TR

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May 13, 2016

Project No. LC-05-00317.01

Mr. Patrick Collins
Wisconsin Department of Natural Resources
West Central Region Remediation and Redevelopment Program
890 Spruce Street
Baldwin, WI 54002

Re: Status Report and Proposed Closure Plan Response
Chart/Trane Groundwater Remediation Project
La Crosse, Wisconsin
Chart Energy & Chemicals, Inc. WDNR BRRTS # 02-32-200980 and
Trane WDNR BRRTS # 02-32-00037

Dear Mr. Collins:

Braun Intertec Corporation (Braun Intertec) has received and reviewed the "*Conditional Approval of Status Report and Proposed Closure Plan*" correspondence provided by the Wisconsin Department of Natural Resources (WDNR) dated February 12, 2016. This correspondence was in response to the "*Status Reported and Proposed Closure Plan for the Chart/Trane Groundwater Remediation Project*" submitted by Braun Intertec and dated December 11, 2015. That report summarized the site's historic groundwater monitoring results, status of the phased shutdown approach of the three groundwater remediation systems, and ongoing vapor intrusion assessments related to the Chart and Trane Plant 5 buildings.

After review of the conditional approval letter, the following is proposed:

Groundwater Monitoring

Groundwater recovery wells RW-1, RW-2 and RW-3 will remain off and properly maintained in the event they need to be turned back on. The monitoring schedule summarized on Table 1 will continue for a minimum period of two years after the shutdown of the last recovery well (RW-3 in April 2015). Reporting will continue on a semi-annual basis. After two years of monitoring (April 2017), recovery well maintenance and monitoring will continue, if necessary, until:

1. all monitored wells are compliant with current ch. NR 140, Wis. Adm. Code enforcement standards (ESs) or applicable drinking water maximum contaminant levels (MCLs) for four quarters, or;
2. WDNR approves a groundwater modeling report, based on USEPA guidance or by other acceptable means, that demonstrates that no residual non-compliant groundwater contamination poses a future risk of non-compliance at any municipal supply well.

In the event that a potential future risk remains after two years, monitoring will continue only for monitoring wells that are needed to monitor that potential future risk. The semi-annual monitoring report following the April 2017 sampling event will determine if additional groundwater monitoring is warranted. Upon the end of all monitoring well maintenance and monitoring as proposed here, a project closure recommendation will be submitted to the WDNR for approval.

AA/EOE

Chart Building Soil Evaluation and Vapor Intrusion Assessment

Sub-slab samples at SS-1 through SS-4 will be collected semi-annually for volatile organic compound (VOC) analysis until such time as a stable or downward trending data set is established. The next semi-annual sampling event is scheduled for June 2016. Data from June 2016 will be summarized in a letter report in July 2016 and evaluated in consideration of a path to closure for the Chart Building SVE. Should these data indicate a stable or downward trending data set and no exceedance of the non-residential sub-slab vapor action level (VAL) of 880 ug/m^3 for TCE be noted, no additional VI assessment or remediation will be proposed. In this event the dismantling of the SVE system will also be proposed. Should the data from June 2016 indicate a continued exceedance of the non-residential VAL for TCE, a site specific vapor action level (SSVAL) will be calculated for TCE at the site using site specific criteria. The calculation of the SSVAL will be discussed with the WDNR and once the approved by WDNR, the SSVAL will be compared to the stabilized sub-slab VOC analytical results to determine compliance. Should exceedances of the SSVAL be noted in future soil vapor data, additional options will be considered including restarting the SVE system to remove additional TCE mass and/or reconfiguring the SVE system to act as a sub-slab depressurization system (SSDS) to mitigate the vapor intrusion pathway.

Trane Plant 5 Vapor Intrusion Assessment

Post remedial sub-slab VOC samples at SS-8 through SS-10 have indicated a relatively stable trend at concentrations exceeding the non-residential sub-slab VAL of 880 ug/m^3. Therefore, a SSVAL will be calculated for TCE at the site using site specific criteria. The calculation of the SSVAL will be discussed with the WDNR and once the approved by WDNR, the SSVAL will be compared to the stabilized sub-slab VOC analytical results to determine compliance. Should exceedances of the SSVAL be noted in future soil vapor data, additional options will be considered including restarting the SVE system to remove additional TCE mass and/or reconfiguring the SVE system to act as a SSDS to mitigate the vapor intrusion pathway.

Please call Kevin Nestingen or Mark Gretebeck at 608.781.7277 if you have questions concerning this project.

Sincerely,

BRAUN INTERTEC CORPORATION

Kevin D. Nestingen, PE
Project Engineer/Project Manager

Mark L. Gretebeck
Principal

Attachment:
Table 1. Groundwater Monitoring Plan

c: Mr. Kenneth Rupp, Chart Energy & Chemicals, Inc.
Mr. Mike Goldstein, Ingersoll Rand

PROJECT LC-05-00317.01
Operation, Maintenance and Monitoring
Chart / Trane Groundwater Remediation Project
La Crosse, Wisconsin

Table 1
Groundwater Monitoring Plan
Water Quality Sampling

Point	Winter	Spring	Summer	Fall	Point	Winter	Spring	Summer	Fall
AW-1	X	X	X	X	E-1	X		X	
AW-2	X	X	X	X	E-2	X	X	X	X
AW-3			X		E-3	X	X	X	X
AW-4					E-3B	X	X	X	X
AW-5			X		E-4	X	X	X	X
AW-6	X	X	X	X	E-5	X	X	X	X
AW-7	X	X	X	X	E-6	X	X	X	X
AW-8	X	X	X	X	E-6B	X	X	X	X
AW-9	X	X	X	X	E-7	X		X	
AW-10	X	X	X	X	E-8			X	
AW-11	X	X	X	X	E-9R				
AW-12	X	X	X	X	E-10	X		X	
					E-11			X	
Kronberg MW-2					E-12				
MW-16A	X	X	X	X	E-13				
MW-16B	X	X	X	X	E-14	X	X	X	X
MW-16C	X	X	X	X	E-15A	X	X	X	X
MW-17A	X	X	X	X	E-15B	X	X	X	X
MW-17B	X	X	X	X	E-15C	X	X	X	X
MW-17C	X	X	X	X	E-16				
MW-18A	X	X	X	X	E-17			X	
MW-18B	X	X	X	X	E-18	X		X	
MW-18C	X	X	X	X	E-18B	X		X	
P-1			X		E-19A	X	X	X	X
P-2			X		E-19B	X	X	X	X
P-5			X		E-19C	X	X	X	X
SW-1			X		E-20			X	
VW-1	X	X	X	X	E-21	X	X	X	X
					E-22	X	X	X	X

Note: Updated following RW-3 shut down