

Kellner, Bob

From: Kellner, Bob
Sent: Thursday, May 30, 2019 3:31 PM
To: REESE, SUSAN B
Cc: Bonser, Brian (Brian.Bonser@nrc.gov)
Subject: Upcoming VC Summer NRC Radiation Safety Inspection - August 2019
Attachments: VC Summer 2019003 Rad Safety Inspection Document Request.pdf

Susan,

Per your previous email, you will be the licensing contact for the NRC Radiation Safety Inspection scheduled at VC Summer for the week of August 19 - 23, 2019. Attached is the Initial Information Request and an Initial Document Request List.

The NRC Health Physics inspectors who will be on-site during the inspection are myself, Carmen Dykes, Adam Nielsen, and Jonathan Rivera. Several of us have not been onsite in a couple of years so I do not know if our site access training is up to date or not. However, I am sure that all of us should be on the current 'good guy' letter.

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, by phone, or at the address included below.

Regards,

Bob

Robert Kellner

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VC Summer Nuclear Station
Radiation Safety Baseline Inspection
Initial Information Request
Inspection Report: 2019003

During the week of August 19-23, 2019, the NRC will perform a baseline Radiation Safety Inspection at the VC Summer Nuclear Station (NRC Inspection Procedures 71124.01, 71124.06, 71124.07, 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 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 July 18, 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, or 404-997-4508, or the Engineering Branch 3 Chief, Brian Bonser at Brian.Bonser@nrc.gov, or 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>

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: **VC Summer Nuclear Station**
Docket Number: **05000395**
Inspection Dates: **August 19 - 23, 2019**
Documents Due to Region II by: **July 18, 2019**

Inspection Procedures: IP 71124.01 Radiological Hazards Assessment and Exposure Controls
IP 71124.06 Radioactive Gaseous and Liquid Effluent Treatment
IP 71124.07 Radiological Environmental Monitoring Program
IP 71124.08 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation
IP 71151 Performance Indicator Verification

Lead Inspector: Robert Kellner
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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 1, 2016 to the present, unless otherwise noted. This reflects the last time these areas were inspected. 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. Telephone numbers of primary site contact(s) for each inspection area including name(s) and telephone numbers.
2. Plant Chemistry, and Radiation Protection organizational charts, including personnel involved in effluent sampling and reporting, Radiological Environmental Monitoring Program (REMP) sampling and reporting.
3. Corrective Action Program procedures
4. Schedule of routine effluent and REMP sampling activities during the week of inspection

- (e.g., stacks sampled on Monday, REMP run Tuesday).
- Schedule of planned maintenance and work activities involving work in radiological areas during the week of inspection.

71124.01 - Radiological Hazard Assessment and Exposure Controls
(Last Inspected October 2018)

- List of active routine and outage related Radiation Work Permits (RWPs), including their administrative limits, electronic dosimeter dose rate limit, and dose limit.
- Procedures related to Radiation Protection (RP) 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, etc.).
- List of locations, or plant maps indicating the location, of all Locked High Radiation Areas (LHRAs) and Very High Radiation Areas (VHRAs). Include areas with the potential to become a LHRA during routine operations or outages.
- Copies of the most recent survey of all LHRAs and VHRAs (as applicable).
- Procedures related to release of personnel and materials (e.g. release surveys, decontamination, guidance for alarm follow up, etc.).
- List of Nationally Tracked Sources and copies of any National Source Tracking System (NSTS) transaction documentation (e.g., change of ownership and annual reconciliation).
- Copy of the most recent sealed source inventory record.
- List of all non-fuel items stored in spent fuel pool.
- All self-assessments and audits covering RP controls since September 1, 2018.
- List of Corrective Action Program (CAP) documents (CRs, NCRs, PIPs, etc.) related to RP controls (e.g. keyword searches for radworker error, RP technician error, posting issues, HRA/LHRA/VHRA issues, survey problems, etc.) generated since September 1, 2018. This should include CAP nonconformance reports where the cause was listed as human performance. *This should be a list of corrective action documents containing a (CR, NCR, etc.) number and brief description, not full documents.*
- All CAP nonconformance reports (AR, CR, NCR, etc.) related to Nationally Tracked Sources since September 1, 2018.

