

## RADIOACTIVE GASEOUS AND LIQUID EFFLUENT TREATMENT

Effective Date: January 1, 2018

**INSPECTABLE AREA:** Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

**CORNERSTONE:** Public Radiation Safety

**INSPECTION BASES:** 10 CFR 20.1302 and 10 CFR 50.36a. 10 CFR 20.1302 requires licensees take appropriate surveys of the unrestricted and controlled areas and effluents released into these areas to demonstrate compliance with the dose limits for individual members of the public. 10 CFR 50.36a requires licensees to establish Technical Specifications to keep releases of radioactive materials ALARA and to submit yearly effluent reports. Additionally, 50.36a provides numerical guidance via 10 CFR Part 50 Appendix I for establishing limiting conditions for operation to ensure effluents from light water cooled reactors are ALARA. Implementation of these requirements is described in plant-specific Technical Specifications and, typically, further described in licensee-controlled Offsite Dose Calculation Manuals (ODCM). Additionally, licensees are required by 10 CFR 20.1301(e) to comply with the U.S. Environmental Protection Agency's environmental radiation standards in 40 CFR Part 190.

This inspection area verifies aspects of the Public Radiation Safety cornerstone not fully measured by performance indicators (PI). In Public Radiation Safety, the effluent release occurrence performance indicator measures radioactive gaseous and liquid releases that were above a fraction of the Technical Specification and/or Offsite Dose Calculation Manual (ODCM) limits. Unidentified changes to the parameters assumed in the effluent dose calculations (e.g., process system efficiency, release points, exposure pathways, etc.) may not be reflected in the PI reporting.

LEVEL OF EFFORT: Inspect Biennially

PROGRAM APPLICABILITY: IMC 2515 App A

#### 71124.06-01 INSPECTION OBJECTIVES

- 01.01 To ensure that the gaseous and liquid effluent processing systems are maintained so that radiological discharges are properly mitigated, monitored, and evaluated with regard to public exposure.
- 01.02 To ensure that abnormal radioactive gaseous or liquid discharges and conditions, when effluent radiation monitors are out-of-service, are controlled in accordance with applicable regulatory requirements and licensee procedures.
- 01.03 To verify that the licensees' quality control program ensures that the radioactive effluent sampling and analysis requirements are satisfied so that discharges of radioactive materials are adequately quantified and evaluated from all established release points and any unmonitored and uncontrolled discharge path.
- 01.04 To verify the adequacy of public dose calculations and projections resulting from radioactive effluent discharges.
- 01.05 To conduct a Routine Review of problem identification and resolution activities per Inspection Procedure (IP) 71152, "Problem Identification and Resolution."

#### 71124.06-02 INSPECTION REQUIREMENTS

- 02.01 Walk Downs and Observations (1 Sample)
  - a. Walk down 3-5 effluent radiation monitoring systems (include at least one liquid and one airborne system) and verify that effluent/process monitor configurations align with ODCM descriptions. For portions of the systems that are inaccessible, review the licensee's material condition and surveillance records.
  - b. Walk down selected components of the gaseous and liquid discharge systems to verify that equipment configuration and flow paths align with the documents reviewed during inspection preparations and to assess equipment material condition.
  - c. Walk down those filtered ventilation systems whose test results will be reviewed later during the inspection and verify that there are no conditions that would impact the performance, or the effluent monitoring capability, of the system.
  - d. When possible for gaseous waste processing, observe selected portions of the routine processing and discharge of radioactive gaseous effluent (including sample collection and analysis). Verify that appropriate treatment equipment is used and the processing activities align with discharge permits.

- e. Evaluate any significant changes to the licensee's effluent release points, since the last inspection to verify they were adequately evaluated.
- f. When possible for liquid waste processing, observe the routine processing and discharge of effluents (including sample collection and analysis) to verify that appropriate effluent treatment equipment is being used and that radioactive liquid waste is being processed and discharged in accordance with procedure requirements and aligns with discharge permits.

Note: For items 02.01.a and 02.01.b above, do not duplicate inspection effort of IP 71124.08, Section 02.02.

