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L-17-241

10 CFR 50.90

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT:
Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
License Amendment Request for Adoption of Technical Specification Task Force (TSTF) Traveler TSTF-306-A, Revision 2, "Add Action to LCO 3.3.6.1 to Give Option to Isolate the Penetration"

In accordance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.90, FirstEnergy Nuclear Operating Company (FENOC) is submitting a request for an amendment to the Perry Nuclear Power Plant Technical Specification (TSs) to incorporate the Nuclear Regulatory Commission (NRC) approved TSTF-306, Revision 2, "Add Action to LCO 3.3.6.1 to Give Option to Isolate the Penetration." The proposed change would revise the Technical Specification (TS) requirements in TS 3.3.6.1, "Primary Containment and Drywell Isolation Instrumentation," by adding an Actions note allowing intermittent opening, under administrative control, of penetration flow paths that are isolated.

An evaluation of the proposed changes is enclosed, including the technical analysis; regulatory analysis; environmental considerations; markup pages of existing TSs and TS Bases; and the revised TS pages.

FENOC is requesting NRC staff approval of the proposed amendment by August 31, 2018, with an implementation period of 60 days following issuance of the amendment.

There are no regulatory commitments contained in this submittal. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at 330-315-6810.

I declare under penalty of perjury that the foregoing is correct and true. Executed on September 11, 2017.

Sincerely,

David B. Hamilton

Enclosure:
Evaluation of a License Amendment Request for Adoption of Technical Specification Task Force Traveler TSTF-306-A, Revision 2, "Add Action to LCO 3.3.6.1 to Give Option to Isolate the Penetration"

cc: NRC Region III Administrator
NRC Resident Inspector
NRC Project Manager
Branch Chief, Ohio Emergency Management Agency, State of Ohio (NRC Liaison)
Utility Radiological Safety Board

Enclosure

Evaluation of a License Amendment Request for Adoption of Technical Specification Task Force Traveler TSTF-306-A, Revision 2, "Add Action to LCO 3.3.6.1 to Give Option to Isolate the Penetration"

(13 Pages to Follow)

Subject: License Amendment Request for Adoption of Technical Specification Task Force Traveler TSTF-306-A, Revision 2, "Add Action to LCO 3.3.6.1 to Give Option to Isolate the Penetration"

1.0 SUMMARY DESCRIPTION

This evaluation supports a request to amend Operating License NPF-58 for the Perry Nuclear Power Plant (PNPP). The proposed change would revise the Technical Specification (TS) requirements in TS 3.3.6.1, "Primary Containment and Drywell Isolation Instrumentation," by adding an Actions note allowing intermittent opening, under administrative control, of penetration flow paths that are isolated. The changes are consistent with the U.S. Nuclear Regulatory Commission (NRC) approved Technical Specification Task Force (TSTF) Traveler TSTF-306-A, Revision 2, which was approved by the NRC on July 13, 2000 (Reference 1).

2.0 DETAILED DESCRIPTION

2.1 Description of Proposed Change

The proposed change affects primary containment and drywell isolation instrumentation requirements established by TS 3.3.6.1. The proposed change adds an ACTIONS note to Limiting Condition of Operation (LCO) 3.3.6.1 allowing intermittent opening, under administrative controls, of penetration flow paths that are isolated to comply with ACTIONS. The proposed changes are consistent with the intent of TSTF-306-A, Revision 2, as applicable to BWR/6 plants.

The new note states:

1. Penetration flow paths, except for the drywell 24 inch and 36 inch purge supply and exhaust valve penetration flow paths and the inboard 42 inch primary containment purge supply and exhaust isolation valve flow paths, may be unisolated intermittently under administrative controls.

Additionally, minor administrative changes are proposed to reflect the existence of multiple ACTION notes. The existing note will be labeled as Note 2 and the "NOTE" heading will be changed to "NOTES."

Attachment 1 provides the mark-up page for the PNPP specific changes. Attachment 2 provides the re-typed version of the proposed TS. Attachment 3 provides the mark-up of the existing TS Bases page for information. FirstEnergy Nuclear Operating Company (FENOC) will make supporting changes to the TS Bases in accordance with the TS Bases Control Program.

