



FirstEnergy Nuclear Operating Company

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July 22, 2010
L-10-197

10 CFR 50.90
10 CFR 73.54

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
Request for Approval of the Perry Nuclear Power Plant Cyber Security Plan

By letter dated November 23, 2009, in accordance with the provisions of 10 CFR 50.4 and 10 CFR 50.90, the FirstEnergy Nuclear Operating Company (FENOC) submitted a request for an amendment to the Facility Operating License (FOL) for the Perry Nuclear Power Plant (PNPP) relative to incorporation of a cyber security plan. The proposed amendment was based on the model application in Revision 3 of Nuclear Energy Institute (NEI) 08-09, Cyber Security Plan for Nuclear Power Reactors.

The Nuclear Regulatory Commission (NRC) staff had significant generic concerns with this NEI guidance and has participated in numerous discussions with NEI to resolve concerns. By letter dated April 28, 2010, NEI submitted Revision 6 of NEI 08-09, which addressed the NRC staff concerns with the previous NEI guidance. By letter dated May 5, 2010, the Office of Nuclear Security and Incident Response concluded that submission of a cyber security plan using the template provided in NEI 08-09, Revision 6, would be acceptable for use by licensees to comply with the requirements of 10 CFR 73.54.

By letter dated May 25, 2010, the NRC requested FENOC to review the concerns and submit a revised cyber security plan to resolve these concerns.

Enclosures 2 and 3 to this letter contain security related information.
Withhold from public disclosure under 10 CFR 2.390.
Upon removal of Enclosures 2 and 3, this letter is uncontrolled.

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In accordance with the provisions of 10 CFR 50.4 and 10 CFR 50.90, FENOC hereby requests NRC approval of the proposed cyber security plan for the PNPP, which is consistent with the template provided in NEI 08-09, Revision 6. Additionally, FENOC requests NRC approval of the revision of license condition 2.E, to require FENOC to fully implement and maintain in effect all provisions of the Commission approved cyber security plan. FENOC also requests NRC approval of the proposed implementation schedule, as required by 10 CFR 73.54.

Enclosure 1 provides an evaluation of the proposed change to the PNPP FOL, and includes as attachments the FOL changes in marked up and final typed formats. Enclosure 2 provides a copy of the PNPP cyber security plan, which is a standalone document. Enclosure 3 provides a copy of the PNPP cyber security plan implementation schedule. FENOC requests that Enclosures 2 and 3, which contain security related information, be withheld from public disclosure in accordance with 10 CFR 2.390.

As described in NRC letter dated May 25, 2010, with the submittal of the enclosed amendment request that is consistent with the template provided in NEI 08-09, Revision 6, FENOC hereby withdraws the previously submitted request (letter dated November 23, 2009, TAC No. ME2824).

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

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 22, 2010.

Sincerely,



Mark B. Bezilla

Enclosures 2 and 3 to this letter contain security related information.
Withhold from public disclosure under 10 CFR 2.390.
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Enclosures:

1. Evaluation of Proposed Change
2. Perry Nuclear Power Plant Cyber Security Plan
3. Perry Nuclear Power Plant Cyber Security Plan Implementation Schedule

cc: NRC Region III Administrator
NRC Resident Inspector
Nuclear Reactor Regulation Project Manager
Executive Director, Ohio Emergency Management Agency, State of Ohio
(NRC Liaison) (Enclosure 1 only)

Enclosures 2 and 3 to this letter contain security related information.
Withhold from public disclosure under 10 CFR 2.390.
Upon removal of Enclosures 2 and 3, this letter is uncontrolled.

Enclosure 1
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Evaluation of Proposed Change
(10 pages follow)

Evaluation of Proposed Change

Request for Approval of the Perry Nuclear Power Plant (PNPP) Cyber Security Plan

- 1.0 Summary Description
- 2.0 Detailed Description
- 3.0 Technical Evaluation
- 4.0 Regulatory Evaluation
 - 4.1 Applicable Regulatory Requirements / Criteria
 - 4.2 Significant Hazards Consideration
 - 4.3 Conclusion
- 5.0 Environmental Consideration
- 6.0 References

ATTACHMENTS

Attachment 1 – Proposed Facility Operating License Change (Mark-Up)

Attachment 2 – Proposed Facility Operating License Change (Re-Typed)

1.0 SUMMARY DESCRIPTION

The license amendment request (LAR) includes the proposed Perry Nuclear Power Plant (PNPP) cyber security plan (Plan), an implementation schedule, and a proposed sentence to be added to the existing Facility Operating License (FOL) Physical Protection license condition.