02.02 Calibration and Testing Program (Process and Effluent Monitors) (1 Sample)

- a. Select 2-3 effluent monitor instruments (at least one of each type, such as gaseous, liquid, etc.). Verify that channel calibration and functional tests are performed consistent with radiological effluent technical specifications (RETS/ODCM); that (a) the licensee calibrates its monitors with National Institute of Standards and Technology (NIST) traceable sources; (b) if a primary calibration, it adequately represents the plant nuclide mix; (c) if a secondary calibration, it verifies the primary calibration; and (d) the channel calibrations encompass the instrument's alarm set points.
- b. Verify that effluent monitor alarm set points are established as provided in the ODCM and station procedures.
- c. For changes to effluent monitor set points, evaluate the basis for changes to ensure that an adequate justification exists.

02.03 Sampling and Analyses (1 Sample)

- a. As available, for 3-5 effluent sampling activities, verify that adequate controls have been implemented to ensure representative samples are obtained.
- b. As available, for 1-3 effluent discharges made with inoperable effluent radiation monitors, verify that controls are in-place to ensure compensatory sampling is performed consistent with the ODCM and that those controls are adequate to prevent the release of unmonitored liquid and gaseous effluents.
- c. Determine whether the facility is routinely relying on the use of compensatory sampling in lieu of adequate system maintenance, based on the frequency of compensatory sampling since the last inspection.

02.04 Instrumentation and Equipment (1 Sample)

- a. Effluent Flow Measuring Instruments.

Review the methodology the licensee uses to determine the effluent stack and vent flow rates. Verify that the flow rates are consistent with the ODCM or FSAR values, and that differences between assumed and actual stack and vent flow rates do not affect the results of the projected public doses.

b. Air Cleaning Systems.

Verify that surveillance test results for ventilation effluent discharge systems meet Technical Specifications requirements.

c. High-Range Effluent Monitoring Instrumentation.

1. Select up to two high-range effluent monitors or other effluent/process monitors that are relied on by the licensee in its emergency operating procedures (EOPs) as a basis for triggering emergency action levels (EALs) and subsequent emergency classifications, or to make protective action recommendations (PARs) during an accident.

a) Verify these instruments are calibrated and available.

b) Review licensee's methodology for calculating EAL thresholds (e.g. instrument response factor determination) associated with system modifications since the last inspection

c) As feasible, observe electronic and radiation calibration of these instruments to verify conformity with the licensee's calibration and test protocols.

2. Verify that the licensee has the capability to collect and analyze high-range, post-accident iodine and particulate effluent samples.

02.05 Dose Calculations (1 Sample)

a. For significant changes in reported dose values compared to the previous Radiological Effluent Release Report, evaluate the factors which may have resulted in the change. If the change was not explained as being influenced by operational issues independently assess the licensee's offsite dose calculations.

b. Review 1-3 radioactive liquid and 1-3 gaseous waste discharge permits. Verify that the projected doses to members of the public are accurate and based on representative samples of the discharge path.

c. Evaluate the methods used to determine the isotopes that are included in the source term to ensure all applicable radionuclides are included; within detectability standards. Review the current Part 61 analyses to ensure hard-to-detect radionuclides are included in the source term.

d. Review changes in the licensee's offsite dose calculations since the last inspection. Verify the changes are consistent with the ODCM and Regulatory Guide 1.109. Review meteorological dispersion and deposition factors used in the ODCM and effluent dose calculations to ensure appropriate factors are being used for public dose calculations. Confirm that in-plant dilution factors and dilution factors applied beyond the point of discharge into unrestricted areas are appropriately used in dose calculations for liquid effluents.

e. Review the results of the latest Land Use Census and verify that changes have been factored into the dose calculations.

- f. For the radioactive liquid and gaseous waste discharges reviewed in (b) above, verify that the calculated doses (monthly, quarterly, and annual dose) are within the 10 CFR Part 50, Appendix I and Technical Specification dose criteria.
- g. Select, as available, 1-3 records of any abnormal gaseous or liquid tank discharges and verify the abnormal discharge was monitored by the discharge point effluent monitor. If discharges were made with inoperable effluent radiation monitors, or if unmonitored leakage occurred, verify that an evaluation was made of the discharge to satisfy the survey requirements of 10 CFR 20.1501.

## 02.06 Problem Identification and Resolution

For each sample, conduct a routine review of problem identification and resolution activities using Inspection Procedure (IP) 71152, "Problem Identification and Resolution."