2.2 Differences between Proposed Change and Approved TSTF-306-A

The PNPP proposed changes are consistent with the intent of the TSTF with the following differences.

The PNPP TS 3.3.6.1 applies to both primary containment and drywell isolation instrumentation, whereas the TSTF and improved Standard Technical

Specifications (STS) NUREG-1434 do not specifically address drywell isolation as a function of particular instrumentation. The proposed note for PNPP is intended to apply to both primary containment and drywell isolation instrumentation functions.

The proposed note to PNPP TS 3.3.6.1 includes an exception to the drywell 24 inch and 36 inch purge supply and exhaust valve penetration flow paths, as well as the inboard 42 inch primary containment purge supply and exhaust isolation valve flow paths, whereas the TSTF does not contain these exceptions. Both PNPP TS and the improved STS NUREG include notes in LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," and LCO 3.6.5.3, "Drywell Isolation Valves," allowing intermittent opening of penetrations that have been isolated to comply with the TS ACTIONS. The note for LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," takes exception to the inboard 42 inch purge valve penetration flow paths and is further clarified in the PNPP TS Bases 3.6.1.3 to include the purge supply and exhaust isolation valve flow paths. Therefore, the proposed note added to PNPP LCO 3.3.6.1 will also contain the exceptions identified in the PNPP TS Bases 3.6.1.3. The note for LCO 3.6.5.3, "Drywell Isolation Valves," differs from the improved STS NUREG in that the PNPP TS contains an exception to this allowance for the drywell 24 inch and 36 inch purge supply and exhaust valve penetration flow path. Because the notes associated with PNPP LCO 3.6.1.3 and 3.6.5.3 take certain exceptions the proposed note added to PNPP LCO 3.3.6.1 will also contain these exceptions.

3.0 TECHNICAL EVALUATION

FENOC has reviewed TSTF-306-A, Revision 2 and has determined that the proposed change and associated justification are applicable to the PNPP. The new note to LCO 3.3.6.1 provides consistency between the TS requirements for containment and drywell isolation valves and the TS requirements for the instrumentation that supports the isolation valve function. TSTF-306-A adds an ACTIONS note to LCO 3.3.6.1 to allow opening of primary containment penetration flow paths that were isolated to comply with ACTIONS associated with inoperable instrument channels or functions. This allowance is currently provided in PNPP LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," (with the exception of the inboard 42 inch purge valve penetration flow paths) and PNPP LCO 3.6.5.3, "Drywell Isolation Valves," (with the exception of the 24 inch and 36 inch purge supply and exhaust valve penetration flow paths), that have been isolated to comply with ACTIONS. Since the isolation instrumentation serves as a support system for the isolation valves, the ACTIONS for inoperable instrumentation need not be more restrictive than that for the function that it supports. The same administrative controls described in the TS Bases for the PCIVs and drywell isolation valves will be applied to the supporting instrumentation LCO. These controls consist of stationing a dedicated operator at the controls of the valve, who is in continuous communication with the control room. In this way, the penetrations can be rapidly isolated when the need for primary containment or drywell isolation is indicated. Therefore, the proposed

change does not significantly affect the ability of the containment isolation system to perform its safety function.

4.0 REGULATORY EVALUATION

The proposed change would revise the Technical Specification (TS) Requirements in TS 3.3.6.1, "Primary Containment and Drywell Isolation Instrumentation," by adding an Actions note allowing intermittent opening, under administrative control, of penetration flow paths that are isolated.

4.1 Significant Hazards Consideration Analysis

FirstEnergy Nuclear Operating Company (FENOC) has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change to adopt TSTF-306-A allows primary containment and drywell isolation valves to be unisolated under administrative controls when the associated isolation instrumentation is not operable. The isolation function is an accident mitigating function and is not an initiator of an accident previously evaluated. Administrative controls are required to be in effect when the valves are unisolated so that the penetration can be rapidly isolated when the need is indicated.

   The addition of the note that the penetration flow paths may be unisolated under administrative control provides consistency and clarification with the intermittent opening allowances contained in LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," and LCO 3.6.5.3, "Drywell Isolation Valves," allowed elsewhere in the Technical Specifications (TS).

   Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No.

   The proposed change does not involve any physical changes to plant equipment and does not change the method by which any safety-related system performs its function. The Perry Nuclear Power Plant TS currently

allow containment and drywell isolation valves to be open under administrative control after being closed to comply with TS ACTIONS for inoperable valves.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

   Response: No.

   The proposed change does not affect the operation of plant equipment or the function of any equipment assumed in the accident analysis. The allowance to unisolate a penetration flow path will not have a significant effect on the margin of safety because the penetration flow path can be isolated manually, if needed. This change simply provides consistency with what is already allowed elsewhere in the TSs. There are no changes being made to safety analysis assumptions or results. When the valves are unisolated, the design basis function of containment isolation is maintained by administrative controls.

   Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, FENOC concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.2 Applicable Regulatory Requirements/Criteria

The proposed changes have been evaluated to determine whether applicable regulations and requirements continue to be maintained.

FENOC has determined that the proposed changes do not require any exemptions or relief from regulatory requirements, and do not affect conformance with any general design criterion (GDC) differently than described in the Updated Safety Analysis Report (USAR). The proposed changes associated with the adoption of TSTF-306-A, Revision 2 are consistent with NUREG-1434, which provides guidance on TS Actions and Completion Times when Limiting Conditions for Operation are not met.

4.3 Precedent

The NRC approved TSTF-306-A, Revision 2, on July 13, 2000 (Reference 1). The following are examples of BWR/6 plant-specific NRC approved adoptions of TSTF-306-A, Revision 2.

- Grand Gulf Nuclear Station, Unit 1, Amendment Number 162, dated January 8, 2004 (Reference 2).
- River Bend Station, Unit 1, Amendment Number 165, dated August 11, 2009 (Reference 3).

The PNPP adoption of TSTF-306-A, Revision 2 differs from the above referenced precedents in following ways. The proposed note to PNPP TS 3.3.6.1 incorporates the exceptions identified in PNPP LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," and LCO 3.6.5.3, "Drywell Isolation Valves," whereas the Grand Gulf Nuclear Station adoption of TSTF-306-A did not include either of these exceptions and River Bend Station did not incorporate the exceptions identified in LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)." Similar to proposed PNPP adoption of TSTF-306-A the River Bend Station includes the exception associated with LCO 3.6.5.3 "Drywell Isolation Valves." However, the River Bend Station LCO 3.6.5.3 "Drywell Isolation Valves," ACTIONS note takes exception to the "drywell 24 inch purge valve penetration flow path," whereas the PNPP LCO 3.6.5.3 "Drywell Isolation Valves," takes exception to the drywell 24 inch and 36 inch purge supply and exhaust valve penetration flow paths.

The exceptions identified in PNPP LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," and LCO 3.6.5.3, "Drywell Isolation Valves," were incorporated into the proposed note to PNPP TS 3.3.6.1, "Primary Containment and Drywell Isolation Instrumentation," to provide consistency between the PNPP TS requirements and does not alter the intent of the TSTF-306-A or the applicable precedents. Therefore, these amendments are considered applicable precedents, since the above listed implementations of TSTF-306-A are consistent with that proposed for the PNPP.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9).

Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. TSTF-306-A, Revision 2, "Add Action to LCO 3.3.6.1 to give option to isolate the penetration," July 13, 2000.

2. Letter from Bhalchandra Vaidya, Project Manager, Office of Nuclear Reactor Regulation, to Mr. George A. Williams, Site Vice President, Grand Gulf Nuclear Station, "Grand Gulf Nuclear Station, Unit 1 – Issuance of Amendment Re: Changes to Primary Containment and Drywell Isolation Instrumentation Requirements," dated January 8, 2004, (Accession Number ML040090316).

3. Letter from Alan B. Wang, Project Manager, Office of Nuclear Reactor Regulation, to Vice President, Operations, River Bend Station, "River Bend Station, Unit 1 – Issuance of Amendment Re: Adoption of Technical Specification Task Force Improved Standard Technical Specification Change Travelers TSTF-163, TSTF-222, TSTF-230, and TSTF-306," dated August 11, 2009 (Accession Number ML092010370).

