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FIFTH QUARTERLY STATUS REPORT FOR ADMINISTRATIVE ORDER SDWA-03-2014-
0230-DS WITH TRANSMITTAL LETTER NAWC WARMINSTER PA
11/2/2015
BRAC PMO EAST



DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE EAST
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PHILADELPHIA, PA 19112-1303

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Ser BPMOE/16-030
November 2, 2015

Mr. Roger Reinhart
U.S. Environmental Protection Agency
Region III (3WP22)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Reinhart:

SUBJECT: QUARTERLY REPORT REGARDING ADMINISTRATIVE ORDER DATED
JULY 7, 2014, EFFECTIVE JULY 13, 2014, DOCKET NO.
SDW-03-2014-0230-DS

In accordance with Section VI, Paragraph 40 of the subject
Order, the attached Fifth Quarterly Report is submitted.

If you have any questions regarding this matter, please
contact me at 215-897-4904.

Sincerely,

A handwritten signature in blue ink, appearing to read "Willington Lin", is written over a horizontal line.

WILLINGTON LIN, P.E.
BRAC Environmental Coordinator
By direction of BRAC PMO

Enclosure: Fifth Quarterly Report

Copy to:
EPA Region III (S. Kloss)
BRAC PMO Files

5th Quarterly Status Report
Period: July 1, 2015 through September 30, 2015

Administrative Order Dated July 7, 2014
(Effective July 14, 2014)
Docket No. SDWA-03-2014-0230-DS

This quarterly status report provides a summary of the work performed by the Navy, associated entities, and U.S. EPA [via an Interagency Agreement (IA) with the Navy] over the period of **July 1, 2015 through September 30, 2015**. The next report will cover October 1, 2015 through December 31, 2015.

SUMMARY OF ACTIVITIES

During this Administrative Order (AO) reporting period, the private water systems sampling program was continued under an agreement for technical support with EPA under the IA, which has been extended through FY 2016. Public water system sampling for PFCs is performed regularly at well WMA-26 by Warminster Township Municipal Authority (WTMA) under an Environmental Service Cooperative Agreement (ESCA) grant awarded to them by the Navy.

As reported in the 4th quarterly report, the ESCA grant between the Navy and WTMA was awarded in March 2015. Private and Public Water actions provided by this agreement will be discussed within the appropriate section of the report.

The Areas A, C, and D extraction wells continue to provide capture/containment of PFCs originating from these areas, with treatment provided by the groundwater treatment plant located in Area A, which has been modified to provide PFC removal through carbon polishing. During the reporting period, a carbon change-out was performed for liquid-phase granular activated carbon (LGAC) tank #2 in early September 2015 to ensure continued removal of PFCs from the treated water.

The Revised Draft Unified Federal Policy Sampling and Analysis Plan (UFP SAP) for a Remedial Investigation of Perfluorinated Compounds submitted for final regulatory review on April 9, 2015 is in the final stages of comment resolution. Some preliminary PFC investigation work has been initiated in advance of finalizing the UFP SAP, including:

- Geophysical logging/packer sampling of select Area C wells
- Vapor intrusion evaluation of Gilda's Club

A Finding of Suitability to Transfer (FOST) was completed on September 22, 2015 for the former Shenandoah Woods Housing associated with Naval Air Station Joint Reserve Base (NASJRB) Willow Grove that is located within the former NAWC. Property transfer negotiations will occur between the Navy and Warminster Township.

The following provides additional detail regarding the quarter's activities.

PUBLIC WATER SUPPLIES

Monitoring: No public water supply (PWS) well sampling was performed by the Navy during this time period. WTMA performs PFC sampling of well WMA-26 on a regular basis, under an ESCA with the Navy.

Treatment/Alternate Water Supply: The Navy is currently in the process of implementing the approved Water Treatment Plan for WTMA public water supply wells WMA-10, WMA-13, and WMA-26, which is being executed through the ESCA with WTMA. In accordance with the plan and the ESCA, these three PWS wells will be provided with carbon treatment.

A temporary carbon treatment system was installed on WMA-26 in July 2014, and this well has been pumped (for plume containment) to waste. The treated waste water is discharged to the WTMA Log College wastewater treatment plant.

