

## MEMORANDUM

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DATE : April 4, 2023

TO : Pratap Singh, Ph.D., PE / KSingh

FROM : Robert Reineke, PE / KSingh

SUBJECT : Daily Summary for Vapor Mitigation Efforts for April 4, 2023  
Community Within the Corridor - East Block

COPY TO : Shane LaFave / Roers Companies, Project #40441

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The KSingh crew arrived at the site at 9am. The following tasks were performed:

- Checked functionality of blowers and determined that 1 out of 4 blowers was not functioning. The northern 10 HP blower was not operational.
- Coordinated with Fliteway to troubleshoot and fix the blower that was not working; motor was experiencing power issues and amperage was increased to address this. All blowers are functional.
- Observed that there was not any water in the knockout tanks at 10 am.
- Hartman Environmental Geoscience will start analyzing data remotely beginning today. KSingh will continue collecting discrete samples and will be the onsite operator of the portable gas chromatograph (GC).
- Measured the vacuum from the vapor pins that were installed. No change in nodes except for Node 7 near unit 1050 which recorded 0.019 inches of water. In the afternoon, no vacuum was observed in Node 7. Continuous differential pressure data indicates no negative pressure in that node today.
- Worked with Fliteway to complete installation of high-level switches in the totes to prevent totes from overflowing.
- Emptied water from the knockout tanks to ensure there are no shutdowns of the blowers due to water.
- Discussed options with Fliteway to remove the water from the totes with a sump pump into drums.
- Removed approximately 40-50 gallons of water from the 10 HP north blower at 3 pm. Potentially more than 100 gallons per day may be removed by that blower from the subslab depressurization system (SSDS) piping.
- Took discrete samples from the exhaust of the north blowers. The northern 7.5 HP blower reported exhaust concentration of 17.6 ug/m<sup>3</sup> of TCE. The northern 10 HP blower reported exhaust concentration of 41.2 ug/m<sup>3</sup> of TCE. The northern 10 HP blower increased its exhaust output indicating increased efficacy of the northern 10 HP SSDS.
- Took discrete samples from the exhaust of the south blowers. The southern 7.5 HP blower reported exhaust concentration of 24.5 ug/m<sup>3</sup> of TCE. The southern 10 HP blower reported exhaust concentration of 21.9 ug/m<sup>3</sup> of TCE.

- Sampled both mechanical rooms on the south side of the building near the rooms with highest concentrations. TCE concentration in Mechanical Room 1056 is 24.8 ug/m<sup>3</sup>. TCE concentration in Mechanical Room 1052 is 76 ug/m<sup>3</sup>.
- Switched portable GC back to continuous monitoring of rooms 1045 and 1050 at 4:50 PM.
- Continued visual inspection of various rooms where gaps have been observed and documented via photographs and issues log.

#### **Action Items for April 5, 2023:**

The following action items are for April 5, 2023:

1. Develop a program to determine if water has infiltrated western extent of buildings. Sample the water removed from the system for VOCs.
2. Continue to monitor vapor pins for pressure changes.
3. Install additional vapor pins, measure sub-slab differential pressure, and further define areas that have inadequate depressurization.
4. Continuously monitor rooms 1045 and 1050 to assess if TCE levels are recovering or are stable at low level to assess success of sealing program.
5. Keep the blowers running and measure water removed from the system.
6. General Contractor will need to seal gaps in floor / wall transition, including columns.
7. KSingh to work with Fliteway to adjust southern 10 HP blower exhaust so rain does not get in exhaust.
8. Continue inspections of rooms for gaps.
9. KSingh to work with contractors to arrange for further CCTV inspections. This will require creation of access points and inspection ports. This will be intrusive and require ventilation.
10. Source removal during creation of access points and inspection ports will be discussed with WDNR.

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| <b>Project No:</b>   | 40441B                |
| <b>Project Site:</b> | CWC East Block        |
| <b>Name:</b>         | Robert Reineke        |
| <b>Date:</b>         | 3/28/2023 to 4/1/2023 |

| Issue No. | Issue Description                      | Responsible Party | Status     | Notes / Location   | Photo Reference |
|-----------|--|-------------------|------------|--|-----------------|
| 1         | Laterals                               | Greenfire         | Unresolved | West Side. How sealed? Plans have been provided. Reportedly all penetrations were sealed with concrete. Will need to verify. |                 |
| 2         | Heating at Stair 2                     | Greenfire         | Unresolved | Turn off heat to stop stairwell from acting as chimney.  |                 |
| 3         | Mechanical Room near Men's Locker Room | CWC               | Resolved   | Grant access for inspection  |                 |
| 4         | Plumbing                               | Greenfire         | Unresolved | Examine Plumbing and Seals   |                 |
| 5         | Gaps in Slab and Wall Transition       | Greenfire         | Unresolved | Rooms 1045 and 1050.   |                 |
| 6         | Reversed Northern Blower               | Fliteway          | Resolved   | Building 3A, New Blower, is blowing air into system  |                 |
| 7         | CCTV                                   | Ksingh            | Unresolved | Arrange CCTV of SSDS piping and examing video. CCTV could not navigate 90 degree elbows.                                     |                 |
| 8         | Sump Pumps                             | Greenfire         | Unresolved | Determine if all sump pumps are functioning  |                 |

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| Issue No. | Issue Description  | Responsible Party | Status     | Notes / Location   | Photo Reference   |
|-----------|--|-------------------|------------|--|---|
| 9         | Cleanouts / Inspection Points Needed to Televis and Pump Out water | Greenfire         | Unresolved | West Leg of Southern SSDS System   |   |
| 10        | Blowers are slurping water and shutting off when full.             | Fliteway          | Unresolved | Drain Blowers so they don't stop. Manual method has been added. Developing options with Fliteway for automatic emptying. | <a href="https://ksinghengineering.sharepoint.com/:v/s/Projects/EQs/RraKopvFNkYo6hK-xXFYBtD0lVqCaCz3pUMBlqzm">https://ksinghengineering.sharepoint.com/:v/s/Projects/EQs/RraKopvFNkYo6hK-xXFYBtD0lVqCaCz3pUMBlqzm</a> |
| 11        | Seal Casing Pipe with Slurry                                       | Greenfire         | Unresolved | West Utilies penetrations  |   |
| 12        | Blowers Shut Down Without Ksingh being alerted                     | Fliteway          | Unresolved | Blower Locations. Fliteway is working on providing alerts/app.   |   |
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**Project No:** 40441B  


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**Project Site:** CWC East Block  


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**Name:** Robert Reineke  


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**Date:** 4/3/2023  


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| Issue No. | Issue Description                                    | Responsible Party | Status     | Notes / Location       | Photo Reference       |
|-----------|--|-------------------|------------|------------------------|-----------------------|
| 13        | Room 1045 Had Horizontal Wall Penetrations with Gaps | Greenfire         | Unresolved | Room 1045 Near Ceiling | IMG_0097 and IMG_0098 |
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**Project No:** 40441B  


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**Project Site:** CWC East Block  


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**Name:** Sam Ramirez  


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**Date:** 4/4/2023  


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| Issue No. | Issue Description                                   | Responsible Party | Status     | Notes / Location | Photo Reference |
|-----------|---|-------------------|------------|------------------|-----------------|
| 14        | Rain is entering Southern 10 HP Blower Exhaust Pipe | Fliteway          | Unresolved |                  |                 |
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