TETRA TECH

May 3, 2021

Christine Haag, Director
Remediation & Redevelopment Program
Wisconsin Department of Natural Resources
Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, WI 53212-0436

RE: Response to March 3, 2021 Review of Interim Action Work Plan

Former Koppers Tar Plant and Wabash Alloys Site 9100 South 5th Avenue, Oak Creek, WI 53154
FID #: 241379050; BRRTS #: 02-41-553761 VPLE BRRTS #: 06 41-561509

City of Oak Creek Utility Corridor Lot 1 9170 South 5th Avenue, Oak Creek, WI 53154
FID #: 341074470; BRRTS #: 02-41-561425 VPLE BRRTS #: 06-41-561426

Dear Ms. Haag:

On December 21, 2020 Beazer provided its Interim Action Work Plan ("IAWP") prepared in response to the Wisconsin Department of Natural Resources ("DNR") correspondence issued in May 2020 and November 2020 that cited specific concerns to contain or stabilize horizontal and/or vertical expansion of DNAPL to prevent off-site migration. In its December 21 submission, Beazer believes it provided with specificity and precision what DNR requested in the May 2020 and November 2020 correspondence.

To the extent DNR failed to clearly communicate its expectations for the IAWP in its 2020 correspondence, it made itself clear via the March 3, 2021 correspondence. The March 3 correspondence clarified for Beazer that DNR wanted the IAWP to do more than to prevent potential off-site migration; Beazer's IAWP must also, for example, conduct active free product removal or treatment, permanently address contamination, and represent a significant component of an overall remedial action plan for the site.

To that end, Beazer has prepared a revised IAWP it believes responds to DNR's request for a more comprehensive, more substantial, and more significant work plan than was proposed in December 2020. But before describing the revised IAWP, we wish to make certain comments and arguments for the record.

For the last seven years, DNR has had a comprehensive, substantial site-wide remedial action available to it. And Beazer has been willing to implement as final the robust site-wide remedial action it proposed in its 2014 Remedial Action Options Report (RAOR). While DNR was within its rights to reject Beazer's proposed remedy, DNR cannot properly argue that Beazer (a) never proposed a full and final remedy or (b) has avoided or been unwilling to to take action to implement such a full and final remedy. To the extent any delay exists in implementation of remedial action at the Site, its genesis does not lay with Beazer.

TETRA TECH
175 North Corporate Drive, Suite 100, Brookfield, WI 53045
Tel 262.792.1282 Fax 262.792.1310 www.tetratech.com

Beazer has cited examples of DNR's contribution to such delays in prior correspondence and will not repeat them here, but Beazer must add that its recent requests (starting as far back as October 2020) to discuss technical issues were initially met with a frustrating reluctance by DNR to speak with Beazer, then with DNR's deferral of such discussions, and only after finally succeeding in getting the February 2, 2021 conference call scheduled, Beazer was met in actuality with DNR's unpreparedness to discuss any of the technical topics at issue. Beazer is today no closer to understanding how to make its supplementary Site Investigation figures and narratives sufficiently accurate, complete, or proper to meet DNR's opaque expectations. By refusing to accept such figures and narratives and then refusing or failing to prepare to discuss what is wrong with such figures and narratives, DNR has effectively halted all progress to obtaining a final, approved Site Investigation.

Beazer also notes that while regulations grant DNR the authority to require a potentially responsible party to perform an interim action, Beazer does not see it as warranted here. Beazer believes Site conditions to be not materially different now than in 2014 when Beazer proposed the RAOR. Any increased impatience on DNR's part today does not automatically convert a Remedial Action into an Interim Action or Emergency Action, especially given that the delays since 2014 are due in substantial part to DNR. That said, Beazer is prepared to cooperate with DNR, is submitting the documents that were requested of it, but believes DNR has to do its part as well – and that includes DNR not further delaying finalization of the Site Investigation Report by refusing to meet with Beazer to discuss such issues until September 2021 – as DNR stated in its March 3, 2021 correspondence.

