



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
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ATLANTA, GEORGIA 30303-1200

April 4, 2018

Michael Yox  
VEGP 3 & 4 Regulatory Affairs Director  
Southern Company  
7825 River Road  
Waynesboro, GA 30830

SUBJECT: ERRATA FOR VOGTLE UNIT 3 COMBINED LICENSE, VOGTLE UNIT 4  
COMBINED LICENSE NRC INTEGRATED REPORTS 05200025/2017004,  
05200026/2017004

Dear Mr. Yox:

On February 14, 2017, the U.S. Nuclear Regulatory Commission (NRC) issued the subject report, Agencywide Documents Access and Management System (ADAMS) Accession Number ML18045A476. In reviewing this report, the NRC found an error in the disposition of a Green Non-Cited Violation (NCV) 2017004-002 that requires further clarification. This issue is being changed to a finding with no violation of NRC requirements. This issue was cited against your combined operating license Appendix A, Technical Specifications, which were not in effect at the time of the inspection. Accordingly, we are providing a revised version. We request that you replace page 1 of the cover letter, pages 3-4, 73-75 of the Enclosure, and page 2 of the Attachment of the report with the revised pages in the Enclosure to this letter.

In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's ADAMS. ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction.

Sincerely,

**/RA/**

Jamie Heisserer, Chief  
Construction Inspection Branch 1  
Division of Construction Oversight

Docket Nos.: 5200025, 5200026  
License Nos: NPF-91, NPF-92

Enclosure: Replacement pages 3-4, 73-75 of the Enclosure, and page 2 of the Attachment  
for NRC Integrated Inspection Reports 05200025/2017004 and  
05200026/2017004

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Letter to Michael Yox from Jamie Heisserer dated April 4, 2018.

SUBJECT: ERRATA FOR VOGTLE UNIT 3 COMBINED LICENSE, VOGTLE UNIT 4  
COMBINED LICENSE NRC INTEGRATED REPORTS 05200025/2017004,  
05200026/2017004

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February 14, 2018

Michael Yox  
Regulatory Affairs Director  
Southern Nuclear Operating Company  
7835 River Road, Bldg. 140, Vogtle 3 & 4  
Waynesboro, GA 30830

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 - NRC  
INTEGRATED INSPECTION REPORTS 05200025/2017004,  
05200026/2017004

Dear Mr. Yox:

On December 31, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Vogtle Electric Generating Plant, (VEGP) Units 3 and 4. The enclosed inspection report documents the inspection results, which the inspectors discussed on January 18, 2018 with Mr. Mark Rauckhorst and other members of your staff. The results of this inspection are documented in the enclosed report.

The inspection examined a sample of construction activities conducted under your Combined License (COL) as it relates to safety and compliance with the Commission's rules and regulations and with the conditions of these documents. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

NRC inspectors documented two findings of very low safety significance (Green) in this report. Both findings involved violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest the violations or significance of these NCVs, 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 II; the Director, Office of Enforcement; and the NRC resident inspector at the VEGP Units 3 and 4.

If you disagree with a cross-cutting aspect assignment, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; and the NRC resident inspector at the VEGP Units 3 and 4.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the Code of Federal Regulations (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Enclosure

February 14, 2018

Michael Yox  
Regulatory Affairs Director  
Southern Nuclear Operating Company  
7835 River Road, Bldg. 140, Vogtle 3 & 4  
Waynesboro, GA 30830

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 - NRC  
INTEGRATED INSPECTION REPORTS 05200025/2017004,  
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NRC inspectors documented two findings of very low safety significance (Green) in this report. One finding involved a violation of NRC requirements. The NRC is treating this violation as a non-cited violation consistent with Section 2.3.2.a of the NRC Enforcement Policy. The second finding did not involve a violation of NRC requirements.

If you contest the violations or significance of these findings, 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 II; the Director, Office of Enforcement; and the NRC resident inspector at the VEGP Units 3 and 4.

