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U-602925
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February 6, 1998

Docket No. 40-561

Document Control Desk
Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: 10CFR21 Report 21-97-058: ITT Barton Hydramotor Pressure Reducing/Dump Valve Has Internal Leak

Dear Madam or Sir:

On December 10, 1997 Illinois Power (IP) initiated Condition Report 1-97-12-165 due to oil leaking around the diaphragm of a replacement pressure reducing/dump valve installed on a ITT Barton Hydramotor actuator. The pressure reducing/dump valve is part number NS108916A supplied by ITT Barton. This was discovered prior to declaring the Hydramotor operable during post maintenance testing of the Hydramotor to determine if the associated damper met its required closing time. Hydramotors are used at Clinton Power Station to operate safety-related dampers in ventilation systems. Two additional pressure reducing/dump valves were removed from the storeroom and bench tested. One of the two additional valves removed from the storeroom had a leak similar to the one that was installed on the Hydramotor in the plant, the other valve successfully passed the bench test. Investigation into this condition revealed that the observed problem with the pressure reducing/dump valve could cause the Hydramotor to close the damper slower than the design required time. This is contrary to the purchase specification for the Hydramotor which specifies the required damper closing time. This issue was identified as potentially reportable under the provisions of 10 CFR, Part 21

On the basis that the pressure reducing/dump valve does not meet the requirements of the procurement document and that the identified deficiency with the pressure reducing/dump valve could cause an isolation damper for a safety related system to close slower than assumed in the plant design, IP has concluded that this issue is reportable under the provisions of 10 CFR, Part 21.

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IP is providing the following information in accordance with 10CFR21.21(d)(4). Initial notification of this matter will be provided by facsimile of this letter to the NRC Operations Center in accordance with 10CFR21.21(d)(3) within two days of the date the responsible officer signs this letter.

(i) Walter G. MacFarland IV, Senior Nuclear Officer of IP, Clinton Power Station, Highway 54, 6 Miles East, Clinton, Illinois, 61727, is informing the Nuclear Regulatory Commission of a condition reportable under the provisions of 10CFR, Part 21.

(ii) The basic component involved in this condition is a replacement pressure reducing/dump valve, part number NS108916A, for ITT Barton Hydramotors.

(iii) The pressure reducing/dump valve were supplied to Clinton Power Station by ITT Barton, City of Industry, California.

(iv) The pressure reducing/dump valve had a leak in the diaphragm area. The cause of the leak appears to be poor machining or workmanship of the valve at the time of manufacture. In certain applications Hydramotors are required to close dampers in a specified time. With the identified deficiency in the pressure reducing/dump valve the Hydramotor may close slower than required to meet the time specified by the purchase specification. For example, the failure of a Hydramotor in the Standby Gas Treatment System to operate in the required time could affect control room habitability in an accident situation.

(v) The deficient pressure reducing/dump valve was identified and determined potentially reportable under the provisions of 10CFR21 on December 10, 1997.

(vi) There are 103 applications where pressure reducing/dump valves of this model are in service at Clinton Power Station. IP is not aware of other facilities that could be affected by this deficiency. Fifteen pressure reducing/ dump valves are located in the storeroom.

(vii) The fifteen spare pressure reducing/dump valves located in the storeroom (this includes the two that failed) will be sent to a vendor to determine if they operate properly. The vendor will rework valves, if possible, that are determined not to operate properly. When pressure reducing/dump valve are installed in a Hydramotor that have a design required closing time, Clinton Power Station procedures require that they are time tested to ensure they meet the design requirements. The leak deficiency would be identified during time testing. Therefore, no action is being taken for currently installed valves.

(viii) IP has no advice about this issue for other purchasers or licensees.

Additional information about this issue may be obtained by contacting L. T. Chaney, Nuclear Station Engineering Department, at (217) 935-8881, extension 3658.

Sincerely yours,

Walter G. MacFarland, IV
Chief Nuclear Officer

MRS/krk

cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety
INPO Records Center
ASCO (ITT Barton)