Update: Perfluorochemicals and the City of Oakdale Public Water Supply

June 2006

As you are aware, local and state agencies are continuing to monitor levels of chemicals in the perfluorochemicals (PFCs) group in wells serving the Oakdale public water supply. The purpose of this update is to let you know about several recent developments, and the steps being taken to address the issue.

Background

Beginning in late 2004, the Minnesota Department of Health (MDH), working with the City of Oakdale and 3M, tested drinking water from the seven wells that serve the Oakdale public water supply for two members of the perfluorochemical group: PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulfonate). Because PFCs were used and disposed in Minnesota, the MDH developed Health Based Values for PFOA and PFOS in 2002. A Health Based Value (HBV) is the amount of a chemical in drinking water that MDH considers to be safe for people to drink daily for up to a lifetime. The HBV for PFOA is currently 7 parts per billion and the HBV for PFOS is 1 part per billion.

Initially, the MDH laboratory did not have a laboratory test for detecting PFCs in groundwater. In 2004, the MDH laboratory developed a method for detecting PFOA and PFOS. Since late 2004 MDH has tested the seven wells on a monthly basis and reported results for these two chemicals to the city. The two chemicals have been detected in measurable amounts in four wells and levels lower than the detection limit in two wells. Levels of PFOS and PFOA in the overall city water system have generally been below the HBVs; one well that has at times slightly exceeded the current HBV for PFOS was designated as a backup well.

Modifying the HBVs for PFOA and PFOS

Around the world, scientists are studying PFCs and the way they act in the environment, and effects on laboratory animals and on workers who were exposed through manufacturing processes. Scientists at MDH are constantly reviewing these studies and evaluating the implications to ensure that the actions taken are protective of people's health.

Since 2002, when the original HBVs were developed, MDH scientists have been reviewing toxicological studies as they become available. Preliminary review of new information indicates that the current HBVs for PFOA and PFOS need to be revised to lower values. It will take some time for MDH to evaluate the studies and calculate the specific number. Until that process can be completed, we are using the most protective value that would likely result from the reevaluation to evaluate PFCs in drinking water.

Expanded Testing for Perfluorochemicals

As part of efforts to expand our understanding of the PFC contamination, in March 2006 the MDH laboratory developed a test (Method #555) for five other chemicals from the

perfluorochemical group:

- Perfluorobutane sulfonate (PFBS),
- Perfluorobutanoic acid (PFBA),
- Perfluoropentanoic acid (PFPeA),
- Perfluorohexane sulfonate (PFHxS), and
- Perfluorohexanoic acid (PFHxA).

Some of these chemicals have been detected in groundwater samples from monitoring wells at the Abresch disposal site in Oakdale and the Washington County Landfill in Lake Elmo. The most recent water samples from Oakdale's city wells were also tested for these additional chemicals. In the city wells, PFBA, PFPeA, PFHxS, and PFHxA have been found at low levels; PFBS has not been found. Three of the additional chemicals (PFPeA, PFHxS, and PFHxA) were only found in wells that had previous detections of PFOA and PFOS. However, PFBA was detected at very low levels in wells that previously had no detections of PFOA and PFOS.

Due to limited research on these five PFCs, we do not have enough information to develop HBVs for them. Based on the chemical characteristics of these five PFCs, it is believed that they should be less toxic to people than PFOA and PFOS. MDH has decided to use the revised HBVs for PFOA and PFOS as substitutes until sufficient information is available to develop HBVs for these chemicals. Using the revised HBVs for PFOA and PFOS as substitute HBVs for these chemicals will give an extra measure of protection for people's health.

Next steps

MDH and the City of Oakdale will continue testing of the city wells each month. A treatment plant to remove the PFCs at wells #5 and #9 is under construction, and is scheduled to go into operation on November 1, 2006. In the meantime, the city will minimize the levels of PFCs in the water supply by careful management of the city wells. This management strategy depends on water demand during the peak summer months, the amount of rainfall, and on citizens taking steps to conserve water when possible. We strongly encourage citizens to cooperate with the permanent odd/even watering ban (with exemptions for new grass and certain businesses), to repair plumbing leaks promptly and to use other water conservation measures as much as possible.

We realize that this update, resulting from additional knowledge and information, may cause some confusion. If you have questions, please feel free to contact any of the staff listed below. MDH will continue to monitor private and public wells affected by contamination from PFC disposal in Washington County and take appropriate steps to protect people's health. We will also continue to give you updates as new information and developments arise.

Questions about…	Contact person	Phone number	E-mail address
Health concerns	Jim Kelly	651-201-4910	James.kelly@health.state.mn.us
PFCs in groundwater	Ginny Yingling	651-201-4930	Virginia.yingling@health.state.mn.us
City of Oakdale	Brian Bachmeier	651-730-2730	Brian@ci.oakdale.mn.us
City of Oakdale, water	Chris Sonterre	651-730-2740	Chris@ci.oakdale.mn.us

This information sheet was prepared in cooperation with the federal Agency for Toxic Substances and Disease Registry.