

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Fairmont Brine Site - Removal Polrep  
Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region III

**Subject:** POLREP #1  
POLREP #1 & SPECIAL BULLETIN A - NOTICE OF \$250K ACTIVATION  
Fairmont Brine Site  
B3CL  
Fairmont, WV  
Latitude: 39.5082655 Longitude: -80.1254116

**To:** R3 RRC, US EPA R3  
Jason McDougal, WV DEP  
Jason Frame, WV DHHR

**From:** Christine Wagner, On-Scene Coordinator and Cole Devine, On-Scene Coordinator

**Date:** 9/22/2023

**Reporting Period:** 9/14/2023-9/22/2023

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B3CL	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	9/22/2023
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>		<b>Start Date:</b>	
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Emergency Actions at Time-Critical Removal Action

#### 1.1.2 Site Description

Abandoned facility

##### 1.1.2.1 Location

168 AFR Drive  
Fairmont, Marion County, WV

##### 1.1.2.2 Description of Threat

Uncontrolled release of CERCLA hazardous substances, primarily the release of radionuclide Radium-226 (Ra-226) from a former brine processing plant.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

### I. BACKGROUND AND SITUATION

A. On May 30, 2023, the West Virginia Department of Environmental Protection (WV DEP) requested EPA assistance to a fire and explosion which occurred at the former Fairmont Brine Processing Facility in Fairmont, Marion County, WV. Specifically, WV DEP expressed concern regarding the release of radionuclides in the form of TENORM. TENORM is the abbreviation for Technically Enhanced Naturally Occurring Radioactive Materials. EPA's TENORM website (link on website page) defines TENORM as "Naturally occurring radioactive materials that have been concentrated or exposed to the accessible environment as a result of human activities such as manufacturing, mineral extraction, or water processing."

B. WV Department of Health and Human Services (WV DHHR) oversees radiation activities in West Virginia; however, this facility is not regulated by DHHR. WV DHHR also responded to the fire to support WV DEP and local responders. Personnel from DHHR detected elevated levels of radiation on the Site. West Virginia is not an "Agreement State" According to the Nuclear Regulatory Commission, Agreement States have entered into agreements with the NRC that give them the authority to license and inspect byproduct, source, or special nuclear materials used or possessed within their borders. See link on webpage for more information.

C. Because the facility is not regulated by DHHR or the NRC, WV DEP requested EPA's assistance in evaluating the areas where radionuclides may have deposited during the fire. Several EPA OSCs responded and collected readings which confirmed the presence of radionuclides in elevated concentrations. EPA also confirmed the radionuclide released is Radium-226.

D. The EPA Duty Officer created a National Response Center Report 1368668. The National Response Center did not receive any notification from the owner or operator of the facility.

E. The Fairmont Brine Facility is located at 168 ARF Drive in Fairmont WV. The facility accepted drilling water which was treated on Site and processed into other materials. A description of the facility process

can be found in a YouTube Video which was produced by Venture Engineering. A link to this video can be found in the LINKS section of the webpage.

F. The facility can be described as two portions - the Upper Complex and the Lower Complex. In addition to the process buildings, two water impoundments are on Site. According to a Consent Order issued by WV DEP, the facility includes a double-lined raw brine water impoundment with a capacity of 125,000 barrels ("Brine Pond") and a single-lined distilled water impoundment with a capacity of 30,000 barrels ("Freshwater Pond").

G. As described in A. above, a tank in the upper complex caught fire on 5/30/23 and the contents exploded, launching the tank top over a building and landing approximately 100 yards from its original location.

H. Readings collected around the tank using field radiation survey equipment indicated levels of gamma radiation of approximately 1 mR/hr at the time of the fire. The data collected indicated the radionuclide released was Radium-226. Radionuclides, including Ra226 are hazardous substances listed in 40 CFR 302.4

I. Following the fire, WV DEP informed EPA that WV DEP would be pursuing cleanup actions with the potentially responsible party(s).

