



To: Tennessee Department of Environment and Conservation
Division of Water Resource
2305 Silverdale Road
Johnson City, TN 37601
Attn: Mr. Corey Click, Environmental Consultant

From: Bob Macfarlane, Corporate EH&S Director
BWXT Ordnance Tennessee
1367 Old State Route 34
Jonesborough, TN 37659

Date: August 28, 2026

Re: Unintentional Discharge (August 24, 2026) – 5-Day Written Follow-Up Report

Incident Overview

On Monday, August 24, 2026, BWXT Ordnance Tennessee observed a wastewater discharge in Building 300. The wastewater was being pumped from Building 100 through Building 300 to Building 400 (Wastewater Plant) for treatment. However, the wastewater line in Building 300 was disconnected for maintenance. The wastewater from Building 100 flowed through the open line in Building 300 and onto the floor and outside of the building. The amount of wastewater that was discharged onto the building floor and outside of the building was estimated to be approximately 900 gallons. A percentage of this wastewater drained into Stormwater outfall A.

Based on the review of the event, no reportable quantities nor NPDES discharge limits were exceeded.

The wastewater contained a chemical degreaser (Bullseye) that is commonly used to degrease parts and clean the floors within Building 100. The degreaser is mixed with 4 parts of water to 1 part of degreaser into 1 quart spray bottles. The spray bottles are used as needed by the employees in the performance of their work assignments.

The manufacturer's Safety Data Sheet shows a mixture of:

1. 2-(2-Butoxyethoxy) Ethanol (CAS # 112-34-5) at 1 – 5%
2. Sodium Hydroxide (CAS # 1310-73-2) at 1 – 5 %

Timeline of events (8/24/2026):

1. 0830 – Began pumping Building 100 wastewater (approximately 2,500 gallons) to Building 400.
2. 0845 – Wastewater was observed on the floor by employees in Building 300.

3. 0852 – Spill pillows were used to minimize wastewater flow into Stormwater Outfall A and to divert flow away from Outfall A to the surrounding soil.
4. 0905 - Environmental (water) sample was taken approximately 25 feet in front of Outfall A.
5. 0911 – Notification was made to cease pumping the wastewater from Building 100.
6. 0915 – Reattached wastewater line and sump pump in Building 300. Began to capture remaining wastewater from Building 300 (floor and sump).
7. 0930 – Environmental (water) sampling began at the creek (In-Stream Sample Area #5 on Clyde Miller Road). Samples were taken every 15 minutes until 1015. Two additional samples were taken at 1230 and 1245.
8. 1230 - TDEC (Cory Click) was notified by phone of the unintentional release of wastewater to the environment.

Post-Release Actions (8/25/2026)

1. Spill material and media were collected and disposed of as low level radioactive waste.
2. Contaminated areas were surveyed resulting in normal background radiation levels.
3. Shared event lessons learned with management to prevent reoccurrence.
4. Prepared 5-day report for TDEC as required.

Environmental Sampling Timeline & Results

Initial Sampling

1. 0905 – Initial sample taken 25 feet upstream from Outfall A.
 - Results – 26 ppm U₂₃₈ / pH 8.73
2. 0930 – Collected water samples at the In-Stream Sample Area #5 on Clyde Miller Road.

Creek Sample Times and Results

Time	Sample Location	Sample #	Result (ppm U₂₃₈)
0930	In-Stream 5	#1	0.040
0945	In-Stream 5	#2	0.141
1000	In-Stream 5	#3	0.029
1015	In-Stream 5	#4	0.018
1230	In-Stream 5	#5	0.033
1245	In-Stream 6	#6	0.022

Environmental Observations at the creek

- No oil sheen was observed.
- No visual contamination detected.
- No damage to aquatic life or the surrounding environment was observed.

Notifications:

TDEC (Cory Click) was notified by phone of the unintentional release of wastewater to the environment within 24 hours of the event (1230 hours).

Based on the review of the event, no reportable quantities nor NPDES discharge limits were exceeded.

Chemical - Degreaser (Bullseye)

- Chemical of concern - Sodium Hydroxide (NaOH)
- Reportable Quantity (RQ) – 1000 lbs

Calculation Summary

Total mixture volume released to the environment = 900 gallons (conservative)

- Bullseye volume fraction = 25%
- Bullseye volume = $900 \times 0.25 = 225$ gallons
- Density of Bullseye = 8.757 lbs/gal
- Bullseye quantity = $225 \times 8.757 = 1,970.3$ lbs
- NaOH content (5 wt%) = $0.05 \times 1,970.3$

NaOH in mixture = 98.5 lbs < NaOH RQ 1,000 lbs – No notification required

Supporting Reference Values

- Specific gravity of Bullseye (SDS): 1.05
- Density of water: 8.34 lbs/gal
- Calculated density of Bullseye:
 $1.05 \times 8.34 = 8.757$ lbs/gal
- Maximum NaOH concentration in Bullseye (wt%): 5%
- Maximum Bullseye proportion in final mixture (vol%): 25%

Radiological

- Activity of Concern - U_{238}
- RQ – 0.1 Curie U_{238}

Calculation Summary

Based upon a concentration of 26 ppm and assuming 900 gallons of water made it off site (conservative).

Specific Activity of

Depleted Uranium: 6.68E-07 Ci/g

Concentration: 26 ppm (26 mg/L)

Spill Volume: 900 gallons / 3402 Liters

Total grams released: 88.4 grams

Activity released: 5.9E-05 Ci

The off-site activity would be approximately 5.9E-05 Ci (0.000059 Ci), well below the RQ of 0.1 Ci.