

31 August 2023

Industrial Chemicals Environmental Management Section
Department of Climate Change, Energy, the Environment and Water

To whom it may concern,

RE: Proposed scheduling decisions under the Industrial Chemicals Environmental Management Standard (IChEMS) for three key PFAS compounds (PFOS, PFOA and PFHxS)

The Australian and New Zealand Biosolids Partnership (ANZBP) welcomes the opportunity to provide feedback to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on these important decisions and, like the wider water industry, is encouraged by this effort to reduce the importation of PFAS into Australia.

The Australian & New Zealand Biosolids Partnership (ANZBP) is a member-based collaboration of water utilities, consultants, academics and government bodies committed to the sustainable management of biosolids – a residual byproduct from the wastewater treatment process.

The wastewater sector is an essential service, treating sewage from domestic and trade waste (including commercial, industrial and landfill) sources to recover valued resources (including biosolids and recycled water) for beneficial reuse. In an increasingly resource constrained world, the capacity to return the valuable nutrients (including phosphorus, nitrogen, carbon and a range of micronutrients such as calcium and magnesium) and beneficial microbes in biosolids to soils is a critical pillar of global sustainability and the circular economy. The ANZBP's mission is to support sustainable biosolids management for all utilities, regardless of scale and geographic location.

OVERVIEW

Australia produces almost 1.5 million wet tonnes of biosolids per year, with an estimated 83% being beneficially used in agriculture, landscaping, forestry or mine rehabilitation (Biosolids Production and End Use Survey, ANZBP, 2021). One of the primary risks to the long-term viability of this beneficial use is the presence of PFAS compounds. Biosolids therefore is a significant resource for Australia, but could also become a significant waste burden as a result of PFAS contamination. Technology for removal or destruction of PFAS compounds from biosolids is emerging, but remains costly and more complex than traditional biosolids treatment processes. Therefore, the primary management for PFAS in biosolids is source control and the proposed scheduling is welcomed by the ANZBP.

ANZBP is acutely aware of the role water utilities play in protecting the environment. We support the development of a clear and consistent national approach to the management of PFAS and other emerging contaminants of concern in biosolids across Australia, for the protection of public health and the environment.

Source control, which includes import and manufacture bans on both PFAS and products containing PFAS, is the only effective way to ensure PFAS is effectively and permanently removed from our

ecosystems. ANZBP recognises and strongly advocates that a systems approach to management, including source control, is required, rather than relying on 'end of pipe' limits in isolation. Greater control over the importing and use of these chemicals is needed to remove the burden on communities having to pay for high cost of 'end of pipe' treatment and management. Preliminary findings from sewage catchment monitoring suggest that residential sources of PFAS are a significant portion of the load of PFAS into sewage treatment plants.

We note that PFOS has been banned for use in New Zealand since 2011, and that New Zealand biosolids has substantially lower concentrations in their biosolids (refer Appendix 1. This supports the notion that source control is correlated to improved outcomes for biosolids.

RECOMMENDATIONS

ANZBP welcomes the proposed phase-out of PFOS, PFOA and PFHxS (and their precursors) but urges DCCEEW to go further to help reduce PFAS in Australia. Specifically, ANZBP recommends:

1. The phase-out should be expanded to include all PFAS, i.e. any member of the class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom (e.g. PFBA, PFPeA, PFHxA, C9 -C14 Perfluoroalkyl carboxylic acids, Perfluoroalkyl sulfonamides and N:2 Fluorotelomer Sulfonic acids and any compounds that are detected by the total extractable organofluorine assay).
2. The ban should come into immediate effect (not wait until 1 July 2025), though ANZBP acknowledges transition arrangements may be required in practice, to allow time to source alternatives.
3. The phase-out should be expanded to include 'circumstances in which the article is already in use on or before 1 July 2025'.
4. The Federal government should maintain a public register of products known to contain PFAS. This should be regularly updated to include additional products as they are identified (see appendix 2 for an example of a product that should be on a PFAS-containing product register)
5. Legislation should be introduced requiring product labels to clearly state they contain PFAS so that consumers can make informed decisions about using PFAS-containing products.
6. The concentration of 'Unintentional trace contamination' in this guidance should be reduced from 25ppb to the limit of reporting. ANZBP notes that 25 ppb PFOS is:
 - 25 times higher than trigger limits for PFOS in soil in Qld's End of Waste code for biosolids (1 ppb)
 - 22 times higher than the draft PFAS National Environmental Management Plan 3.0 maximum allowable soil contaminant concentration for PFOS+PFHxS (1.1 ppb)
 - 5.5 times higher than the mean total PFOS concentration in blood serum samples from Australians in the 31 to 45 year age group (4.5ppb)ⁱ.

7. Clarification should be provided on whether the IChEMS Waste Codes or Product Codes apply to biosolids and biosolids-derived soil amendment products. In some jurisdictions biosolids is currently classified as a waste, however in future it may be classified as a product. Depending how they are applied, the proposed limits for products have the potential to limit beneficial reuse of biosolids on land once it is classified as a product. Ensuring consistency with other national and jurisdictional guidance and regulatory requirements for biosolids would be useful.

8. Accountabilities, roles and responsibilities for all parties to meet national PFAS targets should be defined. It is not clear how IChEMS impacts/influences other federal Agencies. For example, does this phase-out also impact the Australian Pesticides and Veterinary Medicines Authority's (APVMA's) processes for regulating PFAS in pesticides and how the Therapeutic Goods Authority (TGA) regulates PFAS in pharmaceuticals and personal care products?

ANZBP welcomes further discussion with DCCEEW on this important issue. Please contact ANZBP Advisory Committee Chair, Rob Tinholt, on rob.tinholt@water.co.nz or +64 21 284 7537, with any enquiries regarding this submission.

Yours sincerely,



Rob Tinholt

Chair, ANZBP Advisory Committee

Appendix 1 – NZ Data PFAS in Biosolids

NZ biosolids data - 2022 (all units g/kg)

PFOA		PFHxS + PFOS	
Site A	Site B	Site A	Site B
11	6.4	4	3
23	13	10	5
15	3.6	7	3
13	2.1	25	<2
15	2.8	10	3

Appendix 2: Example of Utility Source Control Action

A medium sized water utility in Australia proactively monitors their trade waste customers in key industries as identified in the PFAS NEMP 2.0, including laundries, textile manufacturers and metal finishers. The utility observed one of their customers to have higher than typical concentrations of PFAS compounds (by Total Oxidizable Precursor (TOP) assay) and discussed this with the customer. The customer investigated and found that two of the products they used in their process (a surfactant and a waterproofing agent) contained PFAS. The customer explained that the waterproofing agent is used in the manufacture of the fabrics and either leaves the premises bound to their fabric products or is recycled internally (not released to sewer). The surfactant ("Hostapal LF-AU") lists Perfluoroalkyl acrylate/polyurethane as an ingredient. The customer was able to find an alternate PFAS-free surfactant to use in their process and responsibly disposed of the remaining Hostapal LF-AU.

Hostapal LF-AU is still available for purchase and use in Australia, despite PFAS-free alternatives being available in the market. It will not be impacted by the proposed phase-out action as it was in use in Australia prior to 2025 and it contains other PFAS (other than PFOS, PFOA and PFHxS). It is disappointing that efforts to highlight Hostapal LF-AU as a specific source of PFAS in wastewater have not resulted in a national ban on its use in Australia.

Unfortunately, identifying specific trade waste PFAS sources is cost-prohibitive for larger water utilities that can have upwards of 30,000 trade waste customers. This means many trade waste customers are unlikely to know if they are using problematic products.

