wotton kearney

Client Update

Shaping the future of insurance law

PFAS – A chemical of concern

JUNE 2021

AT A GLANCE

- PFAS has been widely used since the 1940s in industrial and household applications.
- These 'forever chemicals' do not break down and accumulate in the environment and human bodies.
- PFAS has now emerged as a global contaminant of concern, giving rise to class actions and other major litigation.
- State and Federal Governments in Australia have increased their regulation of PFAS to prevent / manage PFAS-related contamination.
- This article examines the practical impacts of PFAS contamination for insurers.

INTRODUCTION

Per- and Polu-fluoroalkyl Substances (**PFAS**) are a group of man-made chemicals that have been extensively used since the 1940s. PFAS are resistant to grease, oil, water and heat and therefore have been used in a range of household and industrial products, such as non-stick cookware, stain and water resistant fabrics, coatings, cleaning products, food packaging and firefighting foams.

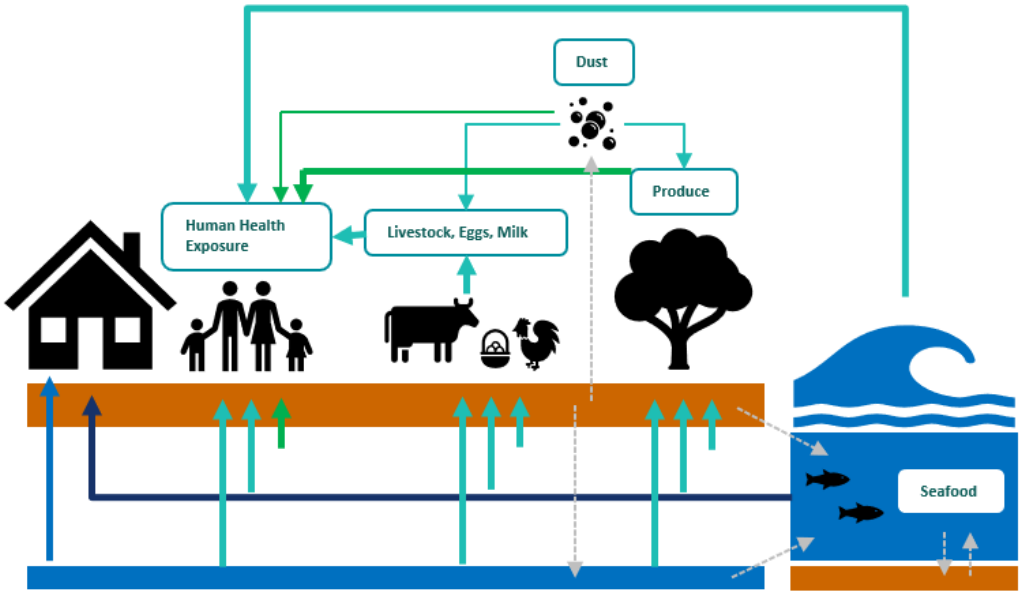
The most prevalent PFAS chemicals (PFOS and PFOA)[1] have been voluntarily phased out by industry, although they are still persistent in our environment due to their chemical properties. Often referred to as 'forever chemicals', PFAS do not break down, are highly resistant to physical, chemical and biological degradation and can accumulate over time in the environment and the human body. Since the early 2000s, there have been developing concerns that PFAS exposure could lead to adverse human health effects, such as increased cholesterol levels, reduced kidney function, increased rates of testicular and kidney cancer, altered immune response, altered thyroid and sex hormone levels, and lower birth weights.[2]

[1] Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). See also the United States Environmental Protection Agency's "*Technical Fact Sheet - PFOS and PFOA*", https://www.epa.gov/sites/production/files/2017-12/documents/ffrrofactsheet_contaminants_pfos_pfoa_11-20-17_508_0.pdf.

[2] Possible human health effects are based mainly on evidence from animal studies, with further research being conducted into establishing the causal link between PFAS exposure and human health effects. See the Australian Government's "*Expert Health Panel for PFAS*" report published on 7 May 2018 for a summary of the Australian and international research, https://www1.health.gov.au/internet/main/publishing.nsf/Content/C9734ED6BE238EC0CA2581BD00052C03/$File/expert-panel-report.pdf.

