



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

April 24, 2015

David A. Heacock
President and Chief Nuclear Officer
Virginia Electric & Power Company
North Anna Power Station, Units 1 & 2
Innsbrook Technical Center
5000 Dominion Blvd
Glen Allen, VA 23060

**SUBJECT: NORTH ANNA POWER STATION – NOTIFICATION OF INSPECTION
AND REQUEST FOR INFORMATION**

Dear Mr. Heacock:

On June 15 – 19, 2015, the U.S. Nuclear Regulatory Commission (NRC) will perform a baseline Occupational and Public Radiation Safety inspection at the North Anna Power Station, (NRC Inspection Procedure (IP) 71124.06 Radioactive Gaseous and Liquid Effluent Treatment; IP 71124.07 Radiological Environmental Monitoring Program; IP 71124.08 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation, and IP 71151 Performance Indicator Verification (Occupational and Public Radiation Safety Cornerstones).

Experience has shown that this inspection is resource-intensive for both the NRC inspectors and your staff. In order to minimize the impact to your onsite resources and to ensure a productive inspection, we have enclosed a request for documents needed for this inspection. It is important that all of these documents are up-to-date, and complete, in order to minimize the number of additional documents requested during the preparation and/or the on-site portions of the inspection. The NRC requests that these documents be provided to the inspectors no later than May 26, 2015.

We have discussed the schedule for these inspection activities with your staff, and understand that our regulatory contact for this inspection will be Jay Leberstien (540-894-2574) of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector Ruben Hamilton at 404-997-4672 (ruben.hamilton@nrc.gov).

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, under control number 3150-0011. The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement, unless the requesting document displays a currently valid Office of Management and Budget control number.

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 "Agency Rules of Practice and Procedure," a copy of this letter, and its Enclosure, will be available electronically for public inspection in the NRC Public Document Room, or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS); accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian R. Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-338 and 50-339
License Nos. NPF-4 and NPF-7

cc: Distribution via Listserv

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 "Agency Rules of Practice and Procedure," a copy of this letter, and its Enclosure, will be available electronically for public inspection in the NRC Public Document Room, or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS); accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian R. Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-338 and 50-339
License Nos. NPF-4 and NPF-7

cc: Distribution via Listserv

DISTRIBUTION:

S. Rose, RII, DRP
S. Ninh, RII, SR PE
B. Bishop, RII, PE
J. Parent, RII, RIDP
G. Kolcum, RII, SRI
G. Skaggs-Ryan, RII, RI
S. Price, RII, ORA/RC
L. Gibson, RII, EICS
RIDSNNRRDIRS
PUBLIC

☒ PUBLICLY AVAILABLE

☐ NON-PUBLICLY AVAILABLE

☐ SENSITIVE

☒ NON-SENSITIVE

ADAMS: ☒ Yes ACCESSION NUMBER: ML15114A326

☒ SUNSI REVIEW COMPLETE

☒ FORM 665 ATTACHED

OFFICE	RII:DRS/PSB1	RII:DRS/PSB1					
SIGNATURE	RKH1	BRB1					
NAME	R. Hamilton	B. Bonser					
DATE	4/ 23 /2015	4/ 24 /2015					
E-MAIL COPY	YES NO	YES NO					

OFFICIAL RECORD COPY

Pre-Inspection Document Request

Occupational and Public Radiation Safety Cornerstones

Licensee: North Anna Power Station

Docket Numbers: 50-338 and 50-339

Inspection Dates: June 15 – 19, 2015

Inspection Procedure:	71124.06	Radioactive Gaseous and Liquid Effluent Treatment
	71124.07	Radiological Environmental Monitoring Program
	71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation
	71151	Performance Indicator Verification

Note: The current version of these documents is expected unless specified otherwise. Electronic media is preferred, if readily available. (The preferred file format is Word, WordPerfect, or searchable “.pdf” files on CDROM.) *[Note that the inspectors cannot accept data provided on USB or “flash” drives due to NRC IT security policies.]* Please organize the information as it is arranged below to the extent possible. Experience has shown that a well-organized CD leads to a more efficient inspection, and lessens additional burden on licensee staff. During the inspection, the inspectors may request additional documents. If the licensee wishes to use an electronic document service such as CERTRAC, or a Shareware portal, the inspectors will try to accommodate for the documentation requested onsite. The initial documents should not require an internet connection to be reviewed.