J. In August of 2023, WV DEP, WV DHHR, and EPA initiated consultations to take action to prevent unauthorized access from the Site. At this time, the Site was abandoned and unsecured.

K. On or about 9/12/23, WV DEP and WV DHHR performed a Site visit. During the Site visit, WV officials observed activity taking place on Site outside of the scope of the WV DEP Order. Specifically, a contractor was on Site removing and pumping water from the ponds on Site. This work had not been approved by WV DEP. This action increased the risk of exposure to the public because the water in the ponds shields radiation from the sediments. The sediments are now unprotected or minimally protected from emitting ionizing radiation. Secondly, the WV representatives observed radiation outside of the concrete containment area surrounding the tank which had exploded. Radiation levels of 2.5 mR/hr were detected in this area, which were higher than results collected during the fire. Significant increases in vandalism and increased trespassing were also observed on the Site.

L. WV DEP and WV DHHR have requested EPA take action to mitigate the continued release of radionuclides and other hazardous substances from the Site.

M. On 9/14/23, the EPA OSC, accompanied by representatives from WV DEP and WV DHHR performed a removal assessment at the Site. At this time, even higher radiation readings, up to 3.03 mR/hr were observed around the explosion Site. As a reference, the Nuclear Regulatory Commission recommends a dose limit of not greater than 2 mR in any one hour from external radiation sources in any unrestricted area and <100 mR per calendar year from both external and internal sources of radiation in unrestricted and controlled areas.

N. During this assessment, EPA and WV representatives observed abandoned drums marked "CORROSIVE" in the building of the lower complex. Label information indicates these drums may contain sodium hydroxide and/or potassium hydroxide, both of which can cause caustic burns to the skin.

O. The DHHR representative on scene with EPA and WV DEP observed that a significant increase in vandalism had taken place just over one week. The outside steps from the upper complex to the lower complex were removed. Much of the piping and metal throughout the Site had been removed, and there was increased evidence of trespassing (large pile of empty beer cans) throughout the Site.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

##### CURRENT ACTIONS

Based on the findings of the removal assessment conducted under 40 CFR 300.415, the OSC has determined that emergency actions are needed to secure access and contain the release of hazardous substances, primarily radionuclides, from the Site.

##### THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT

The National Contingency Plan 40 CFR §300.415b(2) requires the lead agency to consider the following factors in determining the appropriateness of a removal action:

*(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;*

The Site is unsecured and rampant trespassing and vandalism has been observed by local and state officials who have visited the Site. Radiation has been detected up to 3 mR/hr around the area where the fire occurred. The Nuclear Regulatory Commission recommends a dose limit of not greater than 2 mR in any one hour from external radiation sources in any unrestricted area and <100 mR per calendar year from both external and internal sources of radiation in unrestricted and controlled areas. Background radiation at the Site is approximately 0.015 mR/hr. Readings of up to 3.03 mR/hr have been detected in an unrestricted area around the tank which caught fire. WV DHHR personnel detected elevated radiation readings outside of the containment area, indicating radiation is spreading.

Human exposure to radionuclides by inhalation, absorption, or ingestion is possible. Radionuclides can cause acute or chronic effects, depending on dose. Rampant vandalism has occurred on the Site and trash deposited there indicates trespassers may be partying at the Site for unknown periods of time. Increased time spent near radionuclides increases dose and potential health effects.

The radionuclide Radium 226 has been identified on the Site. Radium 226 can affect the blood, eyes, and teeth. Radium is also a known human carcinogen.

*(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;*

The Site is directly upgradient of the Monongahela River. The former FBP facility had an NPDES permit to monitor discharge into the River. However, since the facility was abandoned, the quantities and types of hazardous substances entering the river is unknown. Radionuclides or other hazardous substances have the potential to impact the Monongahela River either by overflow of the ponds on Site or through an existing outfall.

