ML 19016A029

Kellner, Robert

From: Kellner, Robert
Sent: Wednesday, January 16, 2019 7:10 AM
To: 'Sherrill, Thomas M'
Subject: Upcoming NRC Radiation Safety Inspection - March/April 2019
Attachments: Brunswick 2019002 Rad Safety Inspection Document Request List.pdf

Tom,

Per your response to my previous email, you will the licensing contact for the Brunswick NRC Radiation Safety Inspection scheduled for the weeks March 4-8 and April 1-5, 2019. Attached is the Initial Information Request and a Document Request List.

The NRC Health Physics inspectors that will be on-site during the inspection are myself, Wade Loo, Adam Nielsen, and Jose Diaz-Velez. I am relatively sure that Wade, Adam, and my Duke site access training is up date, but Jose has not taken it in many years.

Please let me know that you received this request. If there are any questions about this inspection, or the material requested, please contact me via email, or at the phone number or address included below.

Regards,

Bob

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Brunswick Steam Electric Plant
Radiation Safety Baseline Inspection
Initial Information Request
Inspection Reports: 2109001 & 2019002

During the weeks of March 4 - 8, 2019 and April 1 - 5, 2019, the NRC will perform a baseline Radiation Safety Inspection at Brunswick Steam Electric Plant (NRC Inspection Procedures 71124.01, 71124.02, 71124.03, 71124.04, 71124.05, 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 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 15, 2019.

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, 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/reading-rm/adams.html.

Document Request List

Occupational and Public Radiation Safety Cornerstones

Inspection Dates:	March 4 - 8, 2019 and April 1 - 5, 2019	
Documents Due to Region II by:	February 15, 2019	
Inspection Procedures:	IP 71124.01	Radiological Hazard Assessment and Exposure Controls
	IP 71124.02	Occupational ALARA Planning and Controls
	IP 71124.03	In-plant Airborne Radioactivity Control and Mitigation
	IP 71124.04	Occupational Dose Assessment
	IP 71124.05	Radiation Monitoring Instrumentation
	IP 71151	Performance Indicator Verification

Lead Inspector & Mailing Address:

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Note: The current version of these documents is expected unless specified otherwise. Electronic media is preferred (CD or DVD) if readily available. *[Please DO NOT provide data on a USB or "flash" drive due to NRC IT security policies].* To the extent possible, please organize the information as it is arranged below. Experience has shown that a poorly organized CD 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 for these inspection procedures, are requested from March 1, 2017 to present, unless otherwise specified. *Pay particular attention to the date ranges for the items requested as they may change from item to item*. 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 including names and telephone numbers
2. Plant Management, Radiation Protection, and Chemistry organizational charts w/ contact numbers
3. Corrective action program procedure(s)
4. List of radiation protection procedures, including title and number
5. Most recent 10 CFR 61 analysis for the DAW waste stream

71124.01 - Radiological Hazard Assessment and Exposure Controls
(Last inspected March 2018)

1. Outage schedule, including work activities to be conducted during the weeks of the inspection (e.g. Gantt chart or similar list).
2. 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.)
3. Procedures related to release of personnel and materials (e.g. release surveys, decontamination, guidance for alarm follow-up, etc.)
4. List of outage & active Radiation Work Permits (RWPs) including dose and dose rate limits.
5. 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.
6. List of Nationally Tracked Sources and copies of any National Source Tracking System transaction documentation (e.g., annual reconciliation, source transfers, etc.)
7. Most recent sealed source inventory record.
8. List of all non-fuel items stored in spent fuel pool (e.g. used filters, irradiated hardware, etc.).
9. The following Independent Spent Fuel Storage Installation (ISFSI) information:
   a) Last two (2) routine radiological surveys
   b) As low as reasonably achievable (ALARA) planning and post reviews conducted for the last two ISFSI campaigns.
10. All self-assessments or audits covering radiological hazard assessment and exposure controls and HP controls since March 1, 2018 (if none, then provide the two most recent).
11. 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, etc.) generated since March 1, 2018. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*

71124.02 - Occupational ALARA Planning and Controls
(Last inspected August 2017)

1. All procedures related to ALARA (e.g. temporary shielding, ALARA planning, source term reduction, etc.).
2. List of top 5 dose jobs for the upcoming refueling outage and associated ALARA planning packages (including dose estimates, work hour estimates, special RP controls, and dose reduction initiatives), if available.
3. List and short description of planned temporary shielding packages/request for the upcoming refueling outage.
4. ALARA trending point data for last two outages (last two for both units)
5. Source term reduction strategic plan, if available.
6. Minutes from the four (4) most recent Plant ALARA Committee Meetings and meetings in which major outage ALARA plans were reviewed and/or approved.
7. Outage reports for the two (2) most recent outages.
8. Completed ALARA packages (including post-job reviews) for the five work activities that were completed during the last outage that had the greatest collective dose, and/or presented significant radiological risk.
9. Most recent self-assessment or audit of the ALARA program.

