de maximis, inc.

186 Center Street
Suite 290
Clinton, NJ 08809
(908) 735-9315
(908) 735-2132 FAX

May 15, 2014 ***VIA ELECTRONIC & US MAIL***

Ms. Jennifer LaPoma
ATTN: Lower Passaic River Remedial Project Manager
Emergency and Remedial Response Division
U.S. EPA, Region 2
290 Broadway, 19th Floor
New York, New York 10007

Re: Monthly Progress Report No. 84 – April 2014
Lower Passaic River Study Area (LPRSA) Remedial Investigation/Feasibility Study (RI/FS)
CERCLA Docket No. 02-2007-2009

Dear Ms. LaPoma:

de maximis, inc. is submitting this Monthly Progress Report for the above-captioned project on the behalf of the RI/FS Agreement Settling Parties (Cooperative Parties Group or CPG) pursuant to the Administrative Settlement Agreement and Order on Consent (Settlement Agreement or AOC). The Progress Report satisfies the reporting requirements of Paragraph 42 of said Settlement Agreement.

(a) Actions which have been taken to comply with this Settlement Agreement during the previous month.

Meetings/Conference Calls

- None.

Correspondence

- On April 1, CPG submitted a letter to EPA responding to EPA's March 17 letter regarding Occidental Chemical Corporation's participation at LPRSA modeling collaboration meetings.
- On April 2, CPG received a letter from EPA dated April 1 with responses to CPG's November 22, 2013 letter regarding the EPA's model clarification letter from EPA dated October 23, 2013.
- On April 3, EPA notified CPG of the cancellation of the EPA/CPG modelling meeting scheduled for April 10, 2014.
- On April 3, CPG received comments on the draft Feasibility Study Work Plan, Revision 2 from EPA.
- On April 7 and 8, CPG and EPA exchanged emails regarding the possible postponement of the May 8 RI/FS Technical Meeting and potential agenda items, presentation

submission schedule for the next RI/FS Technical Meeting and tentative submission dates for the LPRSA Risk Assessments.

- On April 9, EPA renewed a request to CPG for information related to the CPG's model (bed maps and updated codes) by April 30 and provided comments on the model submitted to EPA on December 20, 2013 and the CPG modeling approach. Additionally, EPA requested a memorandum from CPG regarding proposed alternate modeling approaches.
- On April 10, EPA provided CPG comments on the Revised Data Usability and Data Evaluation Plan dated April 13, 2012.
- On April 15, CPG submitted the March Monthly Progress Report to EPA.
- On April 21, EPA and CPG exchanged emails regarding the possible postponement of the May 8 RI/FS Technical Meeting.
- On April 24, EPA provided comments to CPG on Progress Report No. 83 which included citing the omission of EPA's March 12 submission to CPG of numerical modeling codes via portable hard drives and deletion of outdated and/or extraneous information from section (d) related to delays and schedule impacts. EPA also requested submission of the LPRSA Risk Assessments.
- On April 25, CPG submitted a letter to EPA regarding a delay in the submission of the draft LPRSA Human Health Risk Assessment (HHRA) and Baseline Ecological Risk Assessment (BERA) and requesting the results of the reference condition evaluation conducted by EPA Region 2 and Headquarters for the New York/New Jersey Harbor sediment sites.
- On April 29, EPA responded to CPG's letter dated April 25, 2014 regarding the LPRSA HHRA and BERA submittal schedule and requested that CPG provide a written explanation of which remaining RI/FS submissions would be extended and a project schedule that includes submissions of modeling deliverables and revised FS Workplan.
- On April 29, EPA and CPG and EPA and CPG contractors exchanged emails regarding attempts to upload the revised Low Resolution Coring (LRC) Report to the EPA SharePoint site.
- On April 30, CPG uploaded the revised LRC Report to the EPA SharePoint site.
- On April 30, EPA asked CPG if CPG had shapefiles of the LPR intertidal areas per a request from NOAA for this information.

Work

- CPG completed data validation of the analytical results from the LRC Supplemental Sampling Program 2 (SSP2) program.
- CPG continued drafting the SSP2 Data Report.
- CPG completed development of responses to EPA comments on the revised LRC Report.
- CPG continued responding to EPA comments on previously submitted RI/FS deliverables.