71124.06 - Radioactive Gaseous and Liquid Effluent Treatment
(Last Inspected July 2016)

- Site and corporate procedures associated with implementing the effluent monitoring and controls program. Procedures should include those that address:
 - Sample collection and analysis
 - Radiation monitor alarm and release set-point determinations
 - Release permit preparation
 - On and off-site dose evaluations and dose calculations
 - Calibration and quality control (QC) activities for sample counting instruments
 - Countroom High Purity Germanium Detector calibration and QC checks
- Offsite Dose Calculation Manual (ODCM) and a list of changes included in the last revision.
- List of permitted effluent release points, including release points from on-site surface water bodies (as applicable)
- Methodology/procedure used for determining effluent stack/vent flow rates.
- List of liquid and gaseous effluent monitors listed as out-of-service (OOS) for > 24 hours since July 1, 2016, including any special reports submitted to the NRC as a result of effluent monitor operability.
- List of all unmonitored spills, leaks, or unexpected liquid/gaseous discharges since July 1,

2016. If applicable, provide the Licensee Event Report (LER), event report, and/or special report.
7. List of non-radioactive systems that have become contaminated and any 10 CFR 50.59 evaluations performed, since July 1, 2016.
 8. List of any changes to the effluent release points or effluent treatment systems, and associated 10 CFR 50.59 documentation, since July 1, 2016.
 9. Material condition surveillance records for liquid and gaseous effluent treatment system components not readily accessible, including those inaccessible due to radiological conditions (e.g. in-service & spent resin tanks, waste evaporator systems, waste gas hold-up tanks, etc.).
 10. Effluent release permits for continuous gaseous, batch gaseous, continuous liquid, and/or batch liquid releases indicating the current and year to date off-site dose. Only provide permits for the latest release within each category.
 11. Results of on-site counting lab inter-laboratory comparison program since July 1, 2016.
 12. Results of the last two surveillances/tests of the Fuel Handling Building and Reactor Building Purge Exhaust ventilation systems, including system flow monitoring instrumentation calibration, HEPA filter testing, and charcoal filter tests.
 13. System health reports for radiological effluent/process monitoring systems since July 1, 2016.
 14. The last two calibration records for the following effluent monitors:
 - Waste Gas Discharge Radiation Monitor (RM-A10)
 - Main Steam Line Radiation Monitors (RM-G19 A, B, & C)
 - Liquid Waste Discharge Radiation Monitor (RM-L9)
 15. The last two calibration records for the following Post Accident/high range effluent monitors:
 - Main Plant Vent Exhaust High Range Gas Discharge Monitor (RM-A13)
 - Purge Exhaust Effluent High Range Radiation Monitor (RM-A14)
 16. Calibration source certifications for sources used to calibrate the monitors in items 14 and 15 above, including traceability to NIST to the primary calibration.
 17. Audit and self-assessment documents generated since July 1, 2016, related to liquid and gaseous effluent treatment and monitoring, unmonitored spills, leaks, or effluent discharges, or the groundwater monitoring program.
 18. List of Corrective Action Program (CAP) documents (CRs, NCRs, PIPs, etc.) generated since July 1, 2016, related to liquid and gaseous effluent treatment and monitoring, unmonitored spills, leaks, or effluent discharges, or the groundwater monitoring program. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

71124.07 - Radiological Environmental Monitoring Program
(Last Inspected July 2016)

1. Site and corporate procedures associated with radiological environmental monitoring, including:
 - Collection, preparation, and analysis of environmental samples including air, Thermoluminescent Dosimeter (TLD) stations, ground and surface water, sediment, vegetation, milk, fish, etc.
 - Calibration and maintenance of air and water sampling equipment.
 - Land use census
 - Calibration and quality control (QC) activities for sample counting instruments.
 - Calibration, operation, maintenance, and routine surveillances of meteorological monitoring instruments (wind speed & direction, air temperature, etc.).

