



To: Jim Hosch, John Robinson, and
Mark Gordon (WDNR)
Henry Nehls-Lowe (WDHFS)
Jane Patarcity (Beazer)
Patrick Stark (Koppers)
Brian Magee (AMEC)

Date: 12/1/03

cc: R. Anderson
D. Bessingpas

From: Jeffrey S. Holden, P.E.

Re: Superior, WI Site – Summary of
11/21/03 Project Meeting

On November 21, 2003, a meeting was held at the Wisconsin Department of Natural Resources (WDNR) office in Superior, Wisconsin to discuss the corrective action activities at the Koppers Inc. (Koppers, f/k/a Koppers Industries, Inc. or KII) Superior, Wisconsin facility. The meeting was initiated at approximately 10 a.m., and was attended John Robinson and Jim Hosch (WDNR); Jane Patarcity (Beazer); and Rob Anderson and Jeff Holden (BBL). Participating by telephone were Mark Gordon and Tom Janisch (WDNR); Henry Nehls-Lowe (WDHFS); Patrick Stark (Koppers); and Brian Magee (AMEC).

Meeting topics generally included the list of discussion items provided by BBL prior to the meeting, with additional items included by the WDNR; the revised discussion item list is provided as Attachment 1. Key discussion items from the meeting are summarized below. A list of action items is also provided.

Key Discussion Items

- BBL summarized the scope and results of three investigations performed in 2003. These included test pits and soil sampling in the Crawford Creek floodplain in February 2003, Crawford Creek sediment sampling in May 2003, and manual investigation of the Outfall 001 drainage ditch in May 2003. These investigations were summarized in letters to the WDNR dated June 26, July 18, and October 2, 2003, respectively.
- The Crawford Creek floodplain investigation and the Outfall 001 investigation both provided data that were unanticipated based on the previous data and site conceptual model. As further described in the associated summary reports, isolated occurrences of creosote-like product were observed in cracks and fissures in subsurface soils within the Crawford Creek floodplain and within subsurface soils adjacent to the Outfall 001 drainage ditch.
- Six Crawford Creek sediment samples were collected in May 2003. One was taken from a background location upstream (south) of Hammond Avenue, one was taken immediately upstream of the railroad crossing, and four were taken in the reach between the railroad crossing and the confluence of Crawford Creek with the Nemadji River. The 2,3,7,8-TCDD TEQ concentration in the samples downstream of the railroad crossing was consistent with the range of concentrations observed in sediment samples previously collected upstream of the railroad crossing.

- For both sediment samples and floodplain soil samples from the Crawford Creek area, no correlation was observed between elevated concentrations of dioxins/furans and visibly impacted soils. This suggests that the creosote-like material observed within the affected areas is not the source of the dioxins/furans. In any case, regardless of the location from which these samples were collected, all concentrations were below the USEPA's 1 ppb criterion for residential soils (expressed as a 2,3,7,8-TCDD TEQ).
- Since background levels of dioxins/furans frequently result in unacceptable risk levels, human-health-based remedial objectives are typically based on policy values rather than risk assessment or background. The use of a policy-based approach for this site has previously been discussed with the WDNR. Because all 2,3,7,8-TCDD TEQ concentrations are below the USEPA's most stringent health-based criterion, additional sampling for dioxins/furans does not appear warranted. However, Henry Nehls-Lowe cautioned that Wisconsin does not necessarily agree with the USEPA levels, although alternative standards for Wisconsin are not codified.
- AMEC summarized the modeling that was performed to assess potential dioxin/furan concentrations in Crawford Creek and Nemadji River fish. Based on detected sediment concentrations and the application of conservative USEPA-prescribed methodologies, the predicted fish tissue concentrations are consistent with or lower than published background concentrations. These results were recently discussed between Brian Magee of AMEC and Henry Nehls-Lowe of the Wisconsin Department of Health and Family Services. Based on these results, it was agreed that concentrations of dioxins/furans in fish were unlikely to represent unacceptable human health risks. Thus, sampling and analysis of Nemadji river fish tissue for dioxins/ furans is not necessary. However, additional consideration will be given to the need for investigating Crawford Creek fish from an ecological risk perspective.
- The WDNR agreed that further evaluation of ecological implications of dioxins/furans in the Crawford Creek floodplain may be warranted. Tom Janisch indicated that he would further review "typical background" concentrations relative to ecological receptors. Jane Patarcity indicated that Beazer would further consider the utility of a sampling program to assess fish tissue dioxin/furan concentrations in Crawford Creek fish. Brian Magee also suggested consideration of semi-permeable membranes to assess potential bioavailability of dioxins/furans to Crawford Creek fish.
- Beazer anticipates that remedial activities will likely be performed along the Outfall 001 drainage ditch, where impacted soil volumes are smaller and the range of COC concentrations is higher compared to the Crawford Creek floodplain. The nature of the remedial approach will be further developed following additional investigations of this area.
- Beazer anticipates that a CMS report will be developed in the next few months. In light of the findings of the recent Outfall 001 drainage ditch and Crawford Creek floodplain investigations, the CMS will focus on "on-property" portions of the site, including groundwater, impacted soils, and the portion of the Outfall 001 drainage ditch on Koppers' property extending to the first railroad crossing downstream of the property boundary. Pending further investigation and evaluation, the remainder of the Outfall 001 drainage ditch and Crawford Creek will be addressed in a subsequent CMS, via an Interim Measure, or as otherwise appropriate. The WDNR agreed that submittal of separate CMS reports is acceptable.
- A preliminary outline of the "on-property" CMS report is provided as Attachment 2. The CMS report is intended to be focused document aimed at identifying and evaluating a short list of applicable, "presumptive" remedial approaches.

