

**From:** [Loo, Wade](#)  
**To:** [Sherrill, Thomas M](#)  
**Subject:** NRC Initial Information Request for Upcoming Radiation Protection Baseline Inspection  
**Date:** Tuesday, January 16, 2018 7:53:00 AM  
**Attachments:** [Brunswick Information Request Email EB3 RP 2018 001.pdf](#)  
[image003.png](#)

---

Please find attached the Initial Information Request for the upcoming Radiation Safety Baseline Inspection scheduled for the week of March 5 - 9, 2018. Any questions regarding this please let me know. Thanks.

**Wade T. Loo**  
*Senior Health Physicist*

*U. S. Nuclear Regulatory Commission  
Region II  
Engineering Branch 3  
Division of Reactor Safety  
245 Peachtree Center Avenue, NE  
Suite 1200  
Atlanta, GA 30303-1257*

*(404) 997-4727  
(404) 997-4907 (fax)  
[Wade.Loo@NRC.GOV](mailto:Wade.Loo@NRC.GOV)*



Brunswick Steam Electric Plant  
Radiation Safety Baseline Inspection  
Initial Information Request  
Inspection Report: 2018001

During the week of March 5 - 9, 2018, the NRC will perform a baseline Radiation Safety Inspection at Brunswick Steam Electric Plant (NRC Inspection Procedures 71124.01, and 71124.08). 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 are requesting in advance documents needed for this activity. It is important that all of these documents are up-to-date, and complete, thereby minimizing the number of additional documents requested during the preparation, and/or the onsite portions of the inspection. The NRC requests that these documents be provided to the inspectors no later than **February 16, 2018**.

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," a copy of this document 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/readingrm/adams.html>.

#### PAPERWORK REDUCTION ACT STATEMENT

This document 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.

#### PUBLIC PROTECTION NOTIFICATION

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.

## Document Request List

### Occupational and Public Radiation Safety Cornerstone

Licensee: Brunswick Steam Electric Plant

Docket Number: 05000324, 325

Inspection Dates: March 5 - 9, 2018

Documents Due to Region II by: **February 16, 2018**

Inspection Procedures: IP 71124.01 - Radiological Hazard Assessment and Exposure Controls

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

Lead Inspector: Wade Loo  
Sr. Health Physicist  
US NRC Region II  
404-997-4727  
Wade.Loo@nrc.gov

**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. During the inspection, the inspectors may request additional documents. 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.

Documentation for these inspection procedures, are requested from June 2015 to present, unless otherwise specified. We would prefer as much of the information as possible in electronic form. An index of the CD contents is also helpful. For those items requesting a list of documents/areas, the inspector will select documents/areas from the list for on-site review.

#### Miscellaneous:

1. List of primary contacts for each inspection area w/phone numbers.
2. Corrective action program procedures.

#### 71124.01 - Radiological Hazard Assessment and Exposure Controls:

1. List of active Radiation Work Permits (RWPs), including planned and contingency outage RWPs, with their administrative limits, electronic dosimeter dose rate limit, and dose limit.
2. Timeline of major outage activities (e.g., Gantt chart or similar list).
3. Procedures related to health physics (HP) controls (e.g., Posting, labeling, surveys, RWPs, contamination control, high radiation area (HRA)/locked high radiation area (LHRA)/very

high radiation area (VHRA) control, key control, control of divers, special controls during fuel offload, hot spots).

4. Procedures related to release of personnel and materials (e.g., release surveys, decontamination, guidance for alarm followup).
5. List of National Source Tracking System (NSTS) sources, change-of-ownership and copies of transactions since April 1, 2017.
6. Documentation of annual NSTS sources inventory reconciliation for 2017.
7. Most recent survey of all LHRAs and VHRAs, as applicable.
8. Most recent radioactive materials (RAM) sealed source inventory record.
9. List of all non-fuel items stored in spent fuel pool (SFP).
10. Most recent self-assessments or audits covering HP controls.
11. List of Corrective Action Program (CAP) documents related to HP controls where the cause was listed as human performance (e.g., radworker error, HP technician error, posting issues, HRA/LHRA/VHRA issues, survey problems) issued since March 1, 2015. *[This should be a list of corrective action documents containing an Action Request (AR) or Condition Report (CR) numbers and brief description, not full Nonconformance Reports (NCRs).]*
12. All self-assessments and audits covering HP controls since April 1, 2017.
13. All CAP documents related to NSTS sources since April 1, 2017.

