

**ATTACHMENT 1**  
**RADIONUCLIDE RELEASE INITIAL REPORT ELECTRONIC FORMAT**  
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**STATE OF ILLINOIS**  
**NUCLEAR POWER PLANT**  
**RADIONUCLIDE RELEASE REPORT**  
**INITIAL REPORT**

The following information must be submitted to the Illinois Environmental Protection Agency and to the Illinois Emergency Management Agency to report a release of a radionuclide pursuant to 35 Ill. Adm. Code 1010.202. This initial report must be submitted to each agency via phone and electronically within 24 hours of the release. Please attach additional sheets as needed.

This form can also be used by a licensee that, pursuant to the last section of 35 Ill. Adm. Code 1010.104, reports a release of radionuclides that is not required to be reported under Section 13.6 of the Environmental Protection Act.

Report Date/Time 6-12-17 1800, Revised 6-14-17 1300

Nuclear Generation Station Name Braidwood Station

Address: 35100 S. Rt. 53

City, State, Zip: Braceville, IL 60407

Name of Principal Executive Officer: Marri Marchionda-Palmer

Telephone Number 815-417-3600

Signature \_\_\_\_\_

Name of Licensee Braidwood Generating Station

Address 35100 S. Rt. 53

City, State, Zip Braceville, IL: 60407

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Specific Location of Release: Circulating Water Blowdown House sump hose approximately 50 feet short of the discharge canal.

Time of Release: May 28, 2017-June 11, 2017

Duration of Release: Intermittent - when sump pump was run

Identify Radionuclide Release: Tritium

Estimate the Quantity of Release (Curies): approximately 0.009 Curies

Estimate of Volume Released: approximately 35,000 gallons

Estimate of Concentration (pCi/L) of Release: Variable concentrations with a maximum concentration of 200,209 pCi/L.

Estimate of Flow-Rate, if on-going NA Not ongoing

General Description of Release (including, but not limited to, whether release was to groundwater, surface water, or soil; a description of release area; and the size of affected area)

Braidwood recently identified the use of a sump pump to remove water as part of maintenance activities in the Circulating Water Blowdown House located adjacent the discharge canal and diffuser pipe (NPDES outfalls). Rather than releasing the sump water directly to the permitted outfall, it was released roughly 50 feet short of the discharge canal, allowing water from the blowdown house sump to flow intermittently onto the ground. The water flowed across soils and towards the discharge canal, a NPDES outfall. Once discovered, the discharge was terminated and the area was inspected.

Actions Taken in Response to Release

The discharge was terminated, the area was inspected for pooled or ponded water and soil samples were obtained. IEPA, was verbally notified of the preliminary findings and investigation at 0914 on 6/12/17 by telephone.

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Known and Anticipated Impacts to Human Health and/or Environment

The primary pathways of exposure to tritium are through inhalation or ingestion of water or food. Once inhaled or ingested, and because it behaves like water, it does not concentrate in any organ but is distributed throughout body tissue. Due to the low concentrations, there is no expected dose consequence.

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Additional Information

William Buscher, IEPA, was verbally notified at 0914 on 6/12/17 by telephone of the potential for a reportable release. William Buscher, IEPA, via voicemail was verbally notified at 1152 on 6/14/17 by telephone of the “Estimated Quantity of the Release (Curies) exceeded the threshold for a reportable release.”

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Number for reporting via telephone:

Illinois EPA – (217) 782-3637

IEMA – (800) 782-7860  
(217) 782-7860 (if calling from outside Illinois)

Submit electronically to:

IEPA at "EPA.RadRelease@Illinois.gov"

IEMA at "ema.npprelease@illinois.gov"

Contacts for Further Information

Name Ray Hall

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Address 35100 S. Rt. 53

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City, State, Zip Braceville, IL 60407

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Telephone Number 815-417-3200

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Name N/A\_\_\_\_\_

Address\_\_\_\_\_

City, State, Zip\_\_\_\_\_

Telephone Number\_\_\_\_\_