- The WDNR referenced a forthcoming guidance document that provides “default” sediment standards for PAHs and pentachlorophenol and that allows development of alternate standards. This document should be available on the WDNR web site by mid-December 2003.
- BBL summarized the corrective action objectives (CAOs) that have been established in previous submittals and which will serve as the basis for the remedial alternatives to be developed and evaluated in the CMS report. The CAOs are summarized in Attachment 3.
- Beazer proposed and the WDNR agreed to the use of the NR 722 evaluation criteria as the basis for the CMS evaluations. Jim Hosch suggested that the content requirements of NR 716 be included in the report, although the format is not important.
- A WDNR attorney reviewed the potential applicability of setback distances to the proposed CAMU, and determined that the 200-foot property line setback and 1200-foot supply well setback distances do not apply. This supports Beazer’s interpretation of the setback distance applicability as summarized in a letter to the WDNR dated July 30, 2003. The WDNR will forward copies of the legal memorandum.
- To advance the CAMU, Beazer will develop a revised CAMU Demonstration Document to address WDNR comments regarding the prior version (dated January 23, 2002), interim investigation results (e.g., wetland assessment/delineation), and the proposed location change. In addition, Beazer will further investigate “baseline” conditions in the proposed CAMU area and present those results in the revised CAMU Demonstration Document.
- The WDNR will require a pre-construction investigation of the proposed CAMU area to identify baseline conditions in this area.
- To appropriately consider recent investigation findings, Beazer intends to revise the draft Environmental Indicators (EIs) that were provided to the WDNR in November 2002. In the interim, the WDNR will contact the USEPA regarding the procedures for submitting the completed forms to the USEPA.
- The WDNR is developing a list of anticipated document submittal requirements for the site. The list will be forwarded to Beazer when available.
- There is still some uncertainty regarding fee payments that have been submitted to the WDNR regarding this project. The WDNR and Beazer each agreed to review project files for documentation of fee payments, particularly the \$1,800 fee for the CAMU-related permit modification request.
- The following schedule-related items were discussed:
 - Beazer has taken the “EI Pledge” to attempt to meet the groundwater migration and human exposure EIs within the timeframe targeted by the USEPA (i.e., by 2005). This serves as a primary programmatic schedule consideration to Beazer.
 - Beazer will target March 1, 2004 for submittal of the draft “on-property” CMS report to the WDNR.
 - A meeting was tentatively scheduled for March 11, 2004 to meet with the WDNR in Superior and review the CMS report.
 - Beazer will develop the revised CAMU Demonstration Document for submittal concurrent with or shortly following the CMS report.

- The general schedule will be to submit the CMS Report and CAMU demonstration in spring 2004, perform detailed design in the summer of 2004, and initiate remedial construction activities as early as the fall of 2004.
- Plan on a 1-year permit application review period for any permits required from the WDNR Division of Water related to the remedial construction activities.
- BBL will develop a revised project schedule to reflect the various schedule-related items summarized above

Action Items

- The WDNR will contact the USEPA regarding the anticipated procedure for completing and filing the EIs.
- Beazer and the WDNR will review project files for records of payment of the CAMU-related processing fee (\$1800).
- BBL will forward an electronic version of the proposed outline for the "on-property" CMS report.
- The WDNR will revise and issue a list of anticipated documents to be generated for the site.
- The WDNR will provide copies of a legal memorandum indicating that setback distances are not applicable to the proposed CAMU.
- Beazer will develop a scope of work for baseline and geotechnical investigations of the proposed CAMU area.
- BBL will develop a revised project schedule reflecting schedule-related discussions from the project meeting.
- Beazer will further consider and make recommendations regarding the potential presence of dioxins/furans in Crawford Creek fish.
- The WDNR will issue a letter providing comments and direction regarding the various reports that have been submitted to summarize off-site investigations (e.g., the July 2000 *Supplemental Surface Water and Streambed Sediment Investigation Report*; 6/26/03 summary of Crawford Creek floodplain investigations, 7/18/03 summary of Crawford Creek sediment sampling, and 10/2/03 summary of Outfall 001 drainage ditch investigations).
- BBL will provide a copy of the July 18, 2003 letter to Henry Nehls-Lowe (sent on 11/21/03).