Beazer believes the Revised IAWP, separately enclosed, is responsive to DNR's request for a comprehensive and substantial remedial action at the Site. The remainder of this letter provides a complete and comprehensive response to comments contained in your March 3, 2021 letter addressed to Mike Bollinger regarding the DNR review of Beazer's IAWP. In order to most efficiently and accurately respond to the various points made in your March 3, 2021 letter, we have restated below excerpts from the March 3 letter followed by Beazer's response in italics.

* * * * *

Review of the Work Plan

The DNR reviewed the Work Plan for compliance with Wis. Admin. Code chs. NR 708 and 722. As indicated in our November 20 letter[1], the clarifying email on December 16[2],

[1] "Therefore, **submit an interim action work plan to prevent the further migration of contamination** in compliance with all regulatory code requirements, including Wis. Admin. Code § NR 708.11 [these requirements include NR 708.11(2)(b) Conducting source removal, such as excavation and treatment of highly contaminated soils, to prevent or limit further movement of the contamination" and 708.11(2)(c) Extracting free product, leachate or groundwater to restrict migration of a contaminant plume], **by December 21, 2020** and **commence work by January 28, 2021**."

[2] "An interim action shall be taken where it is necessary to contain or stabilize a discharge of a hazardous substance or environmental pollution, in order to minimize any threat to public health, safety, or welfare or the environment. Wis. Admin. Code s. NR 708.11(1)(a). When an interim action is warranted, responsible parties shall implement an interim action as soon as . . . possible to do so. Wis. Admin. Code s. NR 708.11(1)(b)."

"**The department expects the Interim Action Work Plan to fully address the known concerns at the site**. Regarding the commencement of the work, the department amends the January 28, 2021 commencement date to a date as soon as

and in our February 2 teleconference, the DNR expected the Interim Action Work Plan to fully address the known concerns at the site. The DNR referenced immediate actions in the November 19, 2020 letter (and in prior communications) because the present conditions at the property warrant immediate action. The DNR's expectation was for Beazer to provide a work plan for an interim action source control measure to halt the migration of the contamination, not merely prevent off-site migration. Given the passive trench is not adequate as a standalone action, active removal is necessary.

Therefore, the DNR is directing you to revise your interim action Work Plan to include free product removal which may be achieved through excavation at areas where there is no dispute to impacted soil and groundwater. The DNR directs you to explain in the interim action Work Plan how the proposed actions fit in to an overall remedial strategy to address the known concerns at the site. The DNR has authority to require interim actions and immediate actions. To remove all doubt regarding the DNR's intent with the direction provided herein and to prevent misinterpretation, please review the following overview of applicable regulations at this site.

***Response**:*

Previous DNR correspondence did not state an expectation that the Interim Action Work Plan fully address the known concerns at the site. NR 708.11 states:

> *"Interim action shall be taken where it is necessary to contain or stabilize a discharge of a hazardous substance or environmental pollution, in order to minimize any threat to public health, safety or welfare or the environment."*

Beazer's interpretation of the request for interim action was to contain or stabilize the discharge to and along the utility corridor. Other than DNR declaring it so, it is not clear why the data substantiating present conditions at the property warrant immediate or interim action across the entire site to minimize any threat to public health, safety or welfare or the environment. DNR's expectation for an interim action source control measure to halt the migration of the contamination, not merely prevent off-site migration, is unwarranted and unrealistic. There is a significant disconnect between DNR's and Beazer's understanding of the conceptual site model to explain what is happening at the site. While Beazer has made multiple requests to have a technical discussion regarding this and other technical issues, DNR has been unwilling and/or unprepared to do so, and has now stated that it will not have that discussion with Beazer until September 2021. Beazer is and has been concerned that delaying such a discussion until after submission of the Interim Action design is unproductive and contrary to the goal of developing and implementing a remedy for the Site. Neverthelss, as requested, Beazer is submitting a revised IAWP.

