From: Noel, Mike <Mike.Noel@tetratech.com>

Sent: Monday, May 11, 2020 2:28 PM

To: Amadi, Eric A - DNR; Norman, Michele R - DNR; Fassbender, Judy L - DNR
Cc: Bollinger, Mike W (Pittsburgh) USA; Slenska, Mike (Pittsburgh) USA; Noel,

Mike

Subject: RE: Response to Beazer's March 6, 2020 Letter - Former Koppers Tar Plant

and Wabash Alloys Site (BRRTS #: 02-41-553761 & 06-41-561509) and City of Oak Creek Utility Corridor Lot 1 (BRRTS #02-41-561425 and 06-41-

561426)

Eric,

The purpose of this email is to request a technical conference call with the Department as soon as possible regarding the below-described issue.

In your May 5, 2020 letter, you reiterated your request made in your January 8, 2020 letter to further delineate the vertical extent of tar at the following areas:

- B-01-18 located between previous borings B-74 and B-05 near the former naphthalene ASTs
- B-02-18 located in the area of previous borings B-81, MW-122 and SB713 near the former Tar Barrel Platform
- B-03-18 located near previous boring B-38
- B-04-18 located in the area of previous B-92 and MW-123 near the former Pitch Bay

You stated that "These four areas were identified because naphthalene odor was noted at the deepest depths in the boring logs for B-01-18, B-03-18, and B-04-18 and tar was observed at/near the bottom of the borehole for B-02-18. The vertical extent of tar remains unknown in these locations, therefore additional information to delineate the contamination is required... The DNR considers the naphthalene odor noted and tar observed at depth in these four areas to be visual and olfactory evidence of contamination that requires further delineation."

Our March 6, 2020 response letter responded to this precise issue and provided a table summarizing our observations of tar and PID measurements demonstrating that the visual depth of tar had been defined. Your May 5, 2020 letter did not acknowledge the evidence we provided but instead said the delineation was not complete because there was still naphthalene odor at the deepest depths and tar was observed at/near the bottom of the borehole for B-02-18. While this is the first time the Department has ever suggested that naphthalene odor should be part of the analysis, we have nonetheless updated our table below by adding borehole observations of naphthalene odor (from greatest to least: strong, noted, weak, none). While there is nearly always a naphthalene odor noted when visual tar is observed, a naphthalene odor is also observed even when tar is not present. At B-02-18 there is neither odor nor tar observed in the bottom four feet of the borehole which, according to your letter, does not define the vertical extent of tar at that borehole. To base the depth of tar delineation on the extent of visual or olfactory evidence is not scientifically valid. The extent of tar should be based on visual and olfactory evidence. The Agency for Toxic Substances & Disease Registry (ATSDR) public health statement for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene (August 2005) states "You can smell naphthalene in the air at a concentration of 84 parts naphthalene per one billion

parts (ppb) of air. You can smell it in water when 21 ppb are present." That odor threshold is one-fifth the Enforcement Standard for naphthalene (100 ppb). Furthermore, we are not aware of any remediation project where the remedial action objective was to remove or remediate any soils with a naphthalene odor.

Before we perform any additional investigative work, we want to make sure that the work Beazer does will be complete and accepted, because the Department previously has approved sampling objectives and investigation methods and then later re-set such objectives and methods on this project more than once. To that end we would like to arrange a technical conference call to discuss and come to agreement on what we need to do to complete the site investigation. We are available on Wednesday after 1pm CDT or Thursday anytime except between 1-2pm CDT. Let me know what works for you and I'll send a conference call invite.

	B-01-18			B-02-18			B-03-18			B-04-18	
Borehole Depth	PID	Naph. Odor	Tar Observations	PID	Naph. Odor	Tar Observations	PID	Naph. Odor	Tar Observations	PID	Naph. Odor
2	0	None	None Tar in Matrix	0	None	None	0	- None	None	0.2	None
3	0			0			1.2			1	Noted
5	1.2			0.2	Weak		0.3			133	None
7	124			51.2		Tar in Matrix	0.2			398	Strong
9	260	Noted		45.9	Noted		46.3	Strong	Tar in Matrix and Fractures Tar in Fractures Oily outside sampler	1566	
11 12	161			5.3			42.3			736	
13 14	48			28.3		Tar in Fractures	256			1299	
15 16	55.5			32.4			1159	Strong		408	
17 18	25.4			24.3			133			130	
19	20.5	Noted	None	172			11.8			40.1	
20 21	29.1	Noted		8.6	None	None Trace Hard	61.5	Weak	None	3	
22 23	17.1	-		0.3		None	5.2			0.2	
24 25											

Michael R. Noel, PG | Vice President, Principal Hydrogeologist

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From: Amadi, Eric A - DNR < Eric. Amadi@wisconsin.gov>

Sent: Tuesday, May 5, 2020 11:54 AM

To: Slenska, Mike (Pittsburgh) USA < mike.slenska@trmi.biz >

Cc: <u>mkelogg-5524@connell-lp.com</u>; Larry Haskin (<u>lhaskin@haskinkarls.com</u>) < <u>lhaskin@haskin@haskinkarls.com</u>>; Kamp, Tressie K - DOJ < <u>KampTK@doj.state.wi.us</u>>; Motl, Bradley J - DOJ < <u>motlbj@doj.state.wi.us</u>>; Buss, Pamela E - DNR < Pamela.Buss@wisconsin.gov>; Fassbender, Judy L - DNR

<Judy.Fassbender@wisconsin.gov>; Norman, Michele R - DNR < Michele.Norman@wisconsin.gov>;
Alessi, Timothy G - DNR < timothy.alessi@wisconsin.gov>; Noel, Mike < Mike.Noel@tetratech.com>; Julie
Zimdars (Julie.Zimdars@obg.com) < Julie.Zimdars@obg.com>; Bollinger, Mike W (Pittsburgh) USA
< Mike.Bollinger@TRMI.Biz>

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Hi Mike:

Attached is our response to Beazer's March 6, 2020 letter. Please let me know if you have questions. Stay safe.

Thanks.

Eric

We are committed to service excellence.

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

Eric Amadi

Phone: (414) 263-8639 - for voice mail

Cell Phone: (262) 993-1074 - please contact cell phone during COVID-19 health crisis

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