### 71124.06-03 INSPECTION GUIDANCE

#### Inspection Planning.

To the extent that can be reasonably accomplished, perform in-office preparation before the inspection, and complete the remaining inspection planning and follow-up actions during the onsite aspects of the inspection.

#### a. Event Reports and Effluent Report Reviews.

Ensure that docketed reports since the previous inspection are included in the current inspection (e.g., annual radioactive effluent release reports, special 30 day reports, supplemental monitoring reports, offsite dose calculation manual revisions). Consider scheduling this inspection soon after the annual radiological environmental report has been submitted such that recent data can be compared between the effluent report and the environmental reports.

1. Review the Annual Radiological Effluent Release Report(s) issued since the last inspection. Determine if the reports were submitted as required by the ODCM/Technical Specifications. Note any anomalous results, unexpected trends or abnormal releases identified by the licensee for further inspection to determine if they were evaluated, were entered in the corrective action program and were adequately resolved.
2. Identify radioactive effluent monitor operability issues reported by the licensee as provided in effluent release reports. Review these issues during the onsite inspection, as warranted, given their relative significance. Determine if the issues were entered into the corrective action program and adequately resolved.

#### b. ODCM and FSAR Reviews.

1. Review FSAR descriptions of the radioactive effluent monitoring systems, treatment systems, and effluent flow paths so they can be verified during inspection walk-downs.

2. Review changes to the ODCM made by the licensee since the last inspection. If differences are identified, review the technical basis or evaluations of the change during the onsite inspection, to determine whether they were technically justified and maintain effluent releases ALARA.

Changes to the ODCM are provided in the latest Annual Radiological Effluent Release Report.

Review changes against the guidance in the following documents:

- a) NUREG-1301, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors,"
  - b) NUREG-1302, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Boiling Water Reactors,"
  - c) NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants,"
  - d) Regulatory Guide (RG) 1.109, Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I,"
  - e) RG 1.21, "Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste,"
  - f) RG 4.1, "Radiological Environmental Monitoring for Nuclear Power Plants," and
  - g) RG 4.15, "Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination)—Effluent Streams and the Environment."
3. If applicable, evaluate the licensee's management of non-radioactive systems that have become contaminated since the last inspection. Determine if any of the newly contaminated systems have an unmonitored effluent discharge path to the environment, whether any required ODCM revisions were made to incorporate these new pathways and whether the associated effluents were reported as required.

During the onsite inspection, review any event reports, ODCM entries and 10 CFR 50.59 evaluations that have been performed for systems that have been identified as contaminated since the last inspection. Determine if any of the newly contaminated systems have an unmonitored effluent discharge path to the environment, whether any required ODCM revisions were made to incorporate these new pathways and whether the associated effluents were reported in accordance with Regulatory Guide 1.21, as applicable. IE Bulletin 80-10 provides guidance on contaminated systems not originally designed to be contaminated.

- c. Procedures, Special Reports, and Other Documents

1. Review LERs, event reports and/or special reports related to the effluent program issued since the previous inspection. Identify any additional focus areas for the inspection based on the scope/breadth of problems described in these reports.
  2. Review effluent program implementing procedures, particularly those associated with effluent sampling, effluent monitor set point determinations and dose calculations.
  3. Review copies of licensee and third party (independent) evaluation reports of the effluent monitoring program since the last inspection for insights into the licensee's program and to aid the inspector in selecting areas for review (smart sampling). Such reports include Quality Assurance (QA) reports and reports describing the results of the inter-comparison program with third party analytical laboratories.
- d. Post-Accident High Range Effluent Monitors.

Identify instrumentation and associated technical requirements for high range effluent radiation monitoring instrumentation, including those instruments used for remote emergency assessment. Review FSAR commitments and technical specification requirements for these instruments.

Post-accident monitoring instrumentation includes high range effluent monitors (System Particulate Iodine and Noble Gas (SPING)) and any other effluent or process monitors that are relied on by the licensee in its Emergency Operating Procedures (EOPs), or to issue protective action recommendations (PARs) during an accident

Note: Do not repeat any NRC inspection activity for any radiation monitor instrumentation that is included under the Maintenance Rule program.

