Supplementary Submission – PFAS Inquiry

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Date: 6th September 2025

Introduction

FTA submits this supplementary paper to highlight the urgent risks of PFAS contamination in bio-solids generated by Australia's wastewater treatment plants, and to present a viable, locally developed solution for large-scale mitigation.

The Problem: Bio-Solids and PFAS

• Bio-solids contain PFAS "forever chemicals" that do not break down naturally.
• Wastewater treatment plants generate bio-solids continuously — supply is never-ending.
• These bio-solids cannot be stockpiled indefinitely, as volumes grow daily.
• They cannot be destroyed by high-temperature destruction (HTD) at scale, due to prohibitive cost and limited facilities.
• They cannot be safely repurposed for crop fertiliser or mulch, yet traditionally this is exactly what many water authorities have done.

This practice has contributed to the silent spread of PFAS into farmland, food chains, and community environments.

The Solution Pathway

To prevent further PFAS leaching while creating beneficial re-use outcomes, FTA proposes the following integrated solution using Ambiolock technology:

1. Immobilisation at the source – Ambiolock treatment locks PFAS into stable, inert form, preventing future leaching. Independent trials have demonstrated greater than 99% reduction in PFAS leaching.

2. Commercial Re-Purposing – Treated bio-solids can be safely repurposed into structurally inert materials, such as compacted road base and other base construction materials. This converts a contamination liability into a commercial product with ongoing utility.

3. Structural Integrity – Ambiolock-treated material retains structural strength, making it suitable for civil engineering applications.

Case Example – Melbourne Water Pilot

FTA and Ambiolock partnered with Melbourne Water to co-develop a bio-solids-to-road-base application. A draft contract was prepared, with mutual intent to reduce stockpiles, repurpose waste, and pursue a joint patent. At the final stage, Melbourne Water leadership

changes led to the project being cancelled. Funding was withdrawn, despite prior acknowledgments of PFAS presence in bio-solids.

This demonstrates both the potential for innovation and the barriers that small, local enterprises face in progressing practical solutions without targeted government support.

Next Steps: A National Pilot Program

FTA recommends the Committee consider:

1. Establishing a government-supported pilot trial with a major wastewater treatment plant, to demonstrate Ambiolock's application at scale.
2. Evaluating outcomes against three criteria:
   - PFAS immobilisation effectiveness (scientific verification of >99% reduction in leaching).
   - Commercial re-use viability (road base, structural materials).
   - Environmental and public health protection.
3. Providing a pathway for Indigenous-led enterprises like FTA to contribute to national PFAS remediation through partnerships with utilities.

Closing Statement

Australia's wastewater treatment plants generate bio-solids daily — and with them, an unrelenting stream of PFAS contamination risk. Traditional "solutions" such as crop fertiliser or mulch only recycle the problem into our communities and food chains.

FTA, in partnership with Ambiolock, stands ready with a practical, proven, and commercially viable solution. What is required now is leadership: to support a pilot program that demonstrates Ambiolock's ability to immobilise PFAS, repurpose bio-solids, and protect public health while creating economic value.

Submitted respectfully,

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