

# AMERICAN CYANAMID ACID TAR CLEANUP

BRIDGEWATER TOWNSHIP, NEW JERSEY



#### **MARCH 2025**

### **Acid Tar Removal**

The U.S. Environmental Protection Agency is overseeing work at the American Cyanamid Superfund site where Wyeth Holdings LLC is beginning the cleanup of Impoundments 1 and 2, which are pools of water that have been used to hold acid tar at the southeast corner of the site.

The first part of this cleanup will focus on removing the acid tar, a muddy, sludge material from the impoundments, and shipping it off-site for disposal. The acid tar removal work began in October 2024 and is expected to take about 5 years to complete. To remove the acid tar, the EPA will oversee:



Image 1. A current photo of Impoundments 1 and 2.

- The use of a crane with a large metal bucket to move the acid tar out of the impoundments and load it into trucks specifically equipped to transport this type of material.
- The use of 3-5 trucks a day to transport the acid tar off-site to EPA-approved facilities where it will be mainly reused as fuel.



## Health and Safety

The EPA is overseeing the following health and safety measures:

Flood control systems to make sure that the impoundments with acid tar are not at risk of flooding during major storms.

Trucks transporting acid tar are safe and secure. Workers must inspect every truck before they are loaded with acid tar and before they leave the site.

A Community Air Monitoring Program that tests the air 24/7 at the site boundary. This program lets workers and the EPA know immediately if there are levels of contaminants in the air that are above the EPA-approved safety levels.

A floating cover across the pool of water that sits on top of the acid tar to help prevent the contaminants from getting into the air during the acid tar removal process.



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## **Acid Tar Cleanup Activities**

After Wyeth removes the acid tar, there will still be a small amount of material contaminated by acid tar left at the bottom of Impoundments 1 and 2. Removing this final portion of acid tar would risk release of contaminants into the groundwater so it is not practical to remove and/or dispose of that material off-site. Wyeth will treat the remaining contamination using in-situ stabilization and solidification, or ISS, which involves mixing the remaining contaminated material with cement and other materials to turn it into a stable solid that will not move or allow contamination to get into the groundwater. The ISS part of the cleanup is currently being designed by Wyeth that the EPA will review and approve.



Image 2. Historic photo of the site during the 20<sup>th</sup> century.

The last part of the cleanup of Impoundments 1 and 2 will involve installing a cap made of soil on top of the ISS treated material and restoring the area near the Raritan River to a natural and ecologically friendly state.

## **Background**

The American Cyanamid Superfund site is 435 acres and was used for numerous chemical and pharmaceutical manufacturing operations for more than 90 years. The soil and impoundment contents at the site and the groundwater were contaminated with volatile organic compounds, or VOCs, semi-VOCs, and metals. All manufacturing at the site stopped in 1999, with most buildings demolished by 2000.

In 2004, the American Cyanamid Company, the owner of the site, changed its name to Wyeth Holdings Corporation, and subsequently Wyeth Holdings LLC. Wyeth Holdings LLC was acquired by and became a company owned by Pfizer, Inc. in 2009. Wyeth Holdings LLC has been performing work at the site for some time, under both EPA and NJDEP oversight.

The EPA issued a cleanup plan for most of the American Cyanamid Superfund site in 2012, which included waste disposal areas, site soil, and all site-related contaminated groundwater. Impoundments 1 and 2, which are just over four acres in size and located only 700 feet from the Raritan River, contain approximately 55,000 cubic yards of acid tar waste, which is highly acidic. In 2018, the EPA developed a cleanup plan specifically for Impoundments 1 and 2.



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### **Contaminants**

Acid tar is the name for the sludge waste that is generated when petroleum oils are treated with concentrated sulfuric acid during chemical manufacturing. The acid tar sludge consists of several contaminants, including:

**Benzene** is a widely used chemical formed from both natural processes and human activities. Breathing benzene can cause drowsiness, dizziness, and unconsciousness.

https://www.atsdr.cdc.gov/toxfaqs/tfacts3.pdf

**Nitrobenzene** is a man-made chemical that is mainly used to produce other chemicals or to dissolve chemicals during manufacturing. https://www.atsdr.cdc.gov/toxfaqs/tfacts140.pdf

**Naphthalene** is a white solid with a strong odor that evaporates easily. Naphthalene is used in the

manufacturing of polyvinyl chloride, or PVC, plastics, dyes, and resins. It is also used in mothballs and in repellants for small mammals, snakes, and bats.

https://www.atsdr.cdc.gov/toxfaqs/tfacts67.pdf

**Toluene** is a clear, colorless liquid with a distinct smell. Toluene can be found in gasoline products, paints, stain removers, and fingernail polish. <a href="https://www.atsdr.cdc.gov/toxfaqs/tfacts56.pdf">https://www.atsdr.cdc.gov/toxfaqs/tfacts56.pdf</a>

**Xylene** is a colorless, sweet-smelling liquid that occurs naturally in petroleum and coal tar. Chemical industries produce xylene from petroleum. Exposure to xylene occurs in the workplace and when you use paint, gasoline, paint thinners and other products that contain it. <a href="https://www.atsdr.cdc.gov/toxfaqs/tfacts71.pdf">https://www.atsdr.cdc.gov/toxfaqs/tfacts71.pdf</a>

### **EPA Contact Information**

### Maya Greally

Community Involvement Coordinator 929-656-3415 Greally.Maya@epa.gov

### Michael Grossman

Remedial Project Manager 212-637-3908 <u>Grossman.Michael@epa.gov</u>

### Dan Patel

Remedial Project Manager 212-637-3924 Patel.Dushyant@epa.gov