If you disagree with a cross-cutting aspect assignment, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; and the NRC resident inspector at the VEGP Units 3 and 4.

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## SUMMARY OF FINDINGS

Inspection Report (IR) 05200025/2017004, 05200026/2017004; 10/01/2017 through 12/31/2017; Vogtle Electric Generating Plant Units 3 and 4, Inspection of the ITAAC-Related Design and Fabrication Requirements and Part 52, Offsite Dose Calculation Manual (ODCM).

This report covers a three month period of inspection by regional and resident inspectors, and announced Inspections, Tests, Analysis, and Inspection Criteria (ITAAC) inspections by regional inspectors. Two green findings, each with an associated NCV in the Design/Engineering cornerstone and Operational Readiness cornerstone were identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 2519, "Construction Significance Determination Process". Construction Cross Cutting Aspects are determined using IMC 0613, "Power Reactor Construction Inspection Reports." The NRC's program for overseeing the construction of commercial nuclear power reactors is described in IMC 2506, "Construction Reactor Oversight Process General Guidance and Basis Document."

### A. NRC-Identified and Self Revealed Findings

Green – The NRC identified an ITAAC finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50.55a(b), for the licensee's failure to demonstrate compliance with American Society of Mechanical Engineers (ASME) Code Section III, 1998 Edition with Addenda 1999 through 2000, Section NB-3222.2, "Primary Plus Secondary Stress Intensity." The inspectors identified that the licensee failed to ensure that the maximum range of stress intensities for the passive residual removal heat exchanger (PRHR HX) tube sheet and the core makeup tank (CMT) inlet nozzle were within ASME Code allowable limits for Service Level A/B conditions which was a performance deficiency. The licensee entered this finding into their corrective action program (CAP) as Condition Report (CR) 10402072, CR 10402069, CR 10454090, Corrective Action Prevention and Learnings (CAPAL) 100489810, and CAPAL 100489811 and took corrective actions to perform additional analyses after removing calculation conservatism to reevaluate the stress cut locations in question in order to show ASME Code compliance.

The finding was determined to be more than minor because the performance deficiency represented an adverse condition that rendered the quality of components indeterminate, and required substantive corrective action. The inspectors determined this finding was associated with the Design/Engineering Cornerstone. Using IMC 2519, Appendix A, "AP1000 Construction Significance Determination Process," the inspectors determined that the finding was associated with a system or structure; it was associated with the Passive Core Cooling System (PXS) system which is assigned to the high risk importance column of the AP1000 Construction Significance Determination Matrix, and the licensee was able to demonstrate with reasonable assurance that the design function of the applicable structure or system would not be impaired by the deficiency. Therefore, this finding was of very low safety significance (Green). The inspectors determined the finding was indicative of present licensee performance and was associated with the cross-cutting aspect of Conservative Bias, H.14, in the area of Human Performance, in accordance with IMC 0613, Appendix F, "Construction Cross-Cutting Areas and Aspects." (1A11, 1A38)

Green - The inspectors identified an NCV of Technical Specification (TS) 5.5.1 of very low safety significance for the licensee's failure to include accurate parameters in the ODCM for the calculation of offsite radiation doses due to routine gaseous effluent releases. Specifically, the



## SUMMARY OF FINDINGS

Inspection Report (IR) 05200025/2017004, 05200026/2017004; 10/01/2017 through 12/31/2017; Vogtle Electric Generating Plant Units 3 and 4, Inspection of the ITAAC-Related Design and Fabrication Requirements and Part 52, Offsite Dose Calculation Manual (ODCM).

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### A. NRC-Identified and Self Revealed Findings

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Green – The inspectors identified a construction finding of very low safety significance (Green) for the licensee's failure to include accurate parameters in the ODCM for the calculation of offsite radiation doses due to routine gaseous effluent releases. Specifically, the ODCM

ODCM contained long-term atmospheric dispersion factors that were less conservative than those used in the Updated Final Safety Analysis Report (UFSAR) and Early Site Permit to demonstrate compliance with 10 CFR 20 and 10 CFR 50, Appendix I. The licensee documented this issue in CR 10437502 and has planned corrective actions including re-evaluation of the dispersion values contained in the ODCM by an independent subject matter expert.

