Summary
EPA has initiated external peer review of its draft human health effects documents for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS). Following peer review, EPA will use the revised documents to derive lifetime health advisories for PFOA and PFOS in drinking water. Once finalized, the lifetime health advisories are expected to supersede EPA’s provisional health advisories issued in 2009. Health advisories serve as guidance only and are not enforceable.

Background
PFOA and PFOS are organic chemicals that have been used in a variety of commercial and consumer products, such as stain and water repellants for carpets and upholstered furnishings, paper products, fire-fighting foams, and non-stick cookware. Both compounds are persistent in the environment and are known to have adverse effects in laboratory animals. Recent epidemiology data suggest the possibility for some adverse effects on human health.

In January 2009 EPA developed provisional health advisories for PFOA and PFOS in drinking water of 0.4 micrograms per liter for PFOA and 0.2 micrograms per liter for PFOS. The provisional health advisories, if exceeded, suggest the need for discontinuing use of water for drinking or cooking. They reflect an amount of PFOA and PFOS that may cause adverse health effects in the short term (weeks to months).

Draft Health Effects Documents
As the database of studies of both chemicals has expanded, EPA has been able to develop draft health effects documents. Following peer review, these documents can be used to establish lifetime health advisories for PFOA and PFOS in drinking water.

The draft human health effects documents for PFOA and PFOS summarize the available toxicokinetic, epidemiological, and toxicity data from studies of each chemical. EPA developed a toxicokinetic model to quantify the risk from long term exposures and to support the development of reference doses for each chemical.

A reference dose is an estimate (with adjustment for uncertainties) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of adverse health effects during a lifetime. A reference dose is the basis for a lifetime health advisory by including consideration of drinking water intakes by sensitive subgroups such as children and pregnant women, and the contributions from other exposure sources such as food, consumer products, and ambient air.

Following peer review, EPA will revise the health effects documents as necessary and use the documents to derive lifetime health advisories for PFOA and PFOS in drinking water. Once finalized, the lifetime health advisories are expected to supersede EPA’s provisional health advisories issued in 2009. Lifetime health advisories serve as guidance and are benchmarks for determining if concentrations of chemicals in tap water from public utilities are safe for public consumption. They provide state, local and tribal governments with non-regulatory tools to make decisions on a local basis in cases where a chemical is not regulated. Health advisories are not enforceable.

Peer Review Process
EPA has initiated external peer review of the draft health effects documents for PFOA and PFOS through publication of the first of three Federal Register notices. The first notice
announces a three-week period for the public to submit nominations of experts to serve on a panel peer review and makes available the draft documents for a 60-day public comment period. Following the close of the nomination period, a preliminary list of peer reviewers will be developed by a contractor. EPA will then publish a second notice in the Federal Register announcing the preliminary list of reviewers for a three-week public comment period. A third Federal Register notice will announce the final list of peer reviewers and provide registration instructions for those who plan to attend the public peer review meeting. Comments on the draft health effects documents received during the 60-day public comment period will be made available to the peer reviewers for their consideration prior to the meeting.

For More Information
To view the Federal Register notice, nominate an expert to serve on the peer review panel, or view the draft health effects documents visit the EPA contractor, Versar, Inc., online using the following URL: http://peerreview.versar.com/epa/pfoa.

For information on the draft health effects documents contact Joyce M. Donohue by phone (202-566-1098) or by email (donohue.joyce@epa.gov).