#### 03.01 Walk Downs and Observations

- a. Focus on any flow measurement devices and all accessible point-of-discharge liquid and gaseous effluent monitors of the selected systems. Look for monitor degradation and out-of-service tags. For effluent sampling systems (e.g., SPINGs), look for indications of non-representative sampling such as severe bends in sample line tubing, non-isokinetic sampling, or lack of heat tracing in areas where temperature extremes could have an impact (causing condensation and plate-out). Additionally, be alert to degraded ventilation system connections (e.g., flexible duct connectors) that could contribute to releases. Guidance on sampling systems is contained in ANSI N13.1-1969, "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities," and ANSI N13.10-1974/ANSI N42.18-2004, "Specification and Performance of Onsite Instrumentation for Continuously Monitoring Radioactivity in Effluents."
- b. Be alert for potential unmonitored release points (such as open roof vents in BWR turbine decks, temporary structures butted against turbine, auxiliary or containment buildings), building alterations which could impact airborne, or liquid, effluent controls, and ventilation system leakage that communicates directly with the environment. Evaluate how the licensee is quantifying gaseous and liquid discharges and is

calculating the associated doses. Review the licensee's assessment of the source term used, including all radionuclides discharged, within detectability standards. Be aware of system contamination that may have impacted otherwise non-contaminated systems (e.g., PWR turbine sumps, plant boilers, RHR heat exchangers, etc.).

- c. Guidance on the performance of ventilation charcoal and filter banks is provided in ASME N510-1989. Conditions that may impact ventilation system performance include degraded HEPA/charcoal banks, improper alignment, or system installation issues
- d. No inspection guidance.
- e. In general, discharge points that are secondary dispersion/dilution points (i.e., those originating from authorized effluent discharges such as rain-out into storm drains or drainage from equipment condensation, including freezers) do not need further evaluation (see RIS 2008-03). However, the discharge of radioactive material from unusual discharge points (e.g., pumping of water from cable trays) needs an evaluation prior to discharge. This evaluation can be a bounding evaluation for less significant release points (see RG 1.21, Rev. 2). Some changes may require a 10 CFR 50.59 review, or prior NRC approval (e.g., burning contaminated oil in an auxiliary boiler). Consider if changes are subject to 10 CFR 50.59 reviews or NRC approval (e.g., alternate discharge points).
- f. No inspection guidance.

#### 03.02 Calibration and Testing Program (Process and Effluent Monitors)

- a. Focus on point of discharge effluent monitors and others, if time permits. Guidance on calibration program requirements is in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste"; Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination)—Effluent Streams and the Environment"; ANSI Standard N13.1-1969, "Sampling Airborne Radioactive Materials in Nuclear Facilities"; and Health Physics Positions (HPPOS) 040 and 229 in NUREG/CR-5569, Revision 1, "Health Physics Positions Data Base," dated May 1, 1992. If an instrument is not calibrated correctly, determine generic applicability and actual and potential exposure impact, and assess the impact with respect to control or emergency preparedness. Deficiencies should be entered into the licensee's corrective action program. Notify regional EP inspector if any issues are found with effluent monitors found in the licensee's approved emergency action level scheme.
- b. No inspection guidance.
- c. Determine if the set points are based on an appropriate effluent radionuclide (noble gas) mix so as not to exceed the effluent dose limits in 10 CFR Part 20 and the design constraints in 10 CFR Part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low as is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents." The radionuclide mix used in the calculation should be the same as or more conservative (lower average energy) than the licensee's actual source term mix.



### 03.03 Sampling and Analyses

- a. Evaluate potential sampling system configurations or situations that may impact representative sampling (e.g., media by-pass, humidity, line loss, heat trace, sample line flushing, vessel recirculation, composite samplers etc.). Guidance for review of reasonableness and consistency of sample data is covered in R.G. 4.15, Rev 1, Section C. 8. For those licensees committed to Rev.2 of R.G. 4.15, guidance is included in Section C.7 for quality assurance, Section C.8 for verification and validation, and Section 10 for preventive and corrective action. In general, the licensee's program in this area should be sufficient to detect anomalous data indicative of potential deficiencies in sample collection or analysis. For example, if the licensee's sample line for a system (e.g., stack) has lost integrity resulting in non-representative samples, would the program provide a means of detecting the deficiency?
- b. No inspection guidance.
- c. No inspection guidance.

### 03.04 Instrumentation and Equipment

- a. Effluent Flow Measuring Instruments.