The finding was of more than minor significance because it was associated with the Operational Readiness Cornerstone, Program Effectiveness Attribute of Process and Effluent Monitoring, and adversely affected the associated cornerstone objective to ensure licensees adequately develop and implement the operational programs required by a license condition or regulation. The finding has a cross-cutting aspect in the area of Human Performance, Conservative Bias [H.14], because the dispersion parameters incorporated into the ODCM were less conservative than the ones used in the approved licensing basis documents (3P02).

#### **B. Licensee-Identified Violations**

None

contained long-term atmospheric dispersion factors that were less representative of current meteorological conditions and less conservative than those used in the UFSAR and ESP to demonstrate compliance with 10 CFR 20 and 10 CFR 50, Appendix I. The licensee documented this issue in CR 10437502 and has planned corrective actions including re-evaluation of the dispersion values contained in the ODCM by an independent subject matter expert.

The finding was of more than minor significance because it was associated with the Operational Readiness Cornerstone, Program Effectiveness Attribute of Process and Effluent Monitoring, and adversely affected the associated cornerstone objective to ensure licensees adequately develop and implement the operational programs required by a license condition or regulation. The finding has a cross-cutting aspect in the area of Human Performance, Conservative Bias [H.14], because the dispersion parameters incorporated into the ODCM were less conservative than the ones used in the approved licensing basis documents (3P02). The finding is not greater than Green because the finding is not an omission of the ODCM's critical attributes.

## **B. Licensee-Identified Violations**

None

- 83746-02.03 - Program Management

a. Inspection Scope

Inspection Procedure 83746 – Part 52, Offsite Dose Calculation Manual (ODCM)

Radioactive Effluents (Section 02.02)

The inspectors reviewed controls for gaseous effluent releases contained in the ODCM, Revision 0, and compared them against the requirements of NUREG-1301 and NEI 07-09A. Specifically, the inspectors reviewed release rate controls, compensatory actions, surveillance requirements, representative sampling controls, provisions for submitting special reports, and dose and dose rate limits for gaseous effluent releases.

The inspectors reviewed the ODCM methodology for calculating gaseous effluent release concentrations and compared it against the requirements of NUREG-1301. Specifically, the inspectors reviewed release equations and parameters including volumes, flow rates, dilution factors, and activity conversions.

The inspectors reviewed the ODCM methodology for calculating offsite doses from gaseous effluent releases and compared it against the requirements of NUREG-1301 and UFSAR Ch. 2, "Site Characteristics". Specifically, for this particular inspection activity (IP item 02.02(c)2), the inspectors reviewed the licensee's long-term atmospheric dispersion factors and atmospheric depletion factors needed to calculate offsite doses.

Program Management (Section 02.03)

The inspectors reviewed the ODCM requirements for the Annual Land Use Census and compared them against NUREG-1301 and NEI 07-09A. Specifically, the inspectors reviewed the Census frequency and methods used to update effluent dose parameters.

The inspectors reviewed the ODCM description of the Annual Radiological Environmental Operating Report, the Annual Radioactive Effluent Release Report, and special reports to determine whether they met the requirements of NUREG-1301 and NEI 07-09A.