- CPG continued BERA activities (update CSM, complete benthic assessment, complete effects and exposure assessment and risk characterization for fish and wildlife assessments and continue to write the BERA).
- CPG continued work on components of the HHRA.
- CPG Modeling Team continued work on the RCATOX Chemical Fate and Transport Model Code initial conditions and long-term calibration runs.
- CPG Modeling Team continued work on the Bioaccumulation Model.
- CPG Modeling Team continued work on system understanding for hydrodynamic and sediment transport processes in Newark Bay.
- CPG continued review of sediment characteristics and potential target remedy locations in support of initial FS evaluations.
- CPG continued development of appendices and supporting documents for the FS.
- CPG continued development of the Remedial Investigation (RI) report.
- CPG responded to EPA comments received on previously submitted RI/FS deliverables.

(b) Results of Sampling and Tests

- None.

(c) Work planned for the next two months with schedules relating to the overall project schedule for RI/FS completion

- CPG will continue drafting the SSP2 Data Report.
- CPG will continue responding to EPA comments on previously submitted RI/FS deliverables.
- CPG will continue to complete BERA activities (update CSM, complete benthic assessment, complete effects and exposure assessment and risk characterization for fish and wildlife assessments, complete all lines of evidence as outlined in the RARC and continue to write the BERA).
- CPG will continue work on components of the HHRA.
- CPG Modeling Team will continue calibration runs with the HQI ECOM-SEDZLJS and RCATOX codes and inputs.
- CPG Modeling Team will continue development of the Bioaccumulation Model.
- CPG will participate in LPR/Newark Bay Modeling Program progress calls and follow-up modeling collaboration meetings with EPA and EPA consultants.
- CPG will continue drafting the RI Report.
- CPG will continue initial FS evaluation of targeted remedy locations.
- CPG will continue development of appendices and supporting documents for the FS.

(d) Problems encountered and anticipated problems, actual or anticipated delays, and solutions developed and implemented to address actual or anticipated problems or delays.

- On October 23 2013, Region 2 provided a letter which purports to provide their understanding of the modeling being conducted by the CPG in support of the Sustainable Remedy (SR) and RI/FS. The CPG did not agree with some of the statements made in this letter and provided a response on November 22, 2013. The CPG received a response to its November 22, 2013 letter from the Region on April 1, 2014. The CPG does not agree with the responses and positions taken by the Region in this letter and is composing a response.

  A meeting was conducted on November 14, 2013 to brief Region 2 on the working version of the LPR/NB Model used for the evaluation of the SR. The November 14, 2013 meeting addressed OSRTI's July 24, 2013 request that Region 2 understand the modeling conducted by the CPG. The CPG agreed with Region 2's proposal to conduct routine and regular oversight meetings of the development of the LPR/NB Model for the LPRSA RI/FS with the Region.

  The CPG participated in modeling oversight meetings with USEPA on February 13, 2014 and March 13, 2014. The CPG declined to participate in the scheduled April 10, 2014 oversight meeting when Region 2 stipulated a requirement that Tierra/Maxus/Occidental (TMO) participate in the April 10 meeting and future modeling oversight meetings. The Region also required the CPG to provide its work materials to TMO in advance of the April 10 meeting, which the CPG declined to do since TMO is no longer a member of the CPG and is no longer contributing to the costs of the LPRSA RI/FS.

  On December 19 and 20, 2013, the CPG provided (1) the following modeling information used in its working version of the LPR/NB Model to evaluate targeted and bank to bank remedies that was requested as a result of the December 9, 2013 EPA HQ-CPG meeting to Region 2 and (2) requested that EPA provide its latest modeling code and associated material to the CPG. The CPG provided the following:

