



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

December 4, 2015

Mr. Ernest Harkness
Site Vice President
FirstEnergy Nuclear Operating Company
Perry Nuclear Power Plant
P. O. Box 97, 10 Center Road, A-PY-A290
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT INSPECTION REPORT 05000440/2015010

Dear Mr. Harkness:

On November 23, 2015 the U.S. Nuclear Regulatory Commission (NRC) completed a baseline inspection at your Perry Nuclear Power Plant. On November 30, 2015, the NRC inspectors discussed this inspection with you and members of your staff. The inspectors documented the results of this inspection in the enclosed inspection report.

The NRC inspectors documented one finding of very low safety significance (Green) in this report. The findings involved violations of NRC requirements. The NRC evaluated this violation in accordance Section 2.3.2.a of the NRC Enforcement Policy, which appears on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. We determined that this violation did not meet the criteria to be treated as a Non-Cited Violation because this issue was not documented in your Corrective Action Program. In addition, during discussion with personnel at your site, it was communicated that your staff believed that no violation of your technical specification had taken place.

You are required to respond to this letter within 30 days of the date of this letter, and should follow the instructions specified in the enclosed Notice when preparing your response. In your response the NRC requests that you address the reason why this violation occurred, the corrective actions taken and planned to address recurrence, and the date when full compliance will be or was achieved for this violation. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC's review of your response to the Notice will also determine whether further enforcement action is necessary to ensure your compliance with regulatory requirements.

If you contest the subject or severity of the violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Perry Nuclear Power Plant.

E. Harkness

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In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Perry Nuclear Power Plant.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Hironori Peterson, Chief
Health Physics and Incident Response Branch
Division of Reactor Safety

Docket No. 50-440
License No. NPF-58

Enclosure:

1. Notice of Violation
2. Inspection Report 05000440/2015010
w/Attachment: Supplemental Information

cc: Distribution via LISTSERV®

Notice of Violation

FirstEnergy Nuclear Operating Company
Perry Nuclear Power Plant

Docket No. 50-440
License No. NPF-58

During an NRC inspection conducted from August 27, 2015, to November 23, 2015, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Technical Specification (TS) 5.3.1 states: "Each member of the Unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions as modified by TS 5.2.2.f, except for the Radiation Protection Manager (RPM), who shall meet or exceed the qualifications of Regulatory Guide (RG) 1.8, September 1975, and the licensed Reactor Operators and Senior Reactor Operators, who shall comply with the requirements of 10 CFR Part 55." RG 1.8, September 1975 requires at least 5 years of professional experience in applied radiation protection with at least 3 years of this professional experience in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered in nuclear power stations, preferably in an actual nuclear power station.

Contrary to the above, since April 28, 2015, an individual was designated and performed the duties of the RPM failed to meet the professional experience as required by the TS 5.3.1 as specified in RG 1.8.

This violation is associated with a (Green) Significant Determination Process finding.

Pursuant to the provisions of 10 CFR 2.201, FirstEnergy Nuclear Operating Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region III, and a copy to the NRC Resident Inspector at the Perry Nuclear Power Plant, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; VIO 05000440/2015010-01" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's ADAMS, accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 4th day of December, 2015.

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-440
License No: NPF-58

Report No: 05000440/2015010

Licensee: FirstEnergy Nuclear Operating Company

Facility: Perry Nuclear Power Plant

Location: North Perry, Ohio

Dates: August 27 through November 23, 2015

Inspectors: T. Go, Health Physicist
J. Cassidy, Senior Health Physicist

Approved by: H. Peterson, Chief
Health Physics and Incident Response Branch
Division of Reactor Safety

SUMMARY

Inspection Report 05000440/2015010, 08/27/2015–11/23/2015, Perry Nuclear Power Plant; Routine Baseline Inspection.