Wells WMA-10 and WMA-13 are shut down and will remain so until the treatment systems have been installed. WTMA is in the process of permitting and design activities for the treatment systems. The current anticipated timeline for this work is as follows:

- Public Water Supply Permit approval from PADEP: Completed July 2015
- Finalize design for treatment train/buildings: July - August 2015
- Construction contractor procurement: September - October 2015

- Building Permit/Land Development Waiver Approval: October - November 2015
- Treatment system construction/prove-out: November 2015 - March 2016

PRIVATE WATER SYSTEMS

Monitoring: Approximately 176 samples have been collected from 115 wells to date. Samples collected during the July - September 2015 reporting period included 13 previously sampled locations plus 6 new locations. A total of 13 of the 19 samples had PFC detections at or above 25% of the PHAL. Under the IA, the EPA collected the samples, provided for analysis, validation and reporting of initial results to the private well owners. The private well owner contact information and analytical results are excluded from this public document. Private wells that have analytical results for PFCs (exceedances have been limited to PFOS) at or above the provisional health advisory (PHA) levels have been provided with alternate water supply (bottled water) by the EPA until being hooked up to a permanent alternate supply (see below). To date, no detections of PFOA in private water systems meet or exceed the associated PHA levels.

The next round of private water systems sampling is scheduled for fall 2015, and will include the 13 locations sampled during the July 2015 sampling event that had PFC concentrations at or above 25% of the PHAL.

Treatment/Alternate Water Supply: The ESCA with WTMA provides for public water connections for those in WTMA's service area. Thirteen property owners were offered and accepted a permanent alternate water supply (PWS connection). Under the ESCA, WTMA completed the following activities to implement the private water supply connections:

- Water main extension along Newtown Road: The Contractor (Barasso Construction) started in July and completed the extension in August 2015.
- PWS connections: Nine of 13 locations were connected to the PWS during the reporting period. Bottled water will no longer be supplied to these locations.
- Remaining private water system connections: Two PWS connections are scheduled for October, and two are on hold

pending receipt of access agreements from the property owners. Provision of bottled water will be continued until the connections are completed.

No private water supply treatment system sampling was performed during the reporting period.

NAVY PFC INVESTIGATION STATUS

The April 9, 2015 Revised Draft UFP SAP for a PFC Remedial Investigation and Vapor Intrusion Evaluation has not been finalized yet, as Navy responses to regulatory comments are still being reviewed and discussed. The UFP SAP is anticipated to be finalized in October 2015 and executed beginning shortly thereafter. Two associated preliminary investigations were completed in advance of the UFP SAP finalization:

- The results of the geophysical logging and packer sampling of Area C wells OB-11 and OB-13, performed by the USGS in May 2015 on behalf of the Navy, were received and distributed. Samples were analyzed for PFCs, with both PFOA and PFOS detected in the packer samples from these wells. These results will be used to identify depths for potential additional extraction wells in the vicinity of the former fire training area.
- Sampling results were received for the June 2015 vapor intrusion air sampling at Gilda's Club, along with the sampling results for an unused hand-dug well in the basement of the Club. A technical memorandum will be released by the Navy in October 2015 detailing the sampling results. Samples were analyzed for volatile organics (VI and well sampling) and PFOA/PFOS (well sampling only).

A report of PFC sampling at extraction wells in Areas A, C, and D from the November 2014 LTM sampling round is under preparation. The LTM report for the spring 2015 LTM sampling event conducted in May (which included PFC sampling/analyses of the extraction wells) is currently under preparation.

The groundwater investigation work performed in Area B to support the recently-finalized Finding of Suitability to Transfer (FOST) of the Shenandoah Woods housing area property has been completed. PFC sampling data from the FOST-related groundwater investigation will be incorporated as appropriate into the PFC RI.

UPCOMING ACTIVITIES FOR THE NEXT REPORTING PERIOD

Over the next 3 months, the Navy plans to perform the following activities:

- Continue with implementation of public well activated carbon treatment system installations for wells WMA-10, WMA-13, and WMA-26 through the ESCA with WTMA.
- Continue with periodic sampling of select private water systems (through the IA with EPA) and public water supply wells (through the ESCA with WTMA). Based on consultation with EPA, private wells with PFOS concentrations greater than 25% of the PHA levels will be periodically resampled to monitor that concentrations remain below the PHA levels.
- Connect the remaining four private water systems scheduled for connection to the PWS.
- Continue to supply private well locations which are at/above the PHA levels with bottled water until the connections to public water are completed.
- Finalize the UFP SAP for a remedial investigation of PFCs and begin the associated field work.
- Complete the technical memorandum addressing the vapor intrusion and PFC sampling work performed at Gilda's Club.