  - The hydrodynamic model inputs/outputs and linkage files for the calibration period WY1995-WY2012
  - The sediment transport inputs/outputs for the calibration period WY1995-WY2012
  - Code version used for sediment transport calibration runs
  - OC linkage program, script to pre-process inputs and develop OC linkage file, and example OC linkage file for WY1996
  - CFT model inputs, outputs (zipped) and run scripts for the 45 years projection period for 2,3,7,8-TCDD for requested projection alternatives:
    - Alt 1: MNR
    - Alt 2: Targeted removal (500 ppt) (this is the same as Alt 2a)
    - Alt 3: Cap/Dredge with EPA schedule
    - Alt 4: Full dredge with EPA schedule
    - Alt 5: Cap/Dredge with realistic schedule
    - Alt 6: Full dredge with realistic schedule

- CFT model inputs, outputs and run procedures for the long-term (WY1995-WY2009) and short-term (WY2010-WY2012) calibration periods for 2,3,7,8-TCDD, for the same model version as used in the above projections
- The RCATOX model code version used in all of the above simulations
- Temporal plots of the mean 0-15 cm sediment 2,3,7,8-TCDD concentrations for RM 0-8 and RM 0-17 as shown in the July EPA-HQ meeting
  - As noted during the November 14 EPA/CPG modeling meeting, Alternatives 1, 2, and 5 were re-run in October due to an input error in the dredging schedule implementation. The updated results are shown on these plots
- Bioaccumulation Model Template - Steady State
- Bioaccumulation Model Template - Dynamic
- Dynamic Bioaccumulation Model Input Template

The model codes, inputs and outputs are consistent with the model version described in the November 14, 2013 modeling meeting, and shown during the December EPA-HQ meeting. The above-referenced modeling information provided EPA a detailed understanding of the work being conducted by the CPG as it pertains to the LPRSA RI/FS and its development of the Sustainable Remedy. The CPG did not receive the EPA modeling codes, input files and other information that it requested on December 20, 2013 and January 3, 2014 until March 12, 2014.

- Region 2 provided comments on July 11, 2011 which disapproved the revised risk assessment planning documents and required submission of revised documents within 30 days. Additionally, Region 2 provided a technical memo on July 25, 2011 on fish and crab consumption rates for the LPRSA Human Health Risk Assessment. The CPG filed a notice of dispute resolution in accordance with Section XV of the AOC on July 25, 2011 in response to Region's July 11, 2011 directive letter and July 25, 2011 technical memorandum. The revised RARC and TRV deliverables were submitted on August 9, 2011. On September 6, 2011 the CPG submitted a position paper in response to EPA's July 11, 2011 comments and July 25, 2011 technical memorandum. Dispute resolution meetings were held on December 1, 2011 and January 13, 2012. Region 2 provided the results of the dispute resolution to the CPG on February 7, 2012 and the CPG implemented the changes specified in the July 2011 directive comments and the results of the dispute resolution in the revised RARC which was submitted on April 13, 2012. Region 2 provided comments on the revised RARC on August 30, 2012; the CPG met with Region 2 on January 7, 2013 to discuss remaining background and reference issues and had a telephone call with EPA on January 28 to discuss cooking loss.

  Since early in 2013, Region 2 has promised to provide revised definitions for background and reference that the CPG can include in the revised RARC. These definitions were received by the CPG on June 28, 2013. It is the CPG's understanding that the issuance of the revised definitions was held-up by the NJDEP, NOAA and US FWS which did not accept definitions that were otherwise acceptable to the Region and the USACOE, and which appeared to be acceptable to the CPG based on the CPG's understanding of the

revised definitions. Following CPG review and discussions and clarifications with the Region on August 8, the CPG resubmitted the revised final RARC, incorporating the June 28 definitions, on October 29 to Region 2 for final approval. The CPG received additional RARC comments on January 31, 2014, and the CPG is currently responding to these comments.

To date, the CPG has not received the Region's final determination on reference and background for the LPRSA RI/FS. During a December 3, 2013 telephone conversation and a January 29, 2014 EPA-CPG RI/FS meeting, the Region indicated that it was doing an internal review to establish reference conditions in order to standardize identification and use of reference sites within the Region. The EPA strongly implied in both conversations that the results of this work would be shared with the CPG. In an email dated March 26, EPA suggested that the background and reference approach previously discussed would not change and the CPG should submit the BERA prior to final resolution of the background reference analysis. Moreover, the Region stated that it would comment and address the outstanding reference issue during its review of the BERA and HHRA. This change on EPA's part is inconsistent with previous understanding and the CPG believes that the EPA should provide its background and reference analysis to the CPG consistent with previous discussions prior to the CPG's submission of the BERA and HHRA.

