November 16, 2017

Delaware River Basin Commission
P.O. Box 7360
West Trenton, New Jersey 08628

Re: COMMENT on Naval Air Warfare Center – Warminster, D-2010-038 CP-3

This comment is submitted by Delaware Riverkeeper Network on behalf of our approximately 20,000 members throughout the Delaware River Watershed including residents of Bucks and Montgomery Counties in the vicinity of the Naval Air Warfare Center. The Delaware Riverkeeper Network (DRN) is a private non-profit membership organization, championing the rights of our communities to a Delaware River and tributary streams that are free-flowing, clean, healthy, and abundant with a diversity of life.

Request to Add PFOA and PFOS Monitoring, Reporting and Treatment Requirements to this Docket
Delaware Riverkeeper Network recommends that PFOA and PFOS be added to the permit requirements under this DRBC Docket with effluent limitations, monitoring and reporting requirements. As per the Pennsylvania Department of Environmental Protection discharge permit for the Naval Air Warfare Center facility - **NPDES PERMIT NO: PA0244325** – the discharge to the Little Neshaminy Creek from the clean-up activities at the former Naval Air Warfare Center requires treatment for several contaminants including Hexavalent Chromium, Carbon Tetrachloride, Tetrachloroethylene, and Trichloroethylene.

Perfluorinated Compounds (PFC), specifically Perfluorooctanoic Acid (PFOA) and perfluorooctane sulfonate (PFOS), have been found at extremely high levels in groundwater wells on the Naval Air Warfare Center site and in the downstream Neshaminy Creek and the levels are increasing[1]. And yet there is no requirement in the current NPDES permit for the monitoring, reporting or removal of PFCs, specifically PFOA and PFOS.

The Little Neshaminy Creek, which receives the effluent from the Naval Air Warfare Center, flows to the Neshaminy Creek. The path of the PFC contamination to surface water is being delineated through military investigations and may be a combination of the flows of effluent and/or groundwater migration from the three military facilities in the area – the Naval Air Warfare Center, the Naval Air Station Joint Reserve Base and current Horsham Air Guard Station. All of these facilities used and released firefighting foam to the

[1] http://www.buckscountycouriertimes.com/5ef4bcc8-300e-5f3a-b908-601e79422f49.html

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environment for decades, which is the primary source of the PFC contamination. The contaminants have also migrated into the groundwater that feeds the water supplies of communities in the vicinity of the base, affecting the water supply for over 70,000 people.[2]

Background

The PFOS and PFOA levels found in public wells in Bucks County and Montgomery Counties in the vicinity of the three military bases were among the ten highest sampling results in the nation in 2015.[3] Recent water quality reports suggest that the occurrence of the compounds may be even greater than previously thought due to more accurate detection methods, which has been borne out by subsequent water sampling in the region around the military bases[4].

Many of the samples taken under the U.S. Environmental Protection Agency's (EPA) Unregulated Contaminant Monitoring Rule 3 (UCMR3) exceed EPA's combined Health Advisory Level (HAL) of 70 ppt for PFOA and PFOS, and all samples exceed New Jersey Drinking Water Quality Institute's (NJDWQI) proposed Maximum Contaminant Level (MCL) for PFOA of 14 parts per trillion (ppt)[5] and the MCL of 1 to 6 ppt recommended by Delaware Riverkeeper Network in comment submitted to the NJDWQI[6].

The Naval Air Warfare Center in Warminster, Bucks County was designated for closure in 1995 by the Defense Base Closure and Realignment Commission (BRAC) program and now operates under BRAC as the Naval Air Development Center. It is classified as a CERCLA National Priority List (NPL) "Superfund" site due to contamination of area groundwater, primarily trichloroethylene (TCE), tetrachloroethylene (PCE) and carbon tetrachloride documented in 1989.[7] A treatment system is operating on the site that removes Volatile Organic Compounds from the groundwater under BRAC's supervision. The site is 824 acres and is located in Warminster Township, Ivyland Borough and Northampton Township. The area has been dependent on groundwater for both public and private water supplies. A groundwater analysis is being conducted by the Navy to assess where the PFC pollution plume is and where it is going.[8]

PFCs were discovered at these bases during the 2012 Five Year Superfund Review of the Naval Air Naval Air Warfare Center in Warminster, according to the EPA.[9] The public found out about PFOA and PFOS in their drinking water through the UCMR3 reporting from 2013 to 2015. The Navy shut down two Warminster water wells as early as 2014 because of PFCs.

