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Secretary

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May 16, 1995

File Ref: FID#816009810
Douglas County
HW LIC File

Mr. Eric Manges, Program Manager
Beazer East, Inc.
436 Seventh Avenue, Suite 1450
Pittsburgh, PA. 15219-1822

SUBJECT: Koppers Industries, Inc. (KII)/Beazer East, Inc. (Beazer)
Ch. NR 635 Groundwater Monitoring Program.
Modification to the Conditional Closure and Long-Term Care
Plan Approval for the KII Surface Impoundments.
Town of Superior, Douglas County, Wisconsin.
WID# 006179493

Dear Mr. Manges:

This conditional modification to the October 1, 1987 Closure and Long-Term Care Plan Approval for the KII surface impoundments formally approves Beazer's "Report on Groundwater Sampling and Analysis Plan - Koppers Industries, Inc., Superior, Wisconsin - January 1994" and "Report on Monitoring Well Installation and Abandonment - Project Work Plan - Koppers Industries, Inc., Superior, Wisconsin - January 1994". These documents were prepared by Chester Environmental (now Groundwater Technology, Inc.), on behalf of Beazer.

On April 14, 1995 the WDNR issued a draft cover letter and conditional plan approval modification to Beazer addressing the groundwater monitoring program currently being implemented at the KII surface impoundments. Conditions #1, #2 and #3 address the timing for well installation, well abandonment and well repair of the ch. NR 635, Wis. Adm. Code monitoring wells. Condition #4 addresses the timing for initiating the required sampling and analysis of groundwater for Dioxins/Dibenzofurans. Conditions #5 through #10, which pertain to the well installations and follow-up sampling and analysis, are standard Department requirements. Additional data validation and Quality Assurance/Quality Control information does not need to be routinely submitted, but must be kept on file for Department review at any time. Finally, conditions #11 and #12 reference general submittal and copy distribution requirements.

Groundwater Technology, Inc., on behalf of Beazer, responded to specific portions of the draft cover letter and conditional plan approval modification in a letter to the Department dated May 10, 1995. The Department has addressed the responses provided by Groundwater Technology, Inc. as follows:

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COMMENTS ON WDNR DRAFT COVER LETTER

Paragraph 1: The Department acknowledges receipt of revised Table 2-2 for the January 1994 Sampling and Analysis Plan by letter dated April 18, 1995. Therefore, the Department's reference to submittal of revised tables in the Sampling and Analysis Plan has been removed from paragraph 1 of the cover letter.

Paragraph 2: The Department acknowledges the comments regarding concrete surface seals. Since Beazer intends to "...explore other options and discuss any appropriate different techniques with WDNR", prior to any new well installations, the Department's discussion of surface seals in areas prone to frost heave has been removed from paragraph 2 of the cover letter.

COMMENTS ON WDNR DRAFT CONDITIONAL PLAN APPROVAL MODIFICATION

Item 3: The Department acknowledges and concurs with the comment that "Of the listed wells, only wells W-6C and W-9C may require additional attention...". No specific changes to the April 14, 1995 conditional plan approval modification have been made.

Item 4: The Department acknowledges and concurs with the comment that a full list of semi-volatile organic compounds will also be analyzed annually. It is the Department's understanding that Beazer intends to evaluate all currently used SW-846 methods, and if necessary, revise the analytical methods to meet the criteria outlined in s. NR 140.16, Wis. Adm. Code (see Item 9, below). No specific changes to the April 14, 1995 conditional plan approval modification have been made.

Item 6: The Department acknowledges and concurs with the clarification that during the installation of the proposed ch. NR 635, Wis. Adm. Code monitoring wells, soil samples are not required to be submitted for laboratory chemical testing. No specific changes to the April 14, 1995 conditional plan approval modification have been made.

The Department acknowledges and concurs with the request to perform the proposed confirmation sampling on monitoring wells that will be installed within 10 feet of an adjacent, logged borehole of equal or greater depth. Condition #6 of the attached plan approval modification has been revised accordingly.

Item 8: The Department acknowledges and concurs with the clarification that only groundwater chemical analyses apply to the activities

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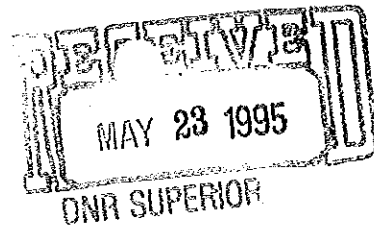
being approved under this conditional plan approval modification. No specific changes to the April 14, 1995 conditional plan approval modification have been made.