Guidance on the maintenance of flow measurement devices (e.g., pitot tubes) and filter testing is contained in ANSI N42.18-2004, "Specification and Performance of On-Site Instrumentation for Continuously Monitoring Radioactivity in Effluents."

If available, review historical trends in vent/stack flow rates to determine if substantial variability exists, potentially indicating flow restrictions in the measuring device or fan motor problems.

- b. Air Cleaning Systems.

Guidance on performance testing of Technical Specification required ventilation systems is provided ASME N510-1989, "Testing of Nuclear Air Treatment Systems."

Systems to consider include the Standby Gas Treatment System (BWRs) and the Containment/Auxiliary Building Ventilation System (PWRs). Coordinate with the resident inspectors before inspecting safety-related (accident scenario) ventilation systems to avoid duplication of effort.

- c. High-Range Effluent Monitoring Instrumentation.

1. Refer to the licensee's FSAR, technical specification requirements, and NUREG-0737, "Clarification of TMI Action Plan Requirements," issued November 1980, for guidance on post-accident monitoring instrumentation. Note: Since these monitors may be used for PARs, ensure that the regional EP staff is aware of any monitoring issues that could impact the monitors' function.

A detailed review of EAL threshold calculations is not intended, nor desired. Inspectors should interview plant personnel who conduct, or are responsible for, these calculations to qualitatively review the licensee's performance in this area.

Significant questions or issues in this area should be referred to the program office for further guidance.

Focus should be given to those monitors in which the EAL threshold is based on public dose and for which changes to the thresholds have been made since the previous inspection. NEI 99-01 provides guidance on establishing EALs.

Consider if monitor operation is appropriate for the setpoint value (e.g., the setpoint is not affected by the monitor switching from mid-range to high-range or a purge function that actuates upon shifting of ranges).

2. No inspection guidance.

03.05 Dose Calculations

- a. Consider dose values that change by a factor of 5, or that increase such that they approach Appendix I Criterion. Factors that may result in changes to dose values include fuel integrity, recent changes in coolant chemistry, extended outage, or major decontamination efforts. Review the licensee's dose calculation methods. If any concerns arise, use available NRC computer codes (agreement should be within a factor of 2) to verify dose values, perform manual calculation, or review the licensee's dose calculation methods.
- b. No inspection guidance.
- c. No inspection guidance.
- d. No inspection guidance.
- e. Consider significant increases or decreases to population in the plant environs, changes in critical exposure pathways, the location of nearest member of the public, or critical receptor, etc.
- f. No inspection guidance.
- g. Consider discharges resulting from misaligned valves and valve leak-by, etc.

03.06 Problem Identification and Resolution

Per IP 71152, it is expected that routine reviews of PI&R activities should equate to approximately 10 to 15 percent of the resources estimated for the associated baseline cornerstone procedures, this is a general estimate only based on the overall effort expected to be expended in each strategic performance area. It is anticipated that the actual hours required to be expended may vary significantly from attachment to attachment, depending on the nature and complexity of the issues that arise at the particular facility. Overall, an effort should be made to remain within the 10 to 15 percent estimate on a strategic performance area basis. Inspection time spent assessing PI&R as part of the baseline procedure attachments should be charged to the corresponding baseline procedure.

#### 71124.06-04 RESOURCE ESTIMATE

For planning purposes it is estimated to take 35 hours, on average (with a range of 31 to 39 hours) to perform the requirements of this attachment.

#### 71124.06-05 COMPLETION STATUS

Inspection of the minimum sample size will constitute completion of this procedure in the RPS. The minimum sample size for this attachment is five, defined as the completion of the activities contained in sections 02.01 through 02.05.

If any of the sample inspection requirements cannot be completed, the procedure should be closed in accordance with IMC 0306, "Planning, Tracking and Reporting of the Reactor Oversight Process (ROP)." For example, if certain steps could not be completed due to sample unavailability, the procedure attachment should be declared "Complete – full sample not available" with a comment addressing the specific steps or activities that could not be completed.