7.0 ATTACHMENTS

1. Proposed Technical Specification Changes (Mark-Up)

2. Proposed Technical Specification Changes (Retyped)

3. Proposed Technical Specification Bases Changes (Mark-Up)

Attachment 1

Proposed Technical Specification Changes (Mark-Up)

(1 Page to Follow)

3.3 INSTRUMENTATION

3.3.6.1 Primary Containment and Drywell Isolation Instrumentation

LCO 3.3.6.1 The primary containment and drywell isolation instrumentation for each Function in Table 3.3.6.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.6.1-1.

ACTIONS

----------NOTES----------

1. Penetration flow paths, except for the drywell 24 inch and 36 inch purge supply and exhaust valve penetration flow paths and the inboard 42 inch primary containment purge supply and exhaust isolation valve flow paths, may be unisolated intermittently under administrative controls.

2. Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required channels inoperable.	A.1 Place channel in trip.	12 hours for Functions 2.b, 5.b, and 5.d AND 24 hours for Functions other than Functions 2.b, 5.b, and 5.d
B. One or more automatic Functions with isolation capability not maintained.	B.1 Restore isolation capability.	1 hour

(continued)

Attachment 2

Proposed Technical Specification Changes (Retyped) – For Information Only

(1 Page to Follow)

3.3 INSTRUMENTATION

3.3.6.1 Primary Containment and Drywell Isolation Instrumentation

LCO 3.3.6.1 The primary containment and drywell isolation instrumentation for each Function in Table 3.3.6.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.6.1-1.

ACTIONS

----------NOTES----------

1. Penetration flow paths, except for the drywell 24 inch and 36 inch purge supply and exhaust valve penetration flow paths and the inboard 42 inch primary containment purge supply and exhaust isolation valve flow paths, may be unisolated intermittently under administrative controls.

2. Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required channels inoperable.	A.1 Place channel in trip.	12 hours for Functions 2.b, 5.b, and 5.d <u>AND</u> 24 hours for Functions other than Functions 2.b, 5.b, and 5.d
B. One or more automatic Functions with isolation capability not maintained.	B.1 Restore isolation capability.	1 hour

(continued)

Attachment 3

Proposed Technical Specification Bases Changes (Mark-Up) – For Information Only

(1 Page to Follow)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

5.e. Manual Initiation (continued)

There are four push buttons for the logic, two manual initiation push buttons per trip system. There is no Allowable Value for this Function since the channels are mechanically actuated based solely on the position of the push buttons.

Four channels of the Manual Initiation Function are required to be OPERABLE.

ACTIONS

The ACTIONS are modified by two Notes. Note 1 allows penetration path(s), with the exception of the drywell 24 inch and 36 inch purge supply and exhaust valve penetration flow paths and the inboard 42 inch primary containment purge supply and exhaust isolation valve flow paths, to be unisolated intermittently under administrative controls. These controls consist of stationing a dedicated operator at the controls of the valve, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for primary containment or drywell isolation is indicated. Note 2~~A Note~~ has been provided to modify the ACTIONS related to primary containment and drywell isolation instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition discovered to be inoperable or not within limits will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable primary containment isolation and drywell instrumentation channels provide appropriate compensatory measures for separate inoperable channels. As such, ~~a~~ Note 2 has been provided that allows separate Condition entry for each inoperable primary containment and drywell isolation instrumentation channel.

A.1

Because of the diversity of sensors available to provide isolation signals and the redundancy of the isolation design, an allowable out of service time of 12 hours or 24 hours, depending on the Function, has been shown to be acceptable (Refs. 5 and 6) to permit restoration of any inoperable channel to OPERABLE status. Functions that share common instrumentation with the RPS have a 12 hour allowed out of service time consistent with the time provided for the associated RPS instrumentation channels. This out of service time is only acceptable provided the associated Function is still maintaining isolation capability (refer to Required Action B.1 Bases). If the inoperable channel cannot be restored to OPERABLE status within the allowable out of service time, the channel must be placed in the