October 11, 2000

Mr. John K. Wood
Vice President - Nuclear, Perry
FirstEnergy Nuclear Operating Company
P.O. Box 97, A200
Perry, OH 44081

SUBJECT: PERRY NUCLEAR POWER PLANT, UNIT 1 - REVISIONS TO AMENDMENT NO. 115 (TAC NO. MA5930)

Dear Mr. Wood:

Our letter of August 29, 2000, transmitted Amendment No. 115 to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit 1. This license amendment approved technical specification changes to implement a 24-month fuel cycle at the Perry facility.

Subsequently, your staff has requested revision or further clarification to selected items in the supporting safety evaluation. Accordingly, the staff has prepared the enclosure to address your concerns.

We apologize for any inconvenience that may have resulted.

Sincerely,

/RA/

Douglas V. Pickett, Senior Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosure: As stated

cc w/encl: See next page

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NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 16, 2000

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Vice President - Nuclear, Perry
FirstEnergy Nuclear Operating Company
P.O. Box 97, A200
Perry, OH 44081

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Douglas V Pickett

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Project Directorate III
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J. Wood
FirstEnergy Nuclear Operating Company

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

REVISIONS/CLARIFICATIONS TO SAFETY EVALUATION

OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 115 TO FACILITY OPERATING LICENSE NO. NPF-58

FIRSTENERGY NUCLEAR OPERATING COMPANY

PERRY NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-440

Page 2 of the Safety Evaluation (SE)

The Background section of the staff's SE provides a complete listing of the technical specification (TS) changes that were proposed in the licensee's submittal of June 17, 1999. Under the heading, "Technical Specification Changes," the staff's SE includes the following statement:

> *The following list itemizes the technical specification surveillance requirements (SRs) that would be changed in order to accommodate a 24-month fuel cycle at the Perry facility.*

During the staff's review, two of the proposed changes (i.e., SR 3.3.4.1.6 and SR 3.8.4.8) were determined to be outside the scope of Generic Letter 91-04 (i.e., a 24-month fuel cycle) and were subsequently withdrawn by the licensee. This was discussed on pages 14 and 47 of the staff's SE.

Listing each of the proposed changes to the TSs in the Background section of the SE was made for completeness. The staff's SE should not imply that all of the TS changes proposed by the licensee are necessary to implement a 24-month fuel cycle.

Pages 13 and 14 of the SE

Pages 13 and 14 of the SE discusses SRs for channel calibrations that are being changed from once every 18 months to a more frequent basis. SRs 3.3.5.1.7 and 3.3.5.2.6 are being increased from once every 18 months to once every 6 months. In addition, SR 3.3.6.2.6 is being changed from once every 18 months to once every 92 days.

The staff's discussion for each of these changes includes the following statement:

> *The nominal trip setpoint and allowable value were revised, using the recommendations of EPRI TR-103335 Rev. 1, "Guidelines for Instrument Calibration Extension/Reduction Programs," to determine the acceptable drift that could be accommodated based on plant operating needs.*

The staff's SE should not have implied that the nominal trip setpoints and allowable values were changed. In fact, when the projected 30-month drift values were recalculated using the recommendations of EPRI TR-103335, Rev. 1, the drift values exceeded the drift allowance as determined in plant-specific calculations. The licensee subsequently determined that the instrument drift associated with the existing nominal trip setpoints and allowable values could be supported by increasing the frequency of performing the channel calibrations. The staff found this approach acceptable because it is based on the EPRI recommendations and meets the guidance of Generic Letter 91-04.

Page 23 of the SE

While discussing a proposed change to SR 3.5.3.4 (RCIC system), the staff's SE includes the following statement:

> *SR 3.5.3.3, which will continue to be performed at 92 day intervals, will demonstrate that the RCIC system is capable of meeting design flow rates at normal plant operating conditions.*

Rather than meeting "design" flow rates, SR 3.5.3.3 demonstrates that the RCIC system is capable of meeting rated flow rates.

