



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II**

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

February 10, 2017

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street, LP 3R-C
Chattanooga, TN 37402-2801

**SUBJECT: BROWNS FERRY NUCLEAR PLANT - NOTIFICATION OF INSPECTION AND
REQUEST FOR DOCUMENTS**

Dear Mr. Mr. Shea:

During the weeks of March 13 – 17 and March 27 - 31, 2017, the Nuclear Regulatory Commission (NRC) will perform a baseline Radiation Safety Inspection at the Browns Ferry Nuclear Plant (NRC Inspection Procedures 71124.01, 71124.02, 71124.03, 71124.04, 71124.05, and 71151). 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 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 Baruch Calkin. If there are any questions about this inspection, or the material requested, please contact the lead inspector, Adam Nielsen, at (404) 997-4660, or the Plant Support Branch 1 Chief, Brian Bonser, at (404) 997-4653.

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 component of NRC's Agency Wide Documents Access and Management System (ADAMS). ADAMS is 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

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.

Sincerely,

/RA: Wade T. Loo for/

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

Docket No.: 50-259, 260, 296
License No.: DPR-33, 52, 68

Enclosure: Document Request List

cc: Distribution via Listserv

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Document Request List

Inspection Dates: March 13 – 17 and March 27 – 31, 2017

Documents Due to Region II by: March 3, 2017

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: Adam Nielsen
Sr. Health Physicist
US NRC Region II
(404) 997-4660
Adam.Nielsen@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. 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.

Miscellaneous

1. List of primary contacts for each inspection area w/phone numbers
2. Corrective action program procedure(s)

71124.01 - Radiological Hazard Assessment and Exposure Controls

1. Timeline of major outage activities (e.g. Gantt chart or similar list)
2. 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 Controls, etc.)
3. Procedures related to release of personnel and materials (e.g. release surveys, decontamination, guidance for alarm followup, etc.)
4. List of Nationally Tracked Sources and any change-of-ownership transactions
5. Most recent sealed source inventory record
6. List of all non-fuel items stored in spent fuel pool
7. Last two surveys taken of the spent fuel storage module area
8. Most recent self-assessment or audit covering HP controls
9. List of CRs related to HP controls (e.g. radworker error, HP technician error, posting issues, HRA/LHRA/VHRA issues, survey problems, etc.) issued since March 4, 2016. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

Enclosure

71124.02 - Occupational ALARA Planning and Controls

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 ALARA planning packages (including dose estimates, work hour estimates, special HP controls, and dose reduction initiatives), if available
3. ALARA trending point data for last two outages (last two for both units)
4. Source term reduction strategic plan, if available
5. Minutes from the last 4 Plant ALARA Committee Meetings
6. Most recent self-assessment or audit of ALARA program.
7. List of CRs related to ALARA since April 13, 2015. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs*

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 CAMs, air sampling guidance, Alpha air sampling, etc.), as applicable
2. Procedures related to the use of respiratory protection devices, (e.g. SCBA, TEDE-ALARA guidance, PAPRs, storage, maintenance, training, QA, fit-testing, etc.)
3. The last 2 grade D air testing certificates for each supplied air system and SCBA filling station
4. SCBA qualification records
 - a) Vendor training certificates for all onsite individuals qualified to repair SCBA
 - b) List of all licensed operators qualified to use SCBA
 - c) List of all HP personnel qualified to use SCBA
5. Documentation for last 2 surveillances performed on SCBA stored for emergency use
6. Most recent audit or self-assessment covering airborne controls and respiratory protection
7. List of CRs related to airborne monitoring and respiratory protection since April 13, 2015. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

71124.04 – Occupational Dose Assessment

1. Procedures related to occupational dose assessment (e.g. dosimetry issuance and use, unusual dosimetry occurrences, multi-badging/extremity dosimetry/badge relocation, Effective Dose Equivalent, personnel contamination events, storage/care of personal dosimeters, *in-vivo* and *in-vitro* internal dose assessment, skin dose assessment, QC for whole body counter, use of passive monitoring if applicable, declared pregnant workers)
2. NVLAP accreditation documentation for current dosimetry used by site
3. List of all positive whole body counts, *in vitro*, or air sampling analyses which resulted in a CEDE equal to or exceeding 10 millirem since April 13, 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 April 13, 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 neutron characterization
6. Most recent alpha characterization
7. Last 18 months of area TLD results for spent fuel storage area and general plant areas
8. Copies of current WBC libraries (e.g. routine, medical, investigative, etc.)
9. Most recent audit or self-assessment of the dosimetry program and/or the most recent audit of the lab that processes site dosimetry

10. List of CRs generated since April 13, 2015, for internal or external dosimetry issues/events. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

71124.05 - Radiation Monitoring Instrumentation

1. Procedures/Guidance Documents 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) QA program for count room instruments
2. The last 2 calibration records for each of the following instruments:
 - a) Unit 2 Drywell Radiation Monitors (2-RE-90-272A & 2-RE-90-273A)
 - b) Unit 2 TIP Room Area Monitor (2-RE-90-22)
 - c) Unit 1 Main Control Room Area Monitor (1-RE-90-8)
 - d) U2 Rx Building Service floor ARM (2-RA-90-2)
 - e) Whole Body Counter in Dosimetry lab
3. Documentation for the radioactive sources used to calibrate the instruments in item 2 above.
4. Design documents and/or calculations showing how the alarm setpoints for the following instruments are determined:
 - a) Unit 2 Primary Containment Post-accident Area Monitors
 - b) Portal Monitors at RCA exit point
 - c) Continuous Air Monitors (e.g. AMS-4, mini-edgar, etc.)
5. Chart or procedure listing EALs associated with radiation monitors
6. LIST of the following instruments [*Note: only a listing should be provided for use by the inspectors to select a sample of calibration records for review during the onsite inspection*]:
 - a) Portal Monitors located at RCA, site exit point, and remote RCA's
 - b) SAMs located at RCA exit point, remote RCA's, and tool rooms
 - c) Whole body and hand/foot contamination monitors at RCA exit point and remote RCAs
 - d) Portable radiation and contamination survey instruments available for use.
 - e) Count room instruments (gamma spec and tritium analysis)
7. Most recent test record of the instrument calibrator (Shepherd validation testing/dose rate curves)
8. Most recent system health report for the Radiation Monitoring system
9. Most recent audit or self-assessment covering HP instruments (portables, RCA exit point, WBC, count room). Include any reviews conducted of vendor facilities (e.g. WARL), as applicable
10. LIST of CRs generated since April 13, 2015 related to portable instruments, area monitors, CAMs, RCA release point monitors, WBCs, and count room instruments. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

71151 – Performance Indicator Verification (Occupational and Public Cornerstones)

1. Procedure(s) for gathering and reporting PI data
2. List of all CRs related to effluent dose/ODCM issues since June 17, 2016. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

3. LIST of all CRs related to LHRA/VHRA issues or significant (>100 mrem) unintended doses since March 4, 2016. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*
4. Most recent gaseous and liquid effluent evaluation of dose to the public (year-to-date doses).
5. LIST of electronic dosimeter alarms since March 4, 2016 (dose and dose rate)