This report covers an inspection by a regional Health Physics inspector. One findings was identified by the inspectors that was considered a Green cited violation of the U.S. Nuclear Regulatory Commission (NRC) regulations. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red), and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

NRC-Identified and Self-Revealed Violations

Cornerstone: Occupational Radiation and Public Radiation Safety

- **Green.** The inspectors identified a finding of very low safety significance, and an associated violation of Technical Specification (TS) 5.3.1 when an unqualified individual was designated and performed the duties of the Radiation Protection Manager since early 2015. Specifically, the individual did not have the required experience and background necessary to provide sound judgement for safe and successful operation of the plant. This designation occurred after an April 29, 2015 report documented an internal review by the licensee's Fleet Oversight group that concluded that the candidate did not meet qualifications of TS 5.3.1. The NRC determined that this violation did not meet the criteria to be treated as a Non-Cited Violation because this issue was not documented in the licensee's Corrective Action Program. In addition, the licensee's staff communicated to the inspector that no violation of TS had taken place.

The inspectors determined that the performance deficiency was more than minor in accordance with IMC 0612 because it was associated with the human performance attribute of the Occupational Radiation Safety Cornerstone, and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that the lack of experience and background necessary to provide sound judgement for the Radiation Protection Program affects the licensee's ability to control and limit radiation exposures. The finding was determined to be of very low safety significance (Green) in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," because it was not an as-low-as-reasonably-achievable planning issue, there was neither an overexposure nor a substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The inspectors concluded that the cause of the issue involved a cross-cutting aspect in the area of Human Performance, change management, because the licensee did not use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. (Section 4OA2) (H.3)

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems (71152)

Cornerstones: Occupational Radiation Safety and Public Radiation Safety

.1 Selected Issue Follow-Up Inspection: Qualification Review for Recently Designated Radiation Protection Manager

a. Inspection Scope

During the conduct of routine baseline inspections, the inspectors reviewed the qualifications of a recently designated Radiation Protection Manager (RPM). As this individual was new to the position at the station and within the industry, the inspectors performed a detailed review of the individual's education and experience to assess compliance with U.S. Nuclear Regulatory Commission (NRC) requirements.

This review constituted one in-depth problem identification and resolution sample as defined in Inspection Procedure 71152-05.

b. Finding

Introduction: The inspectors identified a finding and violation of NRC requirements when an unqualified individual was designated and performed the duties of the Radiation Protection Manager since early 2015. This designation occurred after an April 29, 2015, report documented an internal review by the licensee's Fleet Oversight group that concluded that the candidate did not meet qualifications of Technical Specification (TS) 5.3.1 and Regulatory Guide (RG) 1.8, dated September 1975.

Description: The inspectors determined that the individual designated and performed the duties of the Radiation Protection Manager since April 2015 did not meet qualifications of TS 5.3.1 and RG 1.8, dated September 1975.

The TS 5.3.1 states: "Each member of the Unit staff shall meet or exceed the minimum qualifications of [American National Standards Institute] ANSI N18.1-1971 for comparable positions as modified by Specification 5.2.2.f, except for the radiation protection manager, who shall meet or exceed the qualifications of RG 1.8, September 1975, and the licensed Reactor Operators and Senior Reactor Operators, who shall comply with the requirements of [Title] 10, [Code of Federal Regulations] CFR, [Part] 55."

The inspectors noted that ANSI 18.1-1971 included a defined standard for the qualification for the Radiation Protection Professional. The NRC endorsed these standards for all positions EXCEPT for Radiation Protection Supervisor or Manager. The NRC determined that more specialized expertise beyond qualifications presented in ANSI N18.1-1971 was needed. Regulatory Guide 1.8-September 1975 was developed by the NRC to address these shortcomings and described the experience and background necessary to provide sound judgement for safe and successful operation of the plant. Some of these qualities covered in the document included:

- an experienced professional in applied radiation protection at nuclear facilities dealing with radiation protection problems and programs similar to those at nuclear power stations;
- be familiar with the design features and operations of nuclear power stations that affect the potential for exposures of personnel to radiation; and
- have the technical competence to establish Radiation Protection Programs and the supervisory capability to direct the work of professionals and technicians, required to implement the radiation protection programs.

Additionally, RG 1.8-September 1975 prescribed these experiences to ensure the qualities were present:

- a bachelor's degree or the equivalent in a science or engineering subject, including some formal training in radiation protection;
- at least 5 years of professional experience in applied radiation protection; and
- at least 3 years of this professional experience should be in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered in nuclear power stations, preferably in an actual nuclear power station.