Two large ponds on Site may contain contaminated wastewater and/or contaminated sediments. Readings

collected by DHHR at the edge of the pond indicated gamma readings above 3 times background. Additional sampling will be necessary to determine the extent of contamination in the ponds and sediments. However, the presence of elevated levels of radionuclides is likely.

*(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release;*

During the assessment, 55-gallon drums were found in the process building in the lower complex. Labels on drums abandoned at the Site indicate highly caustic hazardous substances may also be present. These drums must be removed from an unsecured area to prevent any human exposure to trespassers in the area.

*(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate;*

WV DHHR has already documented migration of radionuclides outside of the containment area where the tank caught fire. Radiation levels at the surface appear to be increasing because the area around the tank is not contained. Immediate actions are necessary to shield or barricade this area to minimize further migration of hazardous substances, pollutants or contaminants.

*(v) Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released;*

Contamination at the Site is uncontrolled. The facility is situated on a hill approximately 142 feet above the nearby Monongahela River. Heavy rains or other adverse weather will cause runoff from the Site to migrate downhill toward the river. Immediate measures are needed to control runoff and divert precipitation away from the facility.

*(vi) Threat of fire or explosion;*

A fire and explosion occurred at the Site on May 30, 2023 when the contents of an aboveground storage tank caught fire and the tank cover exploded from the tank. The top of the tank landed approximately 100 yards away and could have injured or killed someone trespassing on the Site. This fire resulted in the release of radionuclides to the environment. Immediate actions are needed to mitigate further threat of a fire at the Site.

*(vii) The availability of other appropriate federal or state response mechanisms to respond to the release:* WV DEP has documented a history of non-compliance at the facility on several occasions from 2016 through 2022. WV DEP issued Fairmont Brine Processing, LLC a Consent Order in May of 2023 to perform actions at the Site. However, conditions at the Site have deteriorated. WV DEP has requested EPA immediately take actions to secure the site and the radionuclides which have been released to the environment. Neither WV DEP or any other state or local agencies have indicated the ability to undertake these actions at this time.

**INITIATION OF REMOVAL ACTION**

Based on factors listed, above, conditions at the Fairmont Brine Site pose a threat to public health or welfare of the United States or the environment. Under the Delegation of Authority 14-2 of CERCLA, the OSC is initiating a removal action and is initiating funds in the amount of \$250,000 to immediately being response actions necessary to mitigate the release of hazardous substances, including radionuclides, listed under 40 CFR 302.4. This removal action is consistent with the requirements of 40 CFR 300.415b(1)

**2.1.2 Response Actions to Date**

Based on EPA's determination that emergency actions are necessary to prevent the further release of hazardous substances, pollutants, or contaminants, the OSC has coordinated with EPA counsel to prepare an access agreement to immediately begin the response actions described in 2.2.1.1 below.

**2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

The OSC is coordinating with WV DEP regarding actions required under an existing Consent Order issued by WV DEP to Fairmont Brine Processing, LLC. Additionally, the OSC continues to work with EPA's Cost Recovery Specialists to obtain additional information through CERCLA 104e information requests. EPA will continue to work with the PRPs to determine the potential for any of the PRPs to perform the necessary work correctly and properly through EPA Administrative Agreements.

**2.1.4 Progress Metrics - reserved**

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

**2.2 Planning Section**

**2.2.1 Anticipated Activities**

**2.2.1.1 Proposed Actions Description**

The response actions described below directly address actual or potential releases of hazardous substances from the Site which pose an imminent and substantial endangerment to public health, or welfare or the environment.

Additional evaluation of potential releases of hazardous substances, specifically from pond water and sediments, will continue separately under 40 CFR 300.410.

