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United States Nuclear Regulatory Commission
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Perry Nuclear Power Plant
Docket No. 50-440
50.55a Request for Alternative Testing Frequency

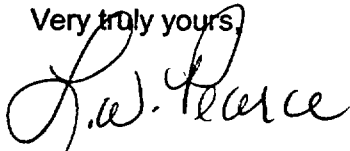
Ladies and Gentlemen:

In accordance with 10 CFR 50.55a(a)(3)(i), First Energy Nuclear Operating Company (FENOC) hereby submits a 10CFR50.55a request for the Perry Nuclear Power Plant (PNPP) In-Service Testing Program. Attachment 1 contains Valve Relief Request VR-14, which proposes implementation of alternate testing frequency for Emergency Service Water manual valves. Valve Relief Request VR-14 identifies the affected valves, the applicable test requirements, the basis of the proposed relief request as well as proposed alternate test requirements. FENOC desires to implement the proposed alternative for the remainder of its second 120-month interval, which began November 18, 1998.

FENOC requests approval by December 15, 2006 based on the quarterly testing frequency.

There are no regulatory commitments contained in this letter or its attachment. If there are any questions or if additional information is required, please contact Mr. Gregory A. Dunn, Manager – Fleet Licensing, at (330) 315-7243.

Very truly yours,



Attachment:

1. Valve Relief Request VR-14

cc: NRC Project Manager
NRC Resident Inspector
NRC Region III

AD47

Valve Relief Request
VR-14

Systems: Emergency Service Water (P45)

Valves: 1P45-F525, 1P45-F526, and 1P45-F527

Category: B

Class: 3

Function: The Emergency Service Water (ESW) System supplies cooling water to equipment required for normal and emergency shutdown of the reactor. It can also provide water to the site Fire Protection System, the Fuel Pool Cooling and Cleanup (FPCC) System, the Emergency Closed Cooling Water (ECCW) System, the Residual Heat Removal (RHR) System (to provide Containment flooding), the Standby Liquid Control System, and the ESW Screen Wash System.

The source of water for the ESW System is Lake Erie. The water enters two intake structures and travels through the intake tunnel to the plant. Before reaching the plant, the tunnel divides into two branches. One branch goes to the Service Water pump house and the other branch goes to the ESW pump house forebay. From the forebay, the water flows into the pump suction basin and supplies the three ESW pumps. After passing through the heat loads, the water from all the pumps is collected in one discharge header and directed to the Discharge Tunnel Entrance Structure. In the Discharge Tunnel Entrance Structure, the water is directed into an impact wall to absorb the high velocity shock and to redirect the flow of water into the Discharge Tunnel, which returns the water to the lake.

An alternate intake pathway is provided in the event the normal intake tunnel and structures become unavailable. A branch tunnel connects the discharge tunnel and the ESW pump house forebay. Two parallel sluice gates normally isolate this branch but will automatically open if the normal source of water is not available. The discharge tunnel then becomes the intake pathway. An alternate discharge pathway to the lake is provided for instances when the discharge tunnel can not be used. Flow is directed to three overflow standpipes in the Auxiliary Building, which direct the ESW discharge flow to the lake via a swale (a low-lying strip of land at the east end of the site). 1P45-F525, 1P45-F526, and 1P45-F527 are the manual valves that are closed to divert flow to the swale.

Test Requirements: OM(10)-4.2.1; Valve Exercising Test

4.2.1.1 Exercise Testing Frequency. Active Category A and B valves shall be tested nominally every 3 months, except as provided by paras. 4.2.1.2, 4.2.1.5, and 4.2.1.7.

The code of record for Perry is currently ASME Code Section XI, 1989 Edition, Subsections IWP and IWV, which invoke the use of ASME/ANSI OM, Part 6 for Pumps, and ASME/ANSI OM, Part 10 for Valves. The current OM Code Edition and Addenda for Perry is the ASME/ANSI OM-1987 with OMa-1988 Addenda. The current code does not individually specify the need for testing of manual valves. However, in interpreting the scope (Para. 1.1) statement and considering the lack of a specific exclusion (Para. 1.2), the valves are considered Category B (valves for which seat leakage is inconsequential for fulfillment of the required function(s), as specified in Para. 1.4). As such, OM-10 requires these valves to be exercised at least once each quarter.

Basis for Relief:

The ESW manual swale valves are located in the Auxiliary Building. If the ESW intake structure were to collapse, the environment of this location would remain benign. Therefore, no harsh environment would exist when the valves are required to be closed to align to the swale.

Historical evidence from the beginning of commercial operation reveals that these valves have been exercised open and closed a total of 44 times through June 1, 2006. No adverse conditions have been identified during the exercising of these valves. Based on the previous performance of these valves, extended testing frequency would not result in a negative impact to the necessary functionality of the valves.

ASME OM Code 1998 Edition, with 1999 Addenda in conjunction with 10CFR50.55a(b)(3)(vi), provides a precedent for the alternate testing frequency. Specifically, Paragraph ISTC-3540, Manual Valves of the ASME OM Code 1998 Edition with 1999 Addenda, states:

ISTC-3540 Manual Valves. Manual valves shall be full-stroke exercised at least once every 5 years, except where adverse conditions may require the valve to be tested more frequently to ensure operational readiness. Any increased testing frequency shall be specified by the owner. The valve shall exhibit the required change of obturator position.

10 CFR 50.55a(b)(3)(vi) requires manual valves to be exercised at least once every 2 years provided no adverse conditions exist

versus the OM Code 1998 Edition, with 1999 Addenda allowable frequency of once every 5 years. These valves are considered to be in a benign environment for the designated accident scenario. Additionally, historical evidence indicates no negative maintenance or failure trends for these valves. Therefore, in accordance with 10CFR50.55a(a)(3)(i), it is requested that the proposed alternative be authorized to exercise the manual ESW valves once every two years as opposed to quarterly, since this alternative testing frequency provides an acceptable level of quality and safety.

Alternate Testing: Manually exercise these valves at least once every two (2) years.