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

Ms. Stephanie Vaughn
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. 16 – December 2013
Lower Passaic River Study Area (LPRSA)
River Mile 10.9 Removal Action
CERCLA Docket No. 02-2012-2015

Dear Ms. Vaughn:

de maximis, inc. is submitting this Monthly Progress Report for the above-captioned project on behalf of the Cooperating Parties Group (CPG) pursuant to the Administrative Settlement Agreement and Order on Consent for Removal Action (Settlement Agreement or AOC). The Progress Report satisfies the reporting requirements of Paragraph 28 of the River Mile (RM) 10.9 Settlement Agreement.

(a) Actions which have been taken to comply with this Settlement Agreement during the month of December, 2013.

Meetings/Conference Calls

- On December 4, EPA and CPG held a teleconference to review progress in capping.
- On December 11, EPA and CPG held a teleconference to review progress in capping.
- On December 18, EPA and CPG held a teleconference to review progress in capping.
- On December 30, EPA and CPG held a teleconference to review a draft revision to the Capping Plan.

Correspondence

- On December 2, 4, 8, 9, 10, 11, 19, 27, 28, 30 and 31, CPG informed the counties and all bridge operators of its requests (and modifications to those requests) for bridge openings.
- On December 2, CPG submitted to EPA a diagram listing locations and measurements of Active Layer depth (i.e. the sand plus AquaGate™) in undercut areas.
- On December 2, CPG updated EPA with a near term, revised schedule of field activities.
- On December 3, CPG submitted to EPA a technical memorandum confirming that armor stone from the Tilcon Quarry is acceptable pursuant to the approved Final Design Report specifications.

- On December 3, CPG submitted to EPA a technical memorandum documenting the adequacy of AquaGate™ placement in the area south of the No Dredge Zone.
- On December 3-4, and 10-11, EPA reviewed and approved for posting CPG's www.rm109.com website project statements and updates.
- On December 4, EPA approved the armor stone from the Tilcon Quarry for use in the RM 10.9 Removal Action cap.
- On December 4, EPA requested that CPG provide a more detailed explanation as to why the Tilcon Quarry's Type B armor stone, which has a size distribution slightly larger than specified in the approved Final Design Report, is still acceptable.
- On December 4, EPA requested clarifications to the methodologies referenced in CPG's December 3 technical memorandum, specifically asking how volumes of placed AquaGate™ were calculated. EPA also specified that the armoring layer cannot be placed until EPA's questions on AquaGate™ placement and adequacy are answered.
- On December 5, CPG submitted to EPA an explanation as to why the selected Type B armor stone was acceptable.
- On December 5, CPG submitted to EPA's a description of how AquaGate™ volumes are calculated.
- On December 5, CPG informed EPA that Active Layer placement would be completed that afternoon.
- On December 9, CPG submitted a technical memorandum to EPA titled *RM 10.9 Cap Active/Sand Layer Composition: Determination by Core Testing and Mass Balance.*
- On December 10, CPG informed EPA that a winter storm event which prevented delivery of geotextile fabric to the RM 10.9 Removal Area that same day, would also delay the beginning date for placing the armoring layer.
- On December 10, EPA emailed several questions for CPG to address regarding the adequacy of AquaGate™ placement in the RM 10.9 Removal Area's Active Layer.
- On December 11. CPG responded to the questions raised by EPA in its December 10 email. Later that same day, EPA acknowledged receipt of these responses and informed CPG that the placement of the armoring layer could begin, "at risk".
- On December 12, EPA verbally requested full-size drawings showing the final results of Active Layer placement, and then confirmed that request in writing on December 13.
- On December 16, CPG submitted to EPA full-size drawings showing final results of the Active Layer placement in the RM 10.9 Removal Area.
- On December 16, CPG submitted to EPA a technical memorandum describing Total Carbon analyses on quality control samples collected during the placement of the RM 10.9 Removal Action's Active Layer, which concluded that without further refinements, the Total Carbon determination methodology cannot be used to reliably and accurately represent carbon content in a sand plus AquaGate™ Active Layer.
- On December 18, EPA shared with the CPG information about the Tittabawasee River in Michigan project (EPA Region 5) in which geotextile and armoring stone were successfully placed in a tidal zone, to inform and offer possible suggestions for CPG consideration in overcoming the difficulties that were being encountered during placement of the armoring layer at the RM 10.9 Removal Area.

- On December 18, EPA suggested additional technical approaches to counteract the impact of tides on the fabric preventing it from lying flat prior to placement of the armor stone.
- On December 19. CPG informed EPA that alternate geotextile placement methods were being considered and developed.
- On December 23, CPG informed EPA that it was revising and reviewing its plans for placement of the armoring layer, and that there would be no further field work during that week.
- On December 27, CPG provided EPA a draft of the revised Capping Plan, notified that field work would not be restarted until January 2 at the earliest, and suggested a teleconference to review the expected Capping Plan on December 30 or 31.
- On December 28, Hudson County informed CPG that a mechanical failure at the Clay Street Bridge prevented the movement of tugs that day to RM 10.9.
- On December 31, Hudson County informed the CPG that Clay Street Bridge had been repaired.
- On December 31, CPG issued (and later clarified) minutes summarizing discussions and agreements from their December 30 teleconference with EPA.