1. Obtain legal access to perform the actions described in this memo;

2. Secure the entrances to the Site necessary to prevent authorized access. Install surveillance devices to ensure security measures are effective;
3. Install containment measures around tank to prevent further migration of hazardous substances to uncontrolled areas;
4. Install fire protection measures, including, but not limited to fire breaks, moving combustibles away from potential ignition sources, moving and securing flammable substances which may be present in the processing area, and removing trash which may ignite;
5. Determine the structural integrity of the building(s) affected by the fire;
6. Control contaminated runoff from the Site;
7. Segregate contaminated ash, debris, metal, and other substances found to contain radionuclides above background levels;
8. Establish and set up a command post area including, but not limited to office trailers, lighting, utilities, etc. necessary to perform the work described in this document
9. Create and implement a plan to properly remove and dispose of hazardous substances, including radionuclides in accordance with 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440

**2.2.1.2 Next Steps**

The OSC will work with EPA Regional Counsel to obtain access to perform the actions above.

The OSC will prepare a letter to WV DEP requesting state ARARs, including ARARs regarding radionuclides. The OSC has been coordinating with WV DEP and WV DHHR regarding ARARs. Federal ARARs include, but are not limited to 10 CFR Part 20, 40 CFR 262, and 49 CFR 172-179.

The OSC continues to coordinate with WV DEP, WV DHHR, Marion County Emergency Management, and EPA's Radiation Protection Specialist. The OSC will also continue coordination with the EPA OSCs and RPM working on the nearby Big John Salvage Site.

**2.2.2 Issues**

1. **The OSC has determined that a response action is warranted. This document serves as the decision document to initiate a response action and begin immediate removal actions.**
2. The OSC has prepared an Administrative Record for the Site. The AR will be published following review by EPA's Office of Regional Counsel.
3. The Fairmont Brine Site is located approximately one mile north of the Big John Salvage Hoult Road NPL Superfund Site. The OSC will coordinate closely with the RPM on all EPA operations which may affect this Site.
4. The planned response activities do not include any soil disturbance. An NHPA Section 106 consultation is not required at this time.
5. No federally recognized Tribes are known to be located in areas which may be impacted by the proposed removal action.
6. An EJ screen was performed for a radius of 1 mile of the Site. Indicators exceeding 80% in the U.S were identified in the following categories: Pollution and Sources, Health Indicators, and Climate Indicators.

**2.3 Logistics Section**

The OSC will prepare a Task Order for the ERRS contractor to arrange for the logistics as described in this document.

**2.4 Finance Section**

**2.4.1 Narrative**

Funding authorized by this document will be targeted to the highest priority actions of securing access to the Site and preventing the migration of radionuclides from the Site. The ceiling for this action is \$250,000.

An initial Task Order for \$150,000 is being issued to EPA's ERRS contractor to begin securing the facility.

**Estimated Costs \***

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$200,000.00	\$0.00	\$200,000.00	100.00%
START	\$50,000.00	\$0.00	\$50,000.00	100.00%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	<b>\$250,000.00</b>	<b>\$0.00</b>	<b>\$250,000.00</b>	<b>100.00%</b>

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

**2.5 Other Command Staff**

**2.5.1 Safety Officer**

The OSC will coordinate all safety plans and activities with the EPA's Regional Radiation Program Manager. A Site-specific HASP will be prepared for the Site

**2.5.2 Liaison Officer**

### **2.5.3 Information Officer**

### **3. Participating Entities**

#### **3.1 Unified Command**

Marion County Department of Homeland Security and Emergency Management  
WV DEP  
WV DHHR  
EPA

#### **3.2 Cooperating Agencies**

### **4. Personnel On Site**

No information available at this time.

### **5. Definition of Terms**

EJ - Environmental Justice  
ERRS - Emergency and Rapid Response Services Contractor  
FBP - Fairmont Brine Processing, LLC  
NHPA - National Historic Preservation Act  
mR/hr - millirems per hour

### **6. Additional sources of information**

No information available at this time.

### **7. Situational Reference Materials**

No information available at this time.