

## FORMER OWENS CORNING FACILITY SITE

160 Jackson Road • BERLIN, NEW JERSEY

*This project update has been developed by Owens Corning in accordance with the New Jersey Department of Environmental Protection (NJDEP) regulations for Notification and Public Outreach to keep the public informed about ongoing environmental investigations and remediation activities at the site of a former Owens Corning facility.*

### Site History

Historically, the facility operated as a sand and brick manufacturing plant from 1927 to 1941. In 1941, the facility was purchased by the Owens-Illinois Glass Company, which continued brick manufacturing until 1947.

In 1947, Owens-Illinois converted the manufacturing operations to the production of high-temperature insulating materials under the brand name Kaylo®. Owens Corning purchased the facility in 1958 and continued the production of high-temperature insulation until manufacturing operations ceased in October 1993.

The site is vacant and occupies approximately 45 acres, roughly 25 percent of which is covered by paving, building pads, and other improvements related to the former manufacturing operations. All of the buildings at the facility have been removed.

### Environmental Investigations & Remediation Activities

The site was entered into the Industrial Site Recovery Act (ISRA) program by Owens Corning when manufacturing operations ceased in October 1993. Site investigation activities, conducted in cooperation with and under the direction of the Licensed Site Remediation Professional (LSRP) in accordance with the regulations of the New Jersey Department of Environmental Protection (NJDEP), identified soil and ground water impacts related to the former manufacturing operations. Impacts to soil are delineated and limited to the site. Impacts to ground water extend offsite and are related to the historic use of DOWTHERM A™ (a heat transfer fluid).

### Status of Remediation Activities

**On-site ground water pump and treat system** - The ground water pump and treatment system installed at the Owens Corning property in early 2014 continues to work as designed and will help to improve overall ground water quality, both on- and off-site.

### Quarterly monitoring of permanent wells -

Owens Corning continues quarterly monitoring of the horizontal and vertical extents of the DOWTHERM A™ constituents in ground water via the 12 permanent monitoring wells installed in and around the perimeter of our study area in addition to monitoring wells on site. Monitoring wells are planned for installation at three new locations in 2016.

### Working to define impacts to ground water –

Between May 2014 and February 2015, Owens Corning proposed four Classification Exception Areas (CEAs) to NJDEP, as administrative controls associated with the defined vertical and horizontal extent of impacts to ground water (see details on back page). Property owners within the CEAs were notified at the time, as required. In January 2016, Owens Corning installed temporary ground water borings in Evesham Township, along the eastern-most boundary of the proposed CEA for DOWTHERM A™ constituents. This work was performed to ensure impacts along the downgradient edge of ground water were appropriately delineated.

In one temporary boring location just east of Kettle Run Road in Evesham, a water sample collected at about 40 feet below ground surface found diphenyl ether, one constituent of DOWTHERM A™, above the applicable ground water quality standard.

As required, Owens Corning conducted a “step out” and sampled nearby private water wells within a prescribed distance of the newly discovered impact. Twelve private wells were sampled and results from one well found levels of diphenyl ether above the ground water quality standard. Owens Corning worked directly with that property owner to install a point-of-entry-treatment system as a long-term solution. That finding required an additional “step out” to four private wells.

**Annual monitoring of private wells** – In late summer 2016, Owens Corning will perform its third annual sampling of private water wells on properties within the CEA where impacts to ground water are above Class IIA Ground Water Quality (GWQ) standards for DOWTHERM A™ constituents.

### Want to Learn More?

Please call our Community Information Line at (888) 827-0983 or email us at [OCBerlin@owenscorning.com](mailto:OCBerlin@owenscorning.com). Kelly Henry, the Community Liaison on behalf of Owens Corning, will be the first to respond to your call.

To learn more about DOWTHERM A™ visit: <http://www.dow.com/heattrans/products/synthetic/dowtherm.htm>

Mr. David Thompson is the Licensed Site Remediation Professional (LSRP).

