

## Supporting Document 3

# Summary of other controls for perfluorinated chemicals

## Summary of other controls for perfluorinated chemicals

PFOS and PFOA have been classified by international bodies as 'chemicals of emerging concern' or 'emerging contaminants'. Therefore, PFOS and its related substances are already listed as persistent organic pollutants (POPs) under the Stockholm Convention. For a general review of PFAS substances on the Stockholm Convention website see the following link <http://edis.ifas.ufl.edu/ss631> and <http://chm.pops.int/Default.aspx?tabid=5171>

The scientific body under the Stockholm Convention, the Persistent Organic Pollutants Review Committee, has recently prepared a Risk Profile for PFOA which references a great deal of scientific literature. This is available on the Convention's website at (see Document UNEP/POPS/POPRC.11/5) <http://chm.pops.int/Default.aspx?tabid=5171> <http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC11/POPRC11Documents/tabid/4573/>

The most up to date public information prepared by the Australian Government Department of the Environment on PFAS in relation to Stockholm processes is the Department of the Environment *Submission in relation to Part B: Inquiry into PFOS and PFOA contamination on other Commonwealth, state and territory sites in Australia where firefighting foams containing PFOS and PFOA were used*. [http://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Foreign\\_Affairs\\_Defence\\_and\\_Trade/ADF\\_facilities/Submissions](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Foreign_Affairs_Defence_and_Trade/ADF_facilities/Submissions)

It is expected that an early assessment regulation impact statement proposing options for the ratification of PFOS will be released for public consultation in early 2017 (reported as mid 2016 in the Part B Submission) with the Australia Government expected to consider and make a decision on a final regulatory impact statement in 2017. If the Australian Government decides to ratify the listing of PFOS, it would not enter into force for Australia until the domestic treaty making process, including implementation, is complete and an instrument of ratification has been transmitted.

PFOA was nominated for listing on the Stockholm Convention in 2015. The multi-stage expert review process means the Conference of the Parties would not consider its listing until 2019 at the earliest. As with the listing of PFOS, Australia would need to complete the domestic treaty making process before a future listing would enter into force. Information on the progress of PFOA through the listing process can be found on the POPs website.

Other PFAS are not listed or been nominated for listing under the Stockholm Convention.

The Department also intends to publish documents containing further analysis on PFOS use and life cycle that informs the early assessment RIS to inform the consultation.

To summarise, the PFOS listing under the Stockholm Convention will only enter into force if Australia ratifies the amendment. The current use of PFOS in Australia has meant that significant analysis and stakeholder engagement has been required to develop and inform the options for a regulation impact statement.

Environment Ministers from the Commonwealth and all states and territories met in July 2015 and agreed to establish a National Standard for the environmental risk management of industrial chemicals, including chemicals containing perfluorinated functionality. The objectives of implementing the Standard are to achieve better protection of the environment through improved management of the environmental risks posed by industrial chemicals; and to provide a nationally consistent, transparent, predictable and streamlined approach to environmental risk management of industrial chemicals for governments, industry and the community. Consultation with all jurisdictions on the standard is currently underway.

The Australian Government Department of the Environment is leading development of an Environmental Management Guidance on PFOS and PFOA contamination at Commonwealth sites. It takes into consideration relevant international standards under the Stockholm and Basel Conventions to determine appropriate levels for high content waste disposal, as well as the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended in 2013) and *The Australian and New Zealand Guidelines for Fresh and Marine Water Quality* where appropriate. One section discusses remediation. The Guidance will potentially inform national approaches on managing PFOS and PFOA contamination.

States, territories and local government retain primary responsibility for implementation and management of policies and guidelines relating to chemical management according to their relevant state or territory legislation.

*The Australian and New Zealand Guidelines for Fresh and Marine Water Quality* assist states and territories in

setting water management policies and requirements for surface and ground water. Overall policy responsibility for the Australian and New Zealand Water Quality Guidelines has recently transferred to the Australian Government Department of Agriculture and Water Resources.

*The National Environment Protection (Assessment of Site Contamination) Measure 1999* (ASC NEPM) establishes a nationally consistent framework for the assessment of contaminated sites across Australia. While health and ecological investigation levels for PFOS and PFOA are presently not included in the ASC NEPM, mechanisms exist to allow for their inclusion through a variation process.

CRCC is leading a project on the assessment, management and remediation of perfluorooctanesulfonate (PFOS) and perfluorooctanoic acid (PFOA) <http://www.crccare.com/knowledge-sharing/pfos-and-pfoa-guidelines>. As part of this work they have developed draft marine water quality guidelines using the accepted methodology. These are not currently part of the formal revision process of the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* led by the Department of Agriculture and Water Resources. However, the draft Commonwealth Environmental Management Guidance references these levels. The CRC Care document also includes health and ecological investigation levels using ASC NEPM methodology for PFOS and PFOA.

