Caltex Kurnell: PFAS investigations

Information for local residents

Caltex is investigating potential PFAS (per- and poly-fluoroalkyl substances) contamination stemming from the historical use of fire-fighting foams at its Kurnell refinery. Sampling has shown PFAS detections on and offsite. Further investigations are ongoing to help determine the extent of the contamination and if there are any ways local residents might come into contact with these chemicals.

What are PFAS?

PFAS (per- and poly-fluoroalkyl substances) are a group of manufactured chemicals that include perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS).

Due to their fire retardant, waterproofing and stain resistant qualities, these chemicals have been widely used in many industrial and consumer products worldwide. PFAS can be found in food packaging, non-stick cookware, fabric, furniture and carpet stain protection applications, clothing, and some types of fire-fighting foam.

PFAS are very stable chemicals that bioaccumulate, do not easily break down, and can persist for a long time in the environment. These PFAS are being phased out around the world.

Are PFAS a health risk?

PFAS are an emerging contaminant, with international research yet to fully determine health effects related to exposure.

The Commonwealth Department of Health advises there is currently no consistent evidence that exposure to PFAS causes adverse human health effects. However, based on the evidence from animal studies, potential adverse health effects cannot be excluded.

Much of the research on humans has been done with people who were exposed to relatively high levels of PFAS through their work. Studies on PFAS workers have looked for effects on cholesterol levels, male hormones, heart disease, liver changes and other effects, including cancer. These studies have not consistently shown that PFAS exposure is linked to health problems.

A factsheet providing more information on PFAS and human health is available from the Commonwealth Department of Health website at www.health.gov.au.

Why is testing at Kurnell needed?

As part of the state-wide PFAS investigation program, the EPA is working with organisations with significant historical use of PFAS-containing fire-fighting foams.

In 2016, the EPA required Caltex to undertake a sampling and analysis plan

to assess and soil, surface water and groundwater contamination associated with the former use of fire-fighting foams at the Kurnell site.

These investigations, which have been ongoing, are assisting in determining the extent of the contamination and any ways through which local residents might come into contact with these chemicals.

Are there any findings available?

Investigations at Kurnell site indicate PFAS levels both on and offsite.

The detection of PFAS in the area is not unexpected given the past use of PFAS-containing firefighting foam at the site.

PFAS has also been used in many domestic and industrial products and background levels may also be present from these other sources.

The presence of PFAS in the environment does not necessarily mean there is a human health risk. It is also important to assess if there are pathways through which people might come into contact with the chemicals.

The EPA is working with other NSW Government agencies to better understand the potential risks posed to human health and the environment from PFAS.

Dietary advice for fishers in Botany Bay

There are a number of potential contributors of PFAS to Botany Bay. As Botany Bay is a popular recreational fishing area, the NSW EPA worked with the Department of Primary Industries - Fisheries to investigate aquatic biota in Botany Bay. As a result, the NSW Government PFAS Taskforce released dietary advice for the consumption of seafood from Botany Bay/Georges River, in December 2017. Refer to the EPA factsheet and EPA website for details.

What will happen next?

In 2018, Caltex will conduct further investigation works including more onsite and offsite sampling and monitoring.

Caltex will also update existing information as to how residents use groundwater, including bore water on their property.

This will help to identify any potential health impacts for the surrounding areas and local community.

If required, the NSW Government will then be able to provide individual tailored advice for residents, to help them manage any potential PFAS exposure pathways.

The EPA and Caltex will work closely with stakeholders to keep the local community informed of the investigation process, and aware of any key developments.

What is the EPA's role?

The EPA is leading a state-wide PFAS investigation program to better understand the extent of PFAS use and any resulting contamination in NSW to determine how best to manage any issues in the future.

The program takes a precautionary approach and will help the EPA to be better prepared to respond if health or environmental impacts become known.

The EPA is working closely with all stakeholders, including Caltex, Sutherland Shire Council, NSW Department of Primary Industries, NSW Health, and NSW Food Authority, to ensure timely and robust investigations.

The EPA regularly attends quarterly community presentations held at Caltex's Kurnell facility.

This collaborative approach will help to ensure an appropriate, scientific and risk-based resolution is adopted throughout the investigation, and to prioritise the protection of the environment and community.

Where can I find out more?

More information on PFAS is available at www.epa.nsw.gov.au/MediaInformation/pfas investigation.htm.

If you have any questions or concerns, call the NSW Environment Line on **131 555.**

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