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L-09-238

10 CFR 50.55a

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001**SUBJECT:**Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
Update to 10 CFR 50.55a Request VR-1 (TAC No. ME0193)

By correspondence dated November 18, 2008 (Accession No. ML083370198), FirstEnergy Nuclear Operating Company (FENOC) submitted to the Nuclear Regulatory Commission (NRC) eight separate proposed alternatives to requirements associated with the Perry Nuclear Power Plant Inservice Testing Program.

During teleconferences on August 25 and 27, 2009, FENOC and NRC staff discussed information needed to complete the review of 10 CFR 50.55a Request VR-1. Enclosed is Request VR-1, updated as discussed during the teleconferences. Revision bars in the margin indicate areas of change.

There are no regulatory commitments contained in this submittal. If there are any questions, or additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at (330) 761-6071.

Sincerely,



Mark B. Bezilla

Enclosure:
10 CFR 50.55a Request VR-1, Revision 0cc: NRC Region III Administrator
NRC Resident Inspector
NRC Project ManagerA047
NRR

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)

--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Component(s) Affected

Category B Valves (Typical of 177)

1C11-126, Scram Inlet Valve (Class 2)

1C11-127, Scram Exhaust Valve (Class 2)

Category C Valves (Typical of 177)

1C11-114, Scram Discharge Header Check Valve (Class 2)

[OPEN direction only]

1C11-115, Charging Water Check Valve (Class 2)

[OPEN direction only]

These valves operate as an integral part of their respective hydraulic control unit to rapidly insert the control rods in support of a scram function.

2. Applicable Code Edition and Addenda

ASME OM Code-2001, with Addenda through OMB-2003

3. Applicable Code Requirements

ISTC-3510, "Exercise Test Frequency," requires active Category B and Category C check valves to be exercised nominally every 3 months. If exercising every 3 months is not possible then exercising may be performed during cold shutdowns or refueling outages as permitted by ISTC-3520.

ISTC-5130, "Pneumatically Operated Valves," requires active valves to have their stroke times measured when exercised in accordance with ISTC-3500.

ISTC-5220, "Check Valves," requires that necessary valve obturator to be demonstrated by performing both an open and close test.

4. Reason for Request

These valves are not provided with position indication; therefore measuring their full stroke time in accordance with the code is impractical.

Exercising these valves at a frequency other than that specified by Technical Specifications could result in a plant trip, which is burdensome without a compensating increase in the level of quality and safety. Additionally, since the power operated valves are not provided with position indication, special test methods or test equipment would be required to determine valve position, which is also burdensome without a compensating increase in the level of quality and safety.

5. Proposed Alternative and Basis for Use

As discussed in NUREG-1482, Rev.1, Section 4.4.6, the rod scram test frequency identified in the plant Technical Specifications may be used as the valve testing frequency to minimize rapid reactivity transients and unnecessary wear of the CRD mechanisms. Verifying that the associated control rod meets the scram insertion time limits defined in the Technical Specifications can be an acceptable alternative method of detecting degradation of these valves in lieu of valve stroke measurement.

Technical Specification Surveillance Requirement (SR) 3.1.4.1 requires the scram time for all control rods to be verified within limits prior to thermal power exceeding 40% of rated thermal power after fuel movement, and prior to thermal power exceeding 40% of rated thermal power after each reactor shutdown ≥ 120 days. In addition, Technical Specification SR 3.1.4.2 requires testing of a representative sample of the control rods at least once per 120 days of operation in Mode 1. The Technical Specification SRs assure the necessary quality of the system and components are maintained, and that facility operation will be within the Safety Limits and the Limiting Condition of Operation will be met. Therefore, scram insertion timing per Technical Specification SR 3.1.4.1 shall be substituted for individual valve testing.

Using the provisions of this relief request as an alternative to the requirements of ISTC-3510, 5130 and 5220 provides a reasonable alternative to the code requirements. The proposed alternative method of detecting degradation provides reasonable assurance of the valves' operational readiness. Therefore, the proposed alternative provides an acceptable level of quality and safety, and Perry Nuclear Power Plant (PNPP) requests that relief be granted pursuant to 10 CFR 50.55a(a)(3)(i).

6. Duration of Proposed Alternative

The proposed alternative identified in this relief request shall be utilized during the Third Ten-Year IST Interval.

7. Precedent

Perry Nuclear Power Plant, Docket No. 50-440, Safety Evaluation Report (SER) dated August 9, 1999, "Safety Evaluation of the Inservice Testing Program Second Ten-Year Interval for Pumps and Valves – Perry Nuclear Power Plant, (TAC No. MA3328)." Previously approved as VR-1 in the aforementioned SER.

8. References

1. Technical Specification SR 3.1.4.1, Control Rod Scram Times.
2. Technical Specification SR 3.1.4.2, Control Rod Scram Times.
3. NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants, Revision 1, January 2005, Section 4.4.6, Testing Individual Scram Valves for Control Rods in Boiling-Water Reactors.
4. Refueling Outage Justification RO-31, Control Rod Drive Hydraulic System (C11), Valve 1C11-115.