

From: George Beyer <george@christchurchmke.org>
Sent: Thursday, September 08, 2022 1:02 PM
To: Michalets, Linda M - DNR
Cc: Hedman, Curtis J - DHS
Subject: Re: Milwaukee Plating Immediate Action Status
Attachments: 1422 Building Info.pdf

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Hello Linda,

Thank you for sharing the GZA report!

I thought I would address some of the questions about the 1422 Vel R. Phillips Avenue building in the report, so I wrote the attached letter -- I hope this provides useful information.

I am copying Curtis Hedman on this email so he has this info too.

Please let me know if you have any questions or concerns, thanks!

George
(262) 271-6040

On Fri, Sep 2, 2022 at 8:34 AM Michalets, Linda M - DNR <Linda.Michalets@wisconsin.gov> wrote:

Good morning George,

I did receive a report in early July with some preliminary investigation activities at Milwaukee Plating. I have attached the report for your information. It will also be uploaded to our BRRTS database shortly. In the report, GZA states that they are evaluating ways to adjust the degreaser operations to reduce TCE vapors. I have not received any more recent information. Please note that the DNR does not agree with GZA's statement in the report that "Milwaukee Plating has yet to be conclusively identified as, or significant contributor to the subject TCE emissions...." The DNR identified Milwaukee Plating as the presumptive source of the TCE in the letter dated June 6, 2022.

Please let me know if you have any question about this. I will let you know when I have more information. For now, I am glad to hear that the vapor concentrations have gone down in your building. Milwaukee Plating has much more work to do to address this source.

Regards,

Linda

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Linda Michalets

she/her/hers

Phone: 414-435-8010

linda.michalets@wisconsin.gov

From: George Beyer <george@christchurchmke.org>
Sent: Thursday, September 01, 2022 2:46 PM
To: Michalets, Linda M - DNR <Linda.Michalets@wisconsin.gov>
Subject: Milwaukee Plating Immediate Action Status

**CAUTION: This email originated from outside the organization.
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Hello Linda!

Has Milwaukee Plating responded with a report on actions they have taken to halt the TCE impact on our building?

We received the results of the second round of air sampling recently conducted by the Department of Health Services -- they report a marked increase of TCE vapor in the alley between our building and Milwaukee Plating.

Thankfully the DHS testing and our own periodic sampling have shown our indoor TCE concentrations remain below the DNR Vapor Action Level.

Any information you can provide would be greatly appreciated, thank you!

George Beyer

(262) 271-6040

Christ Church Milwaukee

1422 N. Vel R. Phillips Avenue

Milwaukee, Wisconsin 53212

Linda Michalets
Hydrogeologist
Wisconsin Department of Natural Resources
1027 W. Saint Paul Avenue
Milwaukee, WI 53233

Re: Supplemental Soil and Outdoor Air Evaluation Report
Milwaukee Plating Company
1434 N. Vel R. Phillips Avenue, Milwaukee Wisconsin
BRRS No. 02-41-000826

Dear Ms. Michalets,

The GZA GeoEnvironmental report dated July 6, 2022 stated the need for more information about our building located at 1422 N. Vel R. Phillips Avenue; I am writing to share my knowledge of the conditions, systems and operations to help answer questions raised.

Sewer Connections

Examination of the sewer cleanouts and drain piping inside the building point to the west side connection as the only lateral in use. There is no evidence of a sewer connection to the east side of the building. The best information we have is the building was constructed in 1911 or 1914, which indicates the 1905 lateral shown on city maps is likely an abandoned connection to a previous building on the 1422 property.

Products and Activities

Before Christ Church Milwaukee purchased the 1422 property, the artists and tenants of Wisconsin Arts Lab (also known as Redline Art Center) removed all of their materials and supplies, including all paints and solvents stored in the building. Our use of the building is limited to religious assembly and instruction. Common cleaning supplies and latex paint containers are the only chemical materials stored. Because of concern with our indoor air quality, we are careful to select only low or no VOC products. It does not seem that a room-by-room inventory of products and activities to assess the potential vapor sources inside the building is warranted, but such an investigation will be completed if requested.

HVAC System - Basement

The basement is heated and cooled by a single gas fired furnace unit equipped with a cooling coil. The furnace is a high-efficiency sealed combustion unit. The PVC intake and exhaust pipes for the furnace burner are located on the north wall of the building. A sealed combustion furnace draws the combustion air for the burner through the PVC plastic pipe which connects it to the outside; the second PVC pipe attached to the combustion chamber sends out the exhaust. The combustion process is entirely isolated from the air in the building.

There is no intake of outdoor air for ventilation at the basement level. The circulation of air by basement furnace is limited to distributing conditioned air throughout the basement space and returning the air

through filters by ductwork located in the basement. Basement air circulation is completely independent from the first and second floors.