Interim, Immediate, and Specific Actions at a Remedial Action Site

The DNR has authority to require responsible parties to perform immediate actions to halt a discharge. The general rule concerning immediate actions is Wis. Admin. Code § NR 708.05(3) which states:

Responsible parties shall take all necessary, non-emergency immediate actions to halt the discharge of a hazardous substance and to contain, treat or remove discharged hazardous

---

practicable, given seasonal limitations at the property, following department approval or conditional approval of the work plan under Wis. Admin. Code s. NR 716.09(3)(b)."

substances, environmental media or both, in order to minimize the harmful effects of the discharge to the air, lands and waters of the state and to restore the environment to the extent practicable.

The DNR has authority under Wis. Admin. Code § NR 708.05(4)(h) to require responsible parties to perform specific actions to remove contaminated soil, debris or the hazardous substance that was discharged (in compliance with Wis. Admin. Code § NR 708.11(3)(e)).

The DNR has authority to require responsible parties to perform interim actions. The general rule concerning interim actions is Wis. Admin. Code § NR 708.11(1)(a) which states (emphasis added):

Responsible parties shall evaluate the need for interim action prior to initiating a site investigation and during a site investigation. **Interim action shall be taken where it is necessary to contain or stabilize a discharge of a hazardous substance or environmental pollution, in order to minimize any threat to public health, safety, or welfare or the environment. When an interim action is warranted, responsible parties shall implement an interim action as soon as facility or site- related information makes it possible to do so**, in compliance with the requirements of this chapter.

For sites where a site investigation is underway, the DNR has authority to require an immediate, interim or remedial action under Wis. Admin. Code § NR 716.17(3) which states:

When a site investigation conducted under this chapter indicates that an immediate, interim or remedial action is necessary, the responsible parties shall identify, evaluate and select an immediate or interim action in accordance with ch. NR 708 or a remedial action in accordance with ch. NR 722.

Observed environmental contamination, especially tar, at this property is known to the DNR and to Beazer. As both a responsible party under Wis. Stat. § 292.11 and voluntary party under Wis. Stat. § 292.15, Beazer shall not delay implementation of an interim remedial action at this site for known conditions. This interim remedial action should be a significant component of an overall remedial action plan for the site. Consult the "Direction and Schedule" section regarding the specific actions the DNR is directing you to complete under Wis. Admin. Code chs. NR 708 and 716.

Response: *Beazer notes that it has been prepared to implement a full and comprehensive remedial action at the Site since 2014, and that it sees DNR's newly-developed requirement that Beazer now perform an Immediate or Interim Action as both unwarranted and inappropriate. So far as Beazer is aware, a condition being "known" is not a factor in determining whether Interim Action is necessary.*

<u>December 2020 Work Plan Comments</u>

Based on the review of all site information submitted to-date, the DNR has determined that the proposed actions are not an approvable interim action to address the migration of contaminants off site. The Work Plan does not include actions that will provide an immediate response to remove the DNAPL free product nor does it provide an interim remedial strategy to address the known concerns at the site. Although Beazer can proceed with the actions proposed, the proposed trench and utility plug actions are not adequate without action that results in immediate DNAPL free product removal. The material cannot stay in place without treatment. The findings and interpretations by the DNR regarding the

proposed initial interim action are summarized below. The passive interim action proposed is not adequate without also conducting an active removal or treatment action. If you continue to propose installation of this passive trench system as an interim action in addition to active treatment or removal, you must address the following:

Response: *It's not clear to Beazer why DNR has determined that the proposed actions are not an approvable interim action to address possible migration of contaminants off site. The only location where potential off site contaminant migration can occur is to and along the utility corridor and the proposed actions specifically address those pathways.*

DNR states that the material cannot stay in place without treatment, but Beazer notes that NR 720 allows the use of caps and barriers using performance standards rather than residual contaminant levels as a means of remedial action to prevent exposure to contaminants. For example, the plan that Connell proposes for PCB and arsenic contamination includes a site-wide cap, with residual contamination left in place.

- Annual groundwater monitoring

  The DNR typically requires quarterly groundwater monitoring until adequate information has been acquired to evaluate site conditions, including seasonal variations. The conditions at this site are not stable, as noted in the wells where contaminant concentrations are increasing and DNAPL has recently been reported. The changing conditions at this site do not warrant changes in the monitoring frequency at this time. The DNR recommends using the proposed network of wells for ongoing monitoring to continue to provide information to document changes in groundwater conditions.

