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

August 13, 2010

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

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

Dear Mr. Christian:

During the periods of September 13 – 17 and September 27 and October 1, 2010, the NRC will perform the baseline Occupational and Public Radiation Safety Inspection at the North Anna Nuclear Power Station, (NRC Inspection Procedures 71124.01, 71124.02, 71124.03, 71124.05, Radiation Safety Sections of 71151, and TI 2515/179). 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 on-site 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 onsite portions of the inspection. We request that the documents on the enclosed list be provided in the form of computer readable optical media such as a CD.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Jay Leberstein of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector, Wade T. Loo, at (404) 997-4727.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," 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 document 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/

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

Docket Nos.: 50-338, 50-339
License Nos.: NPF-004, NPF-007

Enclosure: Public Radiation Protection Inspection Document Request

cc: w/encl: (See Page 2)

Mr. David A. Heacock
President and Chief Nuclear Officer
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X PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE X NON-SENSITIVE

ADAMS: ☐ Yes ACCESSION NUMBER:_____ ☐ SUNSI REVIEW COMPLETE

OFFICE	RII:DRS	RII:DRS					
SIGNATURE	BRB /RA for/	BRB /RA/					
NAME	WLoo	BBonser					
DATE	08/13/2010	08/13/2010					
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DRSII\PSB1\INFORMATION REQUEST LETTERS\NORTH ANNA\NORTH ANNA 2010 005 DOCUMENTREQUEST.DOCX

cc w/encl:
Daniel G. Stoddard
Senior Vice President
Nuclear Operations
Virginia Electric and Power Company
Electronic Mail Distribution

Eric Hendrixson
Director, Nuclear Safety and Licensing
Virginia Electric and Power Company
Electronic Mail Distribution

L. Lane
Site Vice President
North Anna Power Station
Virginia Electric & Power Company
Electronic Mail Distribution

Chris L. Funderburk
Director, Nuclear Licensing & Operations Support
Virginia Electric and Power Company
Electronic Mail Distribution

Lillian M. Cuoco, Esq.
Senior Counsel
Dominion Resources Services, Inc.
Electronic Mail Distribution

Executive Vice President
Old Dominion Electric Cooperative
Electronic Mail Distribution

Ginger L. Melton
Virginia Electric and Power Company
Electronic Mail Distribution

Attorney General
Supreme Court Building
900 East Main Street
Richmond, VA 23219

Michael M. Cline
Director
Virginia Department of Emergency Services Management
Electronic Mail Distribution

County Administrator
Louisa County
P.O. Box 160
Louisa, VA 23093

Michael Crist
Plant Manager
North Anna Power Station
Virginia Electric & Power Company
Electronic Mail Distribution

Letter to David A. Heacock from Brian Bonser dated

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

Distribution w/encl:
C. Evans, RII
L. Slack, RII
OE Mail
RIDSNRRDIRS
PUBLIC
RidsNrrPMNorthAnna Resource

Pre-Inspection Document Request

Occupational and Public Radiation Safety Cornerstone

Licensee: North Anna Nuclear Plant
Docket Numbers: 50-338, 50-339
Inspection Dates: September 13 – 17 and September 27 – October 1, 2010

Inspection Procedures to be performed:

71124.01	Radiological Hazard Assessment and Exposure Controls
71124.02	Occupational ALARA Planning and Controls
71124.03	In-Plant Airborne Radioactivity Control and Mitigation
71124.05	Radiation Monitoring Instrumentation
71151	Performance Indicator Verification
TI 2515/179	Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in the National Source Tracking System Pursuant to Title 10, Code of Federal Regulations, Part 20.2207 (10 CFR 20.2207)

Documentation is requested from June 2009 to the present for all items.

We would prefer as much of the information as possible in electronic form. An index to the CD contents is also helpful. For those items requesting a list of documents/areas, the inspectors will select documents/areas from the list for on-site review. If any of the requested information is too burdensome to provide electronically or as hard copies, simply indicate that the requested material is available for onsite review by the inspectors.

If you have any questions, please call Wade Loo at 404-997-4727. Thank you in advance for all your effort in putting together this material.

Assistance Requested During On-Site Inspection

- Identification of work activities during the inspection for inspector observations, including notification of pre-job briefings, notification of diving activities, audio/visual surveillance for remote job coverage.

- Health physics assistance in plant walk-downs assessing access controls, e.g. verifying the posting and locking of entrances to HDR-HRA and VHRA, and spent fuel pool controls.

- Health physics assistance in plant walk-downs/job coverage of ongoing outage activities to assess access controls and ALARA practices.