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

1. Provide procedures/guidance documents describing licensee compliance with 10 CFR Parts 20, 61, and 71, and 49 CFR Parts 170-189. Procedures/manuals should include:
  - Solid and liquid radwaste processing procedures.
  - Procedure(s) for transferring radioactive waste resin and sludge discharges into shipping/disposal containers.
  - Waste stream mixing and/or sampling procedures, including: (1) waste concentration averaging; (2) use of scaling factors and calculations used to account for difficult-to-measure radionuclides; and (3) ensuring waste stream composition data accounts for changing operational parameters.
  - Shipping/transportation procedures.
  - Cask loading and closure procedures (licensee and vendor) applicable to last three cask transports.
  - List of RAM storage areas, including satellite radiological controlled areas (RCAs).
  - Monitoring impact of long-term storage (e.g., buildup of gases produced by waste decomposition, chemical reactions, container deformation).
  - Process Control Program (PCP).
3. Liquid and solid radwaste system diagrams and detailed system descriptions (e.g., information that might be contained in curricula for training new system engineers).
4. List of all shipments made since March 1, 2016 (i.e., shipping logs of LSA I, II, III; SCO I, II, Type A, or Type B). The inspectors will select three to five packages to review in detail.
5. Copies of applicable transport cask Certificate of Compliance for the last three transport cask shipments.
6. List and documentation of any changes made to the radioactive waste processing systems (liquid and solid) and/or the PCP since March 1, 2016, and associated 10 CFR 50.59 documentation, as appropriate.
7. List of all abandoned solid and liquid radwaste processing equipment.

8. Last two radio-chemical sample analysis results (i.e., 10 CFR Part 61 analysis) for each of the identified radioactive waste streams (e.g., dry active waste, ion exchange resins, mechanical filters, and sludges and activated materials).
9. Most recent self-assessment or audit of Shipping/radwaste processing and RAM storage programs.
10. List of CAP documents involving RAM shipping/transportation, radwaste processing, or RAM storage since March 1, 2016. *[This should be a list of corrective action documents containing an AR/CR numbers and brief description, not full NCRs.]*
11. Training and qualification records for personnel responsible for radioactive waste processing and RAM shipment preparation activities demonstrating that the requirements of 49 CFR Part 172, Subpart H, HAZMAT training, have been met. *[This information can be reviewed onsite rather than included with the submittal because it may contain Personally Identifiable Information.]* Available for onsite review during the inspection:
  - Site drawing(s) showing the location of all stored RAMs and all stored radioactive waste.
  - Plant drawings sufficient to permit the inspector to walkdown the liquid and solid radioactive waste processing systems, to verify current system configuration/operation agree with the descriptions contained in the Updated Final Safety Analysis Report, and in the PCP.
  - Documentation describing the status of any radioactive waste process equipment that is not operational, and/or is abandoned in place.
  - Information concerning the site's waste disposal volume and waste reduction program.
  - Training curriculum and primary lesson plans for qualifying persons, including vendors, for radwaste processing, packaging, and making shipments of RAMs and radioactive waste as specified by 49 CFR Part 172. Liquid and solid radwaste system diagrams and detailed system descriptions (e.g., information that might be contained in curricula for training new system engineers).

#### Assistance Requested During Onsite Inspection

- Identification of work activities available during the inspection for inspector observations, including notification of pre-job briefings, notification of diving activities, audio/visual surveillance for remote job coverage.
- An inspector will need to observe any shipments or receipts of RAM.
- HP assistance in plant walkdowns of radwaste processing systems.
- HP assistance in plant walkdowns assessing access controls (e.g., verifying the posting and locking of entrances to HRAs and VHRAs, and SFP controls).
- HP assistance in plant walkdowns/job coverage of ongoing activities to assess access controls
- Discussions with appropriate individuals regarding access controls

#### **Inspector Contact Information:**

Wade Loo  
Sr. Health Physicist  
US NRC Region II  
404-997-4727  
[Wade.Loo@nrc.gov](mailto:Wade.Loo@nrc.gov)

#### **Mailing Address:**

U.S. Nuclear Regulatory Commission  
Region II  
ATTN: Mr. Wade Loo  
245 Peachtree Center Ave., NE  
Suite 1200  
Atlanta, GA 30303