



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

January 20, 2017

William R. Gideon
Site Vice President
Brunswick Steam Electric Plant
8470 River Rd. SE (M/C BNP001)
Southport, NC 28461

**SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT - NOTIFICATION OF INSPECTION AND
REQUEST FOR INFORMATION**

Dear Mr. Gideon:

During the week of March 20 – 24, 2017, the U.S. Nuclear Regulatory Commission (NRC) will perform a baseline Radiation Safety Inspection at the Brunswick Nuclear Plant (Inspection Procedures 71124.06, 71124.02, 71124.03 and 71124.04). 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 activity. The NRC requests that these documents be provided to the inspectors no later than March 3, 2017.

We have discussed the schedule for these inspection activities with your staff, and understand that our regulatory contact for this inspection will be Julius Bryant. If there are any questions about this inspection or the material requested, please contact the lead inspector, Wade Loo at 404-997-4727, or the Plant Support Branch 1 Chief, Brian Bonser at 404-997-4653.

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 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>.

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 numbers 3150-0008, 3150-0011, 3150-0014, 3150-0044, and 3150-0135. The NRC may not conduct or

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Sincerely,

/RA/

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

Docket Nos. 50-324 and 50-325
License Nos. DPR-62 and DPR-71

Enclosure:
Document Request List

cc: Distribution via Listserv

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Sincerely,

/RA/

Brian R. Bonser, Chief
Plant Support Branch 1
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Docket Nos. 50-324 and 50-325
License Nos. DPR-62 and DPR-71

Enclosure:
Document Request List

cc: Distribution via Listserv

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DATE	1/20/2017	1/20/2017						
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Pre-Inspection Document Request

Inspection Dates: March 20 - 24, 2017

Documents Due to Region II by: March 3, 2017

Licensee: Brunswick Steam Electric Plant

Docket Number: 05000324, 325

Inspection Procedures:

- IP 71124.01 Radiological Hazard Assessment and Exposure Controls
- IP 71124.02 Occupational As Low As Reasonably Achievable Planning and Controls
- IP 71124.03 In-plant Airborne Radioactivity Control and Mitigation
- IP 71124.04 Occupational Dose Assessment

Lead Inspector: Wade Loo, Sr. Health Physicist

Note: The current version of these documents is expected unless specified otherwise. Electronic media is preferred if readily available. *[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 poorly organized CD leads to a less efficient inspection and places additional burden on licensee staff. Pay particular attention to the date ranges for the items requested as they may change from item to item. If there are questions regarding the documents requested, or if the documents cannot be provided by the due date, please do not hesitate to contact the lead inspector, Wade Loo at (404) 997-4727.

Miscellaneous

1. List of primary contacts for each inspection area including names and telephone numbers
2. Plant Management, Radiation Protection, and Chemistry organizational charts w/ contact numbers.
3. List of radiation protection procedures, including title and number.
4. Corrective action program (CAP) procedures

71124.01 - Radiological Hazard Assessment and Exposure Controls

1. List of active Radiation Work Permits (RWPs), including their administrative limits, electronic dosimeter dose rate limit, and dose limit. This list should include associated outage RWPs as well.
2. Timeline of major outage activities (e.g., Gantt chart or similar list).
3. List of locations, or plant maps indicating the location, of all LHRAs and VHRAs. Include areas with the potential to become a LHRA during routine operations or outages.
4. Most recent survey of all Locked HRAs and VHRAs (as applicable).
5. Most recent survey of Independent Spent Fuel Storage Installation (ISFSI) areas

6. Procedures related to HP controls (e.g. Posting, labeling, surveys, RWPs, contamination control, HRA/LHRA/VHRA control, key control, control of divers, special controls during fuel offload, hot spots, ISFSI, etc.).
7. Procedures related to release of personnel and materials (e.g. release surveys, decontamination, guidance for alarm follow up, etc.).
8. List of Nationally Tracked Sources, change of owner ship and copies of any National Source Tracking System (NSTS) transaction documentation (e.g., annual reconciliation).
9. Most recent sealed source inventory record.
10. List of all non-fuel items stored in spent fuel pool.
11. Most recent self-assessments and audits covering HP controls since March 1, 2016.
12. List of CAP nonconformance reports (AR, CR, NCR, etc.) related to HP controls (e.g. keyword searches for radworker error, HP technician error, posting issues, HRA/LHRA/VHRA issues, survey problems, etc.) issued since March 1, 2016. This should include CAP nonconformance reports where the cause was listed as human performance. *This should be a list of corrective action documents containing an (AR, CR, NCR, etc.) number and brief description, not full documents.*
13. All CAP nonconformance reports (AR, CR, NCR, etc.) related to Nationally Tracked Sources since March 1, 2016.

