

Risk Characterization and Health Effects Language for PFOA

The presence of perfluorooctanoic acid (PFOA) at the levels detected in the supply wells and in finished water does not constitute an immediate health hazard. Based on specific toxicity information for PFOA, the estimated exposure to PFOA in the water at the highest level detected (0.54 mcg/L) is at least 50,000 times lower than PFOA exposures that are known to cause health effects in animals. The detection of PFOA indicates a need to identify the sources of contamination and to take measures to reduce it so that long-term exposure can be reduced and future exposures prevented.

Samples taken from the water supply wells on October 2 and November 4, 2014 were found to contain PFOA at levels ranging from 0.17 micrograms per liter (mcg/L) to 0.54 mcg/L. One sample of finished (treated) water taken on November 4th contained PFOA at 0.44 mcg/L. These levels are below the New York State unspecified organic contaminant public drinking water standard of 50 mcg/L, which applies to certain types of organic chemicals such as PFOA, which do not have a standard based on their toxicity.

Information on the health effects of PFOA in humans is limited. There is evidence from studies in people that elevated levels of PFOA in serum can lead to reduced fetal growth. There is also some evidence from studies in humans that increased serum PFOA levels may increase the risk for testicular and kidney cancer, but collectively the studies are not strong enough to draw a definitive conclusion about whether PFOA causes cancer in humans. In laboratory animals, exposure to high levels of PFOA caused weight loss, increased liver weights, developmental delays, reduced red blood cells, and reduced fetal growth. PFOA caused cancer in laboratory animals that were fed large amounts for their lifetimes. Chemicals that cause adverse health effects in animals after high levels of exposure may pose a risk to humans exposed to lower levels over long periods of time.

PFOA is a manufactured chemical that is used to make other chemicals called fluoropolymers. Fluoropolymers are substances that have special properties such as fire resistance and the ability to repel oil, grease and water. Thus, they have many manufacturing and industrial applications. PFOA is used to make non-stick surfaces on cookware and in fire-fighting foams, cosmetics, greases, lubricants, paints, polishes, and adhesives. PFOA can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants, and landfills.

TJ/BTSA 1/9/2015