Reliance on the Inservice Testing Program

Part of the staff's justification to extend SRs from once every 18 months to once every 24 months is that pumps and valves will continue to be tested in accordance with the Inservice Testing Program. The following, or similar statement, is included in the staff's SE for SR 3.5.3.5 (page 24, RCIC system), SR 3.6.1.7.3 (page 27, RHR system), SR 3.6.5.3.5 (page 32, drywell isolation valves), SR 3.7.1.2 (page 34, ESW system), and SR 3.7.2.2 (page 34, ESW system):

> *The pumps and valves of the ..... system are tested on a quarterly basis by the Inservice Testing program or have justifications and reliefs to document why testing on an extended frequency is acceptable.*

The staff recognizes that the Inservice Testing Program does not require that all pumps and valves be tested on a quarterly basis. Rather, the above statement should only imply that the pumps and valves of the respective systems are being tested in accordance with the licensee's Inservice Testing Program.

Page 25 of the SE

The staff's evaluation for both SR 3.6.1.2.4 (Primary Containment Air Locks) and SR 3.6.1.3.8 (Primary Containment Isolation Valves) includes the following statement:

> *Based on this information and the fact that the RCIC system is not relied upon in the safety analysis, the staff concludes that the proposed change on plant safety is small and, therefore, acceptable.*

This concluding statement was inadvertently copied from the staff's evaluation for SR 3.5.3.5 (RCIC System). The concluding statement for both SRs 3.6.1.2.4 and 3.6.1.3.8 should be revised to:

Based on this information, the staff concludes that the proposed change on plant safety is small and, therefore, acceptable.

Page 32 of the SE, Annulus Exhaust Gas Treatment System

The staff's evaluation for SR 3.6.4.3.3 (Annulus Exhaust Gas Treatment System) includes the following statement:

SR 3.6.3.3.1 is a monthly surveillance that requires each AEGT subsystem to be started and operated for > 10 hours with heaters operating.

The referenced SR should be 3.6.4.3.1.

Page 32 of the SE, Drywell Isolation Valves

The staff's evaluation for SR 3.6.5.3.5 (Drywell Isolation Valves) includes the following statement:

The drywell isolation valves are tested on a quarterly basis by the Inservice Testing program or have justifications and reliefs to document why testing on an extended frequency is acceptable.

The staff's statement should not imply that all drywell isolation valves are tested in accordance with the licensee's Inservice Testing Program. Rather, the automatic drywell isolation valves are tested in accordance with the Inservice Testing Program.

Page 33 of the SE, Drywell Vacuum Relief System

The introductory paragraph under TS 3.6.5.6, Drywell Vacuum Relief System, includes the following statement:

Each vacuum relief line has an inner 10-inch simple check valve that serves as the vacuum breaker device and an outer 10-inch motor operated isolation valve.

The staff agrees that referring to the valves as "inner" and "outer" implies that the valves are physically inside or outside the drywell boundary. The statement should be revised to:

Each vacuum relief line has a 10-inch simple check valve that serves as the vacuum breaker device and a 10-inch motor operated isolation valve.

Page 40 of the SE

The staff's evaluation of SR 3.8.1.12 (Emergency Diesel Generators) includes the following introductory statement:

This SR demonstrates each DG's operation during a loss-of-offsite power actuation test signal in conjunction with an Emergency Core Cooling System (ECCS) initiation signal.

The staff agrees that the above statement does not accurately describe the purpose of the SR and should be replaced with the following:

This SR demonstrates that the DG automatically starts and achieves the required voltage and frequency within the specified time from the design basis actuation signal (LOCA signal).

Page 41 of the SE

The staff's evaluation of SR 3.8.1.14 (diesel generator operation) inadvertently refers to the Division 32 DG. This reference should be the Division 3 DG.

The staff's evaluation of SR 3.8.1.15 (diesel generator operation) inadvertently lists a minimum voltage of ≤ 2600 kW for the Division 3 DG. The minimum voltage should be ≥ 2600kW.

Principal Contributor: Douglas Pickett, DLPM, NRR

Date: October 11, 2000