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[2] https://www.theintell.com/news/horsham-pfos/

[3] https://www.epa.gov/sites/production/files/2015-09/ucmr-3-occurrence-data.zip

[4] http://www.theintell.com/news/20171101/is-epa-missing-pfc-water-contamination-across-country-one-expert-says-yes

[5] http://www.nj.gov/dep/watersupply/pdf/pfoa-appendixa.pdf

[6] http://www.delawareriverkeeper.org/sites/default/files/cvr%20ltr%20PFOA%20mcl%20cmnt11.19.combinedpdf_0.pdf

[7] https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0302466

[8] Statement of Willie Lee, US NAVY BRAC as per Tracy Carluccio, DRN, at Northampton Township Board of Supervisors meeting, 1.25.2017.

[9] http://horshamlibrary.org/docview.aspx?docid=28289

At the start of 2017, 22 public drinking water wells and 230 private drinking water wells have been shut down by a variety of agencies because they exceed the 70 ppt EPA HAL in Warminster, Warrington and Horsham Townships. Since the UCMR3 sampling, additional water testing in the region around the military bases has revealed PFOA and PFOS contamination in more locations. The most recent count is seventeen communities in Bucks and Montgomery Counties where some level of PFOA/PFOS have been discovered.

Why PFOA and PFOS should be added to the Docket

PFOA and PFOS are persistent in the environment, do not biodegrade, and build up in people's blood even when ingested in tiny amounts. These highly toxic compounds are linked to serious diseases, including cancers, and several detrimental human health conditions.[10] Fetuses, infants, and children are the most vulnerable populations due to negative developmental impacts, which also affects pregnant women, women of child bearing age and women who are breastfeeding. Chief among the new bodies of data and findings available for PFOA are those from the court-ordered C8 Health Panel and the C8 Health Project in West Virginia, related to the Dupont facility there. Among the conclusions of this multi-year study of human subjects, their blood and scientific reports, it was found that PFOA is correlated with Kidney Cancer, Testicular Cancer, Thyroid Disease, High Cholesterol, Pregnancy-Induced Hypertension/Preeclampsia, and Ulcerative Colitis.[11] In other published studies, probable links were found to decreased birth weight and decreased response to vaccines. A report reviewing all of the studies on low birth weight concluded that PFOA does reduce human birth weight.[12]

While there is no federal safe drinking water standard or MCL for PFOA or PFOS, New Jersey has recently stated that it will be proposing the NJDWQI's recommended MCL for PFOA of 14 ppt[13]. In response to a Petition filed by Delaware Riverkeeper Network with their Environmental Quality Board to set a MCL for PFOA of between 1 and 6 ppt[14], Pennsylvania is actively considering setting a MCL for PFOA because of the serious problem in the Commonwealth, particularly from firefighting foam use in the region of the Naval Warfare Center and the other bases.

The movement towards regulation of these toxic compounds is slow but it is steady and a MCL will be adopted in the near future in New Jersey for PFOA; Pennsylvania and other states such as New York may follow with mandatory MCLs. Some other states, such as Vermont, have already adopted guidance or health advisory levels that are being followed by water suppliers. The NJDWQI is now researching PFOS and is expected to recommend a MCL within the coming months.[15] Based on this evidence, DRBC should require PFCs to be added to the docket with effluent limitations, monitoring and reporting requirements.

DRN also presented verbal testimony on this draft docket at the 11.15.2017 Hearing conducted by DRBC.

Thank you for the opportunity to comment.

[10] https://www.epa.gov/sites/production/files/2015-09/ucmr-3-occurrence-data.zip
[11] http://www.c8sciencepanel.org/newsletter10.html
[12] http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4181929/pdf/ehp.1307893.pdf
[13] http://www.nj.gov/dep/newsrel/2017/17_0104.htm
[14] http://www.delawareriverkeeper.org/sites/default/files/Cover_letter_pet_att_combnd.webpdf.pdf
[15] http://www.nj.gov/dep/watersupply/pdf/minutes170216.pdf

Sincerely,

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