The inspectors reviewed two self-assessments in the areas of environmental monitoring and effluent controls for Units 3 and 4 to determine if identified ODCM deficiencies are being captured in the licensee's CAP.

b. Findings

Introduction

The inspectors identified an NCV of TS 5.5.1 of very low safety significance (Green) for the licensee's failure to include accurate parameters in the ODCM for the calculation of offsite radiation doses due to routine gaseous effluent releases. Specifically, the ODCM contained long-term atmospheric dispersion factors

- 83746-02.03 - Program Management

a. Inspection Scope

Inspection Procedure 83746 – Part 52, Offsite Dose Calculation Manual (ODCM)

Radioactive Effluents (Section 02.02)

The inspectors reviewed controls for gaseous effluent releases contained in the ODCM, Revision 0, and compared them against the requirements of NUREG-1301 and NEI 07-09A. Specifically, the inspectors reviewed release rate controls, compensatory actions, surveillance requirements, representative sampling controls, provisions for submitting special reports, and dose and dose rate limits for gaseous effluent releases.

The inspectors reviewed the ODCM methodology for calculating gaseous effluent release concentrations and compared it against the requirements of NUREG-1301. Specifically, the inspectors reviewed release equations and parameters including volumes, flow rates, dilution factors, and activity conversions.

The inspectors reviewed the ODCM methodology for calculating offsite doses from gaseous effluent releases and compared it against the requirements of NUREG-1301 and UFSAR Ch. 2, "Site Characteristics". Specifically, for this particular inspection activity (IP item 02.02(c)2), the inspectors reviewed the licensee's long-term atmospheric dispersion factors and atmospheric depletion factors needed to calculate offsite doses.

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The inspectors reviewed the ODCM requirements for the Annual Land Use Census and compared them against NUREG-1301 and NEI 07-09A. Specifically, the inspectors reviewed the Census frequency and methods used to update effluent dose parameters.

The inspectors reviewed the ODCM description of the Annual Radiological Environmental Operating Report, the Annual Radioactive Effluent Release Report, and special reports to determine whether they met the requirements of NUREG-1301 and NEI 07-09A.

The inspectors reviewed two self-assessments in the areas of environmental monitoring and effluent controls for Units 3 and 4 to determine if identified ODCM deficiencies are being captured in the licensee's CAP.

b. Findings

Introduction

The NRC identified a construction finding of very low safety significance (Green) for the licensee's failure to include accurate parameters in the ODCM for the calculation of offsite radiation doses due to routine gaseous effluent releases. Specifically, the ODCM contained long-term atmospheric dispersion factors that were less representative of

that were less conservative than those used in the UFSAR and ESP to demonstrate compliance with 10 CFR 20 and 10 CFR 50, Appendix I.

### Description

During a review of ODCM, Revision 0, Attachment 13, "Meteorological, Liquid, and Gaseous Pathway Analysis," the inspectors noted the licensee used meteorological data averaged over 3 years from January 1, 1985 – December 31, 1987 to calculate long-term atmospheric dispersion (X/Q) and deposition (D/Q) factors. Attachment 13 stated that these X/Q and D/Q values were different than those used in the UFSAR and ESP and that an evaluation had been performed to justify their use. The inspectors reviewed this evaluation and determined it contained three sets of meteorological data from the Vogtle Meteorological Tower: 1985 – 1987 (ODCM values), 1998 – 2002 (UFSAR and ESP values), and 2011 – 2015 (new data set from a meteorology contractor). For different locations at and beyond the site boundary, a comparison was made of the X/Q and D/Q values from the different time periods. The inspectors noted the 1985 - 1987 values were the least conservative at every point evaluated and would result in lower estimates of public dose when compared to the other data sets. In particular, an independent NRC evaluation of X/Q values for ground level releases at the controlling receptor location showed that using the 1998 – 2002 data from the UFSAR and ESP would result in dose estimates 115% greater than using the 1985 – 1987 data in the ODCM. Guidance on how to interpret meteorological data for evaluating effluent releases is provided in RG 1.21, "Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste", Revision 2. This RG states that long-term meteorological data should be periodically reviewed and if the review shows the old X/Q and D/Q values are no longer conservative by a factor of 10% or more, then the licensee should revise the values or provide documentation why they were not. However, the licensee's evaluation used an acceptance criteria of <100% difference between values, which was based on informal discussions between licensee staff and industry peers at a technical conference. Based on these observations, the inspectors determined the licensee's evaluation was inadequate to justify the use of dispersion factors in the ODCM that are less conservative than those used in the UFSAR and ESP to demonstrate compliance with 10 CFR 20 and 10 CFR 50, Appendix I. The inspectors noted there have been no actual releases of radioactive effluents from Vogtle Units 3 and 4. The licensee documented this issue in CR 10437502.