### The National Industrial Chemicals and Notifications Assessment Scheme (NICNAS)

NICNAS has reported that PFOS is no longer manufactured in Australia; however, it is imported for use as mist suppressants in the metal plating industry, hydraulic fluid in the aviation industry, surfactants in the photography industry and as firefighting foams. Airservices understands that PFOA is not manufactured in Australia or imported as the base chemical.

To address human health and environmental concerns about PFAS, NICNAS has made the following recommendations:

- PFOS, PFOA and other related chemicals should continue to be restricted to essential uses where less hazardous alternatives are not available.
- PFOS-based fire-fighting foam should only be used in essential applications (ie. not be used for training purposes).
- Industry should actively seek alternatives to and phase out PFASs and PFAS-related substances of concern.
- Existing stocks of PFAS fire-fighting foams should be disposed of responsibly on expiry.
- Importers and users of PFASs should be aware of international activities relating to PFASs.
- Importers should ensure that alternative chemicals are less toxic and not persistent in the environment.
- Up-to-date information on safe use of PFAS and handling should be provided on labels and Safety Data Sheets.

<https://www.nicnas.gov.au/chemical-information/factsheets/chemical-name/perfluorinated-chemicals-pfcs>

### Regulation of perfluorinated chemicals in other countries

#### New Zealand

PFOS was declared a POP and prohibited from import or use under the Stockholm Convention in 2009. In 2011 PFOS was added as a prohibited chemical under the Hazardous Substances and New Organisms Act 1996. New Zealand is currently working to ratify the Stockholm Convention listing <http://chm.pops.int/Default.aspx?tabid=5171>.

PFOS uses are not within the scope of the Agricultural Compounds and Veterinary Medicines Act 1997 <http://www.legislation.govt.nz/act/public/1997/0087/latest/DLM414577.html>.

They are not subject to the maximum residue limit (MRL) Notice under the Food Act. PFOS use resulting in residues in animal products would be provided for under the default provisions of the Animal Products Notice: Contaminant Specifications.

The Ministry of Health are responsible for the New Zealand Drinking Water Standards, but PFOS is not included in the test requirements.

## Europe

In the European Union, the uses of PFOS derivatives are restricted to a small number, such as in electroplating systems.

In June 2013, PFOA and its ammonium salt (APFO) were added to the EU Candidate List for authorization having been identified as Substances of Very High Concern (SVHCs). The sale of PFOA and APFO as substances or in mixtures to the general public has been banned in the EU since 1 January 2015 due to its reproductive toxicity classification.

The EU commission recommended the monitoring of PFOS and PFOA in food (2010/161/EU) using specified sampling procedures (Commission Regulation (EC) No 1883/2006). There is, however, currently no standard established for PFOS in food and feed within the EU.

## USA

In the United States of America, the major manufacturer of PFOS and its precursors, the 3M company, began phasing out PFOS in 2000. The United States Environmental Protection Agency (US EPA) has restricted use of PFOS and other long chain PFSA to low amounts and only where no safer alternative is available.

The US EPA and eight major producers of PFASs launched the 2010/15 PFOA Stewardship Program, in which companies committed to:

- reduce the global facility emissions and product content of PFOA and related chemicals by 95 per cent by 2010, and
- eliminate emissions and product content by 2015.

In January 2015, the US EPA proposed a new rule requiring approval of new uses of PFOA and related chemicals.

The US Environmental Protection Agency (USEPA) recently released a drinking water health advisory for PFOA and PFOS. They set a reference dose (RfD) of 0.00002 mg/kg/day and based on the RfD set a health advisory for drinking water of 0.07ug/L. See link at <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

## Canada

Canada has prohibited the manufacture, use, sale, offer for sale and import of PFOS and related substances, and is currently considering a proposal to prohibit the manufacture, use, sale, offer for sale and import of PFOA and related substances.

Similar to the EPA' recent drinking water health advisory, Health Canada has released full DRAFT health risk assessments for PFOS and PFOA for comment. Please see the following links for the draft technical reports.

Health Canada. 2016a. Perfluorooctane Sulfonate (PFOS) in Drinking Water. Draft for Consultation. June. <http://healthycanadians.gc.ca/health-system-systeme-sante/consultations/perfluorooctane-sulfonate/document-eng.php#a102>

Health Canada. 2016b. Perfluorooctanoic Acid (PFOA) in Drinking Water. Draft for Consultation. June. <http://healthycanadians.gc.ca/health-system-systeme-sante/consultations/acide-perfluorooctanoic-acid/document-eng.php>