Response: *Beazer disagrees with DNR's statement that the conditions at this Site are not stable. As we have previously conveyed, observations of subsurface DNAPL at the Site are defined as potentially mobile because, under ordinary conditions, the capillary pressure of the DNAPL is not high enough to exceed groundwater pore entry pressure. Therefore, under static undisturbed conditions, the DNAPL footprint is stable (not expanding) and is not expected to displace groundwater or migrate. But a change in static conditions, for example a change caused by drilling through or adjacent to an area of potentially (but not actually) mobile DNAPL, may allow the DNAPL to become mobile (micro-scale mobility) and begin moving toward any void caused by the disturbance (for example, moving toward a well's screened interval). Observation of this type of induced DNAPL micro-scale mobility does not necessitate immediate or "emergency" action. Rather, it requires enough time for the void space in the disturbed area (in the case of a well-installation, the well's sand pack) to first become saturated with DNAPL before the DNAPL can migrate to start accumulating in the well. As can be seen by the table below, the concentrations of the PAH compounds detected in MW-130 and MW-134 in 2015 are well above their respective 10% solubility limit, indicative of the presence of DNAPL, since the wells were installed in 2015.*

PAH Compounds	Units	Solubility		MW-130	MW-134
		Approx. Limit	10%	3/2/2015	10/22/2015
Anthracene	ug/L	73	7.3	17	700
Benzo[a]pyrene	ug/L	3.8	0.38	3	620
Benzo[b]fluoranthene	ug/L	1.5	0.15	5.1	920
Chrysene	ug/L	2	0.2	10	500
Fluoranthene	ug/L	260	26	100	4,000
Fluorene	ug/L	1,900	190	200	2,100
Naphthalene	ug/L	34,400	3,440	4,500	1,400
Pyrene	ug/L	350	35	63	2,700

The more recent observation of DNAPL in MW-130 and MW-134 is therefore not an indication that the groundwater plume or the DNAPL footprint is expanding horizontally, but rather that the DNAPL capillary pressures were disturbed by the well installations and have allowed the potentially mobile DNAPL to move toward the lower pressure zones created by the wells. It has simply taken 4-5 years for this gradual induced migration of DNAPL from its original, static location to the disturbed sand pack void and then into the actual well, to occur and, thus, be observed.

DNR raised concern that the January 2020 sampling results from P-110 and P-120 are indicative of migrating contamination and an expanding groundwater contaminant plume because previously reported concentrations were below detection levels in P-110 and below regulatory standards in P-120. While contaminant levels in these wells have fluctuated, they are comparable to those observed when these wells were first installed as can be seen in the table below.

PAH Compounds	Units	P-110		P-120	
		12/21/2011	01/28/20	9/12/2013	01/29/20
Anthracene	ug/L	99	20	0.23	0.3 J
Benzo[a]pyrene	ug/L	12	4.1	<0.059	0.27
Benzo[b]fluoranthene	ug/L	15	3.8	0.24	0.27
Chrysene	ug/L	27	4.4	0.45	0.2
Fluoranthene	ug/L	82	33	1.1	0.67 J
Fluorene	ug/L	160	190	<0.13	0.54 J
Naphthalene	ug/L	4,700	11000	2.5	3
Pyrene	ug/L	48	23	0.77	0.52 J

Well P-110 is located within a former tar lagoon located adjacent to and within the utility corridor. Until recently, this well had been showing a decreasing trend in contaminant concentrations – concentrations that are believed to have been introduced through the well installation. The recent increase in contaminant

levels at P-110 is believed to be related to the integrity of the PVC well and/or borehole seal as the well was installed through a former tar lagoon. Well P-120 is in the area of the former tar plant and has historically shown low level detections of PAH compounds likely related to sediment in the sample and not an increase in contamination.

