



STATE OF DELAWARE

**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**

DIVISION OF WASTE AND HAZARDOUS SUBSTANCES

89 KINGS HIGHWAY
DOVER, DELAWARE 19901

**REMEDIAATION
SECTION**

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FACT SHEET

October 1, 2022

DuPont Experimental Station

Location Address: DuPont Experimental Station
200 Powder Mill Road
Wilmington, DE 19805
EPA ID NO. DED003930807

Corrective Actions:

The Delaware Department of Natural Resources and Environmental Control (DNREC) has prepared a Statement of Basis (SB) to solicit public comment on its proposed remedy for the DuPont Experimental Station Facility, located at 200 Powder Mill Road, Wilmington, Delaware. DNREC's review of available information indicates that there are no unaddressed releases of hazardous waste or hazardous constituents from the areas previously identified in the site investigations completed at the facility. Based on that assessment, DNREC's proposed decision is that no further investigation or cleanup is required for these areas at the Facility. DNREC has determined that its proposed remedy is protective of human health and the environment. The SB highlights key information relied upon by DNREC in making its proposed remedy decision.

On May 2022, DNREC issued a Statement of Basis for this facility and received comments from DuPont. The comments included updated risk documentation which resulted in significant changes made to corrective measures proposed in May 2022. Based on the assessment of all available information, DNREC's proposed remedy consists of compliance with and maintenance of both land and groundwater use controls through an Environmental Covenant (EC) to control exposure to contaminated groundwater and soil.

The Facility is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property. The State of Delaware is authorized for the Corrective Action Program under Section 3006 of RCRA. Therefore, it retains primary authority in Delaware for the Corrective Action Program under *7 Del C.*, Chapters 60 and 63.

Facility Location and Activity Description:

The Facility consists of approximately 125 acres, located between Route 141 and the banks of the Brandywine Creek, approximately four miles northwest of the city of Wilmington, Delaware in New Castle County (Figure 1).

The Facility is the corporate-wide central research and development facility for DuPont and has been actively used as a research facility for approximately 117 years. The site currently consists of mostly administrative office buildings, laboratories, and parking areas. Prior to this, the section of property area along the Brandywine Creek was used for gunpowder manufacturing by DuPont. In addition to the current research-related activities, DuPont previously operated a hazardous waste incinerator (Thermal Waste Treatment unit) that was equipped with air pollution control devices and several hazardous waste storage pads that were permitted by DNREC.

Statutory and Regulatory Basis:

Creek Road Contamination Area:

The RCRA Facility Investigation (RFI) for the Creek Road Contamination Area (CRCA) was conducted between December 1989 and September 1990. In September 1993, the U.S. Environmental Protection Agency (EPA) issued a RCRA administrative order directing DuPont to implement the remedy that was selected by EPA's Regional Administrator in September 1991 (No Further Action with Monitoring) for a portion of this site known as the CRCA; see Figures 1 and 2. EPA and DuPont worked jointly to complete the requirements of the order, which included the following:

- Conduct a five-year groundwater monitoring program, including sampling, analysis of samples, and measurement of groundwater elevations in 14 monitoring wells at the site on a quarterly and semi-annual basis.
- Prepare and submit reports describing this groundwater sampling work for EPA's review.
- Impose deed restrictions on the Property to prevent the placement of wells that could be used for domestic purposes, and any use of the CRCA that may permit dermal contact with subsurface soils and groundwater. DuPont is also required to notify EPA in advance and restrict access during any excavation work that may be completed in the site area.

DuPont completed the five-year groundwater monitoring program that was required as the selected remedy for this site in 1999 and submitted a summary report to EPA. The groundwater data generated during this program consistently indicated that the concentrations of the hazardous constituents of concern in groundwater were significantly below the remediation standards or goals established by EPA for the site, and that concentrations significantly decreased over the duration of the monitoring program. EPA issued its approval of the 5-Year Assessment Report to DuPont on August 30, 2000, and notified DuPont that they had successfully completed the RCRA Corrective Action process for the site. As part of a requirement in the Administrative Order, DuPont continues to maintain the deed restrictions placed on the CRCA.

In 2020, after receiving DNREC approval to proceed, the demolition of the Thermal Waste Treatment (TWT) unit was initiated as part of the closure of the TWT unit's Part B RCRA permit. The TWT unit is located within the boundaries of the CRCA. Closure documents concluded that closure has been met for the TWT unit. DNREC approval letters were issued on March 30, 2021 for the waste storage pads, and on March 7, 2022 for the incinerator. For the CRCA, DNREC proposes that the deed restrictions currently imposed as part of the Administrative Order be transferred into an environmental covenant. The environmental covenant will be enforceable under the Uniform Environmental Covenant Act, which will include use limitations and requirements on the CRCA to protect human health and the environment and will transfer to any future owner as part of the deed record for the Property.

Parking Lot 1:

DNREC was notified by DuPont in May 2019 that waste characterization samples collected prior to a reconfiguration project returned soil data analytical results exceeding DNREC Hazardous Substance Cleanup Act (HSCA) Screening Levels (SL). DuPont conducted sampling in September 2019 (Figures 1 and 3) to confirm and better define the areas of concern (AOCs). The AOCs with constituents that exceeded HSCA reporting levels (RLs) as part of the March 2019 event were as follows:

- SB-01: arsenic
- SB-03: arsenic and benzo(a)pyrene
- SB-08: arsenic
- SB-13: benzo(a)pyrene
- SB-22: arsenic, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and DRO.

The findings and recommendations for each of the five AOCs were as follows:

- SB-01: Soil excavation was identified as the remedial method to address the arsenic detections (Figure 4).
- SB-03: Due to the extent of constituent exceedances, use restrictions in the form of an environmental covenant is recommended. It is currently anticipated that the environmental covenant will encompass the SB-03 area identified in Figure 6 (Soil Covenant Area 1).
- SB-08: Confirmation sample results indicate that the arsenic concentrations at SB-08 are below DNREC criteria and are not a concern.
- SB-13: Soil excavation was identified as the remedial method to address the benzo(a)pyrene exceedances (Figure 5).
- SB-22: Due to the extent of constituent exceedances, use restrictions in the form of an environmental covenant are recommended for the SB-22 area in Figure 6 (Soil Covenant Area 2).

Public Participation:

Persons wishing to submit comments, or request a public hearing, are required to submit same in writing no later than November 28, 2022, which is 45-days after this notice is published. The Secretary shall hold a public hearing whenever he finds, on the basis of the requests, a significant degree of public interest, or at the Department's discretion. Written comments must be sent to:

Wendy March, CHMM
Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Remediation Section
89 Kings Highway
Dover, DE 19901

RE: DED003930807; File 16

Please send written comments to the DNREC to Wendy March, Project Officer or via email to

RS_Public_Comments@delaware.gov.

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Public Notice Date: October 12, 2022