

March 15, 2018

Mr. Dave Goodwin
Reviva Manufacturing
5130 Main Street NE
Fridley, MN 55421

RE: 2017 Field Investigation and Annual Monitoring Report Response
Reviva Manufacturing, 5130 Main Street NE, Fridley
MPCA Site ID: SR0000027
MPCA Billing ID: 22030

Dear Mr. Goodwin

The Minnesota Pollution Control Agency (MPCA) staff in the Superfund Unit are working cooperatively with Reviva Manufacturing (the Site), located in Fridley, MN.

This letter provides review comments on the 2017 Field Investigation and Annual Monitoring Report prepared by Carlson McCain, Inc. on January 9, 2018. The report's stated purpose is to present the 2017 field investigation results per the approved 2016 Remedial Action Plan Work Plan (version 4), as well as to present the 2017 Annual Monitoring Report. The objectives of the report are to provide the field investigation data including monitoring well installation, sub-slab vapor sampling, and vapor mitigation system installation, to evaluate trends in the field monitoring and laboratory analytical results over the monitoring period, evaluate overall groundwater quality and remediation effectiveness, evaluate off-site influences, and provide recommendations for future actions at the Reviva facility (Site).

MPCA has reviewed all components of the report; however, due to time-sensitive components, MPCA has opted to address vapor related matters only in this response. A more comprehensive response relating to all matters addressed in the report will be addressed in a future response.

Pre-mitigation diagnostic testing for the soil vapor mitigation system began in August of 2017, with system installation in September 2017. The vapor mitigation system consists of a sub-slab depressurization (SSD) system with eight horizontal vents installed beneath the building floor slab that are connected via PVC piping to six active electric vapor mitigation fans (Festa Radon Technologies Co. Force Model) mounted on the roof of the building.

Post-mitigation system verification consisted of five post-mitigation indoor air samples collected on September 27, 2017, in MPCA defined "non-heating season" conditions. Paired sub-slab samples and outdoor ambient air samples were not collected with the post-mitigation indoor air samples, per the MPCA mitigation BMP and via communication with Jamie Wallerstedt on August 1, 2017 (see enclosed email). TCE was detected in all five indoor air samples at concentrations ranging from 1.08 $\mu\text{g}/\text{m}^3$ to 2.95 $\mu\text{g}/\text{m}^3$ which are all below the commercial/industrial ISV for TCE of 7 $\mu\text{g}/\text{m}^3$. PCE was also detected in two of the five indoor air samples at concentrations of 2.62 $\mu\text{g}/\text{m}^3$ and 4.07 $\mu\text{g}/\text{m}^3$, which are below the commercial/industrial ISV for this compound of 33 $\mu\text{g}/\text{m}^3$. The source of chlorinated volatile organic compounds (CVOCs) in the indoor air samples is unknown. Table 8 of the report compares the indoor air results to the MDH Chronic and Acute HRV/HBV values. Indoor air results should be compared to the

commercial/industrial ISVs. The non-heating season post-mitigation indoor air samples did not detect concentrations above the commercial/industrial ISVs; however, a heating season sampling event is necessary to verify the initial non-heating season testing results and confirm that the concentrations of PCE and TCE detected do not increase above the ISVs. Paired sub-slab samples and an outdoor ambient sample shall be conducted concurrent with the heating season verification sampling.

It is not clear from the information provided if pressure field extension (PFE) testing was conducted during the non-heating season indoor air sampling event. Post-mitigation diagnostic testing for PFE across the building floor slab was conducted within the MPCA defined "heating season" on December 19, 2017. Pressure differential was monitored at eighteen locations throughout the building and all of the locations had pressure differential readings above MPCA's heating season criteria of -3 Pascal. Pressure differential monitoring should be repeated during the heating season analytical sampling event at the same locations.