71124.02 - Occupational As Low As Reasonably Achievable Planning and Controls

1. Site and corporate procedures associated with maintaining site dose as low as reasonably achievable (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
 - Temporary Shielding
 - Source Term Reduction
 - Exposure mitigation requirements
2. List of top 5 dose jobs for the upcoming refueling outage and ALARA planning packages (including dose estimates, work hour estimates, special HP controls, and dose reduction initiatives), if available.
3. Most recent annual ALARA report and most recent refueling outage report.
4. Annual ALARA goals for 2015 and 2016, and the methodology utilized to make the projections.
5. ALARA trending point data for last two outages.
6. ALARA Committee activity summaries (e.g., meeting minutes) discussing activities associated with the upcoming refueling outage.
7. 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 March 1, 2015

- List of corrective action reports generated since March 1, 2015, 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
8. Most recent self-assessment or audit of ALARA program.
 9. List of personnel monitored for radiation exposure that shows the total TEDE to date for each person. If possible, sort individuals by work group. (Please do not provide any records which contain personally identifiable information such as social security number and name on the CD.)
 10. Available for onsite review during the inspection:
 - ALARA planning packages for jobs to be performed during the outage
 - Temporary shielding requests generated for the outage

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

1. Procedures related to airborne monitoring and control (e.g., use of purge systems, use of portable HEPA/charcoal units, temporary ventilation enclosures, use of continuous air monitors (CAMs), air sampling guidance, Alpha air sampling, etc.), as applicable.
2. Procedures related to the use of respiratory protection devices, (e.g., self-contained breathing apparatus (SCBA), total effective dose equivalent (TEDE)-ALARA guidance, powered air purifying respirators (PAPRs), storage, maintenance, training, quality assurance (QA), fit-testing, etc.).
3. The last two grade D air testing certificates for each supplied air system and SCBA filling station.
4. SCBA qualification records
 - Vendor training certificates for all onsite individuals qualified to repair SCBA
 - List of all licensed operators qualified to use SCBA
 - List of all I&C personnel qualified to use SCBA
 - List of all HP personnel qualified to use SCBA
5. Documentation for last two surveillances performed on SCBA stored for emergency use.
6. Most recent audit or self-assessment covering airborne controls and respiratory protection.
7. List of NCRs related to airborne monitoring and respiratory protection since March 1, 2015.

71124.04 – Occupational Dose Assessment

1. Procedures related to occupational dose assessment (e.g., external dose monitoring, dosimetry issuance and use, unusual dosimetry occurrences, multi-badging/extremity dosimetry/badge relocation, Effective Dose Equivalent, personnel contamination events, storage/care of personal dosimeters, use of electronic dosimeters, *in-vivo* and *in-vitro* internal dose assessment, skin dose assessment, quality control (QC) for whole body counter (WBC), use of passive monitoring if applicable, declared pregnant workers).
2. National Voluntary Laboratory Accreditation Program (NVLAP) accreditation documentation for current dosimetry used by site.
3. List of all positive WBCs, *in-vitro*, or air sampling analyses which resulted in an assigned committed effective dose equivalent (CEDE) equal to or exceeding 10 millirem since March 1, 2015. [*Note: Only a listing should be provided for use by the inspectors to select a sample of issues for review during the onsite inspection.*]

4. List of all Level III personnel contamination events identified since March 1, 2015. *[Note: Only a listing should be provided for use by the inspectors to select a sample of issues for review during the onsite inspection.]*
5. Most recent audit or self-assessment of the dosimetry program and/or the most recent audit of the lab that processes site dosimetry.
6. List of NCRs generated since March 1, 2015, for internal or external dosimetry issues/events.

Assistance Requested During On-Site Inspection

- Identification of work activities available during the inspection for inspector observations, including notification of pre-job briefings, notification of risk significant work activities, and 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 high and very high radiation areas (HRA and VHRA), and SFP controls.
- Health physics assistance in plant walk-downs/job coverage of ongoing activities to assess access controls.

Inspector Contact Information:

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