That said, Beazer has revised it's proposed actions to include the collection of groundwater samples annually in July 2021 from all monitoring wells that contain no DNAPL. Groundwater samples will be collected quarterly from shallow downgradient wells in the utility corridor (MW-1, MW-112, MW-118, MW-131, MW-132, MW-134, and MW-136) and from the deep monitoring wells (P-103, P-110, P-113, P-120, and P-121). Wells located within the areas of proposed interim action will need to be abandoned to implement the work (MW-106, MW-107, MW-109, MW-114, MW-123, P-110, and P-121). Additionally, well MW-124 will need to be abandoned to implement PCB excavation work planned by Connell. After completion of the interim action work, new monitoring wells will be installed at representative locations around and beneath the interim action area for performance monitoring.

- Quarterly DNAPL thickness measurements and removal

The DNR concurs with the scope proposed for this task.

Response: *None*

- Abandonment and replacement of well P-110

The DNR does not approve the abandonment of piezometer (P-110). Beazer did not provide an adequate explanation for removal of P-110. Typical events which support abandonment of a piezometer include a specific on-site action that caused damage to the well or well casing. Adequate information was not provided to explain the need for abandonment, thus the DNR directs this monitoring well should remain as a sampling point within the former lagoon source area where there is known contamination. The DNR requires ongoing maintenance and inclusion of the existing P-110 in the monitoring program for assessment of DNAPL.

Although the DNR does not approve the abandonment of P-110, the DNR would support the installation of an additional well or well nest constructed east of P-110, either within the lagoon source area or to the east of the former lagoon. If a new well is installed to the east of P-110 to supplement the information provided by the existing P-110, two soil samples must be collected from the boring, one from the interval with the highest PID reading and one from the base of the boring. Analysis must include VOCs and PAHs. Naphthalene must be evaluated as a principle contaminant of concern. The DNR will require detailed boring logs and well construction forms in accordance with Wis. Admin. Code § NR 716.15.

Response: *To implement the proposed interim action, well P-110 will need to be abandoned. After completion of the interim action work, a new monitoring well will be installed at a representative location for performance monitoring.*

- Pre-design investigation activities

The DNR does not concur with the proposed scope of work for this task. If Beazer opts to move forward with the proposed trench and utility plug actions, additional data

collection is required. Beazer must collect soil samples for chemical analysis from the five soil borings proposed along the trench line to delineate vertical contamination in this area. Two soil samples must be collected from each boring, one from the interval with the highest PID reading and one from the 23-25 foot interval (proposed base of the boring). If field screening evidence of contamination is present (based on PID readings and/or visual or olfactory evidence) at 25 feet, Beazer must extend the borings to a depth where field evidence no longer indicates the presence of contaminants. Should the boring require extension beyond 40 feet bgs, a third sample must be collected from the ultimate base of the boring. Analysis must include VOCs and PAHs. Beazer must evaluate Naphthalene as a principle contaminant of concern. The DNR will require detailed boring logs. Beazer must evaluate the results of the field screening evidence and analytical data from the borings to determine the base of the proposed trench to intercept the migrating DNAPL tar source material. The completed depth of the collection trench must extend below the base of the DNAPL tar source material based on the information provided from field screening and analytical evidence.

Upon completion of the predesign investigation, Beazer must prepare a remedial action design report in accordance with Wis. Admin. Code § NR 724.09.

Response: *Beazer has modified the proposed interim action plan which no longer includes the installation of a collection trench.*

- Remedial design and construction of DNAPL collection trench and utility plugs

The DNR expects Beazer to address the feasibility of the effectiveness of this remedy in the design report. In particular, the DNR requires the following:

Product Recovery: In the January 2014 Site Investigation Report, Beazer reported that in 2013 they performed mobility/recoverability testing in monitoring wells with observations of DNAPL. The amount of product that was able to be removed was minimal. Provide justification for the use of a collection trench if recovery wells did not work to recover the DNAPL tar source material. Beazer was unable to provide an explanation of the estimated effectiveness of this interim action in the February teleconference.

