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Docket No. 50-461

10CFR50.55a

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

Subject: Clinton Power Station (CPS)
Submittal of ASME Section XI Relief Request 2036 Regarding
Testing of Main Steam Safety/Relief Valves

Dear Sir:

Attached for NRC review and approval is ASME Section XI Relief Request 2036 concerning testing of the main steam safety/relief valves (SRVs) at CPS and use of a 3% safety-mode setpoint tolerance as a test acceptance criterion.

Relief Request 2036 has been previously discussed with NRC staff personnel, and as discussed, IP requests review and approval of the request prior to the forthcoming refueling outage (RF-4) at CPS so that testing during the outage may be conducted in accordance with the relief request. Your cooperation in this matter is appreciated.

Sincerely yours,

Richard F. Phares

Richard. F. Phares
Director, Licensing

TBE/nls

Attachment

cc: NRC Clinton Licensing Project Manager
NRC Resident Office
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety

A047 1/1

ILLINOIS POWER COMPANY
Clinton Power Station

ASME Section XI Relief Request

RELIEF REQUEST 2036

COMPONENT INFORMATION

The Main Steam Safety Relief Valves listed on Attachment 1 are ASME Section III Code Class 1, Section XI Category C valves. They are 8" x 10" Dikkers Model G471-6/125.04 valves.

CODE REQUIREMENTS

The ASME Code Section XI, Subarticle IWV-3513, states that when any valve in a system fails to function properly during a regular test additional valves in the system shall be tested.

RELIEF REQUEST/JUSTIFICATION

Illinois Power requests the use of paragraph 1.3.3.1 of Part 1 of ASME/ANSI OM-1987 (OM-1) for determination of when additional tests are required. A plant specific analysis will be performed as required by the GE/BWROG Topical Report NEDC-31753P and the NRC Safety Evaluation. When the analysis is complete, it is expected to conclude that a tolerance of ±3% of the nameplate set pressure is acceptable for overpressure protection. This analysis will be used to ultimately make a change to the plant Technical Specification. It will also be used as the basis for test sample expansion when the initial sample test results are found lower than the stamped set pressure since OM-1 only addresses tests that exceed the stamped set pressure by 3%.

The intent for additional testing is to ensure that no generic problems exist which could affect other valves not scheduled for testing. We believe the use of a ±3% tolerance for the setpoint is acceptable for determining the need for additional testing based on the analysis described above. Even though the Technical Specifications will continue to require a tolerance of ±1% for operability, the increase in the tolerance for determination of sample expansion will still allow for identification of potential generic problems. These valves have previously experienced setpoint drift between 1% and 3% which was not representative of generic problems with other valves. This phenomenon of setpoint drift between 1% and 3% is typical for these valves throughout the industry. Additional testing is not warranted for valves not scheduled for testing unless the ±3% tolerance used for the overpressure analysis is exceeded.

Illinois Power does not intend to adopt all requirements related to testing of ASME Class 1 Pressure Relief Valves with Auxiliary Actuating Devices contained in OM-1. Doing so would require additional tests (seat leakage, electrical characteristics and pressure integrity of solenoid valves, pressure integrity and stroke capability of air actuator) and inspections that are not currently required by the 1980W81 Code. Therefore, these requirements are not in the IST Program and identified as IST requirements in the implementing procedures. The additional tests required by OM-1 would result in major procedure changes and/or development which would create a burden between now and the beginning of the fourth refueling outage (RF-4) scheduled to begin September 26, 1993.

While implementing the additional tests at the current time could be beneficial from a testing standpoint, the tests do not sufficiently increase the safety aspects of the setpoint testing for the difference between a 1% and a 3% tolerance for testing additional valves. The basis for this conclusion is that the overpressure protection analysis will indicate that the system can withstand the resulting overpressure even if the valves drift to 3% above the setpoint. Therefore, it would be an undue hardship to require implementation of all of the requirements of OM-1 in order to use a ±3% tolerance for determining the need for additional testing. Upon completion of the TS change, the operability of the valves will also be based on a ±3% tolerance and this relief request will no longer be necessary.

ALTERNATE TESTING PROPOSED

For Main Steam Safety Relief Valve setpoint testing (as-found), additional valves will be tested if the as-found setpoint is outside ±3% of nameplate set pressure. Sample expansion will be consistent with IWV-3513. Our current Technical Specification limit of ±1% will continue to determine operability and the valves will be within ±1% of nameplate set pressure prior to installation.

ATTACHMENT 1

1B21-F041A
1B21-F041B
1B21-F041C
1B21-F041D
1B21-F041F
1B21-F041G
1B21-F041L

1B21-F047A
1B21-F047B
1B21-F047C
1B21-F047D
1B21-F047F

1B21-F051B
1B21-F051C
1B21-F051D
1B21-F051G