The inspectors noted that the topic of professional experience for the Radiation Protection Manager was previously addressed and documented in NUREG/CR-5569, "Health Physics Positions Data Base". Specifically, HPPOS-018 which concluded that technician experience was not equivalent to professional experience and HPPOS-020, which concluded that the attributes of a good RPM are considered to be gained almost exclusively by specialized on-the-job, practical and supervisory experience rather than through the broad generalized academic training received by a person with a bachelor's degree. The inspectors determined that the only radiation protection experience listed on the resume provided was attributed to radiation protection technician between 2005 and 2007.

The inspectors noted that an internal review was conducted by the licensee's Fleet Oversight group that concluded that the candidate did not meet qualifications of TS 5.3.1 and RG 1.8, dated September 1975. This report was dated April 29, 2015.

The inspectors reviewed a letter to file that acknowledged the RPM selection was made after the Director, Site Operations considered the concerns identified by Fleet Oversight. The letter indicated the candidate met all of the minimum qualification requirements as required by the Quality Assurance Program Manual and ANSI N18.1-1971. The letter stated that some concerns with the minimum time of professional experience had been raised and identified actions to address any potential vulnerabilities with selecting an RPM with "non-traditional experience." These actions were:

- Completion of National Registry of Radiation Protection Technologists Certification Exam within 1 year.
- Consult with another individual on the staff with prior RPM experience or a Fleet RPM and the Director Site Operations for any of the following issues:
 - issues or actions requiring internal dosimetry assessment that does not include a Certified Health Physicist;

- issues or actions involving Very-High Radiation Area; and
- issues or actions involving an anticipated accumulated dose greater than 1000 mrem during a single entry for an individual radiation worker.

The inspectors noted that this letter referred to qualifications listed in ANSI 18.1-1971 were not germane to NRC requirements for the reason stated above. Additionally, the actions prescribed in the letter to file did not restore compliance to NRC requirements.

There have been multiple communications between the NRC and First Energy Nuclear Operating Company (FENOC) regarding the regulatory requirements of the RPM. Specifically, on or about August 21, 2015, FENOC contacted Office of Nuclear Reactor Regulation (NRR)-Project Manager for the Perry Station to request for specific examples from NRR-Radiation Protection and Consequences Branch. The NRR Project Manager provided FENOC with the plant name, Comanche Peak, and text from the TS that authorized this separation of roles and responsibilities that FENOC wanted to emulate. The licensee indicated that they were looking for background information to assess an appropriate path and were not ready for any formal communications such as a TS pre-application conference.

Additionally, during the week of August 28, 2015, NRC inspectors notified the Site Vice President that the designated RPM did not satisfy the qualification requirements for the position. The licensee did not provide any additional information regarding the individual's qualifications and the issue was not entered into the Corrective Action Process. Also, on or about September 18, 2015, NRC – RIII/Division of Reactor Safety (DRS) Division Director called the Site Vice President to determine the status of the RPM at the site. The Site Vice President was aware of the NRC's concerns regarding the RPM qualifications for the position and questioned the enforceability of the RPM experience standards in the TSs for the plant. The Site Vice President indicated that Perry management put measures into place to ensure that qualified individuals are signing off on required radiation protection issues prior to the RPM's. NRC – RIII/DRS Division Director determined that there was no immediate risk to the health and safety of Perry staff or the public and the discussion did not provide any new information regarding the professional experience that should be considered as the NRC evaluated the qualifications of the current RPM or qualification requirements for the position.

Analysis: The inspectors identified a performance deficiency in that, an unqualified individual was designated and performed the duties of the RPM. Specifically, the individual did not have the required experience and background to necessarily provide sound judgement for safe and successful operation of the plant.

This activity was within the licensee's ability to foresee and should have been prevented as the concerns were initially raised by the Fleet Nuclear Oversight group before the selection was made. The finding was not subject to traditional enforcement since the incident did not impact the NRC's ability to perform its regulatory function and was not willful.