Response: *The purpose of the collection trench was to address DNR's stated concerns regarding migration by providing a remedial feature for interception of any potential DNAPL migrating from the site and into the utility corridor. The collection trench would serve that purpose (i.e., a feature that would stop migration) whether the DNAPL actually migrated into the trench for removal or did not migrate at all. In the February 2, 2021 conference call, Beazer was asked how much DNAPL the trench would remove, not how effective we thought the trench would be. As noted in the response above, Beazer has modified the proposed interim action plan which no longer includes the installation of a collection trench.*

Migration: In previous reports, Beazer has stated that the DNAPL tar source material is not migrating. In the Work Plan, Beazer's proposed remedy requires the DNAPL to migrate toward voids, which does not address the direction to perform an immediate action to address the known observed contamination at the site. The design report must discuss DNAPL migration and the time required for the void space to become saturated before DNAPL can migrate to the trench.

Response: *See response above. The proposed remedy did not require DNAPL to migrate toward voids. To the extent any DNAPL migration did occur, the trench was there to collect and remove DNAPL and thereby prevent the potential for off-site migration. As noted previously, Beazer has modified the proposed interim action plan which no longer includes the installation of a collection trench.*

Immediate Action: Discuss how the proposed remedy will address "immediate action," as defined in Wis. Admin. Code § NR 700.03 (28). As stated above, the migration of DNAPL into the void spaces created by the proposed remedy will take time. Beazer notes that it has taken 4-5 years for DNAPL to migrate into monitoring wells. On the February teleconference, Beazer did not explain how this would actively remove known contamination from the site nor provide an approximation of the percentage of contamination this system would remove.

Response: *DNR specifically requested an Interim Action Work Plan. To the extent that Immediate Action is required, active removal of DNAPL accumulated in wells meets the definition of "Immediate Action." Beazer understands "Immediate action" to imply a response action that is taken within a short period of time, and installing the trench could have been implemented in a short period of time. The combination of the collection trench and utility trench plugs were intended to "halt the discharge, contain, or remove discharged hazardous substances" in order to restore the environment to the extent practicable (within a crowded and functioning utility corridor) and to minimize any potential harmful effects of any discharge to air, lands and waters of the state and to eliminate any imminent threat to public health, safety, or welfare that may exist.*

Beazer also notes that the "approximation of percentage of contamination [removal]" is not an appropriate metric. To the extent the measures contemplated are intended to halt or contain discharged substances, a metric based on approximation of removed material would be inappropriate. Nevertheless, as noted previously, Beazer has modified the proposed interim action plan which no longer includes the installation of a collection trench.

Collection Trench:

1. The construction of the collection trench proposed does not comply with Wis. Admin. Code NR 700 requirements without additional remedial action. If Beazer opts to construct this trench, Beazer must evaluate the proposed length of the collection trench in the design. Shallow Groundwater BTEXM concentrations exceed Enforcement Standards at least as far west as B-126 and further east of B-127. The contaminated groundwater plume in the utility trench and in the lagoon area must be addressed.

2. Describe how the collection trench will work to address the contamination, including the plan to collect DNAPL material from the trench. If DNAPL material is collected, how will the material be handled and how will the DNAPL material be disposed?

Response: *Beazer has modified the proposed interim action plan which no longer includes the installation of a collection trench.*

Utility Plugs:

1. Monitoring wells must be installed on the upstream and downstream sides of the utility plugs (at a distance so as not to be located within the area affected by the utility plug grout) to monitor head levels, confirm flow dynamics, and document conditions within the trench.

2. Wells installed adjacent to the utility plugs must be included in the groundwater sampling plan. Include collection of groundwater chemistry data from wells installed on both sides of the utility plugs.

3. In the design, provide justification to support the proposed locations of the utility plugs and confirm whether additional plugs along the utility line would be beneficial.

4. Provide an assessment of how the utility plugs will prevent the migration of contaminated groundwater along the utility backfill.