2. Site and corporate procedures associated with implementing the ground water monitoring program and the voluntary ground water protection initiative. Procedures should include those that address:
 - Groundwater monitoring and reporting of spills/leaks
 - Buried piping
 - Sampling and monitoring program to detect leaks from contaminated, or potentially contaminated, systems, structures, or components (SSCs).
3. List of SSCs that contain, or could contain, licensed material for which there is a credible mechanism for the radioactive material (RAM) to reach ground water (e.g. SSC risk ranking matrix).
4. Summary of any leaks and/or spills that have occurred since July 1, 2016, (i.e. additions to the 10 CFR 50.75(g) file).
5. List of changes to the REMP (sample locations, sample frequency, type of samples, etc.) since July 1, 2016.
6. Calibration and maintenance records for REMP air and composite water samplers since July 1, 2016.
7. Inter-laboratory comparison program results since July 1, 2016 (in-house and vendor laboratory).
8. Most recent calibration/surveillance/maintenance records for the meteorological monitoring instruments (wind speed, wind direction, and air temperature).
9. Data recovery report for meteorological monitoring instruments since July 1, 2016.
10. Groundwater monitoring results since July 1, 2016.
11. Results of environmental TLD monitoring since July 1, 2016.
12. List of changes to the written groundwater monitoring program for identifying/controlling contaminated spills/leaks since July 1, 2016.
13. List of onsite surface water bodies (e.g., ponds, retention basins, lakes) that contain or potentially contain radioactivity.
14. Audit and self-assessment documents generated since July 1, 2016, related to REMP. The data should include any reviews conducted of vendor activities and their facilities (e.g., environmental lab).
15. List of CAP documents (CRs, NCRs, PIPs, etc.) generated since July 1, 2016, related to REMP. The data should include any reviews conducted of vendor activities and their facilities (e.g., environmental lab, out of service air sampler, missing environmental TLD, etc.). *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

71124.08 - Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (Last Inspected July 2016)

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.

- Monitoring impact of long-term storage (e.g., buildup of gases produced by waste decomposition, chemical reactions, container deformation).
 - Process Control Program (PCP).
2. Provide a list of radioactive material (RAM) storage areas, including satellite radiological controlled areas (RCAs)
 3. Provide 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. Provide the most recent radio-chemical sample analysis results (i.e., "10 CFR Part 61" analysis) for each of the radioactive waste streams (e.g., dry active waste (DAW), ion exchange resins, mechanical filters, sludges, and activated materials).
 5. List and documentation of any changes made to the radioactive waste processing systems (liquid and solid) and/or the Process Control Program (PCP) since the June 1, 2016, and associated 10 CFR 50.59 documentation, as appropriate.
 6. Provide a list or log of RAM shipments (LSA I, II, III; SCO I, II, Type A, or Type B) since June 1, 2016. (The inspectors will select three to five packages to review in detail.)
 7. Copies of applicable transport cask Certificate of Compliance for the last three transport cask shipments.
 8. List of CAP documents (CRs, NCRs, PIPs, etc.) involving radioactive waste and RAM processing and/or transportation (e.g., keyword searches for RAM, shipping, radwaste, 10 Part 61, etc.) generated since June 1, 2016. *This should be a list of corrective action documents containing a (CR, NCR, etc.) number and brief description, not full documents.*
 9. Available for onsite review during the inspection:
 - Site drawing(s) showing the location of all stored RAM 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 and qualification records for personnel responsible for radioactive waste.
 - Training curriculum and primary lesson plans for qualifying persons, including vendors, for radwaste processing, packaging, and making shipments of RAM and radioactive waste as specified by 49 CFR Part 172.

71151 – Performance Indicator Verification (Last inspected October 2018)

1. Procedures for gathering and reporting NRC Performance Indicator (PI) data, including any Radiation Protection specific guidance and applicable "desktop guides".
2. Monthly/Quarterly Performance Indicator (PI) reports and copies of associated CAP documents, for Occupational Exposure Control Effectiveness and Radiological Effluent Technical Specifications/ Offsite Dose Calculation Manual (RETS/ODCM) Radiological Effluent Occurrences since September 1, 2018.
3. List of all CAP documents since October 1, 2018, using keywords such as high radiation area (HRA), locked high radiation area (LHRA), very high radiation area (VHRA), unintended dose, unlocked LHRA door, etc. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*
4. List of all electronic dosimeter (ED) dose rate alarms and all ED dose alarms since October 1, 2018.
5. Audits and self-assessment documents generated since September 1, 2018, related to

Performance Indicators.

6. List of CAP documents (CRs, NCRs, PIPs, etc.) since September 1, 2018, using keywords such as abnormal, unmonitored, unplanned effluent release, etc. *This should be a list of corrective action documents containing a CR number and brief description, not full CRs.*

Assistance Requested During On-Site Inspection

- Notification of any radiologically risk significant work activities, routine or special effluent sampling activities, or radioactive material shipments or receipts to be completed during the inspection week.
- Coordination with the REMP sampling technician so that an NRC inspector can go along on the weekly sample run.
- Review and discuss 2018 Land Use Census.
- Engineering and/or Health Physics walkdown of the meteorological tower, ventilation systems, and waste processing systems.
- Licensing and Health Physics assistance coordinating plant walk-downs, discussions with appropriate individuals, and observation of sampling activities.

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