- Item 9: The Department acknowledges the comment that Beazer intends to evaluate all currently used SW-846 methods, and if necessary, revise the analytical methods to meet the criteria outlined in s. NR 140.16, Wis. Adm. Code. We further acknowledge that Beazer will seek the Department's concurrence on the final selection of analytical methods, prior to the June 1995 round of groundwater sampling. No specific changes to the April 14, 1995 conditional plan approval modification have been made.

The Department has also reviewed the documents titled "1993 RCRA Annual Groundwater Monitoring Report - Koppers Industries, Inc. - EPA ID#WID006179493 - Superior, Wisconsin - February 1994"; and "1994 RCRA Annual Groundwater Monitoring Report - Koppers Industries, Inc. - Superior Facility - Superior, Wisconsin - EPA ID# WID 006 179 493 - February 1995". In an October 14, 1991 letter to Beazer, the Department attached an outline of the information that is required to be submitted in the Annual Groundwater Monitoring Reports. The Department has determined that the 1993 and 1994 Annual Groundwater Monitoring Reports were not adequately compiled in accordance with the previously provided outline, as follows:

1. In addition to the four quarterly rounds of depth to water level measurements and groundwater surface elevations (MSL), Beazer is required to submit a table listing each monitoring well, the elevation of the top of the PVC riser (MSL), the ground surface elevation (MSL), the screen top elevation (MSL) and the screen bottom elevation (MSL). Beazer is also required to evaluate the water table and potentiometric surface maps for their reliability in portraying groundwater flow directions across the KII site (see item #1 of the Annual Groundwater Monitoring Report Outline).
2. In addition to horizontal hydraulic gradients, Beazer is required to determine vertical hydraulic gradients (see item #2 of the Annual Groundwater Monitoring Report Outline).
3. As previously agreed, Beazer is not being required to prepare a groundwater flow net analyses (as specified in item #3 of the Annual Groundwater Monitoring Report Outline), at this time.
4. In addition to horizontal average linear velocity, Beazer is required to determine vertical average linear velocity (see item #4 of the Annual Groundwater Monitoring Report Outline).

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5. Beazer is required to discuss the results of an annual evaluation of the condition of all ch. NR 635, Wis. Adm. Code monitoring wells (and sampling equipment). This includes recommendations for repair or replacement of wells and sampling equipment (see item #5 of the Annual Groundwater Monitoring Report Outline). Although there were some field notes in reference to the condition of some of the Corrective Action wells, there was no discussion in the narrative of the condition of (nor follow-up recommendations for), any of the ch. 635, Wis. Adm. Code wells being monitored.
6. Beazer is required to evaluate the quarterly and annual rounds of groundwater quality data. As part of this evaluation, a summary table of all ch. NR 140, Wis. Adm. Code groundwater quality exceedances is required to be included, along with supporting iso-concentration maps or other graphics portraying groundwater quality concentrations (see item #6 of the Annual Groundwater Monitoring Report Outline). Although the narrative did include a discussion of the detected constituents, there was little, if any, evaluation of groundwater quality trends or discussion of ch. NR 140, Wis. Adm. Code groundwater quality exceedances. Finally, it is the Department's understanding that Beazer will begin to perform the statistical evaluations after the new monitoring wells have been replaced and the minimum number of sampling rounds needed to perform the statistical evaluations have been collected.
7. Beazer is required to include a discussion as to whether or not the field and laboratory activities were conducted in accordance with the approved Sampling and Analysis Plan, now that an approved plan is in place. Future Annual Groundwater Monitoring Reports must include this discussion (see item #7 of the Annual Groundwater Monitoring Report Outline).

Beazer must review the Annual Groundwater Monitoring Report Outline attached to the October 14, 1991 letter previously sent to Beazer. Future Annual Groundwater Monitoring Reports found to be out of compliance with previously specified requirements may result in the issuance of a Notice of Noncompliance (NON) to Beazer.

On October 19, 1994 the Department sent Beazer the write-up for the groundwater monitoring program Operation and Maintenance Inspection that the Department conducted on June 13th and 14th of 1994. In a March 10, 1995 letter to the Department, Beazer responded to the O & M Inspection write-up. In that response letter under item #1, Beazer stated that they had attached a revised Table 3-2 for the Sampling and Analysis Plan, which included the parameter chromium. Under item #2 of the March 10, 1995 letter, Beazer stated that a response to the results of the O & M well evaluations will be performed as part of the Interim Letter Report for the Phase III RFI. It is acceptable

