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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 12, 2022

Ms. Dawn Greening, Remediation Manager
Cooper Cameron Corporation
For Cameron International Corporation
121 Industrial Boulevard
Sugar Land, Texas 77478

Re: Cameron - Katy Road Facility (Site), located at 1000 Silber Road, Houston, Harris County, TX; Voluntary Cleanup Program (VCP) No. 221; Customer No. CN600374821 Regulated Entity No. RN101474880

Dear Ms. Greening:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the September 30, 2022 report, entitled "2022 Response Action Plan (RAP) Addendum", prepared by CH2M HILL Engineers, Inc. Please prepare a written response to each of the following comments, referencing the assigned TCEQ comment number, unless otherwise specifically requested. The information in the TCEQ reference line above should be included in your response.

1. **Response Action Objectives** - Please clearly differentiate throughout the RAP the response actions for the onsite plume (Remedy Standard B) from the response actions for the offsite plume (Remedy Standard A). Please modify the RAP accordingly.

Onsite Plume

2. **Phased Conditional Certificate of Completion (CCOC)** - A phased CCOC is proposed for the southern portion of the former Cameron facility. Please note that the TCEQ will not issue any additional phased CCOC for the former Cameron facility until the offsite contaminant plumes are fully addressed. As such, please remove this proposed institutional control from the RAP.
3. **Timeframe Predictions** - According to the RAP, the estimated time to remediate the plume is 70 years with monitored natural attenuation (MNA) alone. The time frame with MNA and in situ chemical oxidation (ISCO) injections has not been provided. As such, please revise the RAP to include an institutional control for long-term response actions on the properties within the proposed plume management zone (PMZ), in accordance with 30 Texas Administrative Code (TAC) §350.31(h). Please include the draft deed notice language in Appendix 4 of the RAP.
4. **Attenuation Monitoring Points (AMPs)** - A total of four AMPs is proposed for the PMZ. Based on the protective concentration level (PCL) exceedance zones depicted in Attachment 1A, please add three AMPs to the proposed PMZ network to detect any plume migration before it reaches the point of exposure (POE) wells. The three wells should be placed upgradient of monitoring wells MW-110 (near SB-04), MW-111, and MW-65.

5. **Attenuation Action Levels (AAL)** - The proposed AALs are 10 times higher than critical PCLs. Please explain how it was determined that these AALs are protective for each chemical of concern (COC) at each AMP (i.e., COC concentrations at or below the AALs will not result in critical PCL exceedances at the POE wells). Please revise PMZ Worksheet 2.4 accordingly.
6. **Performance Measures and Potential Problems** - Worksheet 3.0 should address the following potential problem: COC concentrations not decreasing below critical PCLs within a reasonable timeframe in the POE wells. Detailed and quantifiable performance measures should be provided on how the effectiveness of ISCO and MNA will be evaluated, and corrective actions should be proposed if the above-mentioned potential problem is encountered. Please revise Worksheet 3.0 accordingly.
7. **List of Sampling Location** - Please include the groundwater AMP wells in Worksheet 3.1.
8. **Implementation Schedule** - TCEQ understands that ISCO performance monitoring will be conducted semi-annually for five years after injection and then annually. Future ISCO events will be based on the results of the performance monitoring. Annual MNA monitoring will be performed until critical PCLs are reached. A Response Action Evaluation Report (RAER) will be submitted annually, and a Response Action Completion Report will be submitted 3 months prior to the end of the 15-year time frame following TCEQ approval of the 2022 RAP, or once the critical PCLs are met in the PCLE zone. Please add the performance monitoring of the ISCO treated zones in Worksheet 6.0.

Offsite Plume

9. **Access to the Leading Edge of the Plume** - The TCEQ understands that you have not yet gained access to assess and treat the leading edge of the southern plume at MW-168, MW-97 and MW-98. If you believe that access negotiations have reached an impasse, please provide the TCEQ with a copy of the proposed work plan and access agreement. Note: the proposed access agreement should include the provisions described in the Texas Health and Safety Code §361.752. Please contact me (your TCEQ project manager) if you would like to obtain more information. If and when access is obtained, the relevant portion of the RAP should be updated with a RAP Addendum.
10. **MW-106** - Vinyl chloride in MW-106 is not delineated to the west or to the south, in a downgradient direction. No ISCO injections are planned for this area. Please delineate and/or remediate the vinyl chloride contaminant plume at this location. Response to this comment can be presented in the annual RAER or another appropriate submittal.
11. **Future notifications** - The proposed response actions described in the RAP Executive Summary should include notifications of property owners when groundwater sampling data confirms COCs above the Tier 1 human health PCLs on any offsite affected property (i.e., within the PCL exceedance zone) that were previously not affected, rather than only on properties with wells. Please modify Worksheet 1 accordingly.
12. **Performance Measures and Potential Problems** - Please include quantifiable performance measures for the Remedy Standard A response actions in Worksheet 3. The worksheet should notably address the following potential problems: COC concentrations not decreasing below critical PCLs within a reasonable timeframe, COC

concentrations increasing in individual wells, and PCL exceedance zones not shrinking (i.e., stable or increasing PCL exceedance zones).

13. **Confirmation Sampling Plan** - The confirmation sampling plan includes only one monitoring event after all POE wells meet critical PCLs. However, one sampling event may not be sufficient to monitor for post-ISCO injection rebound. In general, at least two years is required to evaluate for rebound. Please revise Worksheet 4 accordingly.

A revised RAP should be submitted to my attention at the TCEQ at the letterhead address using mail code MC-221. Your response should be received within 180 days of the date of this letter. Please provide one paper copy and one electronic copy (on USB or disc) of all submittals. Note that the electronic and hard copies should be identical, complete copies. A Correspondence ID Form (TCEQ Form 20428) must accompany each document submitted to the Remediation Division and should be affixed to the front of your submittal. The Correspondence ID Form helps ensure that your documents are identified correctly and are routed to the applicable program for a timely response. You may contact me with any questions at (512) 239-0217.

Sincerely,



Vitalie Morrison, P.G., Project Manager
VCP-CA Section
Remediation Division
Texas Commission on Environmental Quality

cc: Mr. Matthew Parish, Taunton, Snyder & Slade
Ms. Monica Schneider, CH2M HILL Engineers, Inc.
Mr. David Urann, CH2M HILL Engineers, Inc.
Mr. John Knott, CH2M HILL Engineers, Inc.
Ms. Alma Jefferson, Waste Section Manager, TCEQ Region 12 Office, Houston