



# Union Chemical Co. Superfund Site

## South Hope, Maine

U.S. EPA | HAZARDOUS WASTE PROGRAM AT EPA NEW ENGLAND



### MAINTAINING AND MONITORING SUPERFUND

**SITES:** After a Superfund Site or portion of a Superfund Site has been cleaned up, EPA continues to monitor the site to ensure the cleanup is operating effectively over time. Five-Year Reviews provide an opportunity to fully evaluate the implementation and performance of a cleanup and determine whether it remains protective of human health and the environment.

### INTRODUCTION:

The Fourth Five-Year Review for Site was completed on September 14, 2017. The review concluded that the Sitewide remedy currently protects human health and the environment. There is no evidence of current exposure, institutional controls are in place, groundwater monitoring continues and access to the Site is assured as MEDEP is the court-appointed receiver of the Site Property. However, information has come to light about an emerging class of compounds that have been found in the environment. These compounds, per- and polyfluoroalkyl substances (PFAS), are a diverse group of compounds resistant to heat, water, and oil, and may affect the protectiveness of the remedy. Given the period of time that the Union Chemical Company operated, 1967 to 1985, it is possible that material containing PFAS may have been disposed of at the Site. Therefore, the Five-Year Review recommended PFAS be included in an upcoming groundwater monitoring event to determine if these compounds are associated with the Site.

### BACKGROUND

The 12-acre Union Chemical Company, Inc. Site (Site) is located in South Hope, Maine. The Union Chemical Company began operations in 1967, formulating paint and coating strippers. In 1969, the Company expanded its operations and began handling and recovering petrochemical-based solvents. In 1976, the Company received a State of Maine permit for an underground disposal system (a septic system) for its process wastewater. On-site soil and groundwater contamination resulted from a combination of leaking stored drums and spills, and the use of the permitted septic

system for disposal of the process wastewater. The removal of contaminated drums, tanks and soil reduced the potential for exposure to contamination at the Site. The impact on groundwater was further reduced by the successful operation of a soil vapor extraction/hot air injection system that was operated from 1996 to 1998. With the successful cleanup of on-site soil, the soil is no longer a source of groundwater contamination. Contamination levels in the groundwater have decreased significantly through implementation of pump-and-treat technology and several

continued &gt;

### KEY CONTACTS:

**TERRY CONNELLY**

EPA Project Manager

(617) 918-1373

connelly.terry@epa.gov

**JIM MURPHY**

EPA Community Involvement

(617) 918-1028

murphy.jim@epa.gov

### GENERAL INFO:

**EPA NEW ENGLAND**

5 Post Office Square

Suite 100

Boston, MA 02109-3912

(617) 918-1111

**EPA TOLL-FREE  
CUSTOMER SERVICE**

1-888-EPA-7341

**LEARN MORE AT:**[www.epa.gov/superfund/  
union](http://www.epa.gov/superfund/union)

## BACKGROUND

continued >

innovative technologies; however, they are still above drinking water standards. It is estimated that 96 percent of the original contamination has been removed from the soils, bedrock and groundwater. In 2011, EPA and the Maine Department of Environmental Protection (MEDEP) documented it was technically impracticable to successfully reduce remaining residual contamination to drinking water standards. EPA updated the remedy to reflect this and required use restrictions on the Site to maintain the protectiveness of the remedy. These restrictions were placed on the Site Property in August 2017 and prohibit the use of groundwater and require the installation of appropriate vapor barrier in any future buildings. Long-term groundwater monitoring is ongoing. The Site was listed on the National Priority List (NPL) on October 4, 1989.

## PROGRESS SINCE LAST REVIEW

On July 13, 2017, EPA Project Manager and MEDEP spoke with local officials on the status of the Site. Progress since the last review includes: modification of the groundwater remedial action objectives, property ownership and implementation of institutional controls. While groundwater contamination has been greatly reduced, three innovative technologies had proven unsuccessful in attaining the groundwater cleanup standards. Since no other technology was available to achieve groundwater cleanup standards due to Site specific hydrogeological and contaminant conditions, a change in the remedial action objectives due to technical impracticability were accepted and institutional controls put in place. MEDEP is grantor of the Site and has placed long-term restrictions on the Site.

## FACT

The removal of contaminated drums, tanks and soil reduced the potential for exposure to contamination at the Site.