### Analysis

The failure to include accurate long-term atmospheric dispersion factors in the ODCM was a performance deficiency. The finding was of more than minor significance because it was associated with the Operational Readiness Cornerstone, Program Effectiveness Attribute of Process and Effluent Monitoring, and adversely affected the associated cornerstone objective to ensure licensees adequately develop and implement the operational programs required by a license condition or regulation. Using less conservative X/Q and D/Q values to calculate doses to the public from routine gaseous effluent releases could lead to an overestimate of the margin available to demonstrate compliance with regulatory limits. The significance of the finding was evaluated using the Public Radiation Safety Significance Determination Process. The finding did not involve a substantial failure to implement the effluent monitoring program and doses to the public are still expected to be a small

current meteorological conditions and less conservative than those used in the UFSAR and ESP to demonstrate compliance with 10 CFR 20 and 10 CFR 50, Appendix I.

### Description

During a review of ODCM, Revision 0, Attachment 13, "Meteorological, Liquid, and Gaseous Pathway Analysis," the inspectors noted the licensee used meteorological data averaged over 3 years from January 1, 1985 – December 31, 1987 to calculate long-term atmospheric dispersion (X/Q) and deposition (D/Q) factors. Attachment 13 stated that these X/Q and D/Q values were different than those used in the UFSAR and ESP and that an evaluation had been performed to justify their use. The inspectors reviewed this evaluation and determined it contained three sets of meteorological data from the Vogtle Meteorological Tower: 1985 – 1987 (ODCM values), 1998 – 2002 (UFSAR and ESP values), and 2011 – 2015 (newest data set from a meteorology contractor). For different locations at and beyond the site boundary, a comparison was made of the X/Q and D/Q values from the different time periods. The inspectors noted the 1985 - 1987 values were the least conservative at every point evaluated and would result in lower estimates of public dose when compared to the other data sets. In particular, an independent NRC evaluation of X/Q values for ground level releases at the controlling receptor location showed that using the more recent 1998 – 2002 data from the UFSAR and ESP would result in dose estimates 115% greater than using the 1985 – 1987 data in the ODCM. Guidance on how to interpret meteorological data for evaluating effluent releases is provided in RG 1.21, "Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste", Revision 2. This RG states that long-term meteorological data should be periodically reviewed and if the review shows the old X/Q and D/Q values are no longer conservative by a factor of 10% or more, then the licensee should revise the values or provide documentation why they were not. However, the licensee's evaluation used an acceptance criteria of <100% difference between values, which was based on informal discussions between licensee staff and industry peers at a technical conference. Based on these observations, the inspectors determined the licensee's evaluation was inadequate to justify the use of long-term dispersion factors that were less representative of current atmospheric conditions and less conservative than those used in UFSAR Section 2.3.5 and ESP Section 2.3.3.3.2 to demonstrate compliance with 10 CFR 20 and 10 CFR 50, Appendix I. The inspectors noted there have been no actual releases of radioactive effluents from Vogtle Units 3 and 4. The licensee documented this issue in CR 10437502.

### Analysis

The inclusion of less representative and less conservative long-term atmospheric dispersion factors in the ODCM operational program, compared to those used in the UFSAR and ESP, was a performance deficiency. The finding was of more than minor significance because it was associated with the Operational Readiness Cornerstone, Program Effectiveness Attribute of Process and Effluent Monitoring, and adversely affected the associated cornerstone objective to ensure licensees adequately develop and implement the operational programs required by a license condition or regulation. Using less representative and less conservative dispersion factors to calculate doses to the public from routine gaseous effluent releases could lead to an overestimate of the margin available to demonstrate compliance with regulatory limits. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 2519, "Construction Significance Determination Process," Appendix A, "AP 1000 Construction

fraction of the 10 CFR 50 Appendix I limits. Therefore, the inspectors determined the finding was of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Human Performance, Conservative Bias [H.14], because the dispersion parameters incorporated into the ODCM were less conservative than the ones used in the approved licensing basis documents.