#### 71124.06-06 REFERENCES

10 CFR Part 20, "Standards for Protection against Radiation,"

10 CFR 50.34a, "Design Objectives for Equipment to Control Releases of Radioactive Material in Effluents—Nuclear Power Reactors,"

10 CFR Part 50, Appendix A, "General Design Criterion for Nuclear Power Plants," Criterion 60, "Control of releases of radioactive materials to the environment,"

10 CFR Part 50, Appendix A, "General Design Criterion for Nuclear Power Plants," Criterion 64, "Monitoring radioactivity releases,"

ANSI N13.1-1969, "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities,"

ANSI N13.10-1974, "Specification and Performance of On-site Instrumentation for Continuously Monitoring Radioactivity in Effluents,"

ANSI N42.18-2004, "Specification and Performance of Onsite Instrumentation for Continuously Monitoring Radioactivity in Effluents,"

ASME N510-1989, "Testing of Nuclear Air Treatment Systems,"

Generic Letter 89-01, "Implementation of Programmatic and Procedural Controls for Radiological Effluent Technical Specifications,"

Inspection and Enforcement (IE) Bulletin 80-10, "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release to Environment,"

Regulatory Guide (RG) 1.21, "Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste,"

RG 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I,"

RG 1.21, "Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste,"

RG 4.1, "Radiological Environmental Monitoring for Nuclear Power Plants,"

RG 4.15, "Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination)—Effluent Streams and the Environment,"

RIS 2008-03, "Return/Re-use of Previously Discharged Radioactive Effluents,"

NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants,"

NUREG-0737, "Clarification of TMI Action Plan Requirements,"

NUREG-1301, "Offsite Dose Calculation Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors,"

NUREG-1302, "Offsite Dose Calculation Guidance: Standard Radiological Effluent Controls for Boiling Water Reactors," and

NUREG/CR-5569, Revision 1, "Health Physics Positions Data Base."

END

Attachment 1: Revision History for IP 71124.06

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	12/02/09 CN 09-030	<p>Conducted four year search for commitments and found none.</p> <p>This new procedure is being issued as a result of the 2009 ROP IP Realignment. It supersedes inspection requirements in IP 71121 and 71122.</p>	Yes 09/09/2009	ML092810414
C1 Reference: SRM-SECY-11-019 (August 15, 2011) Senior Management Review of Overall Regulatory Approach to Groundwater Protection	ML12321A387 06/06/13 CN 13-013	This revision directs the inspection staff to document observations of incomplete or discontinued implementation of the NEI/industry ground water protection Initiative (GPI). The revision also instructs inspection staff that if the licensee is not implementing the GPI, to review the adequacy of the licensee's implementation of the Decommissioning Planning Rule under 10 CFR 20.1406(c) and 10 CFR 20.1501, including Part 52 licensee requirements to implement the GPI and NEI-08-08A.	N/A	ML13085A201 ML13129A076
N/A	ML15345A054 04/01/16 CN 16-010	<p>Revisions to the IP 71124.06 procedure attachment were made in response to the 2013 ROP Enhancement Project.</p> <p>The revision changed how inspection samples are counted, moved the sections on ground water inspections from 71124.06 to 71124.07. It incorporates effluent monitoring instrumentation from 71124.05 into 71124.06.</p>	N/A	IP revised only to include new sample sizes. There is no valid comment resolution at this time.

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	ML17286A290 12/21/17 CN 17-031	<p>Major editorial revision of IP 71124.06.</p> <p>Inspection Bases was updated to reference applicable regulations. Guidance added to address sample quality assurance in response to ROPFF 71124.06-1639.</p> <p>Section 02 was audited and modified to move guidance to Section 03 and to concisely state actions necessary to complete each requirement</p> <p>Modified 02.04 to add requirement for inspectors to review rad monitor calculations used to establish EAL thresholds in response to ROPFF 71124.06-2237. Reduced 02.02.a to 2-3 from 3-5.</p> <p>Moved requirement to review results of inter-lab comparison to 71124.05 (02.02.a.2).</p> <p>PI&amp;R was transitioned from an independent sample to a requirement that would be completed as part of each sample. Guidance section updated to reflect resource estimates for routine review of PI&amp;R activities per IP 71152 Section 04.01.</p>	Verbal discussion of changes during 2017 HP Counterpart meeting, 09/06/2017	<p>ML17300A475</p> <p>Closed FBFs:</p> <p>71124.06-1639 ML17300B385</p> <p>71124.06-1743 ML17300B383</p> <p>71124.06-2237 ML17300B384</p>