In addition, the risk assessments prepared as part of the FFS and Proposed Plan for the lower 8 miles do not conform to the Region 2-approved Problem Formulation Document (PFD) for the 17-mile LPRSA RI/FS. Due to the overlapping nature of the lower 8-mile study area and the 17-mile LPRSA, the CPG is currently reviewing both documents to understand the differences between the Region's document and the BERA being prepared for the RI/FS by the CPG. Moreover, the NRRB's April 11, 2014 comments on the Region's ecological risk assessment, amplify that there are fundamental and significant differences between the work that CPG was directed to do by Region 2 and what the Region did in preparing its ecological risk assessment for the Proposed Plan for the lower 8-miles.

- The CPG was directed in 2009 by EPA to develop a single QAPP for surface water sampling for both the LPRSA and NBSA. At that time, the TMO parties were still members; the TMO parties left the CPG in May 2012. However, Occidental is the respondent to the NBSA AOC. The CPG followed the direction of the EPA and performed three separate programs, including developing QAPPs for the Physical Water Column Monitoring and Small Volume and High Volume Chemical Water Column Monitoring programs (in fact the High Volume program was implemented after TMOs departure). The CPG voiced its concerns to EPA that this involved both (1) different operable units of the Diamond Alkali NPL site and (2) different respondents to the respective AOCs - EPA did not address the CPG's concerns. In order to effectuate EPA's directive for synoptic sampling in the River and Newark Bay, the CPG agreed to allow Tierra, on behalf of Occidental, to use the CPG's contractor. However, subject to

the terms of a letter agreement between the CPG and Tierra, the responsibility for the work in Newark Bay would be solely Tierra's. After authorizing and paying for Newark Bay work, Tierra stopped responding to the CPG's contractor task authorization requests starting in March 2013 and has not made any payments since mid-May 2013. As a result of Tierra's failure to pay, the CPG's contractor is owed over $1 MM in outstanding invoices and an estimated $1.5 MM in labor and expenses associated with NBSA sampling (for a total of $2.5 MM). In August 2013, with EPA's approval, the CPG paid over $1 MM in outstanding invoices from the LPRSA Trust. Until the remaining invoices are paid and the CPG is compensated for its payment, the CPG and its contractor will not provide any NBSA data to TMO and believes that EPA should take the same position.

- On March 3, 2009, pursuant to EPA's November 13, 2008 comments provided to CPG, a revision to the August 2008 Feasibility Study Work Plan (FSWP) was submitted. The CPG received comments on December 13, 2014 and met with EPA on December 17, 2013. The CPG submitted a revised FSWP on January 31, 2014. EPA provided comments on April 3, 2014 for the revised FSWP and the CPG is preparing a response to comments and revising the FSWP.

- There are number of data summary reports and technical memos (both original and revised submissions) that have been submitted to Region since 2011 that the CPG is awaiting either approval or Region 2's comments. These reports include:

    1. Lower Passaic River Surface Sediment Concentration Mapping Technical Memorandum – submitted May 2013
    2. Upstream Reference Benthic Data Report – submitted August 2013
    3. Dissolved Oxygen Survey Data Report – submitted September 2013
    4. Background Sediment Data Report – submitted October 2013

  The CPG has received the Region's comments on a number of previously submitted reports and is in the process of addressing revising and resubmitting these reports. Please advise the CPG of the Region 2's schedule for action on these remaining documents.

If you have any questions, please contact me or Rob Law at (908) 735-9315.

Very truly yours,

de maximis, inc.

Robert H. Law, PhD
CPG Project Coordinator

PAPER

cc: Stephanie Vaughn, EPA
Pat Hick, EPA Office of Regional Counsel
William Hyatt, CPG Coordinating Counsel
Lisa Baron, USACE
Tim Kubiak, USFWS
Reyhan Mehran, NOAA
Jay Nickerson, NJDEP
Elkins Green, NJDOT
Sharon Budney, CDM
Beth Franklin, USACOE
Laura Kelmar, AECOM

PAPER