State of New Jersey

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
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BOB MARTIN
Commissioner

January 17, 2014

Leeann Ruggeri
Paulsboro Water Department
1211 Delaware Street North
Paulsboro, New Jersey 08066

Dear Ms. Ruggeri:

Subject: Perfluorinated Compounds in Paulsboro Water System

As you are aware, sampling of Paulsboro Water Department's water system for perfluorinated compounds (PFC) has been conducted by the New Jersey Department of Environmental Protection (Department), Paulsboro Water Department (Paulsboro), and Solvay Specialty Polymers (Solvay). One of those compounds, perfluorononanoic acid (PFNA), has been detected at levels of up to 150 parts per trillion in Well #7. While PFCs are considered to be emerging contaminants and there is currently no drinking water standard or guidance level for PFNA, the Department believes the concentrations found at Paulsboro's Well #7 warrant actions.

The Department understands that it is currently necessary for Paulsboro to operate Well #7 because Paulsboro's other primary well, Well #8, is offline while treatment for radium is upgraded, and that Well #8 is expected to be on line in March 2014. We also recognize that PFCs have been detected in Well #8 but at significantly lower levels.

In order to address community concerns with reports of PFNA in the water supply, we have prepared the enclosed Fact Sheet to use for your communications with the public. While using Well #7, to ensure an abundance of caution, we recommend for the most sensitive population, infants and children up to age one, that bottled water or liquid prepared formula be used, including use of bottled water when preparing powdered or concentrated formula.

The Department would like to work closely together with Paulsboro and Solvay to facilitate a simple remedy to reduce concentrations of PFNA in their water system, assist in communications with the public, and determine the need for the provision of bottled water as appropriate. To that end, I will be contacting you shortly to further discuss these matters.

Sincerely,

Karen M. Fell

Karen M. Fell, Assistant Director
Water Supply Operations

C: Erica Bergman, Site Remediation Program
Mayor W. Jeffrey Hamilton, Borough of Paulsboro

Enclosure

January 2014

DEP FACT SHEET: PFNA in Paulsboro Water Well No. 7

A chemical known as perfluorononanoic acid (PFNA) has been found in a well operated by the Paulsboro Water Department as a result of research initiated by the New Jersey Department of Environmental Protection (DEP). PFNA is part of a broader class of chemicals known as perfluorinated compounds (PFCs).

How common are PFCs in the environment?

According to the federal Environmental Protection Agency (EPA), PFCs are persistent in the environment and are found worldwide in people and in wildlife. Two types of PFCs – perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) – have been found in soil, air and groundwater at sites across the United States. Industries have been working with the EPA on the phase-out of PFCs due to health and environmental concerns.

Industries used perfluorinated compounds for many years to make products more resistant to stains, grease and water. Among their many uses, PFCs have been used to keep food from sticking to cookware, to make sofas and carpets resistant to stains, and to make clothes and mattresses water resistant. In addition, they have been used in firefighting materials, as well as some food packaging materials. They have also been used in the automotive, construction and electronics industries.

How are people exposed?

According to the National Institute of Environmental Health Sciences, people are likely exposed by consuming PFC-contaminated water or food, or by using products that contain PFCs.

Are PFCs harmful?

The science concerning the health effects of PFCs is emerging, with numerous studies being conducted or completed. The National Institute of Environmental Health Sciences and the National Toxicology Program have been engaged in national research to determine the effects of these chemicals in people, including at what level and duration of exposure the chemicals may become harmful. According to EPA, PFCs are toxic to laboratory animals and wildlife, producing reproductive, developmental and systemic effects in laboratory tests. The bioaccumulation of these chemicals is a cause of concern for the environment and human health, according to EPA.

What should I do?
At this time, the DEP is not aware of any studies that have directly linked consumption of water with PFNAs with human health effects. However, out of an abundance of caution, the New Jersey Department of Health advises that residents use bottled water for powdered or concentrated infant formula and all other drinking uses for children up to the age of one year until the situation is resolved. Pregnant women and nursing mothers can continue to drink the water because there is no increased risk.

How high were the levels of PFNA in the Paulsboro water supply?
PFNA was detected as high as .15 parts per billion (ppb) in Well No. 7 operated by the Paulsboro Water Department. The water department recently had to temporarily shut down its other operating well, Well No. 8, to make upgrades to its system that treats naturally occurring radium. The borough will be relying solely on Well No. 7 until the radium treatment system is upgraded. PFNA was found at low levels in Well 8.

Can PFCs be treated?
Yes. Water systems can install treatment technologies such as granular activated carbon filters and reverse osmosis units, but there is currently no state or federal regulatory standard for any perfluorinated compound. New Jersey has established a drinking water guidance level for PFOA of .04 ppb. Based on this guidance level, some water suppliers in New Jersey have installed treatment units or taken other steps to address PFOA detected in their systems. The EPA has established a provisional short-term health advisory of .4 ppb for PFOA and a provisional short-term health advisory of .2 ppb for PFOS. EPA is currently in the process of assessing the occurrence and contamination levels of six PFCs, including PFOA and PFNA, to determine whether to formally regulate these chemicals.

What's being done about this?
Solvay Specialty Polymers, located in West Deptford, is cooperating with the DEP to determine possible pathways into the environment. The affected Paulsboro well is about two miles from Solvay. The company is conducting additional testing of the Paulsboro water system and other local water systems. As part of its investigation, the company is testing surface water and sediments in the Delaware River as well as existing onsite groundwater monitoring wells. Assisted by the DEP, the company will also conduct air dispersion and deposition modeling of past emissions. Treatment options are currently being discussed.

For more information:
http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/pfcs.html
www.niehs.nih.gov/health/materials/perflourinated_chemicals_508.pdf
www.nj.gov/dep/watersupply/dwc_quality_pfoa.html