### Enforcement

Technical Specification 5.5.1 states, in part, the ODCM shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents. Contrary to this, on April 17, 2017, when Revision 0 was issued, the ODCM did not contain accurate parameters used in the calculation of offsite doses resulting from radioactive gaseous effluents. The licensee entered this violation into the CAP (CR10437502). Planned corrective actions include re-evaluation of the X/Q and D/Q values contained in the ODCM by an independent subject matter expert. This violation is being treated as an NCV, in accordance with Section 2.3.2 of the NRC Enforcement Policy. NCV 0520025/2017004-02, 0520026/2017004-02; Failure to Include Accurate Atmospheric Dispersion Factors in the Offsite Dose Calculation Manual.

### 3P03 Process and Effluent Monitoring - Inspection Procedure 80522 – Part 52, Radiological Environmental Monitoring Program (REMP)

- 80522 - Part 52, Radiological Environmental Monitoring Program (REMP)
- 80522-02.01 - Readiness of the Radiological Environmental Monitoring Program (REMP)
- 80522-02.02 - Implementation of the Meteorological Monitoring Program
- 80522-02.03 - Program Management

#### a. Inspection Scope

##### Readiness of the REMP (Section 02.01)

From a review of the UFSAR and discussions with licensee staff, the inspectors noted that Vogtle Units 3 and 4 are co-located with Units 1 and 2 and share the same site boundary. In addition, Units 3 and 4 are designed to release low levels of radioactive effluents to the immediate environs around the site in a similar manner to Units 1 and 2 and will have similar pathways for exposure to a member of the public (i.e. gaseous releases to the atmosphere and liquid discharges to the Savannah River). Because of these factors, the licensee incorporated Units 3 and 4 into the existing environmental sampling and analysis program (REMP) currently in use for Units 1 and 2. This Technical Specification (TS)-required program was created based on the guidance in NUREG-1301, "Offsite Dose Calculation Manual: Standard Radiological Effluent Controls for Pressurized Water Reactors", and has been in operation since 1987. Since that time, the NRC has conducted REMP inspections at Vogtle Units 1 and 2 on a biennial basis to verify these activities are being performed in accordance with the requirements of the ODCM. The results of the most recent REMP inspection can be found in Unit 1 and Unit 2 inspection reports 0500424/2017004 and 0500425/2017004. On the basis of the incorporation of Units 3 & 4 into the existing REMP for Units 1 & 2, the inspectors did not perform operational readiness inspection activities for IP sections 02.01b-g.



Significance Determination Process”. The finding was not related to either a security program or an operational program after a license condition implementation milestone has occurred. The inspectors determined the finding was of very low safety significance (Green) because the finding was associated with an operational program prior to the implementation milestone and the finding was not an omission of a critical program attribute. In this case, critical program attributes are those attributes that would lead to a greater-than-green finding as defined in IMC 0609 Appendix D, “Public Radiation Safety Significance Determination Process”. The finding has a cross-cutting aspect in the area of Human Performance, Conservative Bias [H.14], because the dispersion parameters incorporated into the ODCM were less conservative than the ones used in the approved licensing basis documents.

#### Enforcement

The inspectors did not identify a violation of regulatory requirements associated with this finding because the Offsite Dose Calculation Manual operational program had not reached its license condition implementation milestone date. The licensee entered this issue into the CAP as CR 10437502. Because this finding does not involve a violation and has very low safety significance, it is identified as FIN 0520025/2017004-02, 0520026/2017004-02; Failure to Include Accurate Atmospheric Dispersion Factors in the Offsite Dose Calculation Manual.

