

From: [Kellner, Bob](#)
To: [Sherrill, Thomas M](#)
Cc: [Diaz, Jose](#)
Subject: NRC 2022 Radiation Safety Inspection - Brunswick 2022001
Date: Wednesday, January 19, 2022 1:55:00 PM
Attachments: [Brunswick 2022-001 Radiation Safety Baseline Inspection Information Request.pdf](#)

Tom,

Thank you for confirming that you will be the point of contact for the upcoming scheduled Radiation Safety Inspection at Brunswick.

Attached is the Request for Information for the inspection. The request includes a list of the documents we routinely request for Inspection Procedures (IPs) 71124.01, 71124.08, and 71151. If you plan to upload the requested documents to CERTREC, using software to 'zip' the numerous files into a single file prior to upload has proven to be very efficient.

As mentioned previously, the plan is to be onsite the week of February 28 - March 4, 2022. As of right now, Jose Diaz and I will be the inspectors coming onsite.

Depending on how things evolve, and if COVID-19 work travel is limited, we may have to pursue some combination of partial, remote, or reduced on-site inspection time to complete the inspection activities. Please update me if Duke or Brunswick decides to modify, reduce, or limit onsite access. I will let you know if I receive any information on restriction of travel from NRC management.

Please let me know if you have any questions.

Regards,

Bob

Robert Kellner

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Brunswick Steam Electric Plant
Radiation Safety Baseline Inspection
Initial Information Request
Inspection Report: 2022001

During the week of February 28 – March 4, 2022, the NRC will perform a baseline Radiation Safety Inspection at the Brunswick Steam Electric Plant (NRC Inspection Procedures 71124.01, 71124.08, and 71151).

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 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 21, 2022.

If there are any questions about this inspection or the material requested, please contact the lead inspector, Robert Kellner at Robert.Kellner@nrc.gov, at 404-997-4508, or the Engineering Branch 3 Chief, Binoy Desai at 404-997-4519.

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/reading-rm/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 Cornerstones

Inspection Dates: February 28 - March 4, 2022

Documents Due to Region II by: February 21, 2022

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
IP 71151	Performance Indicator Verification

Lead Inspector & Mailing Address:

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Note: Current version of these documents is expected unless specified otherwise. Secure file server access (Certrec, SharePoint, etc.), or electronic media (CD/DVD), is preferred. To the extent possible, please organize the information as it is arranged below. Experience has shown that poorly organized files can lead to a less efficient inspection and places additional burden on licensee staff. 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 is requested from **March 1, 2021** to present for IPs 71124.01 and 71151. Documentation for IP 71124.08 is requested from **March 1, 2020** to present. We would prefer as much of the information as possible in electronic form. An index of the files is also helpful. For those items requesting a list of documents/areas, the inspector will may select documents/areas from the list for on-site review.

Miscellaneous

1. List of primary contacts for each inspection area including names and telephone numbers
2. Plant Management, Radiation Protection (RP), and Chemistry organizational charts w/ contact numbers
3. Corrective action program procedure(s)
4. List of radiation protection procedures, including title and number
5. Outage schedule, including planned work activities to be conducted during the spring 2022 outage (e.g. Gantt chart or similar list).

71124.01 - Radiological Hazard Assessment and Exposure Controls
(Last inspected March 2021)

1. Site and/or corporate procedures related to RP controls (e.g. Posting, labeling, surveys, survey frequency, RWPs, contamination control, HRA/LHRA/VHRA control, key control, control of divers, special controls during fuel offload, hot spots, ISFSI Controls, etc.)
2. Procedures related to release of personnel and materials (e.g. release surveys, decontamination, guidance for alarm follow-up, etc.)
3. List of planned outage & active online Radiation Work Permits (RWPs), including dose and dose rate limits.
4. List of locations, or plant maps indicating the location, of LHRA and VHRA. Include areas with the potential to become a LHRA during routine operations or outages.
5. List of all non-fuel items stored in spent fuel pool (e.g. used filters, irradiated hardware, etc.).
6. Technical basis documents (white paper, engineering calculation, etc.) related to the facility beta-gamma and alpha radiation characterization.
7. Outage ALARA report from the previous refueling outage.
8. ALARA planning packages for 3 highest dose jobs for the upcoming refueling outage.
9. All self-assessments or audits covering radiological hazard assessment and exposure controls and HP controls since March 1, 2021 (if none, then provide the two most recent).
10. List of Corrective Action Program (CAP) documents (CR, NRC, AR, etc.) related to RP controls (e.g., radworker error, HP technician error, posting issues, Nationally Tracked Sources issue, HRA/LHRA/VHRA issues, survey problems, ALARA, etc.) generated since March 1, 2021. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*

71124.08 - Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation
(Last inspected March 2020)