2.0 DETAILED DESCRIPTION

The LAR includes three parts: the proposed Plan, an implementation schedule, and a proposed sentence to be added to the existing FOL Physical Protection license condition 2.E to require the FirstEnergy Nuclear Operating Company (FENOC) to fully implement and maintain in effect all provisions of the Commission approved cyber security plan as required by 10 CFR 73.54. *Federal Register* notice issued the final rule that amended 10 CFR Part 73. The regulations in 10 CFR 73.54, "Protection of digital computer and communication systems and networks," establish the requirements for a cyber security program. This regulation specifically requires each licensee currently licensed to operate a nuclear power plant under 10 CFR Part 50 to submit a cyber security plan that satisfies the requirements of the rule. Each submittal must include a proposed implementation schedule and implementation of the licensee's cyber security program must be consistent with the approved schedule. The background for this application is addressed by the NRC Notice of Availability published on March 27, 2009, 74 FR 13926 (Reference 1).

3.0 TECHNICAL EVALUATION

Federal Register notice 74 FR 13926 issued the final rule that amended 10 CFR Part 73. Cyber security requirements are codified as new 10 CFR 73.54 and are designed to provide a high assurance that digital computer and communication systems and networks are adequately protected against cyber attacks up to and including the design basis threat established by 10 CFR 73.1. These requirements are substantial improvements upon the requirements imposed by EA-02-026 (Reference 2).

The Nuclear Energy Institute (NEI) published NEI 08-09, "Cyber Security Plan for Nuclear Power Reactors," Revision 6, in April 2010, providing an approach the NRC staff deems acceptable for complying with the Commission's regulations for protecting digital computers, communications systems, and networks.

This LAR includes the proposed Plan (Enclosure 2 to letter L-10-197, provided herewith) that conforms to the template provided in NEI 08-09, Revision 6. In addition the LAR includes the proposed change to the existing FOL license condition 2.E for Physical Protection (Attachments 1 and 2). Finally, the LAR contains the proposed implementation schedule (Enclosure 3 to letter L-10-197, provided herewith), as required by 10 CFR 73.54.

4.0 REGULATORY EVALUATION

4.1 APPLICABLE REGULATORY REQUIREMENTS / CRITERIA

This LAR is submitted pursuant to 10 CFR 73.54, which requires licensees currently licensed to operate a nuclear power plant under 10 CFR Part 50 to submit a cyber security plan as specified in 10 CFR 50.4 and 10 CFR 50.90.

4.2 SIGNIFICANT HAZARDS CONSIDERATION

FENOC has evaluated the proposed changes using the criteria in 10 CFR 50.92 and has determined that the proposed changes do not involve a significant hazards consideration. An analysis of the issue of no significant hazards consideration is presented below.

Criterion 1: The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change is required by 10 CFR 73.54 and includes three parts. The first part is the submittal of the Plan for NRC review and approval. The Plan provides a description of how the requirements of the rule will be implemented at the PNPP. The Plan establishes the licensing basis for the FENOC cyber security program for the PNPP. The Plan establishes how to achieve high assurance that nuclear power plant digital computer and communication systems and networks associated with the following are adequately protected against cyber attacks up to and including the design basis threat:

1. Safety-related and important-to-safety functions,
2. Security functions,
3. Emergency preparedness functions including offsite communications, and
4. Support systems and equipment which if compromised, would adversely impact safety, security, or emergency preparedness functions.

Part one of the proposed change is designed to achieve high assurance that the systems are protected from cyber attacks. The Plan itself does not require any plant modifications. However, the Plan does describe how plant modifications which involve digital computer systems are reviewed to provide high assurance of adequate protection against cyber attacks, up to and including the design basis threat as defined in the rule. The proposed change does not alter the plant configuration, require new plant equipment to be installed, alter accident analysis assumptions, add any initiators, affect the function of plant systems, or affect the manner in which systems are operated. The first part of the proposed change is designed to achieve high assurance that the systems within the scope of the rule are protected from cyber attacks and has no impact on the probability or consequences of an accident previously evaluated.

The second part of the proposed change is an implementation schedule. The third part adds a sentence to the existing FOL license condition 2.E for Physical Protection. Both of these changes are administrative and have no impact on the probability or consequences of an accident previously evaluated.

Therefore, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Criterion 2: The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change is required by 10 CFR 73.54 and includes three parts. The first part is the submittal of the Plan for NRC review and approval. The Plan provides a description of how the requirements of the rule will be implemented at the PNPP. The Plan establishes the licensing basis for the FENOC cyber security program for the PNPP. The Plan establishes how to achieve high assurance that nuclear power plant digital computer and communication systems and networks associated with the following are adequately protected against cyber attacks up to and including the design basis threat:

1. Safety-related and important-to-safety functions,
2. Security functions,
3. Emergency preparedness functions including offsite communications, and
4. Support systems and equipment which if compromised, would adversely impact safety, security, or emergency preparedness functions.