Documents requested are referenced to last inspection date for that particular module.

If you have any questions, please call Ruben Hamilton at 404-997-4672. Thank you in advance for your efforts in putting together this material.

General Information Needed

- Contact phone numbers for:
 - radiation protection contacts
 - chemistry contacts
- Procedure for issuing Nuclear Condition Reports (CRs, Problem Evaluations Reports (PERs), and Service Requests (SRs)) and assessing issues for risk significance and followup actions.
- Updated Final Safety Analysis Report (FSAR) Chapters 11, Effluents/Radwaste; and Chapter 12 Radiation Protection.
- Current version/revision of the Offsite Dose Calculation Manual (ODCM).
- Annual Radiological Environmental Operating Report (AREOR) for calendar year (CY) 2013 and CY 2014.
- Annual Radiological Effluent Release Report (ARERR) documents for CY 2013 and CY 2014.
- Current 10 CFR Part 61 Analysis Results for dry active waste (DAW).

Enclosure

- Plant Management, Radiation Protection (RP), and Chemistry organizational charts with contact numbers.
- Corrective action program (CAP) procedure.
- Audits and self-assessments performed since the last inspection that encompass the areas of (1) radiological effluents; (2) radiological environmental monitoring, to include meteorological tower; (3) solid radioactive waste processing; and (4) shipping and transportation of radioactive material (RAM).

71124.06 - Radioactive Gaseous and Liquid Effluent Treatment

(Last Inspected 4/26/2013)

- Provide procedures/guidance documents for:
 - collection, analysis, release and dose evaluations for gaseous and/or liquid effluents (include guidance for both batch and continuous modes)
 - determination of set-points for main plant gaseous and liquid effluent discharge pathways
- Provide a list of any significant changes to the ODCM since April 26, 2013.
- Provide a list of significant changes to the radioactive effluent processing systems since April 26, 2013.
- Provide a list of any non-radioactive systems that have become contaminated since April 26, 2013.
- Provide a list of any abnormal gaseous or liquid releases identified since April 26, 2013.
- Provide last two gaseous effluent permits, and last two liquid effluent permits.
- Provide a list of 10 CFR 50.75(g) entries made since April 26, 2013.
- Provide system health reports for radiological effluent/process monitoring systems since April 26, 2013.
- Provide a list of the main liquid and gaseous effluent pathway process monitors listed as out-of-service (OOS) since April 26, 2013. *[Note: Do not include monitors listed as OOS for less than 24 hours.]*
- List of significant changes to the effluent monitoring program since April 26, 2013, as documented within the ODCM.
- Provide groundwater monitoring results since April 26, 2013.
- Inter-laboratory comparison program results (onsite count room) since April 26, 2013.
- Last two surveillance test results for Aux Building Ventilation, and both upper and lower Containment Purge Ventilation systems, on Unit 1. If advanced source term has not been adopted, include last set of charcoal surveillances.
- Copies of all audits, self-assessments, and/or reviews of liquid and gaseous effluent monitoring program activities since April 26, 2013. The data should include any reviews conducted of vendor activities and their facilities.
- List of Nuclear Condition Report documents (SR, PER, and CR) generated since April 26, 2013, as a result of gaseous and liquid effluent processing, and/or release activities including Engineered Safety Feature (ESF) ventilation systems. *[Note: Only titles/summary statement should be provided for use by the inspectors to select a sample of issues for in-depth review.]*

71124.07 - Radiological Environmental Monitoring Program

(Last Inspected 4/26/2013)