10. List of CAP documents (CR, NRC, AR, etc.) related to ALARA generated since August 1, 2017. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation
(Last inspected March 2017)

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 CAMs, air sampling guidance, Alpha air sampling, etc.)
2. Procedures related to the use of respiratory protection devices (e.g., self-contained breathing apparatus (SCBA), total effective dose equivalent-ALARA guidance, powered air purifying respirators (PAPRs), storage, maintenance, training, quality assurance (QA), and fit-testing).
3. The last two (2) grade D air testing certificates for each supplied air system and SCBA filling station
4. Documentation for last two (2) surveillances performed on SCBAs available for emergency use.
5. Two most recent surveillances that verify the flow rates for the following ventilation systems:
   a) Radwaste Building Ventilation System
   b) Reactor Building Ventilation System
6. Two most recent HEPA filter DOP and charcoal test results for the following ventilation systems:
   a) Control Room Emergency Ventilation system
   b) Unit 1 Turbine Building Ventilation system
7. Most recent audit or self-assessment covering airborne controls and respiratory protection
8. List of CAP documents (CR, NCR, AR, etc.) related to airborne monitoring and respiratory protection generated since March 1, 2017. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*
9. Available for onsite review by inspector during inspection
   a) Inventory, inspection and maintenance records for respiratory protection devices and SCBA equipment
   b) Training records, including fit tests, for SCBA qualified individuals
      i. List of all licensed operators qualified to wear an SCBA
      ii. List of site ERO personnel qualified to wear an SCBA
      iii. List of all HP personnel qualified to wear an SCBA
   c) Training/qualification certificates for all onsite and/or vendor personnel qualified to repair SCBA that performed maintenance or repairs since March 2017.

71124.04 - Occupational Dose Assessment
(Last inspected March 2017)

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 (EDE), personnel contamination events PCEs, storage/care of personal dosimeters, use of electronic dosimeters, *in-vivo* and *in-vitro* internal dose assessment, skin dose assessment, QC for whole body counter, use of passive monitoring, if applicable, and declared pregnant workers).
2. NVLAP accreditation documentation for the 2017, 2018, and current dosimetry used by the site as the dose of record.

3. ISFSI perimeter monitoring data (i.e. perimeter TLDs) from April 2017 through the most recent monitoring period.
4. Copy of the current facility alpha characterization and prospective dose evaluation, if available.
5. List of all positive air-sampling, whole body count, or in vitro analyses which resulted in a CEDE equal to or exceeding 10 millirem since March 1, 2017. *[Note: only a listing should be provided for use by the inspectors to select a sample of issues for review during the onsite inspection]*
6. List of all PCEs identified since March 1, 2017. *[Note: only a listing should be provided for use by the inspectors to select a sample of issues for review during the onsite inspection.]*
7. Most recent audit or self-assessment of the dosimetry program, and the most recent audit of the lab that processes site dosimetry.
8. List of CAP documents (CR, NRC, AR, etc.) related to internal or external dosimetry issues/events generated since March 1, 2017. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*

71124.05 - Radiation Monitoring Instrumentation

(Last inspected August 2017)

1. Radiation Protection and Maintenance procedures/guidance documents, as applicable, for:
   a) Calibration and functional test/source checks of portable radiation detection instruments
   b) Calibration and functional tests of small article monitor, personnel contamination monitor, portal monitor, whole body counting equipment, and continuous air monitors
   c) Collection and analysis of high-range, post-accident effluent samples
   d) Determination of set-points for area radiation monitor, CAM, PCM, PM, and SAM equipment used for area and personnel monitoring equipment
   e) QA program for count room instruments
2. The last two (2) calibration records for each of the following instruments:
   a) Drywell High Range Area Monitoring System (both Units)
   b) Main Control Room (*Channel 1-1*)
3. Documentation for the radioactive sources used to calibrate the instruments in item 2 above showing traceability to NIST and/or the primary calibration.
4. Emergency plan documents identifying which radiation monitors are used to determine emergency action levels (EALs).
5. Provide a current list of SAMs, PCMs, PMs, portable radiation detection instruments, counting room, and Whole Body Counters. *[Note: The list will be used to select monitors for evaluation of their calibration/functional check surveillances during the onsite inspection*.)
6. Most recent calibration/test record for the instrument calibrator (Shepherd validation testing/dose rate curves)
7. Design documents and/or calculations showing how the alarm setpoints for the following instruments are determined:
   a) PCMs and PMs at the RCA and Protected Area exit points
   b) CAMs
8. Chart or procedure identifying emergency action levels (EALs) and actions associated with radiation monitors (if applicable).
9. Most recent Radiation Monitoring System engineering performance review/evaluation or system health report.
10. Most recent audit or self-assessment covering RP instruments (e.g. portables, RCA exit point, WBC, count room). Include any reviews conducted of vendor facilities, as applicable

11. List of CAP documents (CR, NRC, AR, etc.) related to portable instruments, area monitors, CAMs, RCA release point monitors, WBCs, and count room instruments generated since August 1, 2017. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*

71151 - Performance Indicator Verification (Occupational and Public Cornerstones)
(Last inspected June 2018)

1. Procedure(s) for identifying, notification, tracking, and correcting performance indicator (PI) occurrences.
2. Monthly PI reports since June 1, 2018, 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 June 1, 2018. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*
4. Most recent liquid and gaseous effluent release permits which specify the quarterly and annual (year to date) curies released by isotope and the associated public dose assessments.
5. List of all electronic dosimeter (ED) alarms, for dose and dose rate, since June 1, 2018

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 plant walk-downs/job coverage of ongoing activities to assess access controls.

Inspector Contact Information:

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