



Kenosha Engine Plant Investigation & Cleanup

RR-894

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The former Chrysler Engine Plant property is located in the heart of Kenosha in southeast Wisconsin. The plant first opened for automobile production in 1902 under Thomas B. Jeffery and was part of Kenosha's long-standing history in auto manufacturing, later housing Nash Motors and American Motors Company.

The Kenosha Engine Plant property is 107 acres in size. Approximately 3,700 residential-related properties – of which 2,400 are single-family homes – and eight schools are located within one-half mile of the plant. Its general boundaries are:

- 52nd Street to the north;
- 60th Street to the south;
- 24th Avenue to the east; and
- 30th Avenue to the west.

Over the years, a series of mergers and buyouts changed the company name several times – Nash Motors, Nash-Kelvinator and American Motors are a few examples. Eventually the Chrysler Corporation bought the site, and in 1998 Chrysler itself was bought by DaimlerAG, which owned the site until 2007, when Cerberus Capital Management bought the company.

After manufacturing automobiles and automobile parts for over 100 years, the plant was a casualty of the 2009 recession and was shut down in the fall of 2010, after the Chrysler Corporation declared bankruptcy.

Old Carco, a liquidation bankruptcy trust, owned the property after the Chrysler bankruptcy proceedings were finalized in May 2010. A settlement agreement, filed in the US Bankruptcy Court in October 2011, was reached with the state of Wisconsin, the city of Kenosha, the United States Government, JP Morgan Chase Bank (the first lien holder of the property), and the Old Carco Liquidation Trust. In the settlement agreement, the Trust agreed to upgrade and continue operating the groundwater “pump and treat” remedial systems, raze the buildings, and abandon the property.

The city of Kenosha agreed to take ownership of the property. Ten million dollars in federal funds were placed in an escrow account for environmental cleanup on the property. The state of Wisconsin, with DNR leadership, agreed to oversee the environmental cleanup. The U.S. EPA and DNR managed the escrow account and determined eligible costs. JP Morgan Chase Bank agreed to release their lien on the property and received a liability exemption for environmental work. Old Carco Liquidation Trust was also granted an environmental liability exemption after the property was abandoned. In February 2014, Old Carco Liquidation Trust abandoned the former Kenosha Engine Plant, and the city of Kenosha accepted title.



A sign describing the history of auto production in Kenosha on the fence outside the Kenosha Engine Plant (photo courtesy DNR).



Environmental History

Prior to declaring bankruptcy, the Chrysler Corporation conducted a number of investigative and clean-up actions often associated with the development of new buildings on the site. However, since the 1990s Chrysler had not completed a comprehensive environmental investigation of the entire property. An updated, but limited, engineered system is currently in place at the site, capturing contaminated groundwater and treating the water on the property.

To date the type of soil and groundwater contamination found on site includes:

- Petroleum compounds, including benzene and toluene;
- chlorinated solvents, including trichloroethene;
- hydraulic fluid;
- polychlorinated biphenyls (PCBs); and
- metals, including lead, chromium and zinc.



Remedial excavation in the SW area of the Kenosha Engine Plant looking east (photo courtesy DNR).

Because the degree and extent of contamination at the Kenosha Engine Plant property was unknown at the time of bankruptcy, the DNR worked with the city, Wisconsin Department of Health Services and the EPA to assess the level of contamination in and around the property. In 2010 and 2011, the EPA conducted a soil vapor study around the property to determine if contaminant vapors in the soil and groundwater at the plant were posing a vapor intrusion risk to the neighboring properties. The EPA's study determined that the adjacent properties were not at risk from contaminant vapors from the Kenosha Engine Plant property.

After acquiring the property, the city continued with the contamination investigation on the property. As an interim remedial action, the city remediated areas where petroleum product was floating on the groundwater at the site. Due to the clay-based nature of the soils, it was more cost effective for the city to excavate the petroleum saturated soils rather than trying to extract the petroleum product through groundwater recovery wells.

After sampling hundreds of soil borings and installing numerous groundwater monitoring wells, the city has now completed the contamination investigation at the Kenosha Engine Plant property. The city's consultant also evaluated remedial options, which varied from no action to excavating all of the impacted soil at the site. The city recommended a phased remedial action approach that was approved by the DNR.

The first step of the approved remedial action is to excavate the soil "hotspots," or areas containing the highest concentration of contaminants. These soils will be transported and disposed at a state-approved landfill. The second step is to treat the groundwater by chemical injection. Prior to implementing this remedial phase, "pilot testing" must be completed to evaluate the effectiveness of the injected compounds in remediating the groundwater. After the injection phase, groundwater sampling will continue at the site to monitor the breakdown of contaminants over time. Prior to future use of the site, some areas are planned to be capped with pavement or soil to eliminate any future direct contact threat the soils may pose to the public. The city has initiated the approved remedial action and is currently phasing out the existing groundwater "pump and treat" system.

