

CASION

Braidwood Plant

INSPECTION PLAN

EVENT FOLLOWUP INSPECTION - TRITIUM RELEASE

Inspection Report Number 05000456/2005010; 05000457/2005010

Inspection Objectives

The inspection objectives are (1) to understand the geographical and radiological extent of the offsite tritium release identified at the Braidwood Nuclear Plant by the licensee on November 30, 2005, (2) to verify that licensee properly identify the source of the tritium release, (3) to review historical circulating water blowdown line vacuum breaker failures including causes, and corrective actions, (4) to review the licensee's evaluations, monitoring and quantification of release paths to the environment associated with the historical circulating water blowdown line vacuum breaker failures (5) to confirm that the licensee had adequately verified the integrity of the circulating water blowdown line prior to future radwaste releases, and (6) to assess the licensee's actions for recovery plans.

Onsite Inspection Dates: *10/12-16/05 and subsequent, as needed, for final assessment.*

Applicable Inspection Procedures

IP 71153 "Event Followup"

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	A. Boland, DRS Deputy Division Director		

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INSPECTION PLAN DETAILS

I **Inspectors:** Nick Shah, Greg Roach, John House, and sample coordination provided by DNMS.

II **Detailed Inspection Schedule**

Inspection activities will be completed in association with the licensee's activities. DRP historical reviews will be complete as part of the routine resident activities. The schedule for completing the DRS historical review will be determined based on the inspectors availability and the status of the licensee's activities.

III **Specific Inspection Activities:**

Inspection Procedure 711153: Event Followup

Preparation

N/A

Inspection

- HOUSE
LEAD
-NICK
- A. Understand the geographical and radiological extent of the offsite tritium release identified at the Braidwood by the licensee on November 30, 2005. This will include splitting samples obtained by the licensee and independently analyzing these samples. All residential drinking water well samples will be analyzed for tritium only, using a detection limit of 200 pCi/liter. All other samples (shallow well, surface water, etc) will be analyzed for tritium using a detection limit of 500 pCi/liter, and one in five will be selected for a gamma spec to environmental LLDs. The samples selected for gamma spec will be "smart samples" that ensures adequate geographical coverage, and focuses on samples in the plume pathway. The smart samples should be from those samples collected in larger bottles (500 ml and larger). (DRS, DRP and DNMS)
 - B. ~~Verify that licensee properly identify the source of the tritium release.~~ (DRS)
 - C. Review historical circulating water blowdown line vacuum breaker failures including causes, and corrective actions. Prior known vacuum breaker failures occurred in 1998, 200, and April 2005. (DRP)
 - D. Review the licensee's evaluations, monitoring and quantification of release paths to the environment associated with the historical circulating water blowdown line vacuum breaker failures. (DRS)
 - E. Confirm that the licensee had adequately verified the integrity of the circulating water blowdown line prior to future radwaste releases. (DRP)
 - F. ~~Assess the licensee's actions for recovery plans.~~ This may require Hydrologist expertise to complete this effort. (DRS and DRP)

IV Starfire and Time Charge Information

All inspection time is to be charged to IP 71153, Event Followup

V Findings

Issues shall be screened for performance deficiencies, traditional enforcement and greater than minor using Manual Chapter (MC) 0612, Section 05, Appendix B and Appendix E. The significance determination process (SDP) work sheets have been issued and are available. The SDP forms, along with information found in Manual Chapter (MC) 0609 will be used to evaluate any findings arising from the inspection. Findings that appear to be "other than green" shall be immediately discussed with the licensee and the senior reactor analyst, to ensure that PRA information is correctly considered. If a color cannot be immediately be determined, the issue will be described as an "unresolved item," pending final validation of the SDP. Enforcement action for green or non-SDP issues will be handled in accordance with the Enforcement Policy. All findings will be documented in the report.

VI Documentation

Report 2005-010.

The report will be prepared in accordance with the guidance in MC 0612 and regional procedure 1220R. Findings which require documentation in the report should be agreed upon prior to the exit and should meet the threshold for "greater than minor" as discussed in MC 0612 section 05.03. If there are no findings that exceed that threshold, then each inspector's input will consist of a list of the documents reviewed. Non-cited violations need to address the information in MC 0612 section 06.03.

Because of the limitations placed on writing detailed input, all documents reviewed shall be included in the document list. UFSAR and TS sections are generally considered reference material and generally are not on the document list. Corrective action documents generated as a result of the inspector's questions shall be called out separately from corrective action documents that were in the licensee's system prior to the inspection.

VII Interface and Coordination Meetings

This inspection is part of the routine resident inspection and the results, will be provided to the licensee with the residents. Other meetings with the licensee will be held as appropriate, based on the inspection findings.