The inspectors reviewed the guidance in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," and did not find any similar examples. The performance deficiency was determined to be of more than minor safety significance in accordance with IMC 0612, Appendix B, "Issue Screening," because it was associated with the human performance attribute of the Occupational Radiation Safety Cornerstone,

and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that the lack of experience and background necessary to provide sound judgement for the Radiation Protection Program affects the licensee's ability to control and limit radiation exposures.

Since the finding involved occupational radiation safety, the inspectors utilized IMC 0609, Appendix C, "Occupational Radiation Safety Significant Determination Process," to assess its significance. Specifically, the inspectors determined that the finding did not involve: (1) as low as is reasonably achievable planning and controls; (2) a radiological overexposure; (3) a substantial potential for an overexposure; and (4) a compromised ability to assess dose. Consequently, the NRC determined that the finding was GREEN or very low safety significance.

The finding has a cross cutting aspect in the area of human performance, change management, because the licensee did not use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. (H.3)

Enforcement: The TS 5.3.1 states: "Each member of the Unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions as modified by TS 5.2.2.f, except for the RPM, who shall meet or exceed the qualifications of RG 1.8, September 1975, and the licensed Reactor Operators and Senior Reactor Operators, who shall comply with the requirements of 10 CFR Part 55." RG 1.8, September 1975 requires at least 5 years of professional experience in applied radiation protection with at least 3 years of this professional experience in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered in nuclear power stations, preferably in an actual nuclear power station.

Contrary to the above, on April 28, 2015, an individual was designated and performed the duties of the RPM failed to meet the professional experience as required by TS 5.3.1 as specified in RG 1.8.

Although the failure to meet TS 5.3.1 was determined to be of very low significance, the licensee failed to enter the issue into the Corrective Action Program, and failed to restore compliance. Therefore, this finding is being cited as a Notice of Violation in accordance with the NRC Enforcement Policy Section 2.3.2.a. The Notice of Violation is attached to this inspection report.

4OA6 Management Meetings

.1 Exit Meeting Summary

- On November 30, 2015, the inspectors presented the inspection results to Mr. E. Harkness and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

D. Hamilton, Director Plant Operations
E. Harkness, Site Vice President
L. Zerr, Regulatory Compliance Supervisor

U.S. Nuclear Regulatory Commission

K. Green; Project Manager
R. Pedersen, Sr. Health Physicist
U. Shoop, Branch Chief

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000440/2015010-01 NOV Unqualified Radiation Protection Manager

Closed and Discussed

None

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access and Management System
ANSI	American National Standards Institute
CFR	<i>Code of Federal Regulations</i>
DRS	Division of Reactor Safety
FENOC	First Energy Nuclear Operating Company
IMC	Inspection Manual Chapter
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
PARS	Publicly Available Records
RIII	Region III
RG	Regulatory Guide
RPM	Radiation Protection Manager
TS	Technical Specification

LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

40A2 Problem Identification and Resolution

- Perry Technical Specifications 5.3.1; Unit Staff Qualifications
- Perry Technical Specifications 5.2.1(d)
- RG 1.8; Personnel Selection and Training; Rev. 1-R; dated 09/1975
- American National Standard; ANSI N18.7-1971; Selection and Training of Nuclear Power Plant Personnel; dated 03/08/71
- NUREG/CR-5569; Health Physics Position Data Base; Rev. 1; dated 02/1994
- Health Physics Position; HPPOS-018; Qualification of Radiation Protection Manager - RG 1.8, Rev. 1; dated 08/05/82
- Health Physics Position; HPPOS-020; Clarification of RG 1.8 on Qualification of RPM; dated 10/11/77
- Quality Assurance Program Manual; FENOC; Perry Nuclear Power Plant; Rev. 19; dated 09/23/13
- FENOC Fleet Oversight FMOV 15-001; RG 1.8; dated 04/29/15
- Memo to File – Selection for Perry RPM; Date not Provided

E. Harkness

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In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Perry Nuclear Power Plant.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Hironori Peterson, Chief
Health Physics and Incident Response Branch
Division of Reactor Safety

Docket No. 50-440
License No. NPF-58

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IR 05000440/2015010
w/Attachment: Supplemental Information

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