Saari, Christopher A - DNR

From: Nave, Bradley S <Bradley.S.Nave@chemours.com>
Sent: Tuesday, April 30, 2019 10:35 AM
To: Saari, Christopher A - DNR
Cc: Cary Pooler; Schmidt, Eric
Subject: Boyd Creek Bridge - Chemours Request for WDNR Concurrence
Attachments: Boyd Creek Bridge - Chemours Request for WDNR Concurrence_4-26-19.pdf

Greetings Chris,

I hope you are well.

The attached letter is regarding the proposed re-use of excavated soil from the pending bridge construction project on Highway 13 adjacent to the Barksdale site. If you have any questions, please let me know.

Best regards,

Brad

Brad Nave
Chemours Corporate Remediation Group
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April 26, 2019

Mr. Chris Saari
Wisconsin Department of Natural Resources
2501 Golf Course Road
Ashland, WI 54806-3505
Via e-mail: christopher.saari@wisconsin.gov

RE: Request for Wisconsin Department of Natural Resources Concurrence of Conceptual Soil Management Plan
State Highway 13 Bridge Over Boyd Creek Bridge Replacement Project
Former Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin
WDNR BRRTS Numbers 02-04-000156 and 02-04-550402

Dear Mr. Saari,

The Chemours Company, FC, LLC (Chemours) has prepared this letter to request concurrence from the Wisconsin Department of Natural Resources (WDNR) regarding the management of soil associated with the planned replacement of the State Trunk Highway (STH) 13 Bridge over Boyd Creek adjacent to the Former Barksdale Works site. Project background information and contingent plans for soil management are provided in the following paragraphs.

Background

The Wisconsin Department of Transportation (WisDOT) plans to replace the STH 13 Bridge over Boyd Creek. In support of that project, WisDOT retained staff from the AECOM Stevens Point, Wisconsin office to perform a Phase 1 Hazardous Materials Assessment (Phase 1 HMA) for the area of the STH 13 Bridge over Boyd Creek. A WisDOT Phase 1 HMA is similar to, but not equivalent to an ASTM Phase I Environmental Site Assessment. Because of the open Environmental Repair Program (ERP) cases adjacent and upgradient of the WisDOT construction area on the Former Barksdale Works site, WisDOT contracted AECOM to perform a subsequent Phase 2.5 Environmental Sampling Investigation (Phase 2.5) in the planned construction limits. A WisDOT Phase 2.5 is generally equivalent to a traditional Phase II Environmental Site Assessment. The investigation consisted of soil, sediment, and groundwater sampling in the proposed construction area and was conducted in 2017-2018. Collected media were quantified by analytical laboratories for nitroaromatic and nitroamine organic compounds (NNOCs), which are the primary constituents associated with the historical manufacturing on the Barksdale Works site.

Detailed results of the investigation were documented in the AECOM Phase 2.5 report dated November 2018. The laboratory results indicated no NNOCs were present above the detection limits in the sediment samples; however, low concentrations of NNOCs were detected in the soil and groundwater samples. The low level concentrations are generally consistent with concentrations historically detected by Chemours in the Boyd Creek area.

The NNOC concentrations detected during the Phase 2.5 were compared to screening criteria as detailed below:

- Soil analytical results were compared to default Wisconsin Administrative Code, Chapter NR 720 (NR 720) non-industrial residual contaminant levels (RCLs) protective of the direct contact pathway.
  - NNOC concentrations detected in soil were below default NR 720 non-industrial RCLs for direct contact.
- Soil analytical results were also compared to default NR 720 RCLs protective of the soil to groundwater pathway. This pathway is incomplete at the Former Barksdale Works site because NNOCs have not been detected in groundwater in the southern portion of the site and a municipal water supply was provided to residences downgradient of the northern portion of the site. Default NR 720 soil to groundwater RCLs have not been established for the NNOCs detected in soil samples, with the exception of 2,4-Dinitrotoluene (2,4-DNT).
  - 2,4-DNT was detected in two soil samples collected from within wetlands north of Boyd Creek. 2,4-DNT was detected at concentrations of 36 µg/kg and 55 µg/kg, which were above the laboratory method detection limit, but below reporting limit. The 2,4-DNT detections exceeded the default NR 720 groundwater pathway RCL of 0.1 µg/kg. The soil concentrations are consistent with the concentrations of detected NNOCs in the northern portion of the Southern Area of the Former Barksdale Works site and several orders of magnitude below the site specific RCLs.
- Groundwater analytical results were compared to the United States Environmental Protection Agency Regional Screening Levels (RSLs) as NR 140 Enforcement Standards and Preventive Action Limits have not been established for the NNOCs detected in groundwater.
  - Detected concentrations of NNOCs were below RSLs, with the exception of 2,4,6-trinitrotoluene (TNT) at one location. TNT was detected at 27 micrograms per liter (µg/L), which exceeded the RSL of 2.2 µg/L, from a boring located within the STH 13 right of way north of Boyd Creek.