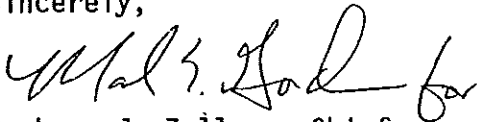
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for Beazer to present their response to the results of the O & M well evaluations as part of the Interim Letter Report. The Department does not intend to formally approve the response, since Beazer is expected to perform an annual evaluation of the condition of the monitoring wells and take the initiative to make all necessary well repairs or replacements, then provide a discussion of the evaluation and any follow-up repairs/replacements in the Annual Groundwater Monitoring Report. Any needed repairs or replacements regarding the ch. NR 635, Wis. Adm. Code monitoring wells must be performed by June 30, 1995 (see condition #3 of the attached plan approval modification). Further, under item #3 of the March 10, 1995 letter, Beazer stated that they would include copies of all quarterly groundwater sampling checklists and field sheets in future Annual Groundwater Monitoring Reports.

Finally, the Department expects that all outstanding field activities outlined in the Agencies' conditional approval of the RFI Phase III Work Plan will be performed in 1995. As discussed in your May 10, 1995 comment letter, the Department will consider modifying the June 30, 1995 deadline for well repairs, abandonments and installations at the surface impoundments if issues delaying the initiation of field work for the RFI are resolved within a reasonable time-frame. However, the fact that the RFI Interim Letter Report has not yet been submitted to the Agencies for review reduces the chances of successfully coordinating the surface impoundment and RFI field activities.

If you have any questions regarding this letter, please contact Cynde English at (608) 266-7017.

Sincerely,



Barbara J. Zellmer, Chief
Hazardous Waste Management Section
Bureau of Solid and Hazardous Waste Management

Enclosures: Conditional Closure/LongTerm Care Plan Approval Modification

BZ:ce:kiiapr95.cov

cc: Ed Lynch - SW/3
Mark Gordon/Marty Herrick - SW/3
Gary LeRoy/Dave Kafura - Northwest District Office
Steve LaValley - Superior Area Office
George Hamper/Art Tipton - U.S. EPA Region V (HRP-8J)
Rob Smith - Groundwater Technology, Inc.
Tim Ries - Koppers Industries, Inc. (Superior, WI)

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL CLOSURE AND LONG-TERM CARE PLAN APPROVAL MODIFICATION
KOPPERS INDUSTRIES, INC. SURFACE IMPOUNDMENTS
WID# 006179493
FID# 816009810

GENERAL INFORMATION

Authorized Contact

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(412) 227-2683

Plant Manager

Tim Ries, Plant Manager
Koppers Industries, Inc. (KII)
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Superior, WI 54880
(715) 392-2221

Consultant

Rob Smith, Project Manager
Groundwater Technology, Inc.
(Formerly Chester Environmental)
600 Clubhouse Drive, Floor 2
Moon Township, PA 15108
(412) 299-7265

Site Location

The KII facility is located at the junction of County Highways A and Z approximately two miles southeast of the City of Superior, in sections 12 and 13, T48N, R14W, Town of Superior, Douglas County, Wisconsin.

FINDINGS OF FACT

The Department finds that:

1. KII owns a hazardous waste facility in sections 12 and 13 of T48N, R14W, Town of Superior, Douglas County, Wisconsin. The Department issued a conditional closure and long-term care plan approval to the KII facility on October 1, 1987. The Department conditionally approved the closure documentation report for the KII surface impoundments on August 3, 1990. The Department issued a conditional long-term care license to KII for the surface impoundments on December 21, 1990. The responsibility for long-term care of KII's surface impoundments was retained by Beazer, the former owner of the KII facility.
2. On January 10, 1994 the Department received a document titled "Report on Groundwater Sampling and Analysis Plan - Koppers Industries, Inc., Superior, Wisconsin - January 1994", prepared by Chester Environmental on behalf of Beazer.

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3. On January 10, 1994 the Department received a document titled "Report on Monitoring Well Installation and Abandonment - Project Work Plan - Koppers Industries, Inc., Superior, Wisconsin - January 1994", prepared by Chester Environmental on behalf of Beazer.
4. On March 1, 1994 the Department received a document titled "1993 RCRA Annual Groundwater Monitoring Report - Koppers Industries, Inc. - EPA ID#WID006179493 - Superior, Wisconsin - February 1994", prepared by Chester Environmental on behalf of Beazer.
5. On March 7, 1995 the Department received a document titled "1994 RCRA Annual Groundwater Monitoring Report - Koppers Industries, Inc. - Superior Facility - Superior, Wisconsin - EPA ID# WID 006 179 493 - February 1995", prepared by Chester Environmental on behalf of Beazer.
6. Additional information considered in the review of the documents listed in #2, #3, #4 and #5, above, include the following:
 - a. October 14, 1991 letter to Beazer requesting additional information regarding the ch. NR 635, Wis. Adm. Code groundwater monitoring program for the KII surface impoundments.
 - b. October 19, 1994 Operation & Maintenance Inspection Report.
 - c. March 10, 1995 response letter from Beazer regarding the Department's October 19, 1994 Operation & Maintenance Inspection Report.
 - d. March 16, 1995 letter from the Department to Beazer approving the analysis for Barium via SW-846 Method 6010A.
 - e. KII quarterly groundwater monitoring submittals.
7. This conditional closure and long-term care plan approval modification is necessary to protect human health and the environment, and comply with ch. NR 635, Wis. Adm. Code.

