

Airborne PFAS – Where is the risk and do we have the tools to measure and manage it

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Abstract Id: 6

Submitted: February 26, 2021

Event: Emerging Contaminants Virtual Symposium 2021

Topic: PFAS

Keywords: PFAS, dust, airborne monitoring, occupational health

PFAS has been detected in household and defence site dust samples in previous studies. However, little attention has been paid to assessing worker exposure on PFAS impacted sites and/or high PFAS risk workplaces such as fire stations and hangars. Preliminary modelling suggests that over a typical 8-hour workday, a 78 kg human exposed to dust disturbed on a PFAS impacted site could exceed the current Australian PFOS TDI under a very specific set of circumstances. The modelled data shows that the risk posed by PFOA and PFOS in the contaminated land environment (undisturbed) is minimal, however a moderate risk is present in highly contaminated, highly disturbed scenarios such as source zone remediation activities. Further, activities such as industrial processes and firefighting present a high-risk scenario where PFAS residues may remain on surfaces and be disturbed by workers. A study of PFAS in inhalable dust using a developed in-house novel methodology was undertaken to demonstrate background levels of PFAS as a percentage of TDI. This data was then used to establish a baseline PFAS exposure in inhalable dust to determine exceedances of background PFAS in workplace inhalable dust.