Based on the results of the Phase 2.5, the management of low-level NNOC contaminated soil and possibly groundwater was determined to be warranted by WisDOT and WDNR during construction.

Chemours, WisDOT, WDNR, and AECOM have participated in several group discussions in 2018 and 2019 regarding the results of the WisDOT Phase 2.5 and associated options for management of soil generated by WisDOT during construction that has low-level concentrations of NNOCs. It is our understanding that the WDNR will not allow WisDOT to place soil with NNOC detections back within the areas from which it was excavated based on location standards included in NR 718.12. Most of the WisDOT project area is located within 100 feet of wetlands and/or within 300 feet of Boyd Creek. Therefore, WisDOT plans to transport soil with detected NNOCs off-site for disposal. In lieu of transport of the material to a landfill, you had initially indicated that management of the soil at the adjacent Former Barksdale Works site may be a possibility. In an email dated February 5, 2019, you

indicated that the WDNR would be amenable to the management of excavated soil (from the WisDOT project) on the southern area of the Former Barksdale Works site.

Soil Management & Schedule

As detailed in the group discussions, WisDOT has estimated that approximately 1,100 cubic yards of soil with detected NNOCs will be excavated during construction of the new bridge. The conceptual WisDOT soil management plan is to take the soil to the Southern Area of the Former Barksdale Works site at which point Chemours would take responsibility for the soil.

Chemours' conceptual plan to manage the soil is to place the soil as cover, as needed, in the northern half of the Southern Area or within the former manufacturing areas at the Former Barksdale Works site to limit direct contact with existing soils in areas where appropriate. The soil may need to be temporarily stockpiled at the Former Barksdale Works site for an indeterminate time, prior to being spread out as cover. Prior to placement of WisDOT soils at the Former Barksdale Works site, Chemours will submit a plan to the WDNR indicating specific soil placement locations and methods in order to track the soil use.

Reuse of the soil as cover at the Former Barksdale Works site is appropriate because the NNOC concentrations in the WisDOT soil are:

- Less than the default NR 720 non-industrial (i.e., residential) direct contact RCLs, meaning the soil is suitable for use in residential areas. This comparison is considered to be over-protective because there are contractual agreements between Chemours and Bretting Development Corporation (property owner) that limit use of the Former Barksdale Works site to recreational purposes.
- Less than or generally consistent with existing NNOC concentrations in the northern half of the Southern Area of the Former Barksdale Works site where groundwater data have already been collected and demonstrate that the soil-to-groundwater migration pathway is incomplete. As such, if the soil were to be placed as cover in that area of the site, groundwater is not expected to be adversely affected because the concentrations are much less than anticipated recreational use screening criteria that will be used for closure and because there is no use of groundwater downgradient of these areas (i.e., municipal supply and contractual restrictions).

We understand that WisDOT's internal timing requirements dictate that a Draft Soil Management Plan is required by May 1, 2019, and must be finalized by August 1, 2019 in order to support the construction work, which is scheduled to begin in Spring 2020. Transport of WisDOT soil by WisDOT to the Chemours site is estimated to begin in June or July 2020.

Chemours' schedule for use of the soil will be based on a number of factors, including the timing of program needs, type of material actually provided (soil properties, amenability to compaction, etc.), and analytical results of material provided. As such, a specific plan cannot be prepared by Chemours on the same schedule as WisDOT.

Chemours assumes that the conditions of the soil that will be transported to the Former Barksdale Works site will be consistent with the analytical results of the WisDOT Phase 2.5. Those results were obtained from 36 soil/sediment analytical samples collected from 27 locations within the WisDOT project area. Chemours also assumes that the volume of soil that will be transported to the Barksdale Works site will be generally consistent with the WisDOT estimate of 1,100 cubic yards.

Request for WDNR Concurrence

Chemours is willing to accept soil from the WisDOT Boyd Creek Bridge replacement project and manage it on-site as part of the ongoing site remediation work, provided:

- WDNR is in agreement with the WisDOT soil management plan, and
- WDNR provides acceptance of Chemours' conceptual plan presented herein to manage the soil after it has been placed on the Former Barksdale Works site.

If the conceptual approach for soil management included in this letter is acceptable to the WDNR, please provide a written response indicating as such prior to May 1, 2019. We understand that WDNR concurrence may be contingent upon review of the Draft WisDOT Soil Management Plan and an associated Soil Management Plan from Chemours.

Please contact me if you have any questions with respect to this letter.

Sincerely,

Bradley S. Nave

Bradley S. Nave
Chemours Corporate Remediation Group

Cc: Cary Pooler, AECOM
Eric Schmidt, AECOM
Kyle Wagoner, AECOM