

Electro-Plating Services / I-696 Incident

Frequently Asked Questions (FAQ)

INTRODUCTION

These frequently asked questions have been compiled to answer the community's concerns about the green liquid that seeped onto the shoulder of the I-696 freeway on December 20, 2019.

More information can be found at EGLE's Electro-Plating incident page, and at the Environmental Protection Agency's (EPA) incident page. Test data is available at the EPA's data viewer portal.

What happened?

A bright green liquid seeped onto the shoulder of the I-696 freeway east of the Couzens offramp in Madison Heights on Dec. 20. This prompted an immediate response from state, federal and local agencies including: the U.S. Environmental Protection Agency (EPA); Michigan Department of Environment, Great Lakes, and Energy (EGLE); Michigan Department of Transportation (MDOT); Michigan Department of Health and Human Services (MDHHS); Michigan State Police (MSP); Oakland County Emergency Management; Macomb County and the city of Madison Heights.

What was the green liquid?

The green liquid was groundwater contaminated by industrial waste. Testing shows that the contaminants of concern include hexavalent chromium, cyanide, trichloroethylene and per- and polyfluoroalkyl substances (PFAS).

Where did it come from?

The investigation determined that the green liquid came from Electro-Plating Services (EPS), located at 945 E. 10 Mile, Madison Heights. The facility was shut down by state regulators in 2016 after a history of repeated violations of environmental laws.

How did it get to the highway?

The contaminated groundwater appears to have seeped from under the Electro Plating Services building, under the I-696 service drive, and through the embankment on eastbound I-696. It's probable that a seam of sand, or a utility conduit pipe embedded in the clay soils, created a path for the contaminated groundwater to flow toward the highway embankment.

How did the groundwater get contaminated?

Electro Plating Services has operated at this location for decades and has a history of mismanaging industrial waste. An earthen pit in the basement appears to be a significant source of the contamination. The building has a shallow basement underneath the former plating operations. The building owner dug a pit in the basement floor, approximately 10 feet by 10 feet across and 5 feet deep. The pit, which was dug into the clay soils beneath the basement, collected industrial waste, rainwater from the leaking roof, and groundwater that seeped in from under the building. When the business was operating, the owner pumped the water from the pit into a treatment

system and then into the sanitary sewer. Over time, the clay walls and floor of the pit became contaminated with the chemicals used in the plating operation. As groundwater seeped in and out of the pit, it carried the contamination away from the building.

Will this affect drinking water in Madison Heights or elsewhere?

No, because all nearby residents and businesses are on municipal water from the Great Lakes Water Authority. The groundwater in this area is not used for drinking, cooking or bathing. Madison Heights has tested its drinking water and found no contaminants at levels of concern. Testing has been conducted by every U.S. drinking water system with intakes on Lake St. Clair and the Detroit River. None showed contaminants exceeding drinking water criteria.

Will this affect our rivers and lakes?

The storm sewers around EPS and on I-696 carry stormwater into Bear Creek, the Red Run Drain, the Clinton River and Lake St. Clair. Any pollution that enters this system ends up in our lakes and rivers. Samples have been collected from the storm sewer catch basins near the site and in Bear Creek. Bear Creek is the nearest and smallest waterway. The sample results confirm that the contaminated groundwater was seeping into the local storm sewers on the I-696 expressway and the I-696 service drive. Sampling in Bear Creek found most contaminants of concern to be below water quality standards. One PFAS compound, PFOS, was found slightly above the criteria. Nonetheless, this release of pollution is a concern for the environment and requires a permanent remedy.

Will this affect air quality?

The air around the shoulder of the highway was monitored by first responders when the substance was first discovered, Dec. 20, 2019. No air quality hazards were identified. The EPA continues to monitor air quality on the site. Indoor air samples from a neighboring property showed all levels within acceptable limits.

What about my garden?

Based on testing of the soil and groundwater, the contamination appears to be localized around the EPS building and off-site to the north, between the building and the expressway. Soil and water testing south of 10 Mile Road – closest to the nearest neighborhoods – did not indicate any cause for concern. There is no indication that the contamination has entered the surrounding neighborhoods.

What about basement sumps?

Basement sumps collect and remove groundwater from around the foundation of a building. If the groundwater near the building is contaminated, it can enter the sump. At this time, it appears that the groundwater leaving the EPS site is flowing to the north and seeping out at the highway. Residential homes with basements and sumps are more than 350 feet to the south and are not expected to be affected since groundwater flow appears to be to the north. Soil and water testing north of 10 Mile Road – closest to the nearest neighborhoods – did not indicate any cause for concern.

Could the contamination spread to neighborhoods on the opposite, north, side of the highway?

The steep upgrade sloping from the highway to those neighborhoods prevents migration of contaminants in that direction. The highway corridor, which is below-grade from adjacent homes and businesses, essentially cuts off the spread of contamination and allows it to be collected.

What is being done now to address the problem?

MDOT cordoned off the area and closed down the lane of traffic adjacent to the impacted embankment. That lane was reopened on Jan. 12, but the shoulder, exit ramp at Couzens and service drive continue to be closed. The EPA has installed sumps both in the basement of the facility and in the highway embankment. Water pumped from those locations is reducing the pressure that pushes it toward the highway and helping contain the liquid. Contaminated water from both places, and from vacuuming of sewer catch basins, is being captured and stored for proper disposal. As of Aug. 2, 2020, more than 312,000 gallons of contaminated liquid has been removed from storm drains and from the sump wells. EPA also took extra precautions to ensure that heavy rains did not cause additional problems with contaminated runoff.