Please feel free to contact me with any questions or comments regarding this summary.

JSH

Attachments:

1. Discussion Item List
2. Preliminary Outline for CMS Report
3. Summary of Corrective Action Objectives

Attachment 1

Discussion Item List

**Koppers Inc.
Superior, Wisconsin Facility**

Discussion Topics for 11/21/03 Project Meeting

- Introductions, Purpose, and Scope
- Summary of 2003 Field Investigations
 - S Crawford Creek floodplain test pits and PCDD/PCDF soil samples (6/26/03 letter)
 - S Crawford Creek PCDD/PCDF sediment samples (7/18/03 letter)
 - S Outfall 001 drainage ditch (10/2/03 letter)
- Corrective Measures Study (CMS)
 - S Scope
 - S Corrective action objectives (CAOs)
 - S Evaluation criteria
 - S Report outline
 - S CAMU offset distances (7/30/03 letter)
- PCDD/PCDF Fish Tissue Calculations (10/14/03 letter)
- Environmental Indicators (EIs)
- Schedule
- Future Document Submittals
- Review Fees

Attachment 2

Preliminary Outline for CMS Report

PRELIMINARY ONSITE CORRECTIVE MEASURES STUDY OUTLINE

Onsite CMS Activities Koppers Inc. Superior, Wisconsin Facility

Executive Summary

Acronyms and Abbreviations

1. Introduction
 - 1.1 Purpose and Scope
 - 1.2 Report Organization
2. Site Description and Use
 - 2.1 Physical Setting
 - 2.2 Site History
 - 2.3 Geology and Hydrogeology
 - 2.4 Previous Investigations
3. Site Conceptual Model
 - 3.1 Overview
 - 3.2 Potential Source Areas
 - 3.3 Migration Pathways and Receptors
 - 3.4 Distribution of Constituents
4. Remedial Goals and Objectives
 - 4.1 Overview
 - 4.2 Corrective Action Objectives
 - 4.3 Targeted Remediation Areas
5. Identification of Remedial Alternatives
 - 5.1 General
 - 5.2 Initial Screening of Remedial Technologies
 - 5.4 Retained Remedial Alternatives and Approaches
 - 5.4.1 Onsite Soils
 - 5.4.2 Onsite Outfall 001 Drainage Ditch Materials
 - 5.4.3 Groundwater
6. Evaluation of Remedial Alternatives and Approaches
 - 6.1 General
 - 6.2 Evaluation Criteria
 - 6.3 Onsite Soils

PRELIMINARY ONSITE CORRECTIVE MEASURES STUDY OUTLINE

Onsite CMS Activities Koppers Inc. Superior, Wisconsin Facility

- 6.4 Onsite Outfall 001 Drainage Ditch Materials
- 6.5 Groundwater

- 7. Selected Remedial Approach
 - 7.1 Overview
 - 7.2 Rationale for Selected Approach

- 8. Future Activities and Schedule
 - 8.1 Future Corrective Action Activities
 - 8.2 Schedule

References

Tables

Figures

Appendices

Attachment 3

Summary of Corrective Action Objectives

CORRECTIVE ACTION OBJECTIVES

Koppers Inc. Superior, Wisconsin Facility

- Soil (source: June 1997 Phase III RFI Report)
 - S** Mitigate direct contact by potential receptors to surface soils containing constituents at concentrations that may affect human health.
 - S** Minimize potential offsite migration through dissolved phase transport (groundwater) or erosion (surface water).

- Outfall 001 Drainage Ditch Materials (source: July 2000 *Supplemental Surface Water and Streambed Sediment Investigation Report*)
 - S** Minimize the potential for direct contact with drainage ditch materials containing potential constituents of interest.
 - S** Minimize the potential for migration of potential constituents of interest from the onsite portion of the Outfall 001 drainage ditch.

- Groundwater (source: June 1997 Phase III RFI Report)
 - S** Ensure, through groundwater monitoring at the downgradient property boundary in the discontinuous sand lenses, that site-related constituents are not migrating offsite.