Copies of MPCA BMP Attachments A, B, C and D for documenting pre-mitigation diagnostic testing, active system installation, post-mitigation diagnostic testing and post-mitigation verification testing should be provided with final documentation for the mitigation system. Some of the documentation requested in these attachments was provided in Appendix C of the report; however, the information is not complete. The Operation and Maintenance plan (Appendix C) states "As recommended by EPA, the SSD system components, as indicated in the list below, should be inspected and maintained according to a regular schedule." However, an inspection and maintenance schedule is not provided so it is unclear how often these actions are to occur. The Operation and Maintenance plan should be updated to include a specific schedule for the occurrence of the inspection, maintenance and frequency.

Finally, site figures in the format of the MPCA Vapor Intrusion GIS map templates were not included. These figures are needed to illustrate the vapor intrusion area of concern (VI AOC) and mitigation decisions for buildings based on the investigation data collected to date.

In summary, MPCA is requesting the following actions take place.

1. Collect paired sub-slab and indoor air samples along with an outdoor ambient air sample in the MPCA defined heating season (Nov. 1- March 31) in accordance with the MPCA mitigation BMP.
2. Compare indoor air results to the commercial/industrial ISVs to verify system effectiveness.
3. Repeat pressure differential diagnostic monitoring of the system during the heating season analytical sampling event.
4. Provide complete copies of MPCA BMP Attachments A, B, C and D for documenting pre-mitigation diagnostic testing, active system installation, post-mitigation diagnostic testing and post-mitigation verification testing with final documentation for the mitigation system.
5. Update the Operation and Maintenance plan to include a specific schedule for when the inspection, maintenance and frequency is to occur.
6. Provide site figures in the format of the MPCA Vapor Intrusion GIS map templates illustrating the vapor intrusion area of concern (VI AOC) and mitigation decisions for buildings based on the investigation data collected to date.

Dave Goodwin
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If you have any questions regarding this letter, please contact me at 651-757-2481 or elizabeth.kaufenberg@state.mn.us.

Sincerely,

Kathryn J. Sather

This document has been electronically signed.

Kathryn J. Sather
Division Director
Remediation Division

KS/LK:bhj

Enclosures: Attachment A
August 1, 2017 Dealers Update email

cc: Wade Carlson, Carlson McCain, Inc. (electronic)
Tom Higgins, MPCA (electronic)
Jamie Wallerstedt, MPCA (electronic)
Tim Grape, MPCA (electronic)
Liz Kaufenberg, MPCA (electronic)

Disclaimers

Reviva Manufacturing

MPCA Site ID: SR0000027

1. Reservation of authorities

The Minnesota Pollution Control Agency (MPCA) Commissioner reserves the authority to take any appropriate actions with respect to any release, threatened release, or other conditions at the Site. The MPCA Commissioner also reserves the authority to take such actions if the voluntary party does not proceed in the manner described in this letter or if actions taken or omitted by the voluntary party with respect to the Site contribute to any release or threatened release, or create an imminent and substantial danger to public health and welfare.

2. No MPCA assumption of liability

The MPCA, its Commissioner and staff do not assume any liability for any release, threatened release or other conditions at the Site or for any actions taken or omitted by the voluntary party with regard to the release, threatened release, or other conditions at the Site, whether the actions taken or omitted are in accordance with this letter or otherwise.

3. Letter based on current information

All statements, conclusions and representations in this letter are based upon information known to the MPCA Commissioner and staff at the time this letter was issued. The MPCA Commissioner and staff reserve the authority to modify or rescind any such statement, conclusion or representation and to take any appropriate action under his authority if the MPCA Commissioner or staff acquires information after issuance of this letter that provides a basis for such modification or action.

4. Disclaimer regarding use or development of the property

The MPCA, its Commissioner and staff do not warrant that the Site is suitable or appropriate for any particular use.

5. Disclaimer regarding investigative or response action at the property

Nothing in this letter is intended to authorize any response action under Minn. Stat. § 115B.17, subd. 12.

6. This approval does not supplant any applicable state or local stormwater permits, ordinances, or other regulatory documents.