PFAS can be released into the air, soil and water. Because of its chemical structure and its high solubility in water, PFAS can readily leach from soil to surface and groundwater and can move long distances in the environment, being transferred from organism to organism along the way.

Figure 1 below provides a visual demonstration of the pathways for PFAS exposure, which can ultimately affect human health. These exposure pathways were considered in calculating health investigation levels for soil in Australia and New Zealand.



LEGISLATIVE/REGULATORY FRAMEWORK

International Law

In 2009, PFOS and PFOS-related chemicals were listed on the Stockholm Convention on Persistent Organic Pollutants (**Stockholm Convention**). Countries that have ratified the Stockholm Convention have agreed to eliminate or reduce environmental releases of persistent organic pollutants (**POPs**).[3] Australia ratified the Stockholm Convention in 2004 and agreed to the control of the 12 POPs listed at that time (which did not include PFOS). Australia is still considering whether to ratify the listing of PFOS and its related chemicals to the Stockholm Convention and whether it will accept international standards for the management of these chemicals.

Australia is also a party to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides (**Rotterdam Convention**). Countries that have ratified the Rotterdam Convention and which export chemicals identified as hazardous by the Convention (including some PFAS chemicals) must ensure that their local exporters do not export to other signatory countries, without first obtaining appropriate authorisation.

Australian Law

In January 2018, national guideline levels for PFAS in the environment and site investigations for PFAS compounds were first provided in the PFAS National Environment Management Plan (**NEMP**).

Whilst the NEMP provides nationally consistent standards, there has still been a lack of coordination between different agencies and all levels of government in Australia. This has led to the formation of an Australian Government PFAS taskforce and the implementation of an Intergovernmental Agreement on a National Framework for Responding

[3] The POPs targeted for elimination, restriction and measures to prevent unintentional releases are listed in the annexes to the Stockholm Convention, http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx.

to PFAS Contamination,[4] which are designed to improve collaboration, cooperation and consistency in the PFAS response.

The Australia Industrial Chemicals Introduction Scheme (**AICIS**) was introduced on 1 July 2020. Importers and manufacturers of PFAS must register with AICIS, before they can lawfully introduce these chemicals into Australia.

> ***"PFAS has been found in every corner of the globe. It is virtually present in the bodies of every human. It's found in fish deep in the sea, and birds flying high in the sky"***
>
> **Erin Brokovich, 2021[5]**

USE OF PFAS IN AUSTRALIA

Even though PFAS have not been manufactured in Australia, there are a number of PFAS contaminated sites around Australia resulting from its use in a wide range of consumer products and in industrial applications, in particular through the use of firefighting foam.

In Australia, firefighting foam that contains very high levels of PFOS have been used extensively as a fire suppressant at airports, defence sites and fuel and dangerous good storage facilities (for fire training and actual firefighting purposes). South Australia (2018) and Queensland (2019) have banned all PFAS firefighting foam, while New South Wales (2021) has implemented a limited ban restricting such use only in preventing or fighting catastrophic fires.

In Queensland, more than 60 sites are believed to be contaminated by PFAS, including a number of high profile sites set for the development of major residential and commercial precincts.[6] In New South Wales, the state Environmental Protection Authority has implemented a program to assess the legacy of PFAS use and currently lists 49 sites where it is likely that large quantities of PFAS have been used.[7]

The Federal Department of Environment and Energy recently commissioned a report titled *Hazardous Waste in Australia 2019.* Whilst the report states that "robust publicly available estimates of the total quantity of PFAS contaminated soil present in Australia have not yet been made", it predicts that PFAS contaminated soil is likely to arise in large quantities over the next decade, given the extensive use of aqueous film-forming foam and the number of sites currently being investigated.[8]

PFAS AND HEALTH IMPACTS

The Federal Department of Health (and other government agencies) states that "PFAS have not been proven to cause any specific illness in humans".[9] Despite this, it recommends that human exposure to PFAS be minimised, given the ability for PFAS to persist in humans and the environment.

---

[4] The Intergovernmental Agreement appends a PFAS contamination response protocol, PFAS information sharing, communication and engagement guidelines and a national PFAS position statement applicable to the federal, State and Territory governments, https://www.coag.gov.au/about-coag/agreements/intergovernmental-agreement-national-framework-responding-pfas-07feb20.