- Discussions with appropriate individuals regarding access controls and ALARA planning.

- Schedule of transportation shipments during the inspection and notification of opportunities for observations of shipment preparation/receipt; discussions with appropriate individuals regarding the transportation program.

Enclosure

General Information Request

- Telephone numbers of contacts.
- Plant and Radiation Protection organizational charts, including personnel involved in solid radwaste processing and transportation of radwaste/radioactive materials.
- Electronic copy of applicable chapters of UFSAR (e.g. radiation protection program, liquid and solid radioactive waste program, etc.).
- Outage schedule, including work activities to be conducted during the week(s) of the inspection.
- List of active radiation work permits, including those specific to outage activities, with their administrative limits, electronic dosimeter dose rate limit, and dose limit.
- List of radiation protection procedures.
- Corrective Action Program procedures.
- Procedure(s) for identifying, notification, tracking, and correcting PI occurrences.
- List of all Performance Indicators (PIs) and copies of associated corrective action reports for Occupational Exposure Control Effectiveness and RETS/ODCM Radiological Effluent Occurrences.
- Audits and self-assessments performed since the last inspection that encompass the areas of (1) access controls, (2) the ALARA program and implementation, (3) liquid and solid radwaste processing, and (4) transportation of radioactive material/radwaste.
- Procedures associated with the ISFSI facility. Procedures should include:
    - Radiological surveys, postings, and radiation control barricades
    - Environmental monitoring (including TLDs)
    - Loading of casks
    - Routine activities
- Radiation surveys of the ISFSI since the last inspection.
- ALARA reviews and planning and associated RWPs for cask loading activities.
- Environmental monitoring results (e.g. TLDs).
- Radiological records for the loading of casks since the last inspection.
- Records of contamination incidents since the last inspection.
- List of corrective action reports related to the ISFSI with respect to radiation protection (i.e. access controls, ALARA, contamination, radiation levels, etc.) since the last inspection.

71124.01: Radiological Hazard Assessment and Exposure Controls

- Site and corporate procedures associated with the access control program. Procedures should include:
    - Radiological surveys, postings, and radiation control barricades
    - Security and control of high radiation sources/objects stored in pools
    - Radiation Work Permits
    - Radiological Job-Coverage
    - Controlling access to High Radiation Areas (HRAs), High Dose Rate High Radiation Areas (HDR-HRAs), and Very High Radiation Areas (VHRAs)
    - Key controls for all high radiation areas
    - Radioactive material control, including contamination and hot particles

- List of the 10 most exposure significant work areas within radiation areas, high radiation areas (<1R/hr), or airborne radioactivity areas in the plant. This may include areas with low dose rates but high collective dose. Identify any high radiation areas with significant dose gradients (factor of five or more), including underwater diving activities.

- List of LHRAs, HDR-HRAs (>25 rem in one hour @ 30 cm), and VHRAs. Include areas with the potential to become a LHRA during routine operations or outages.

- List of corrective action reports generated since the last inspection related to access controls, including the following:
    - Access controls, including high radiation area radiological incidents
    - Radiological events caused by radiation worker errors
    - Radiological events caused by radiation protection technician errors

- Available for onsite review during inspection:
    - Elevation maps with most recent operating and outage radiation survey levels.
    - RWPs for the top five dose rate areas or tasks.

71124.02: ALARA Planning and Controls

- Site and corporate procedures associated with maintaining site dose ALARA, including those involving ALARA work activities. These procedures should include:
    - ALARA program implementation, including ALARA committee activities and ALARA planning, briefing, and reviews
    - Radiation work permit preparation and worker compliance
    - Processes used to estimate and track work activity specific exposures
    - Making changes to dose estimates during task performance
    - Work controls
    - Engineering controls
    - Exposure mitigation requirements

- Most recent annual ALARA report and most recent refueling outage report.

- Annual ALARA goals for 2009 and 2010 and the methodology utilized to make the projections.

- Historic trends and current status of plant source term.

- List approximately 10-15 work activities planned during the inspection likely to result in the highest personnel collective exposures and those which present the greatest radiological risk to workers (e.g. work in HRAs, diving, potentially changing radiological conditions). Include the dose projections and ALARA package numbers.

- ALARA Committee activity summaries (e.g. meeting minutes) for three months or 3 meetings after the last refueling outage and the three months or 3 meetings prior to the upcoming refueling outage.

- Completed ALARA packages (including post-job reviews) for the five work activities that were completed during the last outage which had the greatest collective dose and/or presented significant radiological risk.