Work

- In December, CPG developed and promoted an alternate method for determining if the AquaGate™ content in the Active Layer (sand plus AquaGate™) of the cap conforms to the approved Final Design Report specifications.
- In December, CPG finished placing the Active Layer component of the RM 10.9 Removal Area cap.
- In December, CPG conducted the final routine water quality sampling event associated with the Water Quality Monitoring Plan.
- Commencing on December 11, CPG made several attempts to place the geotextile and armor stone over the Active Layer following the methods in the original Capping Plan.
- On December 17, CPG attempted an alternate approach for geotextile placement by attaching rebar to it for rigidity; this method did not allow the fabric to maintain adequate rigidity.
- On December 18, CPG attempted a second alternate approach for geotextile placement by obtaining a roll of fabric that had reinforcing strips pre-sewn onto it; this fabric also did not maintain the required rigidity.
- On December 19, CPG removed all geotextile fabrics that were previously placed in the RM 10.9 Removal Area.
- CPG continued to explore alternative geotextile fabrics for use in the cap that differ from the material specified in the approved Final Design Report.
- Throughout December, CPG monitored the operability of all LPR bridges, and modified its schedules as cold weather and holidays prevented bridges from operating at required times.

(b) Results of Sampling and Tests

- On December 24, CPG submitted to EPA a data package containing validated results associated with the RM 10.9 Removal Action Water Column Monitoring (Re-suspension Monitoring), Air Monitoring and Post-dredge sediment sampling activities.

(c) Work planned for the next two months with schedules relating to the overall project schedule for design completion and construction

- CPG will remove stone from failed armoring efforts on the RM 10.9 Removal Area.
- CPG will install geotextile and armoring stone in accordance with a revised Capping Plan.
- CPG will install a habitat layer on top of the armoring stone.
- CPG will continue to monitor turbidity during cap placement as long as required by EPA.
- CPG will implement sampling of water and/or air quality if community complaints or turbidity monitoring indicate that capping is a possible cause for environmental impacts.
- CPG will continue to provide regular and as-needed updates to river users about barge movements and other important project milestones.
- CPG will continue to monitor bridge operability issues.
- When capping operations are completed, CPG will demobilize from the RM 10.9 Removal Area.
- CPG will begin to draft a Final Report.

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

- There is still no resolution concerning the Tierra/Maxus/Occidental (TMO) UAO and their participation in the RM 10.9 Removal Action. As documented in the CPG's correspondence of July 27, 2012 and September 7, 2012, the offer from TMO was inadequate and provided no meaningful value to the RM 10.9 Removal Action.
- The inoperability of the Bridge Street Bridge (BSB) due to Hurricane Sandy damage delayed the start of the RM 10.9 Removal Action because equipment could not be mobilized up river until that bridge was operational. CPG informed EPA of a Force Majeure condition by phone on June 24 and in writing on June 29 as required by the AOC. CPG and its contractors worked with the Counties to resolve the BSB operational issues and agreed to provide funds to the three counties to support operator overtime.
- The CPG strongly disagrees with the EPA's July 15 letter denying the Force Majeure condition outlined in CPG's June 29, 2013. EPA's rationale for denial is inconsistent with terms and definitions in the AOC. Both the inoperability of the Bridge Street Bridge due to Hurricane Sandy and the repeated delays in the repaired motors being shipped and reinstalled - have been and continue to be clearly beyond the control of the CPG. Moreover, Hudson and Essex Counties have failed to meet their obligations under

Federal Regulations to properly maintain and operate their bridges and to provide proper notice of the status of their bridges to US Coast Guard, mariners and the general public. Finally, the CPG has voluntarily provided funds to the Counties to operate the bridges with no regulatory requirement to do so. As noted above it is the Counties obligation to ensure that their bridges are operating and ready to open upon notice. CPG has addressed this issue in its July 31 letter to EPA.

- A significant mechanical failure that occurred on August 31 at BSB resulted in a second Force Majeure condition that prevented any barge movement from August 31 through September 18. The CPG provided initial notice to EPA's oversight contractor on August 31 and provided additional information on September 1 to the EPA. On September 5, the CPG submitted a Force Majeure letter regarding the possible impact of this bridge failure on Removal Action schedules, which was then updated on September 17. On September 3, the CPG notified the US Coast Guard of the situation and requested that the USCG use its authority to direct that the bridge be opened so that marine traffic can resume; the USCG would not compel the Counties to operate the BSB based on the Counties' initial concern about damage to the BSB. However, the Counties subsequently determined that the BSB could be opened without damage but demanded monetary compensation for bridge openings that they are required to provide upon receipt of proper and timely notice (without compensation) pursuant to federal regulations. The CPG reluctantly agreed to provide the compensation in order to complete the Removal Action. EPA and USCG have been reluctant and unwilling to utilize their enforcement and regulatory authority to compel the Counties to fulfill their obligation. The re-opening of BSB on September 18 allowed dredging to resume.
- Hudson County has notified the CPG that BSB will need to be taken out of service for what they now indicate is a 7-10 day period as soon as schedules allow, to replace a second shaft which the County's mechanical contractor indicates is now showing signs of being stressed. The CPG will continue to monitor this situation and notify Hudson County of its schedule so that repairs can be scheduled at a time that has minimum disruption on the capping schedule. However, if the second shaft suffers damage before that time, capping operations may be delayed if BSB is again taken out of service and the repair schedule prevents it from even being opened with winches.
- Both tidal and river flow are complicating the placement of geotextile fabric and armoring stone on top of the Active Layer. CPG has identified proposed alternate approaches in a revised Capping Plan to keep the fabric taut while armor stone is placed on top. The revised Capping Plan identifies a new anticipated completion date for field work in February, 2014. If conditions warrant, additional alternative methods may still need to be identified and implemented in order to avoid further delays in the schedule.
- Winter weather has impacted the operability of bridges that span the Passaic River and has at times iced-in some of the support vessels restricting equipment transport and movement. Additional periods of severe winter weather could create additional delays in completing the project.

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

Very truly yours,

de maximis, inc.

Stan Kaczmarek

Stan Kaczmarek, PE
RM 10.9 Removal Action Project Coordinator

cc: Pat Hick, EPA Office of Regional Counsel
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