

**From:** Keller, Ethan J - DNR  
**Sent:** Friday, June 30, 2023 2:07 PM  
**To:** Braun, Gary  
**Subject:** RE: Former FV Steel & Wire Company Site at 111 N. Douglas St. Hortonville, WI (WDNR BRRTS#: 02-45-560221)

Hi Gary,

I'd like to apologize for my delayed response to your email, but thank you for providing this update.

Waterloo samplers are acceptable, and 7 days is an adequate duration, however DNR recommends a duration of 10 days if possible.

The DNR has a couple of concerns.

DNR Comment - The source(s) of the CVOC contamination is currently unclear.

AECOM Response – Note that the figure showing the TCE plume in shallow groundwater that exceeded the ES concentration was not included in the most-recent data submittal, but rather in a previous submittal. I have attached it for convenience. TCE is limited in extent in the far-western portion of Building D.

DNR Comment – While the a source TCE is defined in the shallow groundwater along western portion of the building. The concentrations (5-6 ug/L of TCE)(5.5 ug/L in MW-3) in the shallow groundwater doesn't seem to correlate to the high concentrations detected in the sub-slab samples (9150 ug/m3 TCE at SS-4). This seems to indicate a potential separate source, so DNR recommends attempting to find the source of the high sub-slab vapor under the east side of Building D.

DNR Comment – Collect sub-slab vapor samples from buildings east of Building D.

AECOM Response – Sampling is not deemed necessary in Buildings east of Building D since they are 1) removed from the source in the shallow GW and have decreasing concentrations towards the east prove it, and 2) are separated from Building D with concrete foundations.

DNR Comment – At the furthest east vapor port within Building D (SS-10) concentrations still meet the small commercial VRSL for TCE (at 290 ug/m3). While the foundations may cut off vapor travel, due to the risk posed by TCE the DNR recommends that at least one vapor port be installed near the center of the building to the east.

Best regards,

**We are committed to service excellence.**

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

**Ethan Keller**

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**From:** Braun, Gary <[Gary.Braun@aecom.com](mailto:Gary.Braun@aecom.com)>  
**Sent:** Thursday, June 1, 2023 1:57 PM  
**To:** Keller, Ethan J - DNR <[ethan.keller@wisconsin.gov](mailto:ethan.keller@wisconsin.gov)>

**Cc:** Chad Erdmann ([Chad.Erdmann@libertysteel.us](mailto:Chad.Erdmann@libertysteel.us)) <[chad.erdmann@libertysteel.us](mailto:chad.erdmann@libertysteel.us)>;  
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**Subject:** FW: Former FV Steel & Wire Company Site at 111 N. Douglas St. Hortonville, WI (WDNR  
BRRS#: 02-45-560221)

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Good afternoon –

I wanted to provide an update to the latest activities that are occurring at the above referenced site.

The biggest issue relayed in the DNR comments that are provide below is the change in indoor air sampling methods. After some due-diligence, we have aligned with DNR Comments from the February air-sampling event and will be utilizing WMS Samplers for a 7-day deployment using EPA-Method TO-17 extraction through Eurofins' Air Lab in Indiana for the 2<sup>nd</sup> quarter 2023 indoor air sampling. A longer-term indoor and sub-slab monitoring plan will be developed based on the 2<sup>nd</sup> quarter 2023 results.

Other responses to pertinent DNR comments are summarized below:

**Comment** – Collect sub-slab vapor samples from buildings east of Building D.

Response – Sampling is not deemed necessary in Buildings east of Building D since they are 1) removed from the source in the shallow GW and have decreasing concentrations towards the east prove it, and 2) are separated from Building D with concrete foundations.

**Comment** - The source(s) of the CVOC contamination is currently unclear.

Response – Note that the figure showing the TCE plume in shallow groundwater that exceeded the ES concentration was not included in the most-recent data submittal, but rather in a previous submittal. I have attached it for convenience. TCE is limited in extent in the far-western portion of Building D.

**Comment** - The current use(s), and worker demographics of the buildings to the southeast are unknown (see screen shot below). Information regarding both the use(s) and demographics of these buildings should be provided.

Response – This information will be provided in the next data submittal.

**Comment** - Due to the presence of TCE in sub-slab vapors at concentrations exceeding the applicable vapor risk screening level, remedial action to reduce the mass and concentration of volatile compounds to the extent practicable must be completed prior to case closure per Wis. Admin. Code § NR 726.05(8)(b)1.

Response – We are aware of this.

Should you have any questions or comments, please let me know.

