

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
New Castle County Airport Removal Assessment - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region III

**Subject:** POLREP #4  
New Castle County Airport Removal Assessment  
  
New Castle, DE

**To:**  
**From:** Kelley Chase, On-Scene Coordinator  
**Date:** 6/22/2015  
**Reporting Period:** 5/1/15 through 6/22/15

1. Introduction

1.1 Background

<b>Site Number:</b>	<b>Contract Number:</b>
<b>D.O. Number:</b>	<b>Action Memo Date:</b>
<b>Response Authority:</b> CERCLA	<b>Response Type:</b>
<b>Response Lead:</b> EPA	<b>Incident Category:</b> Removal Assessment
<b>NPL Status:</b> Non NPL	<b>Operable Unit:</b>
<b>Mobilization Date:</b> 8/19/2014	<b>Start Date:</b> 7/11/2014
<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

1.1.2 Site Description

Water samples collected from public water supply wells located in New Castle County, Delaware were found to contain perfluorinated chemicals (PFCs) including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). In 2009, EPA issued provisional health advisory levels (HALs) for PFOS and PFOA. The provisional HAL values are 0.2 micrograms per liter of water ( $\mu\text{g/L}$ ) for PFOS and 0.4  $\mu\text{g/L}$  for PFOA. There are no drinking water standards for these chemicals.

The samples taken by the Artesian Water Company (Artesian) as part of the federal Unregulated Contaminant Monitoring Rule 3 (UCMR3) showed levels of PFOS above EPA's provisional health advisory level (HAL) in one public water supply well. The City of New Castle Municipal Services Commission (MSC) voluntarily sampled three supply wells in the area. PFOS and PFOA were detected in the City of New Castle wells above the provisional HALs. Artesian and the City of New Castle MSC removed the affected wells from service after consultation with the Delaware Division of Public Health (DPH). Artesian and New Castle MSC are working with the state to determine the potential source(s) of contamination and expect to return the affected wells to service once the appropriate treatment for PFCs is installed.

The Delaware Department of Natural Resources and Environmental Control (DNREC) requested EPA's assistance in determining whether private drinking water wells and monitoring wells in the vicinity of the New Castle County Airport have been impacted by PFCs.

PFOS and PFOA are organic chemicals used in repellants for stains, water, oil, and grease. Commercial and consumer products containing or degrading to these compounds were first introduced in the 1950s. They have been used in a variety of products such as the fabric of upholstered furniture, carpets, nonstick cookware, floor wax, and the lining of microwave popcorn bags. Firefighting foams also contain these chemicals.

EPA is coordinating with DNREC, DPH, the Delaware Air National Guard, the Centers for Disease Control and Prevention (CDC)/Agency for Toxic Substances and Disease Registry (ATSDR), the City of New Castle MSC and Artesian to ensure that public health is protected.

1.1.2.1 Location

The Site is located in New Castle, New Castle County, Delaware.

### **1.1.2.2 Description of Threat**

EPA is working to identify private drinking water wells in the area of the New Castle County Airport to determine if they have been impacted by perfluorinated chemicals (PFCs), including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), and to determine if additional actions are needed to protect human health and the environment.

The assessment also includes sampling of ground water monitoring wells in the area to better define the nature and extent of the contamination.

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

EPA worked with DNREC, the City of New Castle MSC and Artesian to identify any private drinking water wells in the area of the New Castle County Airport. EPA reviewed DNREC's well permit information and customer service information from the City of New Castle MSC and Artesian. Based on this review, the majority of the residences and business in the area in the vicinity of the airport were found to be served by public drinking water. Only one property in the area was found to have an active private drinking water well.

On August 19, 2014, with the permission of the property owner, EPA and its contractor, Weston Solutions, Inc. collected water samples from five ground water monitoring wells located at the New Castle County Airport. The samples were collected and analyzed in accordance with an EPA-approved plan. The samples were analyzed for six PFCs that are included under UCMR3. The sampling results from one of the monitoring wells indicated PFOS at concentrations just above the provisional health advisory level of 0.2 µg/L for PFOS.

On September 23, 2014, with the permission of the property owner, EPA and its contractor collected water samples from a private drinking water well located near the airport. The sample results from the private drinking water well did not exceed EPA's provisional health advisory levels.

On April 29, 2015, with the permission of the property owner, EPA and its START contractor, Weston Solutions, Inc. collected water samples from nine ground water monitoring wells located at the New Castle County Airport. The monitoring wells were installed by DNREC as part of a previous investigation. Wells sampled included the five wells (MW-01, MW-02, MW-03, MW-10, MW-11) sampled last year and four additional wells (MW-12, MW-13, MW-14, MW-17). The samples were collected and will be analyzed in accordance with an EPA-approved plan. The samples will be analyzed for six PFCs that are included under UCMR3. While on-site, START also checked wells MW-16 and MW-18, but found both wells to be dry.

During this reporting period (May 1, 2015 through June 22, 2015), EPA received and reviewed the validated results of the monitoring well sampling conducted on April 29, 2015 at the New Castle County Airport. Low levels of PFCs were detected in all the monitoring wells sampled. PFOS was detected in MW-17 at a concentration of 0.85 µg/L which exceeds EPA's provisional health advisory level of 0.2 µg/L for PFOS in drinking water. None of the other samples collected exceeded EPA's provisional health advisory levels for PFOS or PFOA. PFOS was detected at a concentration of 0.181 µg/L in MW-1. During the initial sampling event, conducted in August 2014, PFOS was detected in MW-1 at a concentration of 0.268 µg/L.

## **2. Current Activities**

### **2.1 Operations Section**

No information available at this time.

### **2.2 Planning Section**

#### **2.2.1 Anticipated Activities**

##### **2.2.1.1 Planned Response Activities**

##### **2.2.1.2 Next Steps**

EPA will continue to work with DNREC to identify existing monitoring wells in the surrounding area for potential sampling to better define the extent of PFC contaminated groundwater.

##### **2.2.2 Issues**

### **2.3 Logistics Section**

No information available at this time.

### **2.4 Finance Section**

No information available at this time.

### **2.5 Other Command Staff**

No information available at this time.

## **3. Participating Entities**

### **3.1 Unified Command**

### **3.2 Cooperating Agencies**

Delaware Department of Natural Resources and Environmental Control (DNREC)

Delaware Division of Public Health (DPH)  
Delaware Air National Guard  
Delaware River and Bay Authority (DRBA)  
New Castle County  
City of New Castle Municipal Services Commission (MSC)  
Artesian Water Company (Artesian)  
Centers for Disease Control and Prevention (CDC)/Agency for Toxic Substances and Disease Registry (ATSDR)

**4. Personnel On Site**

No information available at this time.

**5. Definition of Terms**

No information available at this time.

**6. Additional sources of information**

No information available at this time.

**7. Situational Reference Materials**

No information available at this time.