Guidance on Managing PFAS Contamination in Australia

Joytishna Jit (Joytishna.jit@crccare.com) (UniSA/CRC CARE Adelaide, Australia)
Bruce Kennedy (CRC CARE, Adelaide, Australia)
Ravi Naidu (ravi.naidu@crccare.com) (CRC CARE/GCER-UON, Newcastle NSW 2308, Australia)

Background/Objectives. In March 2017, CRC CARE published draft and interim risk-based guidance for the assessment, management and remediation of PFAS site contamination in soil, groundwater, surface water and sediment. Some human health and screening levels have been generated for the contaminants, together with considerable guidance on their application. Due to the persistence and difficulty of treating PFAS contamination, the guidance also recognizes that there is also considerable uncertainty about how such contamination can be managed and remediated. The guidance adopts a risk-based approach to the management and remediation of PFOS and PFOA contamination.

Approach/Activities. In 2014, when this project started, there were no recognized criteria in Australia for protecting human health and ecological systems, making it difficult to determine the risk posed by contamination. CRC CARE was advised by its Project Advisory Group to invited relevant stakeholders for consultation in the project. A large consultation forum was developed comprising regulators, industry and experts and assisted in the development of the draft guidelines for PFOS and PFOA in 2015. The guidance focuses on PFOS and PFOA, which are the most well understood PFAS, and are those most commonly encountered in the environment and in wildlife. Limited information is available regarding other PFAS compounds. In Australia, the TDI value for PFOS includes PFHxS, and therefore the CRC CARE guidance on HSLs states that PFOS and PFHxS exposures should be combined. There have also been number of government responses to PFAS site contamination issues in Australia, leading to the development of a nationally consistent National Environment Management Plan, which is underway. The CRC CARE guidance work will continue to ensure complementarity to the national processes (scheduled for completion in late 2017).

Results/Lessons Learned. The development of guidance for PFAS presented several opportunities and challenges. The development of guidance provides invaluable opportunities to integrate science and policy, taking into account the interests of stakeholders in government, industry and academia (and beyond). It is also a positive step forward towards national harmonisation of approaches, about which there has been much contention in the media in the past 24 months. The key challenge was the need to balance scientific and practical perspectives, given that knowledge regarding adverse effects on human health and the environment is still evolving. The guidance documents provide a collective view of the available science and application of Australian approaches on the development of human health and ecological based criteria. The guidance emphasises that exceedance of screening levels does not necessarily imply that the contamination poses an unacceptable risk, and the screening levels should not be used as remediation targets, as this could result in unnecessary remediation. Given the final stage of guidance development, it is important that the guidance is adopted by Australian jurisdictions. It is expected that the engagement of jurisdictions in the development of the guidance will pave the way for national adoption.