Response: *The combination of existing and proposed monitoring wells and groundwater sampling plan in the revised interim action plan will meet the above requirements. The design report will provide justification to support the proposed locations of the utility plugs and determine whether additional plugs along the utility line would be beneficial. The design will also include an assessment of how the utility plugs will prevent the migration of contaminated groundwater along the utility backfill.*

Summary of DNR Comments on Work Plan

Please resubmit the work plan with the additional information requested for DNR review. The DNR's assessment of the proposed action concludes these actions will not move the RP closer to addressing the DNAPL tar source material on the site in a manner that halts the continued migration of contamination and addresses the known site concerns. The DNR directs Beazer to consider a remedy that addresses the DNAPL tar source material on the site, rather than engineering structures to merely alter off site migration. The DNR directs Beazer to conduct an interim source control action that permanently addresses the contamination and is a significant component of an overall remedial action plan for the site.

Response: *The revised work plan addresses the DNAPL tar source material on the Site in a manner that halts the potential migration of contamination and addresses the known Site concerns. Beazer disagrees with DNR's characterization that the previously proposed remedy was to "merely alter off site migration." The remedy was intended to halt the any potential migration of contaminants in the only area where contaminants have the potential to so migrate: within the utility corridor.*

Site Investigation Completeness

As stated above, the DNR recommends that the interim action include activities to complete the site investigation and continue monitoring groundwater conditions. The pre-design sampling should incorporate activities to determine the vertical extent of tar. Collection of additional data during the initial interim action will likely provide the information necessary to complete the site investigation in the area of the former lagoons adjacent to the utility trench.

Response: *The revised interim action includes activities to complete the Site investigation needed to design the remedy and continue monitoring groundwater conditions. As described above, Beazer has made multiple requests to have a technical discussion with DNR regarding the additional data DNR seems to desire in order to complete the entire Site investigation, but DNR has been unwilling and unprepared to have this discussion. Until such discussion occurs, Beazer does not know what additional data the DNR seeks or what about the data Beazer has provided to date is incomplete. Beazer has done its best in the revised interim action work plan to address DNR's concerns based upon the limited information Beazer has been provided.*

Alternate Remedial Actions for Consideration

During a meeting in May 2018, the DNR provided Beazer with a matrix that identified possible remedial actions appropriate for this site. Most recently, the DNR's November 19, 2020 letter stated that due to the thick, viscous nature and shallow depth of the DNAPL tar source material, excavation would be a practicable interim remedial action that would be considered an immediate response. In the area of the former tar lagoons adjacent to the utility trench, where the DNAPL is migrating off-site, excavation combined with in-situ stabilization (ISS) or an equally effective permanent remedy must be implemented to prevent further migration. As a reminder, this combination of excavation with ISS was previously identified in the DNR-prepared matrix of remedial options shared with Beazer during a meeting on May 15, 2018. The remedial options presented in the matrix are still appropriate based on current site information. In the area of the former tar lagoons adjacent to the utility trench (previously defined as Area E2), the matrix also identified other remedial options, including soil excavation with on-site treatment to pre-approved clean-up levels and in-situ chemical treatment of impacted soil to pre-approved clean- up levels.

All of the options listed in the matrix are superior to or could supplement the option currently proposed as they will work to remove and/or stabilize the source material and move the site toward Wis. Admin. Code ch. NR 726 closure and receipt of a VPLE certificate of completion.

DNR will continue to direct Beazer to select appropriate remedies until such time as Beazer implements said remedies and meets the requirements for Wis. Admin. Code ch. NR 726 case closure.

Response: *Beazer provided a response to DNR's May 2018 matrix in correspondence date June 14, 2018, to which DNR never replied. While the matrix provided an array of remedial options for consideration, to Beazer's knowledge DNR has not applied the NR 722 evaluation criteria in order to perform an evaluation of the matrix options. For DNR to assert that any of the options are superior or inferior would be improper and without foundation.*

The revised interim action plan provides a remedy that eliminates any imminent threat to public health, safety, or welfare that may exist.

VPLE Program Progress

As stated in the November 2020 letter, the DNR is continuing to evaluate Beazer for failure to make reasonable progress toward completion of an environmental investigation and environmental restoration of the property and whether to invoke the withdrawal process under Wis. Stat. § 292.15(2)(av). The proposed action in the December 2020 work plan alone is not reasonable progress to remain in the VPLE Program. In order to remain in the

VPLE program, the DNR directs Beazer to complete the actions outlined in the schedule below.