Part one of the proposed change is designed to achieve high assurance that the systems within the scope of the rule are protected from cyber attacks. The Plan itself does not require any plant modifications. However, the Plan does describe how plant modifications which involve digital computer systems are reviewed to provide high assurance of adequate protection against cyber attacks, up to and including the design basis threat defined in the rule. The proposed change does not alter the plant configuration, require new plant equipment to be installed, alter accident analysis assumptions, add any initiators, affect the function of plant systems, or affect the manner in which systems are operated. The first part of the proposed change is designed to achieve high assurance that the systems within the scope of the rule are protected from cyber attacks and does not create the possibility of a new or different kind of accident from any previously evaluated.

The second part of the proposed change is an implementation schedule. The third part adds a sentence to the existing FOL license condition 2.E for Physical Protection. Both of these changes are administrative and do not create the possibility of a new or different kind of accident from any previously evaluated.

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

Criterion 3: The proposed change does not involve a significant reduction in a margin of safety.

The proposed change is required by 10 CFR 73.54 and includes three parts. The first part is the submittal of the Plan for NRC review and approval. The Plan provides a description of how the requirements of the rule will be implemented at the PNPP. The Plan establishes the licensing basis for the FENOC cyber security program for the PNPP. The Plan establishes how to achieve high assurance that nuclear power plant digital computer and communication systems and networks associated with the following are adequately protected against cyber attacks up to and including the design basis threat:

1. Safety-related and important-to-safety functions,
2. Security functions,
3. Emergency preparedness functions including offsite communications, and
4. Support systems and equipment which if compromised, would adversely impact safety, security, or emergency preparedness functions.

Part one of the proposed change is designed to achieve high assurance that the systems within the scope of the rule are protected from cyber attacks. Plant safety margins are established through Limiting Conditions for Operation, Limiting Safety System Settings and Safety limits specified in the Technical Specifications, methods of evaluation that establish design basis or change Updated Final Safety Analysis. Because there is no change to these established safety margins, the proposed change does not involve a significant reduction in a margin of safety.

The second part of the proposed change is an implementation schedule. The third part adds a sentence to the existing FOL license condition 2.E for Physical Protection. Both of these changes are administrative and do not involve a significant reduction in a margin of safety.

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

Based on the above, FENOC concludes that the proposed change presents no 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.

4.3 CONCLUSION

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

The proposed amendment establishes the licensing basis for a cyber security program for the PNPP as a component of the Physical Security program. This proposed amendment will not involve any significant construction impacts. The proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(12). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 REFERENCES

1. Federal Register Notice, Final Rule 10 CFR Part 73, Power Reactor Security Requirements, published on March 27, 2009, 74 FR 13926.
2. EA-02-026, Order Modifying Licenses, Safeguards and Security Plan Requirements, issued February 25, 2002.

Attachment 1

Proposed Facility Operating License Change (Mark-Up)
(1 page follows)

- D. FENOC is exempted from: 1) the requirements of Section III.D.2(b)(ii), containment airlock testing requirements, Appendix J to 10 CFR Part 50, due to the special circumstance described in Section 6.2.6 of SER Supplement No. 7 authorized by 10 CFR 50.12(a)(2)(iii) and 2) the requirements of Section IV.F., Full Participation Exercise, of Appendix E to 10 CFR Part 50, due to the special circumstance described in the Exemption dated November 6, 1986. These exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. The exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
- E. FENOC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (61 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Perry Nuclear Power Plant Physical Security Plan" Revision 2, submitted by letter dated May 18, 2006.
- F. Deleted
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1964, as amended, to cover public liability claims.

FENOC shall fully implement and maintain in effect all provisions of the Commission-approved Perry Nuclear Power Plant cyber security plan.

Attachment 2

Proposed Facility Operating License Change (Re-Typed)
(1 page follows)

- D. FENOC is exempted from: 1) the requirements of Section III.D.2(b)(ii), containment airlock testing requirements, Appendix J to 10 CFR Part 50, due to the special circumstance described in Section 6.2.6 of SER Supplement No. 7 authorized by 10 CFR 50.12(a)(2)(iii) and 2) the requirements of Section IV.F., Full Participation Exercise, of Appendix E to 10 CFR Part 50, due to the special circumstance described in the Exemption dated November 6, 1986. These exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. The exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
- E. FENOC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (61 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Perry Nuclear Power Plant Physical Security Plan" Revision 2, submitted by letter dated May 18, 2006.
- FENOC shall fully implement and maintain in effect all provisions of the Commission-approved Perry Nuclear Power Plant cyber security plan.
- F. Deleted
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1964, as amended, to cover public liability claims.