Health Information

Information is available through the Wisconsin Department of Health Services about health consultations and environmental and public health impacts from exposure to certain toxic chemicals.

- **Health Consultations and Public Health Assessments**
www.dhs.wisconsin.gov/eh/WISites/index.htm

Other Links & Contact Information

- **Wisconsin DNR**
dnr.wi.gov/topic/Brownfields
 - DNR Cleanup Plant Project Manager – Dave Volkert, 262-574-2166
 - DNR Liability & Financial Assistance – Christine Haag, 608-266-0244
- **Wisconsin Department Health Services (DHS), Environmental Health Resources** – DHS is involved with many contaminated sites where immediate or long-term health concerns may exist.
www.dhs.wisconsin.gov/eh/
 - Project Manager – Ryan Wozniak, 608-267-3227
 - Public Health Educator – Disa Patel, 608-266-3393
- **City of Kenosha**
www.kenosha.org/
 - Shelly Billingsley, Deputy Director of Engineering, 262-653-4149
- **Kenosha County Health Department**
www.co.kenosha.wi.us/dhs/Divisions/Health/
 - Division of Health – Mark Melotik, 262-605-6745
- **U.S. Environmental Protection Agency (EPA), Region 5 Emergency Response & Removal** – EPA’s Superfund Emergency Response Program provides quick responses to immediate threats from hazardous substances. The Program's first priority is to eliminate dangers to the public and make sites safe for those who live or work nearby.
www.epa.gov/R5Super/erf.html
 - Craig Thomas – On-scene Coordinator, 312-886-5907
 - Susan Pastor – Community Involvement Coordinator, 312-353-1325
- **U.S. Environmental Protection Agency (EPA), Region 5 Brownfield Program**
<http://www.epa.gov/R5Super/brownfields/index.html>
 - Kyle Rogers – Environmental Scientist, 312-886-1995

Frequently Asked Questions

1. Where is the Kenosha Engine Plant located?

The plant is located at 5555 30th Avenue, between 52nd and 60th streets (north and south) and between 24th and 30th avenues (east and west) in Kenosha, Wisconsin.

2. How big is the Kenosha Engine Plant?

The property encompasses 107 acres. Prior to demolition, the total square footage of the former buildings on the site was estimated at 1.87 million square feet.

3. Why do we need to do an environmental investigation at the Kenosha Engine Plant?

Over time, hazardous substances have been released to the soil and groundwater at the plant, potentially posing a risk to human health and the environment. The site investigation has been completed and remediation of the impacted soil and groundwater is in progress.

4. What kind of contamination has been identified at the Kenosha Engine Plant?

Contamination identified at the property includes soil and groundwater contamination from releases of petroleum fuels, coolants and cutting oils as well as solvents, paints and other hazardous materials used in the production of automobiles.

5. What types of environmental and health impacts could occur at the Kenosha Engine Plant?

Hazardous substances in the soil could pose a direct contact threat to human health or to the environment. Contamination could migrate off the property via utility corridors or via groundwater as it naturally moves underground. In addition, volatile hazardous materials could migrate as vapors out of the groundwater and move toward the surface, posing an inhalation risk. Fortunately, the site investigative data collected to date indicates the contamination from the site does not pose a threat to off-site properties.

6. How will the environmental impacts at the Kenosha Engine Plant be remediated?

The city's consultant evaluated remedial options for the site and proposed a phased remedial action approach, which was approved by the DNR. The first step is to excavate contaminated soil "hotspots" and dispose of the soil at a state approved landfill. The second step is to treat the groundwater by chemical injection. This will be implemented after testing the effectiveness of injecting different chemical compounds. Groundwater sampling will monitor the breakdown of contaminants over time. Lastly, some areas on the site will be capped with pavement or soil to eliminate the direct contact threat the soils may pose to the public. The existing groundwater "pump and treat" system is being phased out due to limited success in decreasing contaminant concentrations.

7. How much will cleanup activities cost at the Kenosha Engine Plant and who will pay for it?

The DNR approved the Remedial Action Option Report for the site. The remedial cleanup cost is estimated to be upwards of \$24 million. The city received grants and loans from state and federal funding to pay for both the investigation and remedial work. Some of these grant and loan agreements require the city to spend their own funds. The bankruptcy escrow fund will be used until it is exhausted. The city may also apply for other governmental grants and loans.

8. Once the site cleanup is completed, what will happen to the site?

Kenosha city officials will work with community leaders and residents to create redevelopment plans for the neighborhood where the former Kenosha Engine Plant is located.