From: [Kaufenberg, Elizabeth \(MPCA\)](#)
To: [Kaufenberg, Elizabeth \(MPCA\)](#)
Subject: FW: Dealers Update
Date: Thursday, March 08, 2018 1:32:52 PM
Attachments: [image001.png](#)

From: Wallerstedt, Jamie (MPCA)
Sent: Tuesday, August 01, 2017 9:24 AM
To: 'Wade Carlson' <wcarlson@carlsonmccain.com>
Cc: 'Dave Goodwin' <DGGoodwin@Reviva.com> (<DGGoodwin@Reviva.com>); 'Josh Stahl' (<JStahl@Reviva.com>); Jon Braegelmann <jbraegelmann@carlsonmccain.com>; Jim de Lambert <jdelambert@carlsonmccain.com>; Megan Lindstrom <mlindstrom@carlsonmccain.com>; Neve, Hans (MPCA) <hans.neve@state.mn.us>; Grape, Timothy (MPCA) <timothy.grape@state.mn.us>; Nick Bonow <nbonow@carlsonmccain.com>
Subject: RE: Dealers Update

Hi Wade,

Tim and I reviewed the submitted schedule below. We offer the following additional comments:

1. In the Week of August 7th, it states that a system plan will be prepared. That should also be submitted to the MPCA.
2. Initial diagnostic testing and verification analytical sampling in accordance with the MPCA's BMP should be completed 2 to 4 weeks after the mitigation system is installed.
3. An additional round of diagnostic testing and verification analytical sampling should then be completed in the heating season (after Nov. 1st).
4. The building survey (prior to mitigation) is particularly important to document any chemicals being used for building/industrial operations that may result in detections in the verification indoor air sampling.
5. All indoor air sampling should be done in accordance with the EPA Method TO-15 MN list.
6. Please provide the initial Implementation Report after the mitigation system is installed and the initial verification testing is complete. The heating season verification testing results can then be added to the Final Implementation Report as an addendum. Please note the MPCA may require adjustments to the heating season verification testing plan based on the results of the initial verification testing.

We appreciate your continued work on this Site.

Thanks,
Jamie Wallerstedt

From: Wade Carlson [<mailto:wcarlson@carlsonmccain.com>]
Sent: Friday, July 28, 2017 11:33 AM
To: Wallerstedt, Jamie (MPCA) <jamie.wallerstedt@state.mn.us>
Cc: 'Dave Goodwin' <DGGoodwin@Reviva.com> (<DGGoodwin@Reviva.com>); 'Josh Stahl' (<JStahl@Reviva.com>); Jon Braegelmann <jbraegelmann@carlsonmccain.com>; Jim de Lambert <jdelambert@carlsonmccain.com>; Megan Lindstrom <mlindstrom@carlsonmccain.com>; Neve, Hans (MPCA) <hans.neve@state.mn.us>;

Grape, Timothy (MPCA) <timothy.grape@state.mn.us>; Nick Bonow <nbonow@carlsonmccain.com>

Subject: RE: Dealers Update

Good morning Jamie,

I had a good conversation with Tim Grape last night regarding our approach and informed him that we would like to move forward in an expedited fashion as Reviva ramps up production during the months of September through November (it's their busy time of year). As such, Reviva has directed us to move forward with expedited mitigation with the goal of having the mitigation system up and running by labor day weekend. Here is a preliminary outline of our work schedule and tasks over the next several weeks.

Week of July 31st:

- Conduct site walkover and meet w/ Reviva staff (July 31st)
- Review building construction plans
- Complete building survey
- Install of test vent and associated vapor pins
- Conduct pilot testing to determine radius of influence and fan/blower size

Week of August 7th:

- System design
- Conduct follow up testing (if needed)
- Prepare brief Technical Report of system design
- Meet w/ Reviva staff to coordinate and plan mitigation system installation (note: work needs to be performed after 2:00 pm and on weekends)
- Order equipment and piping
- Secure installation contractor

Week of August 14th:

- Install sub-slab vents and piping runs
- Install addition vapor pins for diagnostic and sampling purposes
- Concrete patching

Week of August 21st:

- Construct above grade vent piping, headers and roof penetrations
- Electrical work

Week of August 28th:

- Conduct initial system operation
- Complete system diagnostics and testing