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Your ref:
Our ref: B3491983

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INFORMATION LETTER 4/2009

Dear Peter

GUIDANCE ON WATER SUPPLY (WATER QUALITY) (SCOTLAND) REGULATIONS 2001 AND DRINKING WATER SAFETY PLANS SPECIFIC TO PFOS (PERFLUOROOCTANE SULPHONATE) AND PFOA (PERFLUOROOCTANOIC ACID) CONCENTRATIONS IN DRINKING WATER

Purpose

1. The purpose of this letter is to advise Scottish Water (SW) of the requirements for risk assessment, sampling and actions to be taken for PFOS and PFOA in drinking water.

Background

2. PFOS and PFOA are perfluorinated compounds which are used in some firefighting foams and hydraulic aviation fluids, as well as the chromium plating, photography and photolithography industries. They have also been used to provide grease, oil and water resistance to materials such as textiles, carpets and paper.

3. PFOS and PFOA are both toxic and bioaccumulative, and due to their stable chemical structure are very stable and therefore long lasting in the environment. Although there is limited analytical data on these compounds in water in the environment in Scotland, there have been situations in other parts of the UK with fire-fighting foam which have led to long lasting contamination of environmental waters with PFOS.

4. Partial restrictions on the use of PFOS were put in force by the European Parliament in December 2006, although certain applications are still allowed until alternative chemicals are found, and existing stocks of firefighting foams with PFOS can be used until June 2011. There is no current ban on the use of PFOA. The permitted applications for PFOS are listed in the Annex of the Official Journal of the European Union – L372 p.32-34 (27.12.2006).

5. The Health Protection Agency has recently advised that the maximum acceptable concentration of PFOS in drinking water is 0.3µg/l, and the maximum acceptable concentration of PFOA in drinking water is 10µg/l. However, the presence of PFOA at elevated concentrations may indicate a potential source of other perfluorinated compounds; subsequently the trigger level for further sampling and investigation shall also be set at 0.3µg/l.

Requirements - Risk Assessments and Sampling

6. SW are currently carrying out Risk Assessments as part of the ongoing programme for Drinking Water Safety Plans (DWSP). From the **28th February 2010**, SW shall assess the risk from PFOS and PFOA at each of their systems as part of the DWSP. It is acknowledged that a significant number of DWSP have already been completed, so SW should determine the risk for PFOS and PFOA on completed DWSPs by the **30th April 2010**.

7. If a Risk Assessment shows that there are reasonable grounds to believe that there may be PFOS or PFOA in a drinking water supply, SW shall carry out sampling in accordance with Regulation 10 of The Water Supply (Water Quality) (Scotland) Regulations 2001.

Requirements – Detection of PFOS or PFOA in Drinking Water Supplies

8. If PFOS or PFOA are detected in drinking water supplies, the following minimum action should be taken:

(a) Perfluorooctane sulphonate (PFOS)

Concentration PFOS	Minimum Action Required
$\geq 0.3 \mu\text{g/l}$ and $< 1.0 \mu\text{g/l}$	<ul style="list-style-type: none"> • Consult with the Consultant in Public Health Medicine (CPHM). • Notify Environmental Health, the Drinking Water Quality Regulator and SEPA • Monitor levels in drinking water in accordance with the requirements of Regulation 10 of The Water Supply (Water Quality) (Scotland) Regulations 2001.
$\geq 1.0 \mu\text{g/l}$ and $< 9.0 \mu\text{g/l}$	<ul style="list-style-type: none"> • As above plus • Put in place measures to reduce PFOS to below $1.0 \mu\text{g/l}$ as soon as is practicable.
$\geq 9.0 \mu\text{g/l}$	<ul style="list-style-type: none"> • As above plus • Ensure consultation with health professionals takes place <u>as soon as possible</u> • Take action to reduce consumer exposure from drinking water <u>within seven days</u>.

(b) Perfluorooctanoic acid (PFOA)

$\geq 0.3 \mu\text{g/l}$ and $< 5.0 \mu\text{g/l}$	<ul style="list-style-type: none">• Consult with the Consultant in Public Health Medicine (CPHM).• Notify Environmental Health, the Drinking Water Quality Regulator and SEPA• Monitor levels in drinking water in accordance with the requirements of Regulation 10 of The Water Supply (Water Quality) (Scotland) Regulations 2001.
$\geq 5.0 \mu\text{g/l}$ and $< 45 \mu\text{g/l}$	<ul style="list-style-type: none">• As above plus• Put in place measures to reduce PFOS to below $5.0 \mu\text{g/l}$ as soon as is practicable.
$\geq 45 \mu\text{g/l}$	<ul style="list-style-type: none">• As above plus• Ensure consultation with health professionals takes place <u>as soon as possible</u>• Take action to reduce consumer exposure from drinking water <u>within seven days</u>.

Enquiries

9. Enquiries on this letter should be addressed to Colette Robertson-Kellie at colette.robertson-kellie@scotland.gsi.gov.uk or 0131 244 0278.

Yours sincerely

Dr Colette Robertson-Kellie

Regulation Manager