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### FAST FACTS

**Site Name:** Owens Corning

**Site Location:**

160 Jackson Road, Berlin Borough, Camden County, New Jersey -- just west of the intersection of Jackson Road with Route 73

**Block & Lot Numbers:**

Block 1502, Lot 4; Block 1600, Lots 4, 5, and 6

**NJDEP Site Preferred ID #:**  
013542

Owens Corning is responsible for conducting the remediation; the Project Manager for Owens Corning is Alan Lake. He can be reached via our Community Information Line at 1-888-827-0983

**About DOWTHERM A™**

DOWTHERM A™ was used at the former Owens Corning facility in the insulation manufacturing process and is a mixture of two chemicals: 1,1'-biphenyl and diphenyl ether.

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**Private Well Sampling** - To date a total of 68 private wells at residential and commercial properties have been sampled since February 2012, some more than once. As of April 2016, water from eight private wells were found to contain levels of one or both of the DOWTHERM A™ constituents and long-term engineered solutions were installed with the agreement of the respective property owners.

### Hydrology Study and Mullica River Results

In 2012-13, Owens Corning performed a hydrology study to understand the flow of ground water, and how and where surface water and ground water meet and interface. The study found no impacts to the Mullica River from the DOWTHERM A™ constituents.

As part of the study, surface water and sediment samples were collected from the Mullica River at eight locations in the study area in Waterford and Evesham townships. The samples were analyzed for the two DOWTHERM A™ constituents. No levels of either constituent were detected in any of the samples.

Surface water levels of the Mullica continue to be monitored.

### Results of Ground Water Sampling

Ground water containing DOWTHERM A™ constituents below reflect the highest concentrations onsite. The concentration range (**in parts per billion**) of the identified constituents is provided below in comparison to applicable Ground Water Quality Standards (GWQ) in New Jersey.

Constituents	Class 1 GWQ	Class 2 GWQ	Range of Concentrations In parts per billion	
			Minimum	Maximum
1, 1'-Biphenyl	10*	400	ND	7,000**
Diphenyl ether	10*	100	ND	25,000**

ND = Non detected

\*Practical quantification limits

\*\*Data from a ground water well located onsite

<sup>1</sup>Class I Ground Water of Special Ecological Significance

<sup>2</sup>Class II Ground Water for Potable Water Supply

### What is a Classification Exception Area (CEA)?

A CEA is an administrative control that identifies for state and county officials the horizontal and vertical extents of ground water impacts. For the purposes of protecting public health and safety, a CEA is sometimes coupled with a Well Restriction Area (WRA), which does not prohibit wells, but provides guidelines for well construction.

Owens Corning has proposed four CEAs:

❖ **A CEA with a WRA:** In May 2014, Owens Corning proposed a CEA for properties where impacts to ground water are above Class IIA GWQ standards for DOWTHERM A™ constituents. Property owners within the proposed CEA/WRA with well restrictions were notified in April 2014 and are included in Owens Corning's annual monitoring program.

❖ **A CEA with no well restriction area:** In December 2014, Owens Corning notified property owners of a second tier of the CEA. This portion of the CEA defines impacts to ground water that exceed the Class I GWQ environmental standards of the New Jersey Pinelands. These properties are not included in the annual well monitoring.

❖ **A CEA for dibenzofuran:** In December 2014, Owens Corning notified property owners of a CEA in a limited area east of its former location. The CEA is related to dibenzofuran, which was not used or manufactured by the former plant's operations, but can be created when DOWTHERM A™ decomposes under high heat, such as the high temperatures used in the manufacturing process.

❖ **A CEA with a WRA on Owens Corning's property:** In February 2015, Owens Corning notified local officials of a CEA and WRA for constituents found only on-site at the former facility. There are no impacts from the constituents in this CEA and WRA to surrounding properties.

**Class I** refers to ground water of Special Ecological Significance, such as the Pinelands area.

**Class IIA** refers to ground water for the Potable Water Supply.