Regards,

Gary

**Gary Braun, P.G.**

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**From:** Keller, Ethan J - DNR

**Sent:** Monday, March 27, 2023 11:13 AM

**To:** Braun, Gary <[Gary.Braun@aecom.com](mailto:Gary.Braun@aecom.com)>

**Subject:** RE: Former FV Steel & Wire Company Site at 111 N. Douglas St. Hortonville, WI (WDNR BRRTS#: 02-45-560221)

Hello Gary,

On March 21, 2023, the DNR received indoor air and sub-slab vapor monitoring results for Former FV Steel & Wire Company (WDNR BRRTS#: 02-45-560221) site. The Report was prepared by AECOM, on behalf of 111 N Douglas LLC and was submitted without a fee for DNR review and response. Although the report was submitted without a fee for DNR review and response, the DNR has performed a cursory review of the data and is providing the following general comments due to concerns regarding potential health risks associated with contamination identified at the site. As such, this email is not intended to be an exhaustive list of DNR comments on the current state of the site investigation but is intended to provide general guidance regarding the site investigation and response actions.

**Report Summary**

The report includes the results of environmental sampling that was conducted at the site. Chlorinated volatile organic compounds (CVOCs) including trichloroethylene (TCE) were identified in the sub-slab vapor samples at concentrations exceeding regulatory standards throughout Building D and the southwestern portion of Building E. TCE was identified in sub-slab samples at the onsite building at concentrations up to 9,150 µg/m<sup>3</sup> which exceeds the large commercial/industrial vapor risk screening level (VRSL) of 880 µg/m<sup>3</sup>. The source(s) of the CVOC contamination is currently unclear.

**Special Vapor Intrusion Concern with TCE:**

Contamination that includes TCE, a chlorinated solvent and common degreaser, is of special concern from a human health perspective due to its potential for acute (short-term) health risks at relatively low concentrations in air. TCE is also a breakdown product of tetrachloroethylene, a historically common dry-cleaning chemical. Vapors can travel from contaminated soil or groundwater and along preferential pathways, such as within sewer lines, and enter occupied buildings. This is known as vapor intrusion (VI). Because TCE is a contaminant of concern at the site, assessment of the vapor intrusion pathway and the actions requested below should be prioritized and completed as soon as possible. For additional information regarding the potential health risks associated with TCE, see the attached Department of Health Services fact sheet "TCE in the Air." attached to this email. It can also be found on the [Vapor Intrusion Resources for Environmental Professionals](#) page under the Guidance & Forms tab, then scroll down to the DHS Guidance section.

**DNR Comments**

- Wis. Admin. Code ch. NR 708.11(1)(b) states that the department may require the use of a vapor mitigation system, or other engineering control, when vapor concentrations beneath a slab, foundation, or building exceed a VRSL. Vapor mitigation appears warranted at the on-site building due to the presence of TCE in sub-slab vapors at concentrations exceeding the applicable

VRSL. Additional investigation to determine the degree and extent of vapor contamination and implementation of vapor mitigation at the on-site building should be prioritized.

- The source(s) of the CVOC contamination is currently unclear. Attempts should be made to identify the source(s) of the CVOC contamination and potential sources should be considered when planning future site investigation.
- The current use(s), and worker demographics of the buildings to the southeast are unknown (see screen shot below). Information regarding both the use(s) and demographics of these buildings should be provided.
- Due to the concentrations of TCE identified in the sub-slab results and the proximity of contamination to the building, vapor sampling is warranted in the buildings to the southeast. Perform vapor sampling in the buildings to the southeast to determine the concentrations of contaminants in sub-slab vapors (and indoor air). The results of the vapor sampling should be evaluated to determine whether additional sampling, mitigation of the vapor intrusion pathway, and remedial action are warranted per Wis. Admin. Code § NR 716.11(5).
- Due to the presence of TCE in sub-slab vapors at concentrations exceeding the applicable vapor risk screening level, remedial action to reduce the mass and concentration of volatile compounds to the extent practicable must be completed prior to case closure per Wis. Admin. Code § NR 726.05(8)(b)1.
- DNR is requesting long-duration (7+ day) passive indoor air sampling be performed in areas of known VRSL exceedances to account for variabilities with shorter duration vapor intrusion sampling. Due to the delayed availability of the revised RR-800, a webinar on passive sampling was recorded and is available on our [training library](#). As there are multiple passive samplers to choose from, DNR recommends contacting your lab to discuss the building conditions for what passive sampler best meets your needs. Sample analysis should be limited to contaminants of concern (i.e CVOCs).
- Due to TCE's potential for acute (short-term) health risks at relatively low concentrations in air. The DNR concurs that additional indoor air sampling is necessary, However, the DNR recommends longer term (monthly or quarterly) monitoring of indoor air. The results of the indoor air sampling should be evaluated to determine if immediate actions such as placement of air treatment units, ventilation, or worker relocation are warranted. Please reference letters from DHS to DNR regarding acute risk located on the [VI for Environmental Resources](#) website under the Health tab.
- DNR recommends a review fee accompany future submittals for this site to allow detailed review and response.
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Please note that the site investigation can be an iterative process. Future sampling may indicate that further assessment is needed to define the degree and extent of contamination in all affected media.