The EPA has collected dozens of soil borings as part of an initial site characterization to help determine the extent and levels of contamination. Those findings will help inform a more permanent solution to protect the environment and human health from the contaminants.

EPA also has constructed an interceptor trench along the I-696 service drive that allows contaminated water to flow into the trench where it is pumped into storage tanks. The portion of storm sewer that would be a receptor for the contaminated water has been isolated, and unaffected stormwater is pumped around the isolated section so it will not receive contaminants from the site.

In June 2020, the USEPA and EGLE announced a plan to manage groundwater contamination at the former EPS facility. After evaluating several options, EPA and EGLE selected in-situ, or in-place, treatment as the remedy for groundwater contamination at the site. Treatment chemicals that degrade contaminants are injected into the subsurface soil between the EPS building and the service drive, as well as along the top of the I-696 embankment. As groundwater naturally migrates through the soil, it will flow through the injection areas and the contaminants will be treated in place. Once the in-situ plan proves successful, sump pumps at the location will be removed. The plan transitions the site from the immediate response efforts that have been ongoing since December 2019 to a long-term management process that protects residents and natural resources.

What about the condemned EPS building?

The city of Madison Heights is currently in court seeking permission to have the building demolished.

Who is responsible for this hazard? And who will pay?

EPS owner Gary Sayers is the responsible party, and liable for the cleanup costs. Legal avenues exist to force him to use his assets to pay for cleanup costs. If he is unable to pay, any cleanup costs will be borne by taxpayers through the regulatory agencies.

Will the owner face further enforcement?

For his past violations, which resulted in the 2016 shut down of EPS, Sayers was convicted of illegally storing hazardous waste, sentenced to one year in federal prison and ordered to repay EPA's clean-up costs. He is currently serving his prison sentence. The regulatory agencies will be evaluating whether additional enforcement action can be brought in response to these events, and Michigan Attorney General Dana Nessel has indicated her office will explore possible additional charges.

What is the history of the site?

EPS is a former electroplating shop that operated from 1967 to 2016. Operations included copper, tin, bronze, cadmium, nickel, chromium, gold, silver, zinc and lead plating. The site has a history of repeated violations of environmental laws. A timeline of state enforcement actions is available here at michigan.gov/documents/egle/egle-eps-timeline_678815_7.pdf.

EPS was issued a Cease and Desist order from EGLE (formerly the Department of Environmental Quality) in December 2016 due to extreme mismanagement of hazardous waste that posed an immediate and substantial threat to the community. Throughout 2017, the EPA conducted an emergency cleanup of the site, removing thousands of containers of hazardous chemicals and pumping contaminated liquid from an earthen pit in the basement of the facility. This clean up addressed the immediate hazards on the site but was not intended to address all environmental impacts. In November 2019, EPS owner Gary Sayers was convicted of operating an unlicensed hazardous waste storage facility, sentenced to one year in federal prison, and ordered to repay the EPA \$1.5 million for cleanup costs.

What has happened since the 2017 emergency cleanup?

A preliminary analysis of the site was completed by EGLE in 2019 as part of the process to determine eligibility for EPA Superfund testing and cleanup. The preliminary assessment, while limited in scope, identified significant contamination at the site. However, it also concluded that there was no risk to drinking water and there was a low risk for migration of contaminants off site. Based on that analysis, the site was not accepted for EPA Superfund actions and would be addressed by other cleanup authorities, including state environmental laws. This process takes time to execute as action plans and resources are put into place.

This current incident indicates that there may be a preferential flow path offsite that was previously unknown. EPA and EGLE are addressing the offsite migration and evaluating options for a long-term solution. This will include a formal site re-assessment for possible inclusion in the federal Superfund program.

Is the test data public information?

Yes. EPA maintains a database of test results that you can access through their data viewer:

<https://storymaps.arcgis.com/stories/e4706af132614a8aa40f15c09568b732>

What other properties does Sayers own, and are they contaminated?

EGLE has looked at three additional properties owned by Sayers:

- A residential property in the Petoskey area appears to have no industrial or commercial activity associated with it.
- A property near Sanilac is strewn with old equipment and junk, along with empty barrels that appear to have contained chemicals in the past. EGLE has inspected the property and did not find any indication of disturbed soils, dead vegetation or other indications of chemical disposal. Soil samples and water samples from a stream on the site and near a barrel suspected to contain chemicals have been taken, and results show no indication that chemicals from Electro-Plating have been disposed of on-site. Results from two residential water wells near the property show no indication of plating waste contaminants. EGLE expects to conduct further investigation of this site.
- A building at 5900 Commonwealth Street in Detroit was found on Jan. 10 to have several pits, some containing liquid. EGLE secured the property and is removing the liquids from the pits for appropriate disposal. The liquid contains heavy metals and levels of the PFAS compound PFOS slightly above water quality standards. No hexavalent chromium was detected. The contaminated liquid has been removed and properly disposed of. EGLE is working to have the debris on the property and in the building cleared to facilitate additional testing at the site.
- A vacant wooded parcel of land in Sterling Heights that used to be owned by Gary Sayers appears to show no evidence of chemical disposal or disturbances that could indicate anything was dumped or buried on the property.

What is EGLE doing to help ensure such sites are more quickly and aggressively addressed in the future?

EGLE is conducting a comprehensive evaluation of our enforcement process, as requested by Gov. Gretchen Whitmer, using third party facilitators. That will help inform how we assess and prioritize the estimated 24,000 contaminated sites in Michigan. We are also conducting an evaluation of our incident response procedures.

Where can I find updated information on this issue?

More information can be found at EGLE's Electro-Plating incident page, and at the Environmental Protection Agency's (EPA) incident page. Test data is available at the EPA's data viewer portal.

Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making.

Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.