



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

PFAS SAMPLING REQUEST RESPONSE LETTER

August 6, 2020

Mr. Timothy Alessi
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King, Jr. Drive
Milwaukee, WI 53212-3128

VIA E-MAIL

KPRG Project No. 24413

Re: Response to PFAS Site Investigation Request Letter
Milwaukee Fabricare, Inc. – 4419 W. Fond du Lac Ave., Milwaukee, WI

Dear Mr. Alessi:

On behalf of Milwaukee Fabricare, Inc. (MFI), KPRG and Associates, Inc. (KPRG) is providing this response to the Wisconsin Department of Natural Resources (WDNR) letter, dated March 3, 2020, sent to Gregg Margulis regarding PFAS sampling requirements and the email correspondence between Mr. Margulis and Mr. Alessi dated April 6 & 7, 2020. This letter discusses the evaluation of the use of PFAS or PFAS containing products and their potential use at 4419 W. Fond du Lac Ave in Milwaukee, WI. The evaluation was done based on Wis. Admin Code NR 716.07. The following items are discussed in separate sections in the remainder of this letter.

- Providing a brief background description of the site,
- The history of previous substance discharges or pollution, any affected environmental media, and any knowledge about the type of contamination including its amounts, and
- Potential interim or remedial actions applicable to the site and the contamination.

This letter also provides conclusions/recommendations based on the items listed above.

BACKGROUND

Dry cleaning operations at this location have been ongoing since circa 1982. The operations have historically used, and are currently using, the dry cleaning solvent tetrachloroethene (a.k.a., perchloroethene [PCE]). There are two dry cleaning machines located in a separate room on the south side of the facility. One of the current machines was installed in 1996 and the other in 2003 and dry cleaning operations only occurred in the noted room.

Milwaukee Fabricare, Inc. (MFI) owned the dry cleaning operations up until 2014. Under MFI ownership, PCE for use in the dry cleaning machines was stored in 55-gallon drums between the two machines and there was no secondary containment beneath the drums. PCE was brought into the dry cleaning facility through the rear doorway via drum dolly. Standard solvent additives were used as part of the dry cleaning process and they included off the shelf dry cleaning detergents such as Chlorosheen. Additional services included using pre-spotting chemicals that included solutions to remove protein stains, a mild detergent mixed with water(Boot) and a tannin remover. Some laundering was done using off the shelf detergents. Laundering of shirts was not performed onsite, but was contracted through a third party and done at an offsite location. The remaining portion of the dry cleaner facility was used for clothes pressing/finishing and storage. No carpet cleaning nor water repellent service was ever offered.

Underground gas and water service enter the building at the southeast corner. Overhead electric enters from the northwest. The facility is within the City of Milwaukee limits and, therefore, potable water is municipally supplied with Lake Michigan being the source.

There are no significant surface drainages or bodies of water in the immediate vicinity of the facility. A review of the U.S. Geological Survey (USGS) topographic map of the area suggests that natural groundwater flow beneath the facility would be in an east-northeasterly direction. It is noted, however, that the site is located within the Milwaukee urban area and local near-surface groundwater flow conditions may be affected by subsurface utilities such as sewer lines.

HISTORY OF PREVIOUS SUBSTANCES DISCHARGE

MFI is not aware of any historical spills of solvent during product receiving and transfer. Visual inspection around the dry cleaning machines indicated some staining and visual inspection at the rear of the facility did not indicate any staining or other indications of spillage. The building is slab on grade construction. Past practices also included lint and associated waste disposal into waste bins stored at the rear southwest corner of the property.

A site investigation performed at the site determined that a release of PCE had occurred. It was documented the release had impacted the unsaturated soil beneath the building, specifically in the area of the dry cleaning machines, and the groundwater. The highest groundwater impacts were also noted in the area of the dry cleaning machines and in a down gradient monitoring well. The quantity of the release is unknown, but it is suspected to have occurred over years of PCE use at the facility.

A site investigation report was submitted to the Wisconsin Department of Natural Resources (WDNR) and approved. The results of the site investigation determined that remediation of the impacts would occur.

POTENTIAL INTERIM OR REMEDIAL ACTIONS

Since the site investigation documented impacts of PCE to soil and groundwater, remedial actions were proposed to remediate the affected mediums. Subsurface injections were performed in both the unsaturated and saturated zones of the soil subsurface to remediate the identified subsurface soil and groundwater impacts. The unsaturated soils were treated using chemical oxidation and the saturated soils were treated using a biological injectate.

CONCLUSIONS/RECOMMENDATIONS

As stated above, the facility used PCE as a dry cleaning solvent and associated off the shelf dry cleaning detergents such as Chlorosheen. In addition, pre-spotting chemicals, a mild detergent, and a tannin remover were used to assist the dry cleaning process. Some laundering was done using off the shelf detergents. Laundering of shirts was not performed onsite, but was contracted through a third party and done at an offsite location. The remaining portion of the dry cleaner facility was used for clothes pressing/finishing and storage. No carpet cleaning nor water repellent service was ever offered.

DNR sampling identified the presence of PFAS in both surface water and sediment in the Menomonee and Milwaukee Rivers. Fourteen sample locations throughout the southeast region, including the Menomonee and Milwaukee Rivers identified PFBA (Perfluorobutanoate) in 100% of the surface water samples. It should be noted that the highest concentrations of PFAS were found in the samples taken furthest upstream from Lake Michigan. Approximately 90% of the watershed that drains into the Menomonee and Milwaukee rivers is considered urbanized and the MFI dry cleaning facility is located within this urbanized area of the City of Milwaukee.

An alley and residential houses are located immediately west of the dry cleaning property with commercial properties located north and south. The alley, commercial property to the south, and residential houses are upgradient based on the groundwater flow determined during the site investigation. As of 1951, the building the dry cleaning facility is located in was built along with the neighborhood directly west and the commercial properties to the south. The use of PFAS was and is prevalent in a variety of consumer products and industrial processes, including building/construction, electronics, stain resistant coatings, food packaging, and in waxes and cleaners. As stated previously, dry cleaning operations did not start until around 1982 at the current location.

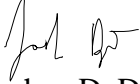
PFAS sampling is not necessary at the MFI property because laundering of shirts and carpet cleaning and water repellent services were not performed at the facility. It is suspected that PFAS identified at dry cleaners have been linked to these services and since they were not performed, PFAS sampling is not necessary. In addition, the DNR sampling and data collected by the US Environmental Protection Agency has shown that PFAS are prevalent throughout the area that MFI is located and the neighborhood and the building existed for almost thirty years before MFI began operating. As a result, many potential sources of

PFAS exist around the dry cleaning facility and any PFAS identified through sampling could not potentially be linked to the dry cleaning operations.

If there are any questions, please contact me at 262-781-0475.

Sincerely,

KPRG and Associates, Inc.



Joshua D. Davenport, P.E.
Senior Engineer

cc: Gregg Margulis, MFI