1. Provide procedures/guidance documents describing licensee compliance with 10 CFR 20, 61, and 71, and 49 CFR 170-189. Procedures/manuals should include:
 - Solid and liquid radioactive waste (radwaste) processing procedures
 - Procedure(s) for transferring radwaste resin and sludge discharges into shipping/disposal containers
 - Waste stream mixing and/or sampling procedures, including:
 - a. waste concentration averaging
 - b. use of scaling factors and calculations used to account for difficult-to-measure radionuclides
 - c. 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
 - Monitoring impact of long-term storage of RAM
 - Process Control Program (PCP)
2. Site specific and corporate procedures related to 10 CFR Part 37 compliance (storage of RAM, 10 CFR Part 37 Security Plan, radiation protection and security procedures that

identify radiation protection interaction with security, or requirements related to 10 CFR Part 37 compliance, etc.)

3. List of locations of Category 1 and 2 material.
4. Supporting calculations for determination of whether an aggregation of RAM meets the definition of Category 1 or Category 2 (e.g., warehouse calculation).
5. List of Nationally Tracked Sources, and copies of any National Source Tracking System (NSTS) transaction documentation (e.g., annual reconciliation).
6. Copies of the two most recent sealed source inventory records.
7. Most recent radio-chemical sample analysis results (i.e., "10 CFR Part 61" analysis) for each of the radwaste streams (e.g., dry active waste (DAW), ion exchange resins, mechanical filters, and sludges and activated materials). For the most recent analyses of Dry Active Waste (DAW), include QA data (e.g. in-house vs. vendor lab comparisons, current results vs. database, etc.).
8. List and documentation of any changes made to the radwaste processing systems (liquid and solid) and/or the PCP since March 1, 2020, and associated 10 CFR 50.59 documentation, as appropriate
9. Copies of applicable transport cask Certificate of Compliance for the last three transport cask shipments
10. List of RAM storage areas, including satellite radiological controlled areas (RCAs)
11. Log of RAM shipments (LSA I, II, III; SCO I, II, Type A, or Type B) since March 1, 2020. (The inspectors will select three to five packages to review in detail.)
12. Most recent self-assessment or audit of Shipping/radwaste processing and RAM storage programs
13. List of CAP documents (AR, CR, NCR, etc.) related to radwaste and RAM processing and/or transportation (e.g., keyword searches for RAM, shipping, radwaste, 10 Part 61, etc.) issued since March 1, 2020. *This should be a list of corrective action documents containing an (AR, CR, NCR, etc.) number and brief description, not full documents.*
14. Available for onsite review during the inspection
 - Site drawing(s) showing the location of stored RAM and stored radwaste
 - Plant drawings sufficient to permit the inspector to walkdown the liquid and solid radwaste processing systems, to verify current system configuration/ operation agree with the descriptions contained in the Updated Final Safety Analysis Report and in the PCP.
 - Training and qualification records for personnel responsible for radwaste processing, packaging, and making shipments of radioactive material (RAM) and radwaste.
 - Training and qualification records for personnel responsible for implementation of the 10 CFR Part 37 security plan (e.g., security staff and health physics staff)
 - Documentation describing the status of any radwaste process equipment that is not operational and/or is abandoned in place.
 - Discussion of the site's waste disposal volume and waste reduction program.

71151 - Performance Indicator Verification (Occupational and Public Cornerstones)
(Last inspected March 2021)

1. Site, Corporate, and radiation protection specific procedure(s) for identifying, reporting, tracking, and correcting performance indicator (PI) occurrences.

2. Monthly PI reports since March 1, 2021, and copies of associated condition reports for any Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual (RETS/ODCM) Radiological Effluent occurrences.
3. List of all CAP documents using search keywords such as: HRA, LHRA, VHRA, unintended dose, unlocked door, RETS/ODCM, abnormal or unmonitored release, offsite dose, and effluent release, etc. since March 1, 2021. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*
4. Last liquid and gaseous effluent release permit for CY 2021 which specifies the quarterly and annual (year to date) curies released by isotope and the associated public dose assessment(s).
5. List of all electronic dosimeter (ED) dose and dose rate alarms, since March 1, 2021.

Assistance Requested During On-Site Inspection

- Identification of radiological work activities available during the inspection week for observation, including notification of pre-job briefings, notification of risk significant work activities, and location of audio/visual surveillance for remote job coverage.
- Health physics assistance in coordinating observation of radiological job coverage activities and performing plant walk-downs.
- Identification of any radioactive material packaging, shipping, or transportation activities available during the inspection for inspector observation.
- Coordination with security to review and discuss the annual Access Authorization and Security Program reviews completed by the site.
- HP assistance in plant walkdowns of areas identified for storage of Category 1 and 2 materials.

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