If you have any questions please feel free to contact me.

Best Regards,

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**Ethan Keller**

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**From:** Braun, Gary <[Gary.Braun@aecom.com](mailto:Gary.Braun@aecom.com)>

**Sent:** Tuesday, March 21, 2023 12:37 PM

**To:** Keller, Ethan J - DNR <[ethan.keller@wisconsin.gov](mailto:ethan.keller@wisconsin.gov)>

**Cc:** Chad Erdmann ([Chad.Erdmann@libertysteel.us](mailto:Chad.Erdmann@libertysteel.us)) <[chad.erdmann@libertysteel.us](mailto:chad.erdmann@libertysteel.us)>;  
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**Subject:** RE: Former FV Steel & Wire Company Site at 111 N. Douglas St. Hortonville, WI (WDNR BRRS#: 02-45-560221)

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Ethan –

Attached are the final results for the February 2023 sub-slab sampling. As noted below, there were several constituents that were not originally reported for SS-12. The attached report includes these results.

**Gary Braun, P.G.**

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**From:** Braun, Gary

**Sent:** Thursday, March 16, 2023 9:05 PM

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**Cc:** Chronert, Roxanne N - DNR <[Roxanne.Chronert@wisconsin.gov](mailto:Roxanne.Chronert@wisconsin.gov)>; Chad Erdmann ([Chad.Erdmann@libertysteel.us](mailto:Chad.Erdmann@libertysteel.us)) <[chad.erdmann@libertysteel.us](mailto:chad.erdmann@libertysteel.us)>; 'Howard.Law@gfgalliance.com' <[Howard.Law@gfgalliance.com](mailto:Howard.Law@gfgalliance.com)>; Henderson, David <[Dave.Henderson@aecom.com](mailto:Dave.Henderson@aecom.com)>; Schacht, Garret <[Garret.Schacht@aecom.com](mailto:Garret.Schacht@aecom.com)>

**Subject:** Former FV Steel & Wire Company Site at 111 N. Douglas St. Hortonville, WI (WDNR BRRTS#: 02-45-560221)

Good Evening -

Attached are the February 2023 indoor air and sub-slab vapor monitoring results, along with a sample location map for the above referenced site. Three indoor air samples were collected in Building E (IA-1), Building D-West (IA-2), and Building D-East (IA-3) in accordance with the sampling plan summarized in my January 31, 2023 email. As summarized on the attached table, two of the target analyte constituents were detected at concentrations above reporting limits. Tetrachloroethene (PCE) and Trichloroethene (TCE) were detected at each of the three indoor air monitoring locations. The highest concentrations of PCE was 2.6 ug/m<sup>3</sup> (i.e., parts per billion) at IA-1 and 2.1 ug/m<sup>3</sup> for TCE at IA-2. Both of these concentrations were found to be less than their respective Vapor Action Levels (VAL) for indoor air concentrations of PCE (VAL of 180 ug/m<sup>3</sup>) and TCE (VAL of 8.8 ug/m<sup>3</sup>) as listed in DNR Publication RR-0136. Therefore, no immediate actions are deemed necessary to address indoor air quality. Rather, an indoor air and sub-slab sampling event will continue in June 2023 as planned in the work plan (approved on January 26, 2022) and summarized below.

The sub-slab sampling results conducted in Feb. 2023 were similar to the Nov. 2022 results. TCE was found to exceed the Vapor Risk Screening Level (VRSL) at the same five sample locations of the initial six sampling points conducted in Nov. 2022. In addition, VRSL exceedances for TCE were also observed at two new monitoring points (SS-7 and SS-11). Some variations were observed in concentration between the Nov. 2022 and Feb. 2023 sampling events, which would be expected with frozen ground surrounding the building, but the TCE VRSL exceedances appear to be delineated in both Buildings D and E

considering TCE concentrations were below its VRSL at SS-6, SS-8, SS-9, SS-10, and SS-12. Expansion of the current sub-slab monitoring program does not appear to be necessary. Note that the sub-slab results are indicated to be preliminary, since there are several constituents not reported for SS-12. The lab has been contacted to report the missing constituents in SS-12.

Proposed VI Sampling Plan for June 2023 includes:

- Three indoor air samples from Building D – West, Building D – East, and Building E. Each short-term indoor air sample will consist of the collection of a 6-liter summa canister with an 8-hour regulator in the breathing zone height, away from windows and doors, and at locations where they will not be disturbed. HVAC systems will continue to operate as normal, and the operating conditions will be documented and reported as part of the sampling procedure.
- The 12 existing sub-slab monitoring points in Building D and E will be used (if re-located) to delineate seasonal sub-slab vapor concentrations and assist in evaluating the horizontal extent of impacts.
- Results of the indoor air sampling will be forwarded to DNR within 48-hours of receipt.

Please do not hesitate to contact me with any questions.

Regards,  
Gary

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