Also in the basement are exhaust fans with hoods which served the Wisconsin Arts Lab silk screen print area and artist workshops (these exhaust fans are referenced as “slot vents” by the DHS). A gas-fired make-up air furnace with a large outside air intake louver located on the north side of the building was interlocked with the exhaust fans (this outside air intake is apparently the “slotted vent in the north wall of the 1422 building” referenced by GZA). Make-up air is designed to “make up” the air in the interior space which has been removed by the process exhaust fans. This type of HVAC solution pulls in fresh, tempered air from the outside to replace existing air which cannot be recirculated. The make-up air unit and ventilation fans have been electrically disconnected to render them inoperable. Each of the exhaust outlet ducts have been sealed with exterior sheet metal caps made airtight by a heavy bead of duct sealant, and the outside air intake is closed up by a plywood panel fitted inside the ductwork which connects to the outside louver.

There are two stairwells in the building which connect all floor levels. Fire doors at each stair landing have self-closing hardware and the doors always remain closed. A freight elevator, presently out of service, is in a shaft at the southeast corner of the building. The shaft has doors at each floor level, an elevator pit with a floor elevation about 30 inches below the basement floor level, and a machine room penthouse above the roof level. The elevator pit does not have a floor drain or sump.

Because there is no exhaust or intake of outside air into the basement, the basement is pressure neutral with respect to the first and second levels and the outside of the building. There is no circulation of indoor air between the basement and the other floors of the building -- the basement air is completely independent from the rest of the building.

HVAC System - First and Second Floors

The first and second floors are ventilated, heated, and cooled by individual rooftop mounted packaged HVAC units. One rooftop unit distributes and circulates conditioned air only to the first floor, the other only to the second floor. Each floor operates independently from the other floors of the building. Heated and cooled air is distributed throughout the respective floor by sheet metal ductwork and is sent back to the rooftop unit from each floor by a return duct. The rooftop HVAC unit heating sections draw combustion air from the rooftop as it fires, then immediately sends out the exhaust, so the combustion process uses only air outside the building.

Intake of outside air for fresh air ventilation is required by building code for the assembly, classroom, and office uses of the first and second floors of the 1422 building. Each rooftop unit has an outdoor air damper which open to mix outdoor air with return air when the HVAC system is in “occupied” mode. The ventilation fan operates continuously when in “occupied” mode. The fresh air dampers close to prevent outdoor air intake when the system is in “unoccupied” mode.

The first and second floors also have small toilet room exhaust fans which vent through a shared duct exiting the north wall of the building above the first floor level. These fans are controlled by occupancy sensors which turn on the fan motors only when an individual enters the room and run for 30 minutes after motion has ceased.

Due to the intake of outdoor air by the rooftop units, when operating in “occupied” mode the HVAC system will slightly pressurize the inside of the building with respect to the outside of the building. When in “unoccupied” mode, the building will be pressure neutral to the outside. The building is presently programmed to operate in “occupied” mode 8:00 AM to 8:00 PM daily, and “unoccupied” mode from 8:00 PM to 8:00 AM daily. It is possible the toilet exhaust fans could draw in outside air by infiltration if they operate during the unoccupied period. The amount of infiltration would be small; the toilet room fans exhaust air at 225 cubic feet per minute and stop operation after a maximum of 30 minutes.

TCE Remediation

We have been taking measures to remove TCE from the indoor air since February 2022. Carbon filters have been installed in both rooftop HVAC unit filter sections and are changed quarterly. These filters are specifically designed to adsorb VOC contaminants from the airstream prior to distribution. Installed in each rooftop unit are eight 24 by 24 inch by 2 inch filters; each MERV 10 filter has 485 grams of CTC 60 carbon suspended in a fine synthetic web matrix. The basement furnace fan is operated continuously with one 24 by 24 by 2 inch carbon filter and one 20 by 25 by 1 inch carbon filter.

In addition to the carbon filters installed in the HVAC system, five 400 cubic feet per minute portable air filter units are deployed throughout the first and second floors. Each unit has a 2.5 inch thick filter carrying 17 pounds of VOC abatement carbon blend. In the basement we are opening a 2,000 cubic feet per minute air scrubber with 12” filter filled with 37 pounds of carbon. All these portable filters are operated continuously.

I hope this additional information about the systems and operation of the 1422 N. Vel R. Phillips Avenue building will be helpful in planning and implementing corrective actions to mitigate the high indoor air concentrations of TCE we are experiencing. If you have any questions on this information, please contact me at (262) 271-6040, george@christchurchmke.org.

Sincerely,

Christ Church Milwaukee, Inc.
George M. Beyer, Trustee