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MEMORANDUM

DATE : December 18, 2024

TO : Jane Gray, Wisconsin Department of Natural Resources

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

SUBJECT : Indoor Air Quality Test Results for December 4 – December 13, 2024
Community Within the Corridor - East Block, BRRTS #02-41-263675

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 for indoor air quality testing that took place between December 4 and December 13, 2024.

Note that indoor air quality levels have decreased since the 3rd Round of Commissioning and have stayed largely consistent over the course of the week leading up to the 4th Round of Commissioning. Additional sealing efforts in the North Mechanical Room were conducted to help improve the indoor air quality of that room. Based on these activities, as well as the results previously submitted to WDNR from December 16-17, 2024, CWC began the 4th Round of Commissioning on December 19, 2024.

Attachments
KSingh has included the following attachments for reference:

- Attachment A: Indoor Air Quality for Areas of Excavation

Attachment A
Indoor Air Quality Readings

Community Within the Corridor – East Block
Blower Inventory / Readings

Date:	**12/04/2024**
Testing Performed by:	**K. Singh & Associates, Inc., Ph: 262-821-1171**
Outdoor Temp:	**38F**
Professional on Site:	**Callum Ovens**
Signature:	*Callum Ovens*

Blower #	Blower Type	Time	Velocity (ft/min)	Flow Rate (cfm)	Vacuum reading (in. H_2O)	Fan Speed
Blower 1	GBR 123	14:50	4469	390	–8.460	50%
Blower 2	GBR 123	14:50	4508	393	–8.694	50%
Blower 2A	GBR 123	14:50	4548	397	–8.768	50%
Blower 3	Fliteway	14:30	4095	804	–13	–
Blower 4	Fliteway	^	^	^	–5	^
Blower 5	GBR 123	14:45	4843	423	–12.13	75%
Blower 6	GBR 89	14:40	2854	249	–4.312	70%
Blower 7	GBR 89	14:40	2788	243	–5.200	70%
Blower 8	GBR 123	14:15	4057	354	–11.41	80%
Blower 9	GBR 89	14:40	2402	210	–4.690	70%
Blower 10	GBR 123	14:45	4626	404	–15.46	80%
Blower 11	GBR 89	14:45	3701	323	–3.990	65%

Indoor Air Quality Log
Community Within the Corridor – East Block

Date:	**12/06/2024**
Testing Performed by:	**K. Singh & Associates, Inc., Ph: 262-821-1171**
Professional on Site:	**Callum Ovens**
Signature:	*Callum Ovens*

No.	Location	Time	TCE Reading ($\mu g/m^3$)	Notes
1	1043	8:50	<0.6	59F, Heating On
2	NMR	9:02	1.2	60.4F, Heating On
3	1055	10:37	<0.6	60.7F, Heating On
4	1044	10:52	<0.6	54F, Heating On
5	1045	11:01	<0.6	57F, Heating On
6	1050	11:10	<0.6	59F, Heating On
7	1048	11:18	<0.6	60.9F, Heating On
8	1049	11:26	<0.6	61.0F, Heating On
9	1051	11:34	<0.6	55F, Heating On
10	1052	11:42	<0.6	60.8F, Heating On
11	1053	11:56	<0.6	60.7F, Heating On
12	1054	11:58	<0.6	54F, Heating On

Indoor Air Quality Log
Community Within the Corridor – East Block

Date:	**12/11/2024**
Testing Performed by:	**K. Singh & Associates, Inc., Ph: 262-821-1171**
Professional on Site:	**Callum Ovens**
Signature:	*Callum Ovens*