Prior to the Onsite Inspection

- Provide procedures/guidance documents for:
 - collection and analysis of environmental samples
 - calibration and maintenance of Radiological Environmental Monitoring Program (REMP) air and/or water samplers
 - calibration of meteorological monitoring instrument loop (wind speed & direction, air temperature sensors currently in use)
 - monthly/quarterly meteorological instrumentation surveillance requirements (control room and local tower activities)
- Records since April 26, 2013, for:
 - calibrations of REMP air and water sampling equipment (as applicable)
 - meteorological monitoring instrument calibrations (wind speed & direction, air temperature)
 - detailed inter-laboratory comparison program results (environmental lab)
- Copies of all audits, self-assessments, and/or reviews of REMP activities. The data should include any reviews conducted of vendor activities and their facilities.
- List of systems, structures, or components (SSCs), identified as credible mechanism(s) having the potential for release of licensed material to the groundwater environs.
- List of significant REMP changes documented within the ODCM since April 26, 2013.
- List of Nuclear Condition Reports (SR, PER, and CR) generated as a result of REMP activities since April 26, 2013. *[Note: Only titles/summary statement should be provide for use by the inspectors to select a sample of issues for in-depth review.]*

71124.08 - Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

(Last Inspected 4/26/2013)

- Site and corporate procedures associated with radioactive waste processing and handling, storage, and transportation of RAM, including:
 - storage and handling of RAM, including non-radiological controlled area (RCA) and satellite RCA locations
 - waste stream mixing, sampling, concentration averaging, and use of scaling factors
 - monitoring impact of long-term storage (e.g., buildup of gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, re-release of free-flowing water)
 - transferring of resin and/or sludge into shipping/disposal containers, dewatering and waste stabilization
 - preparing packages and documentation for shipping RAMs
 - list of RAM storage areas, including satellite RCAs
 - process control program
- List of changes to the radioactive waste processing systems since April 26, 2013, and copies of the associated 10 CFR 50.59 screening documentation.
- Log of RAM shipments (LSA I, II, III; SCO I, II, Type A, or Type B) since April 26, 2013. (The inspectors will select three to five packages to review in detail.)
- List of CRs (SR, PER) generated since April 26, 2013, related to radioactive solid waste processing and packaging, handling, storage, and shipping of RAMs.

71151 - Performance Indicator Verification

(Last Inspected 9/26/2014)

- Site procedures/manuals for gathering and reporting performance indicator (PI) data.
- Monthly/Quarterly PI reports since September 26, 2014, and copies of associated CRs for any Radiological Effluent Technical Specifications (RETS)/ODCM Radiological Effluent occurrences.
- End of CY 2013 liquid and gaseous effluent release permits which specify the monthly, quarterly, and annual curies released by isotope, and associated public dose assessments.
- List of all corrective action documents since September 26, 2014, using keywords such as: high radiation area (HRA), locked high radiation area (LHRA), very high radiation area (VHRA), unintended dose, unlocked door, etc.
- List of all electronic dosimeter (ED) dose rate alarms and ED dose alarms since September 26, 2014.
- List of all corrective action reports generated since September 26, 2014, using keywords abnormal/ unmonitored effluent release, etc.

Inspector Contact Information:

Ruben Hamilton

404-997-4672

ruben.hamilton@nrc.gov**Mailing Address:**US Nuclear Regulatory Commission,
Region II

ATTN: Ruben Hamilton

245 Peachtree Center Ave., NE

Suite 1200

Atlanta, GA 30303

LIST OF ACRONYMS

AREORs	Annual Radiological Environmental Operating Reports	OOS	Out-of-Service
ARERRs	Annual Radiological Effluent Release Reports	PI	Performance Indicator
CAP	Corrective Action Program	RAM	Radioactive Material
CR	Condition Report	REMP	Radiological Environmental Monitor Programs
CY	Calendar Year	RCA	Radiological Controlled Area
DAW	Dry Active Waste	RETS	Radiological Effluent Technical Specifications
ED	Electronic Dosimeter	RP	Radiation Protection
ESF	Engineered Safety Feature	SER	Safety Evaluation Report
FSAR	Final Safety Analysis Report	SR	Service Request
HRA	High Radiation Area	SSCs	Systems, Structures, or Components
LHRA	Locked High Radiation Area	VHRA	Very High Radiation Area
ODCM	Offsite Dose Calculation Manual		