- List of five activities (including ALARA package number) from the previous outage in which the work scope changed or was extended and alternative ALARA measures were taken to respond to the emergent conditions.

- List of five activities from the previous outage in which the estimated work hours were significantly different than the actual hours expended. List five activities in which the estimated and actual hours expended were accurate.

- Outline of the source term reduction strategy. Information should include:

    - Historic trends and current status of plant source term
    - Factors that affect the source term
    - Activities employed to reduce the source term
    - Specific sources identified for reduction actions
    - Source term reduction evaluation
    - Results achieved since last inspection

- List of activities since that last inspection that were reviewed for ALARA problems and actions taken to prevent recurrence. Include corrective action report number(s) if applicable.

- List of corrective action reports generated since the last inspection related to the ALARA program, including the following:

    - ALARA planning
    - Post-job review identified problems
    - Radiation worker practices

  - Occurrences where the collective exposure was greater than intended dose determined to be ALARA for the individual work activities

- Available for onsite review during the inspection:

  - ALARA planning packages for jobs being performed during the outage
  - Temporary shielding requests generated for the outage.
  - Records of personnel monitored for radiation exposure that show the total TEDE to date for each person. If possible, sort individuals by work group.

71124.03: In-Plant Airborne Radioactivity Control and Mitigation

- Site and corporate procedures/manuals associated with airborne radiation monitoring instrumentation and respiratory protection. Procedures/manuals should include:

  - Operation, calibration, and maintenance of air sampling instrumentation, including set-point determination (e.g., low-vols, high vols, goosenecks, AMS 4s, etc.)
  - Calibration and maintenance of portable instruments
  - Actions to be taken when air sampling instrumentation is found to be significantly out of tolerance/calibration
  - Issuance and use of respiratory protective equipment (emphasis on SCBA and air-supplied equipment)
  - Training, including fit-testing, for use of SCBA and supplied-air systems
  - SCBA maintenance activities, including vital components (i.e. regulators)
  - Determination/verification of Grade D air for SCBA

- Two most recent calibrations for the following CAM equipment:

  - Control Room Ventilation
  - Spent Fuel Pool
  - Radioactive Waste Processing

- Records of certification of air quality for equipment used to provide breathing air for air-supplied respirators and SCBA bottles since the last inspection.

- List of corrective action reports generated since the last inspection involving radiation monitoring and protective equipment deficiencies, including the following:

  - Continuous air monitors
  - Respiratory protection equipment and program implementation

- *Available for onsite review by inspector during inspection:*

  - Inventory, inspection, and maintenance records for SCBA equipment
  - Training records, including fit-testing, for SCBA-qualified individuals
  - Training records/certification for individuals qualified to perform maintenance on vital components (e.g. regulators) on SCBA

71124.05: Radiation Monitoring Instrumentation

- Site and corporate procedures associated with radiation detection and monitoring instrumentation. Procedures should include:
    - Portable radiation survey instrument calibrations and source checks
    - Electronic dosimeter calibration and use
    - Whole body counter, personnel contamination monitor, portal monitor, and small article monitor calibrations and source checks
    - Area radiation monitor alarm setpoint values and setpoint bases, calibration, and source checks
    - Effluent monitor alarm setpoint bases and calculational methods
    - Collecting and analyzing high-range, post-accident iodine effluent samples
    - Maintenance and calibration/certification of calibration sources/ranges
- List of in-service survey instrumentation including air samplers, small article monitors, personnel contamination monitors, portal monitors, whole body counters, neutron monitoring instrumentation, etc.
- Technical Specifications related to post-accident monitoring instrumentation, effluent monitoring, and emergency assessment.
- Most recent channel calibration and functional test for the effluent/process monitors, post-accident monitoring instruments, and area radiation monitors.
- Whole body counter calibration reports since June 2009, calibration/check source information, and WBC analysis library.
- List of CAP condition reports generated since June 2009 related to radiation monitoring instrumentation, including the following:
    - Radiation survey instruments/calibrations
    - Radiation Monitoring System, including effluent monitors, process monitors, and area radiation monitors
    - Chemistry count lab, including cross-check analysis and QC
    - Whole body counter, PCMs, PMs, and SAMs

71151: Performance Indicator (PI) Verification

- Monthly PI reports since June 2009, and copies of associated condition reports for any RETS/ODCM Radiological Effluent occurrences.
- 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 June 2009 using keywords such as: HRA, LHRA, VHRA, unintended dose, unlocked door, etc.
- List of all electronic dosimeter (ED) dose rate alarms > 1 R/hr and all ED dose alarms since June 2009.