No.	Location	Time	TCE Reading* (µg/m^3)	Notes
1	Standard	8:38	2.02 PPBV	2.00 PPBV standard, 30% tolerance (1.4 to 2.6)
2	1043	8:46	<0.6	60F, heating on
3	NMR (center)	8:54	1.3	66.0F
4	1044	9:02	<0.6	61F, heating on
5	1045	9:12	<0.6	58F, heating on
6	1050	9:21	<0.6	56F, heating on
7	1048	9:29	<0.6	66F, heating on
8	1049	9:37	<0.6	62.9F, heating on
9	1051	9:45	<0.6	58F, heating on
10	1052	9:55	<0.6	65.9F
11	1053	10:07	<0.6	63.0F
12	1054	10:15	<0.6	66.0F
13	1055	10:25	<0.6	66.0F
14	NMR NE	10:50	1.8	-
15	NMR SE	10:58	1.5	-
16	NMR SW (B8 sump)	11:06	1.3	-
17	NMR NW (Passive Sampler)	11:16	1.3	-
18	NMR NE Crack	12:05	1.8	-
19	NMR NE Corner	12:13	1.5	-
20	NMR NE Screw hole	12:33	1.5	-
21	NMR NE wire hole	12:41	1.5	-
22	NMR Under pipe	13:04	1.8	-
23	NMR North	13:12	1.7	-
24	NMR North (Sump)	13:27	1.6	-

NOTES:
*ppbv = parts per billion by volume

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Indoor Air Quality Log
Community Within the Corridor – East Block

Date:	**12/12/2024**
Testing Performed by:	**K. Singh & Associates, Inc., Ph: 262-821-1171**
Professional on Site:	**Callum Ovens**
Signature:	*Callum Ovens*

No.	Location	Time	TCE Reading* (µg/m^3)	Notes
1	Standard	9:48	2.15 PPBV	2.00 PPBV standard, 30% tolerance (1.4 to 2.6)
2	1043	9:57	<0.6	68F
3	1044	10:05	<0.6	68F
4	1045	10:13	<0.6	68F
5	1050	10:21	<0.6	56F
6	1048	10:29	<0.6	68.1F
8	1049	10:59	<0.6	68.1F
9	1051	11:08	<0.6	68F
10	1052	11:16	<0.6	68.1F
11	1053	11:25	<0.6	68F
12	1054	11:33	<0.6	68.0F
13	1055	11:42	<0.6	68F
14	NMR	11:53	2.4	67.5F
15	NMR	12:05	2.6	-
16	NMR	13:17	1.8	-
17	NMR	14:08	0.6	-
18	NMR	14:33	0.7	-
19	NMR	15:00	1.0	-
20	NMR	15:30	1.1	-
21	NMR	16:00	0.9	-

NOTES:
*ppbv = parts per billion by volume

Indoor Air Quality Log
Community Within the Corridor – East Block

Date:	**12/13/2024**
Testing Performed by:	**K. Singh & Associates, Inc., Ph: 262-821-1171**
Professional on Site:	**Callum Ovens**
Signature:	*Callum Ovens*

No.	Location	Time	TCE Reading* (µg/m³)	Notes
1	Standard	9:35	1.7 PPBV	2.00 PPBV standard, 30% tolerance (1.4 to 2.6)
2	NMR	9:57	0.9	-
3	1043	10:05	<0.6	68F
4	1044	10:21	<0.6	68F
5	1045	10:29	<0.6	68F
6	1050	10:38	<0.6	56F
7	1048	10:46	<0.6	68.4F
8	1049	10:54	<0.6	68.3F
9	1051	11:04	<0.6	68F
10	1052	11:13	<0.6	68F
11	1053	11:21	<0.6	68.0F
12	1054	11:29	<0.6	68F
13	1055	11:37	<0.6	67.9
14	nmr	11:45	1.1	68.0F
15	NMR center	12:06	1.2	-
16	NMR NE	12:31	1.0	-
17	NMR SE	12:36	0.9	-
18	NMR SW	12:55	1.0	-
19	NMR NW	13:08	0.8	-
20	NMR center	14:42	<0.6	-
21	NMR NE	15:04	<0.6	-
22	Lobby A	15:14	<0.6	67.9F
23	Lobby B	15:22	<0.6	67.9F
24	IA – EG SUMP	15:30	<0.6	67.9F
25	Spot 42	15:38	<0.6	67.9F
26	NMR SE	15:46	<0.6	-
27	NMR SW	16:00	<0.6	-
28	NMR NW	16:08	<0.6	-

No.	Location	Time	TCE Reading* ($\mu g/m^3$)	Notes
29	Stair 7 f2	16:16	<0.6	68.0F
30	2063	16:24	<0.6	56F
31	2037	16:32	<0.6	56F

NOTES:
*ppbv = parts per billion by volume