[5] Erin Brokovich, "*… toxic chemicals threaten humanity*", *The Guardian*, 18 March 2021.

[6] For example, the Bulimba Barracks site located on the Brisbane riverfront.

[7] See "*The NSW Government PFAS Investigation Program*", the New South Wales Environmental Protection Authority, https://www.epa.nsw.gov.au/your-environment/contaminated-land/pfas-investigation-program.

[8] Blue Environment Pty Ltd, "*Hazardous Waste in Australia 2019*", https://www.environment.gov.au/system/files/resources/b4335773-4e09-4d87-8648-592b2b94d2d9/files/hazardous-waste-australia-2019.pdf.

[9] See the Australian Government's Department of Health fact sheet publication, "*Per- and Poly Fluoroalkyl Substances (PFAS) Health Effects and Exposure Pathways*", https://www1.health.gov.au/internet/main/publishing.nsf/Content/44CB8059934695D6CA25802800245F06/$File/health-effects-exposure-factsheet.pdf. See also the Australian Government's Department of Defence "*PFAS Investigation & Management Program*", https://www.defence.gov.au/Environment/PFAS/FAQs.asp#Q4.

There are a number of studies underway in Australia (and around the world) looking into the health effects of PFAS.

In May 2018, a national Expert Health Panel for PFAS conducted a comprehensive literature review of the available evidence and found "fairly consistent reports with several health effects" from PFAS exposure, though it identified the need for further, stronger research into the causal mechanisms. Flowing from those findings, a PFAS epidemiological study has been commissioned to investigate PFAS exposure levels and potential health effects in areas of known contamination in Williamstown in New South Wales, Oakey in Queensland and Katherine in Northern Territory.[10] The outcomes of that study (due in mid-2021) are expected to be broadly applicable to other identified PFAS contaminated sites in Australia.

PFAS-RELATED LITIGATION

PFAS contamination is spawning a variety of class actions and major litigation in Australia. For example:

- Since November 2016, residents from Williamtown in New South Wales, Oakey in Queensland and Katherine in the Northern Territory have brought separate class actions against Commonwealth of Australia. The residents alleged that groundwater was contaminated following the use of PFAS firefighting foams at nearby defence facilities, causing loss in property values. The class actions were together settled for $212.5m.
- Further class actions are currently being investigated / pursued at other defence facilities across Australia.[11] Most recently, an indigenous community brought a class action against the Commonwealth of Australia, alleging loss of property value, together with cultural and spiritual loss, from PFAS contamination at the Jervis Bay Territory in New South Wales.[12]
- In April 2017, approximately 22,000 litres of PFAS firefighting foam leaked from a Qantas hangar into the Brisbane Airport waterways and the Brisbane River. Significant emergency response and clean-up costs were incurred by Qantas. Compensation was also paid to the commercial fisheries impacted by a public health notice advising against consumption of locally caught seafood. Qantas subsequently commenced a $53 million lawsuit against global building facilities manager JLL and other subcontractors for causing the incident.[13]
- In October 2017, Brisbane Airport Corporation (the operator/lessor of Brisbane Airport) commenced a lawsuit against Airservices Australia (the provider of aviation firefighting services) for legacy PFAS contamination (involving PFOS) from fire training activities. A key issue in that litigation has been distinguishing – via chemical signature analysis – pre-existing contamination from more recent spill events and different PFAS products.

PFAS claims in Australia have presently focussed on remediation costs (from specific spill events) and diminution in property values (from legacy contamination). This type of litigation is expected to increase, given that PFAS regulation has only been introduced in Australia since 2018 and older site investigations may not have adequately investigated such contamination issues.

Claims for personal injuries arising from PFAS exposure may also develop in Australia, based on the United States experience. Most notably in 2017, a $671 million settlement was achieved on behalf of more than 3,500 plaintiffs who suffered alleged illnesses and diseases linked to PFAS pollution from a DuPont chemical manufacturing plant in West Virginia, United States.[14] DuPont is an American chemical manufacturer that manufactured Teflon and other nonstick products. More recent lawsuits have seen a combination of property damage and personal injury claims being litigated in the same proceedings.[15]

---

[10] The study has been commissioned by the Australian Government's Department of Health and is being conducted by the Australian National University - Research School of Population Health. See https://rsph.anu.edu.au/research/projects/pfas-health-study.

