

From: [Kellner, Bob](#)
To: [McDaniel, Sarah A](#)
Subject: Harris RP Inspection In October 2022
Date: Thursday, August 25, 2022 7:33:00 AM
Attachments: [HARRIS 2022-004 RFI.pdf](#)

Sarah,

Per our previous correspondence, you will be the Harris Licensing point of contact for the upcoming Radiation Safety Inspection beginning in October 2022.

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, 71124.03, 71124.04, 71124.05, 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.

The current plan is to be onsite the weeks of October 17-21 and October 31 - November 4, 2022. As of now, Jose Diaz, Adam Nielsen, Doug Berkshire, and I will be the inspectors coming onsite. Adam, Doug, and I will be onsite the first week. Jose, Doug, and I will be onsite the second week. Doug is in training so all of his time will not be charged to the site.

Depending on how things evolve, and if work travel is limited due to COVID-19, 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 Harris 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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Harris Nuclear Plant
Radiation Safety Baseline Inspection
Initial Information Request
Inspection Report: 2022004

During the weeks of October 17 - 21 and October 31 - November 4, 2022, the NRC will perform a baseline Radiation Safety Inspection at the Shearon Harris Nuclear Power Plant (NRC Inspection Procedures 71124.01, 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. 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 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 October 3, 2022.

If there are any questions about this inspection or the material requested, please contact the lead inspector, Robert Kellner at 404-997-4508, or the Engineering Branch 3 Branch 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

Licensee: **Harris Nuclear Plant**
License 50-325

Licensing Contact: Sarah McDaniel
Office: (984) 229-2002
sarah.mcdaniel@duke-energy.com

Inspection Dates: October 17 - 21 and October 31 - November 4, 2022

Documents Due to Region II by: October 3, 2022

Inspection Procedures: IP 71124.01 Radiological Hazard Assessment and Exposure 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 and Mailing Address:

Robert Kellner Senior Health Physicist US NRC Region II (404) 997-4508 Robert.Kellner@nrc.gov	U.S. Nuclear Regulatory Commission Region II ATTN: Robert Kellner 245 Peachtree Center Ave., N.E Suite 1200 Atlanta, GA 30303
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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. To the extent possible, please organize the information as it is arranged below. Pay attention to the date ranges for the items requested as they may change from item to item. Please redact all PII in any records submitted. 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 **May 1, 2021** to present for IPs 71124.01, 71124.03, 71124.04, and 71124.05. Documentation for IP 71151 is requested from **March 1, 2021** 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 select documents/areas from the list for on-site review.

Miscellaneous

1. Plant Management, Radiation Protection, and Chemistry organizational charts
2. List of primary contacts for each inspection area w/phone numbers
3. Corrective Action Program (CAP) procedure(s)
4. List of radiation protection procedures, including title and number
5. Most recent 10 CFR 61 analysis for the DAW waste stream
6. Outage schedule, including work activities to be conducted during the weeks of the inspection (e.g., Gantt chart or similar list).
7. Procedures associated with the Surveillance Frequency Control Program.

71124.01 - Radiological Hazard Assessment and Exposure Controls

(Last inspected May 2021)

1. Site and 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 VHRAs. 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 the 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 May 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 May 1, 2021. *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 May 2021)

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. Two most recent HEPA filter DOP and charcoal test results for the following ventilation systems:
 - a) Reactor Auxiliary Building Ventilation System
 - b) Waste Processing Area Filtered Exhaust System
4. Copy of the last 2 grade D air testing certificates for each supplied air system and

SCBA filling station

5. Documentation of the last 2 surveillances performed on SCBAs and negative pressure respirators available for emergency use, and negative pressure respirators designated as "in storage" but available for 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 May 1, 2021. *This should be a list of corrective action documents containing a CAP document number and a brief description, not complete documents.*
8. Available for onsite review 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
 - c) List of all licensed operators qualified to wear an SCBA
 - d) List of site ERO personnel qualified to wear an SCBA
 - e) List of all RP personnel qualified to wear an SCBA
 - f) Training/qualification certificates for all onsite and/or vendor personnel qualified to repair SCBA that performed maintenance or repairs from May 1, 2021 to present.

71124.04 - Occupational Dose Assessment

(Last inspected May 2021)

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 CY 2021, and the current year for worker dosimetry used by the 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 May 1, 2021. [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 May 1, 2021. [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 (including the ISFSI area)
6. Most recent alpha characterization
7. Last 18 months of area TLD results for general plant areas (not REMP TLDs)
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 May 1, 2021 for internal or external dosimetry issues/events. *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 May 2021)

1. Radiation Protection and Maintenance procedures/guidance documents, as applicable, for the following:
 - 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, counting room equipment, electronic alarming dosimeters, 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 (inter-laboratory comparison program) for count room instruments
2. The last 2 calibration records for each of the following instruments:
 - a) Containment High-Range Radiation Monitors (RM-1-3589SA and RM -1-3590SB)
 - b) Sample Room Area Radiation Monitors (RM-1-3605A and 3605B)
 - c) Treated Laundry & Hot Shower Tank Pump Discharge (1WL-3540)
 - d) Containment Atmosphere Leak Detection (Particulate and Noble Gas Radiation Monitors RM-1-3502A)
 - e) Fuel Handling Building Normal and Emergency Exhaust Radiation Monitors (1FL-3506, 3507, 3508A, & 3508B)
 - f) Waste Processing Building Exhaust 5 (1WV-3546 & 3564-1)
 3. Documentation showing traceability to NIST and/or the primary calibration for the radioactive sources used to calibrate the instruments in item in item 2 above.
 4. Chart or procedure listing EALs associated with radiation monitors
 5. Emergency plan documents identifying which radiation monitors are used to determine emergency action levels (EALs).
 6. Provide a current list of in service (available for use) SAMs, PCMs, PMs, air samplers, continuous air monitors (CAMs), portable radiation detection instruments, counting room (RP and Chemistry), and Whole-Body Counters. *[Note: The list will be used to select monitors for evaluation during the onsite inspection.]*
 7. Most recent test record of the instrument calibrator (e.g., Shepherd validation testing/dose rate curves).
 8. 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
 9. Results of the counting room and whole-body counter Inter-Laboratory Comparison Program for 2021 and the current year.
 10. Two most recent surveillances that verify the flow rates for the following ventilation systems:
 - a) Reactor Auxiliary Building Ventilation System
 - b) Waste Processing Building Ventilation
 11. Most recent Radiation Monitoring System engineering performance review/evaluation or system health report, if applicable.
 12. Most recent audit or self-assessment covering RP instruments (portables, RCA exit point, WBC, count room). Include any reviews conducted of vendor facilities, as applicable.
 13. 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 May 1, 2021. *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 May 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 related to effluent dose/ODCM issues using search keywords such as 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 CR number and brief description, not full CRs.*
4. List of all CAP documents related to occupational radiological controls using search keywords such as HRA, LHRA, VHRA, unintended dose, unlocked door, ALARA, 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.*
5. Most recent gaseous and liquid effluent evaluation of dose to the public (year-to-date doses).
6. List of electronic dosimeter alarms since March 1, 2021 (dose and dose rate).

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 installed radiation monitoring calibration activities planned that may be available for inspector observation during the inspection.

Inspector Contact Information:

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