CONCLUSIONS OF LAW

1. KII is an existing hazardous waste facility as defined in s. 144.61(5m), Stats., and operated hazardous waste surface impoundments as defined in s. NR 600.03(201), Wis. Adm. Code.
2. Listed hazardous waste as defined in ch. NR 605, Wis. Adm. Code was stored in the KII surface impoundments. Hazardous waste means any solid waste identified by the Department as hazardous waste under s. 144.62(2), stats., and defined in ch. NR 605, Wis. Adm. Code.

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3. The Department has authority under ss. NR 660.16 and 685.05, Wis. Adm. Code and ss. NR 660.17 and 685.06, Wis. Adm. Code to impose closure and long-term care requirements, respectively, on the KII surface impoundments.
4. The Department has authority under ss. NR 685.05(3) and 685.06(6), Wis. Adm. Code to require and approve modifications of a closure and long-term care plan, respectively.
5. The Department has authority under ch. NR 635, Wis. Adm. Code to impose groundwater monitoring requirements and corrective action requirements on the KII surface impoundments.

CONDITIONAL CLOSURE AND LONG-TERM CARE PLAN APPROVAL MODIFICATION

Based on the Findings of Fact and Conclusions of Law, the Department issues this modification to the KII Closure and Long-Term Care Plan Approval, and approves the "Report on Groundwater Sampling and Analysis Plan - Koppers Industries, Inc., Superior, Wisconsin - January 1994"; the "Report on Monitoring Well Installation and Abandonment - Project Work Plan - Koppers Industries, Inc., Superior, Wisconsin - January 1994"; the "1993 RCRA Annual Groundwater Monitoring Report - Koppers Industries, Inc. - EPA ID#WID006179493 - Superior, Wisconsin - February 1994"; and the "1994 RCRA Annual Groundwater Monitoring Report - Koppers Industries, Inc. - Superior Facility - Superior, Wisconsin - EPA ID# WID 006 179 493 - February 1995", subject to the following conditions:

1. Proposed monitoring wells W-6A, W-10A, W-12A, W-12CR, W-30A and W-30C shall be installed and sampled as part of the quarterly/annual monitoring program, by June 30, 1995.
2. Monitoring wells W-6B, W-10B, W-12B and W-12C shall be abandoned (in accordance with ch. NR 141, Wis. Adm. Code), by June 30, 1995.
3. The remaining ch. NR 635, Wis. Adm. Code monitoring wells (W-4A, W-4C, W-6C, W-7C and W-9C) shall be repaired, or abandoned and replaced, as needed, by June 30, 1995. All replacement wells shall be designed, installed, developed and documented in accordance with the requirements of ch. NR 141, Wis. Adm. Code and applicable conditions in this plan approval modification.
4. The required annual laboratory analyses for Dioxins/Dibenzofurans shall be performed during the second quarter of each year, beginning with the June 1995 round of sampling.
5. In accordance with ch. NR 141, Wis. Adm. Code, drilling fluids and water may be used to drill monitoring wells only when there are no reasonable

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alternatives. If drilling fluids are used, the driller shall document the type of fluids, any additives used and the chemical constituents of the mixture. If water is used, the source of the water shall be identified (see s. NR 141.15, Wis. Adm. Code).

6. Where conditions permit, samples shall be collected using undisturbed soil sampling techniques. Samples may not be composited for testing purposes. In fine-grained soil environments, continuous samples shall be collected. In uniform, coarse-grained soil environments samples shall be collected from each major soil unit encountered and at maximum 5-foot intervals. At least one soil sample shall be collected at the depth of any subsequently placed monitoring well screen. If borings are extended into bedrock, selected core samples of the bedrock shall be taken and the rock properties including fracture frequency, rock quality designation and percent recovery shall be determined.