#### 3P03 Process and Effluent Monitoring - Inspection Procedure 80522 – Part 52, Radiological Environmental Monitoring Program (REMP)

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### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Item Number</u>	<u>Type</u>	<u>Status</u>	<u>Description</u>
05200025/2017004-01, 05200026/2017004-01	Non Cited Violation	Open	PRHR Tube sheet and CMT Inlet Nozzle Stress Intensity Not Within ASME Code Allowable Limits
05200025/2017004-02, 05200026/2017004-02	Non Cited Violation	Open and closed	Failure to Include Accurate Atmospheric Dispersion Factors in the Offsite Dose Calculation Manual
05200025/2017002-02, 05200026/2017002-02	Unresolved Item	Closed	Extrapolation of Functional Qualification for PV11 MOVs

### LIST OF DOCUMENTS REVIEWED

#### Section 1A01

Qualification records for PCI Energy Services' welders M-1219 and M-1233  
 Lincoln Electric Company CMTR for welding filler metal lot 1182D  
 PCI Energy Services welding procedure 8 MC-GTAW Rev. 16  
 PCI Energy Services GQP-9.7, Solvent Removable Liquid Penetrant Examination and Acceptance Standards for Welds, Base Materials, and Cladding (40° - 125°), Rev. 17  
 PCI Energy Service Report of Nondestructive Examination for Visible, Solvent Removable Liquid Penetrant Examination Report-No. NDE-910962-064, 11-15-2017  
 WEC P&ID APP-RCS-M6-001, Piping and Instrumentation Diagram Reactor Coolant System, 10/29/12

#### Section 1A02

910962-012, "Install RCL Piping Weld No. SV3-RCS-PL01-FW-AHL02 for Vogtle Unit 3 SG Inlet Nozzle", Revision 0  
 910962-013, "Install RCL Piping Weld No.: SV3-RCS-PL01-FW-ACL03 for Vogtle Unit 3 Steam Generator Alpha RCP 1B Outlet Nozzle", Revision 0  
 910962-014, "Install RCL Piping Weld No.: SV3-RCS-PL01-FW-ACL05 for Vogtle Unit 3 Steam Generator Alpha RCP1A Outlet Nozzle", Revision 0  
 WCP-6, "Joint Design", Revision 0  
 MISTRAS 521-RT-302, Radiographic Examination Using Computed Radiography In Accordance with ASME Section V, Article 2, Rev. 0  
 PCI Energy Services, Dwg. No. AP1-0711, AP1000 Vogtle Unit 3 RCL Install Project # 910962, RCL Piping Weld Map, Rev. 0  
 MISTRAS Computed Radiography Examination Report P-17-RT-302-0045 (FW-BCL03), 11/30/2017  
 MISTRAS Computed Radiography Examination Report P-17-RT-302-0046 (FW-BCL05), 11/30/2017  
 MISTRAS Computed Radiography Examination Report P-17-RT-302-0047 (FW-BHL02), 12/05/2017  
 MISTRAS Computed Radiography Examination Report P-17-RT-302-0060 (FW-BCL04), 12/11/2017  
 MISTRAS Computed Radiography Examination Report P-17-RT-302-0061 (FW-BCL06), 12/11/2017

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05200025/2017004-02, 05200026/2017004-02	FINDING	Open and Closed	Failure to Include Accurate Atmospheric Dispersion Factors in the Offsite Dose Calculation Manual
05200025/2017002-02, 05200026/2017002-02	Unresolved Item	Closed	Extrapolation of Functional Qualification for PV11 MOVs

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 910962-014, "Install RCL Piping Weld No.: SV3-RCS-PL01-FW-ACL05 for Vogtle Unit 3 Steam Generator Alpha RCP1A Outlet Nozzle", Revision 0  
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 MISTRAS Computed Radiography Examination Report P-17-RT-302-0061 (FW-BCL06), 12/11/2017