Response: *As it has stated in this and prior correspondence, Beazer believes it has continued to make good faith progress toward completing its environmental obligations with respect to the Site and to its participation in the VPLE Program, and believes any delays in implementation are no fault of its own. Therefore, DNR's invocation of the withdrawal process from VPLE would be improper and unwarranted.*

Direction and Schedule

- In compliance with Wis. Adm. Code NR 708.05, the DNR directs Beazer to select remedial activities from the array of options previously provided in the remedial option matrix or an alternate remedy that is as effective as the remedial options included in the matrix. Per Wis. Admin. Code §§ NR 708.13 and 716.17(3), submit a Revised Interim Action Work Plan that results in immediate action by conducting free product removal to abate free product migration. This includes an active removal action on site. The proposed passive collection system, alone, is not adequate to address free product migration. The DNR directs you to submit a Revised Interim Action Work Plan within 60 days, by May 3, 2021.

Response: *A Revised Interim Action Work Plan has been submitted by the required due date.*

- With the Revised Interim Action Work Plan above, submit a Revised RAOR, complying with Wis. Admin. Code ch. NR 722, that presents an overall remedial strategy to address the known contamination at the site. The evaluation must include the remedial actions proposed by the DNR in the matrix of remedial options for each area of the property. Additional remedial actions may be evaluated that result in a similar restoration of the environment. The RAOR must include a selected remedial action for each area of the property. The DNR directs this Revised RAOR be submitted within 90 days, by June 1, 2021.

Response: *A Revised RAOR will be submitted by the required due date.*

- Per Wis. Admin. Code § NR 724.09, submit a Remedial Action Design Report (RADR) for 1) the immediate action to conduct free product removal and abate free product migration in the area of the former tar lagoons adjacent to the utility trench and 2) the remedial action for each area of the property. The RADR must include a detailed plan to include pre-design sampling and/or confirmation sampling to complete the site investigation. The DNR directs a Remedial Action Design Report (RADR) be submitted within 90 days after the Revised RAOR is submitted.

Response*: A Remedial Action Design Report (RADR) will be submitted by the required due date.*

Future Meetings with Beazer and DNR

The DNR recommends scheduling a meeting at the end of June to discuss the Revised Interim Action Work Plan and Revised RAOR.

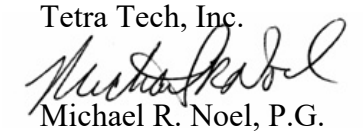
The DNR also understands there is a desire to discuss site investigation concepts which were not addressed on our February teleconference. Upon receipt of the RADR by

September 1, the DNR would like to schedule a meeting to discuss the following concepts identified by Beazer in the February teleconference agenda: 1) accurate identification of tar, 2) delineation of degree and extent of contamination, 3) justification for separation of high concentration areas, and 4) Conceptual Site Model. The DNR requests Beazer provide examples of figures in writing to share before such a meeting. The DNR will also prepare by sharing examples of figures where there is disagreement. The DNR looks forward to meeting and resolving these issues after receipt of the above work products.

Response: *Beazer welcomes a meeting at the end of June to discuss the Revised Interim Action Work Plan and Revised RAOR. Rather than waiting until September 2021 as DNR suggests, Beazer instead suggests that at that same June meeting Beazer and the DNR discuss the following issues raised by DNR in correspondence dated October 16, 2020 and reiterated by Beazer in the February teleconference agenda: 1) accurate identification of DNAPL tar, 2) delineation of the degree and extent of contamination, 3) justification for separation of high concentration areas, and 4) the Conceptual Site Model. Beazer welcomes the opportunity for both Beazer and DNR to share examples of figures before such a meeting.*

Sincerely,

Tetra Tech, Inc.



Michael R. Noel, P.G.
Vice President, Principal Hydrogeologist

cc: Mike Slenska - Beazer (electronic)
Mike Bollinger - Beazer (electronic)
Eric Amadi – DNR (electronic)