

MEMORANDUM

DATE : October 7, 2023

TO : Shane LaFave / Roers Companies, LLC

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

SUBJECT : Weekly Test Results for the Week Ending 10/07/2023
Community Within the Corridor - East Block

COPY TO : Que El-Amin / Scott Crawford, Inc., Robert Reineke, PE, Robert Fedorchak, PE
Project #40441B

The purpose of this memorandum is to report the test results and provide a summary of the work performed as a part of the emergency response for the referenced project for the week ending 10/07/2023. The following tasks were performed throughout the week:

1. Task #1 - Blower Fan Exhaust Sampling

Samples were collected from the blower exhaust of all operational blowers including the recently added blowers 10 and 11. All blowers had a cumulative blow rate of about 4400 cfm leading to about 0.14 lbs removal of TCE in the first week of October. Due to the ongoing excavation work, Blowers 8, 9, and 10 are currently functioning as an exhaust for the indoor air as compared to the others that are connected to the VMS. Since March, we have successfully removed about 2 lbs. of TCE from the site. The individual blower exhaust rates and their corresponding actual TCE removal with Year-To-Date exhaust quantities can be seen in Tables 1 and 2. The layout of the floor plan with the placement of blowers can be found in Figure 1.

2. Task #2 – Soil Sampling for Hazardous Waste Screening

Soil samples were collected by conducting GeoProbe borings from 16 locations in the area where excavation is planned. The locations were selected based on the residual contamination of TCE in the soil and in conjunction to the request to sample at specific depths by the WDNR. The detailed soil sampling plan was submitted to the WDNR with specific sampling locations on 09/14/2023. The results of the sampling are awaited and will be sent to WDNR as soon as they are received.

Attachments

KSingh has included the following figures, tables, and pictures for reference:

- Figure 1: CWC EB Floor Plan
- Table 1: Blower Fan Exhaust Data Table for September
- Table 2: Blower Fan Exhaust Data Table since March

Table 1: Blower Fan Exhaust Data Table for October

GC TCE Measurements of Blower Effluent and TCE Removal						
Date: October 5, 2023						
Blower No.	Pipe Diameter	Exhaust Velocity	Flow Rate	TCE Concentration	TCE Removal Rate	TCE Removal
	inches	fpm	cfm	ug/m3	lbs/day	lbs
1	4	4843	423	4.9	0.000186	0.001303
2	4	5040	440	17.83	0.000705	0.004935
2A	4	4922	430	20.19	0.000780	0.005457
3 and 4	6	5827	1144	8.46	0.000870	0.006091
5	4	5138	448	283.44	0.011425	0.079973
6	4	4075	356	71.99	0.002301	0.016110
7	4	1673	146	188.27	0.002471	0.017297
8	4	4272	373	6.76	0.000227	0.001586
9	4	1970	172	3.22	0.000050	0.000348
10	4	2717	237	3.58	0.000076	0.000534
11	4	2933	256	57.43	0.001321	0.009250
			4424		Total	0.14

Table 2: Blower Fan Exhaust Data Table since March

TCE Measurements of Blower Effluent and Removal							
TCE Removal (lbs in Month)							
Blower No.	May	June	July	August	September	October	Total
1	0.0172	0.0619	0.0250	0.0039	0.0049	0.0013	0.1142
2	0.0313	0.0206	0.0190	0.0149	0.0144	0.0049	0.1051
2A				0.0277	0.0201	0.0055	0.0532
3+4	0.0241	0.0154	0.0387	0.0471	0.0220	0.0061	0.1533
5		0.4196	0.2556	0.3277	0.1883	0.0800	1.2711
6		0.0229	0.0085	0.0886	0.0445	0.0161	0.1807
7		0.0093	0.0210	0.0179	0.0000	0.0173	0.0655
8		0.0015		0.0052	0.0066	0.0016	0.0149
9				0.0001	0.0004	0.0003	0.0008
10					0.0003	0.0005	0.0008
11					0.0252	0.0092	0.0344
Total	0.0726	0.5511	0.3677	0.5330	0.3267	0.1429	1.9940
Cumulative Flow Rate (cfm)	1342	2078	2766	3523	3817	4424	17950