

Questions

What role does TOP Assay testing play in the testing programme:

- o On water
- o On soil
- o In any other respect

Are other forms of testing also being used, and in which case what?

Response to all

Defence does not conduct Total Oxidisable Precursor Assay (TOPA) testing as standard practice in the per-and polyfluoroalkyl substances (PFAS) Investigation and Management Program. The standard testing conducted as part of the investigations involves a suite of 28 PFAS compounds, which each of the laboratories involved in the PFAS program is capable of analysing and reporting on.

TOPA is offered by some Australian laboratories as a means of analysing PFAS compounds (precursors) that have the potential to transform into other determinable PFAS, including PFOS and PFOA. The analysis and review of these PFAS precursors can provide a contamination profile for the environment. However, there are uncertainties within the unstandardised analysis process and results interpretation, including laboratory results for TOPA being highly variable.

As a result, Defence relies on the analysis of the suite of 28 standard PFAS compounds enabling consistency across all properties under investigation, and providing data which can be directly compared against published screening guidance criteria.

Defence might undertake TOPA analysis as part of program testing at a particular site where it is required to evaluate the effectiveness of proposed remediation technologies and/ or if it is required by the local regulatory agency.

Following the release of the first Australian PFAS National Environmental Management Plan (NEMP) in February 2018, Defence will continue to assess its use of TOPA testing, including as the regulatory requirements and laboratory technologies and methods develop.