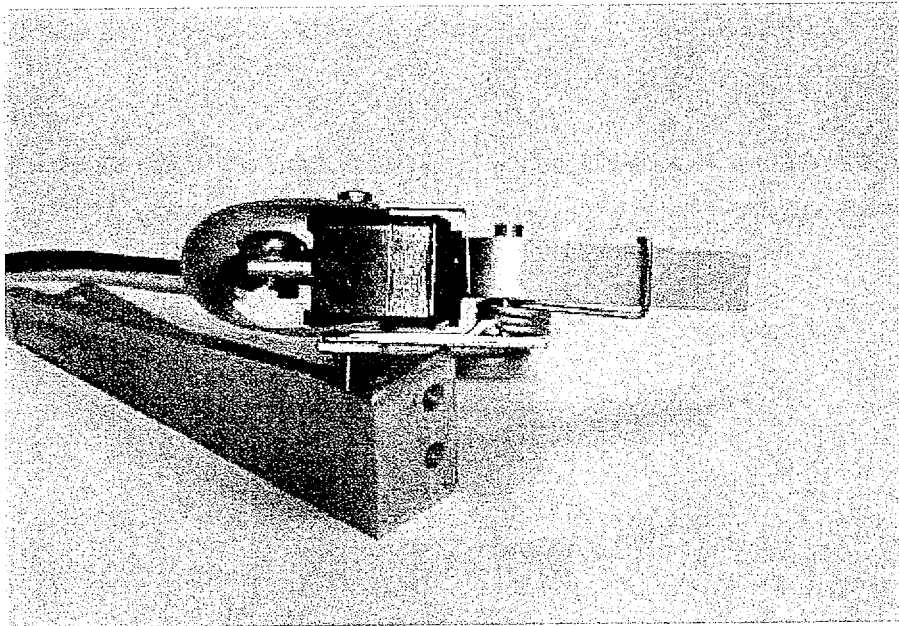


TYPICAL INSTALLATION
NH95 LIMIT SWITCH ASSEMBLY



POINT OF FAILURE

VIEW SHOWING ANGULATION CONDITION OF FAILED SHAFT JOINT



VIEW SHOWING LIMIT SWITCH ASSEMBLY WITH PROPERLY SWAGED SHAFT