(Note: Instead of continuous soil sampling, the confirmation sampling proposed in the May 10, 1995 letter from Groundwater Technology, Inc., on behalf of Beazer, may be performed on monitoring wells installed within 10 feet of an adjacent, logged borehole of equal or greater depth.)

7. A boring log shall be submitted for each boring in accordance with ch. NR 141, Wis. Adm. Code and soil boring log information Form 4400-122. Each boring log shall also include descriptions of the samples collected from each major soil unit, bedrock formation and the soil sample(s) collected at the depth of any subsequently placed monitoring well screen to include:
 - a. The results of headspace screening performed on selected samples.
 - b. A minimum of one grain size analysis on each major soil unit (to include a soil sample collected at the depth of any subsequently placed monitoring well screen) by mechanical and hydrometer test and Atterberg limits, as appropriate for the particular soil type.
 - c. Texture, structure, mottling, moisture content, layering, jointing, lenses, fractures, organic matter, voids, geologic origin, visual classification according to the USCS (Unified Soil Classification System) and Muncell color chart, and any other relevant information.
8. All laboratory chemical analysis of soils, groundwater, surface water, sediment, air and subsurface gas shall be performed in accordance with standard methods, at a laboratory certified or registered by the Department under ch. NR 149, Wis. Adm. Code.

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9. Beazer shall select analytical laboratory methods that meet the criteria outlined in s. NR 140.16, Wis. Adm. Code, including limits of detection and limits of quantitation below the preventive action limit. If no analytical method exists that can achieve limits of detection and limits of quantitation below the PAL, then the method that produces the lowest available limits of detection and limits of quantitation shall be proposed. Therefore, Beazer shall evaluate all currently used SW-846 methods and if necessary, revise the analytical methods to meet the criteria outlined in s. NR 140.16, Wis. Adm. Code, beginning with the June 1995 round of sampling and analyses. As needed, revisions to the approved sampling and analysis plan shall be submitted to the WDNR within 60 days of completion of the June 1995 round of sampling at the KII surface impoundments.
10. The quarterly groundwater monitoring data submittals shall include:
 - a. Diskette of ASCII formatted groundwater quality data.
 - b. Brief cover letter noting all ch. NR 140, Wis. Adm. Code groundwater quality standard exceedances. (Note: The most recent version of ch. NR 140, Wis. Adm. Code is March 1994). This cover letter must also include the name of the person who collected the samples, a discussion of any problems encountered and/or any deviations from the approved sampling and analysis plan (e.g., frozen well, elevated detection limits, etc.), new or replacement wells that have been reported on the diskette and any other information relevant to the diskette of ASCII formatted data.
 - c. A copy of the site map compiled for the Sampling and Analysis Plan (see the Sampling and Analysis Plan Outline attached to the Department's October 14, 1991 letter).
 - d. Two copies of the Certification Statement.
 - e. One hard copy printout of the ASCII formatted data.
 - f. One hard copy of the trip blank, equipment blank, duplicate, matrix spike/matrix spike duplicate results.
11. All plans, plan sheets and reports shall be prepared and submitted in accordance with the requirements of s. NR 680.05, Wis. Adm. Code. Please note the engineer and hydrogeologist certification requirements.
12. Copies of all plans, plan sheets, reports and correspondence, etc. shall be submitted to the WDNR Bureau office in Madison, WI. (two copies), the WDNR Northwest District office in Spooner, Wisconsin (one copy) and the WDNR Area office in Superior, Wisconsin (one copy).

Conditional Closure and Long-Term Care Plan Approval Modification - 5/16/95

The Department retains the right to modify this determination and to require additional information at any time. Except as specifically provided, this determination requires that KII and Beazer comply with all conditions of the October 1, 1987 closure and long-term care plan approval and all subsequent determinations. Nothing in this conditional plan approval modification shall relieve KII and Beazer of the legal obligation to comply with applicable federal, state and local approvals.

NOTIFICATION OF APPEAL RIGHTS

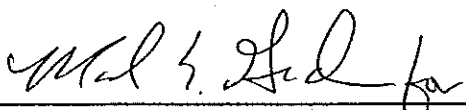
If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Statutes, as renumbered by the 1985 Wisconsin Act 182, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.


This notice is provided pursuant to s. 227.48(2), Statutes, as renumbered by the 1985 Wisconsin Act 182.

Dated: 5/16/95

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Barbara J. Zellmer, Chief
Hazardous Waste Management Section
Bureau of Solid and Hazardous Waste Management



Cynthia K. English, Hydrogeologist
Hazardous Waste Management Section
Bureau of Solid and Hazardous Waste Management