[11] A class action has been commenced in respect of PFAS contamination from Defence facilities at Bullsbrook (WA), Darwin (Northern Territory), Townsville (Queensland), Wagga Wagga and Richmond (New South Wales), Wodonga (Victoria) and Edinburgh (South Australia).

[12] *Wreck Bay Aboriginal Community Council & Anor v Commonwealth of Australia, Federal Court of Australia Proceeding No. NSD70/2021*.

[13] *Qantas Airways Ltd v Jones Lang LaSalle (NSW) Pty Ltd & Ors, Supreme Court of New South Wales Proceeding No. 2019/86013*.

[14] *IN RE: E.I. du Pont de Nemours and Company C-8 Personal Injury Litigation* MDL No. 2433, being a multidistrict litigation centralised into the United States District Court for the Southern District of Ohio, Eastern Division.

[15] For example, in about January 2021, a class action against Tyco Fire Products was settled in respect of PFAS contamination in private drinking wells located in northeastern Wisconsin, United States. There were 271 class members with a total settlement of $17.5 million, with $15 Million reported to go towards property damage and $2.5 Million for plaintiffs suffering from testicular cancer, kidney cancer, ulcerative colitis, thyroid disease and preeclampsia.

THE KEY ISSUES FOR INSURERS

The rapidly developing regulatory landscape in respect of PFAS, the growing number of lawsuits and the big settlements being reached are creating significant concern within the insurance industry.

Coverage

Expenses related to PFAS claims can potentially be covered by a pollution policy, unless there is a specific exclusion.

Where pollution programs cover multiple years, if there is a regulatory change during the policy period that classifies something as a contaminant that was not considered one before, the policy could respond to claims triggered by that new contaminant – even if underwriters were not aware of the risk at the time the initial policy was underwritten.

Site investigations

As PFAS has been in use since the 1940s and due to its persistence in the environment, site history investigations may need to go back several decades to identify the risk of PFAS contamination. Insurers may also need to consider the use of surrounding properties when assessing the risk of PFAS contamination for a particular property, given the ability for PFAS contamination to travel via groundwater.

Types of sites that may merit further investigation – or the application of PFAS exclusions – include:

- fire stations or sites that have been subject to past fires or fire-fighting training exercises (e.g. defence bases and airports)
- textile manufacturing
- paper mills
- chemical manufacturing
- landfills, and
- metal plating.

Identifying the PFAS contamination

Another key issue for insurers is that it will be difficult to identify the source of PFAS contamination and pinpoint when it arose, due to PFAS's ability to travel and their widespread use since the 1940s. Difficulty in identifying the source of pollution will also make it challenging to apply retroactive date exclusions.

As PFAS are found at trace levels in most locations, insurers will also need to consider the question of betterment due to the remediation of pre-existing pollution when cover is triggered by a pollution incident, such as the release of firefighting foam.

Policy limit

Remediating PFAS contamination can be highly challenging and expensive, creating a significant exposure for insurers.

Remediation actions, including initial clean up actions, rarely come cheap. Adding to those are the associated costs, such as the environmental consultants, who assist with responding to regulatory investigation and clean-up notices, and with developing detailed remediation plans. All of these costs adds up to very significant costs being claimed against and eroding on the policy limit.

For insurers, the other issue with remediation is that post-remediation monitoring is likely to extend to many years because of the nature of PFAS. This makes it difficult to close out the remediation.

Need to know more?

For more information please contact any of the authors below or our Environmental Liability team.

Download team card.

Charu Stevenson
Partner, Sydney
T: +61 2 8273 9842
E: charu.stevenson@wottonkearney.com.au

Raisa Conchin
Partner, Brisbane
T: +61 7 3236 8702
E: raisa.conchin@wottonkearney.com.au

Ronald Mok
Special Counsel, Brisbane
T: +61 7 3236 8712
E: ronald.mok@wottonkearney.com.au

Sarah Mellowes
Senior Associate, Sydney
T: +61 2 8273 9931
E: sarah.mellowes@wottonkearney.com.au