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Exclusive: Toxic chemical conflict on Defence sites

Consultants paid millions by Defence helped revise chemical safety standards that could shield the department from multiple compensation claims.



CHRIS RAY



Firefighters at the Williamtown RAAF base during a simulated drill.

LACW Katherine Pearson

Australia's environmental health authorities sparked a public outcry in June when they went against international trends to issue weaker safety standards for carcinogenic firefighting chemicals. These have devastated communities near contaminated military airfields in New South Wales and Queensland.

Now *The Saturday Paper* can reveal three companies that had won multimillion-dollar Defence Department contracts helped to set the controversially lower standards.

The consultancy firms joined government health officials at an invitation-only workshop to draft new safe limits for perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), both widely used on defence bases for almost 50 years. They are increasingly linked to cancer, liver and thyroid disease, immune suppression and reduced fertility.

The April 5 workshop set “tolerable daily intake” levels for both chemicals at 75 times higher than acceptable limits in the United States. Safe drinking water limits were set at more than 78 times the US level.

At the workshop were Golder Associates, a global environmental consultancy; Newcastle-based CRC Care, part owned by the Defence Department; and the Melbourne company ToxConsult.

Despite having won more than \$104 million in defence contracts between them, none of the companies was required to declare a conflict of interest. A fourth company, not known to have worked for defence, also took part.

The relaxed guidelines could help defence reduce potential legal liability for contamination and clean-up costs, lawyers say. This is a serious issue for the Defence Department.

Defence already faces class-action lawsuits from hundreds of residents close to Williamtown RAAF base, near Newcastle, and the Army Aviation Centre at Oakey in southern Queensland’s Darling Downs, where contamination has crunched property values, threatened the livelihood of fishermen and farmers, and left locals fearing for their health.

Thousands more people may be affected when defence finishes current investigations into water and soil contamination outside a further 16 military bases in all mainland states and territories. Potential federal government liability extends to civil airfields with PFOS/PFOA contamination. This contamination is confirmed or suspected at 36 sites, according to Airservices Australia.

Disease-based water standards

Australia’s new safety limits set at the workshop for the environmental health standing committee, known as enHealth, are based on 2008 European standards that are considered outdated even by one of their co-authors.

Dr Philippe Grandjean, adjunct professor of environmental health at the Harvard School of Public Health, worked on those European standards but is scathing of the Australian committee’s decision.

“In my mind, the new Australian water limits are not health-based. They are disease-based,” he tells *The Saturday Paper*. “They are certain to harm people who drink the water over a long period.”

Grandjean says countries such as Germany and Sweden now apply tougher limits than the 2008 European Food Safety Authority recommendations, and the EFSA and the European Commission are

preparing new guidelines.

“In the US, PFOA contamination caused by drinking water at levels similar to Australia’s so-called safe limit was studied by a team of international scientists, and they concluded that the exposure was linked to a variety of diseases, including some cancer forms,” Grandjean says.

“Long-term exposure to the new Australian drinking water standard for PFOA would cause increases in serum concentrations by at least hundredfold above those commonly seen in people with background exposures.”

Government tender records show Golder Associates won defence contracts worth more than \$69.2 million between 2007 and 2015, including work for the RAAF at Williamstown.

CRC Care was awarded defence contracts worth almost \$35 million between 2005 and 2015, while ToxConsult was paid an unspecified sum for advice and risk analysis as a registered defence supplier between 2014 and 2016.

The companies were at the workshop “to provide enHealth with expert advice and information to assist enHealth’s deliberations” and were not required to declare a conflict of interest, said a spokeswoman for the federal health department. EnHealth comprises federal, state and territory environmental health officials.

Conflict of interest

Dr Mariann Lloyd-Smith, a senior adviser to the community-based National Toxics Network, says companies in receipt of defence contracts should have declared a conflict of interest.

“I don’t believe that beneficiaries of contracts from the polluter should have taken part,” says Lloyd-Smith, who has represented non-government organisations on several international chemical committees and wrote a conflict of interest code for one of them.

“The Americans spend years updating their standards and Australia holds a one-day workshop attended by a select few and picks an eight-year-old standard off the shelf.”

A senate inquiry in May blasted defence’s response to the contamination as “slow and reactive” and “seemingly focused on limiting its liability rather than addressing the needs of residents”.

NSW Greens senator Lee Rhiannon, who initiated the inquiry, agrees that companies doing defence work should not be allowed to help decide acceptable limits on pollution caused by defence operations.

EnHealth’s recommendations were endorsed by the Australian health protection principal committee, made up of chief health officers and a Defence Department representative, on June 15.

This decision reversed Australia’s practice of adopting standards in line with those set by the US Environmental Protection Agency. The EPA drastically toughened its PFOS and PFOA guidelines with stronger health warnings just three weeks before the Australian decision.

Joshua Aylward of Shine Lawyers represents Oakey residents affected by a 24-square-kilometre groundwater contamination plume still spreading out from the local army helicopter base. He says involvement of defence contractors in drawing up safety standards will further erode public confidence in the official response to the contamination.

“These corporations should have been absolutely upfront and disclosed their conflicts of interest,” he says.

“Weaker safety standards could be seen as an attempt to reduce the numbers of properties potentially affected and the numbers of people the government has to compensate. The lower the bar for so-called acceptable levels of these contaminants, the better the outcomes for the government.”

The Saturday Paper is not suggesting any of the consulting companies acted inappropriately.

A written statement from Golder Associates claimed a company representative told workshop organisers about Golder’s work on defence projects “before receiving an invitation” to the workshop. A Golder spokeswoman refused to elaborate.

The managing director of CRC Care, Professor Ravi Naidu, said no conflict of interest existed because “enHealth asked us to provide a briefing on what we were doing rather than seek our support for what they were doing”.

Defence is one of 14 government and industry shareholders in CRC Care. Naidu said CRC Care was under contract to remediate contaminated defence land but had not received defence funding for work on PFOS/PFOA since about 2010.

“We respect what enHealth has come up with but we also recognise the US and Danish EPAs have tougher standards. I don’t believe our representative expressed a view on what the reference value [tolerable daily intake] should be,” he says.

“Defence are not putting any pressure on us to do anything. They provided resources for us to come up with new technologies for remediation of contaminated sites.”

Dr Roger Drew, of ToxConsult, says questions should be directed to the enHealth workshop organisers “as it involves government policy matters”. He was hired to advise defence on a health risk assessment at Williamstown and Oakey that would “inform defence’s response to PFOS/PFOA contamination nationally,” according to defence evidence to the senate inquiry.

In May, a Victorian parliamentary inquiry criticised state regulators for relying on Drew’s advice in their response to perfluorinated chemical pollution at the Country Fire Authority’s Fiskville training centre. The inquiry found that perfluorinated chemicals were likely to have caused cancers among firefighters.

“Dr Drew was an expert toxicologist who was, at all relevant times, advising, and being paid by, the party that caused the pollution in the first place, the CFA,” the committee said.

“The committee accepts that Dr Drew is an eminent toxicologist and does not question the advice he gave to the Chief Health Officer. However, he was being paid by the CFA to provide his expertise, which

raises concerns of a perceived conflict of interest that should have been avoided.”

The Saturday Paper does not suggest Dr Drew acted inappropriately.

Drinking water guidelines

EnHealth’s new tolerable daily intake levels are 0.15 micrograms per kilogram per day for PFOS and 1.5 mcg/kg/d for PFOA – up to 75 times higher than the 0.02 mcg/kg/d deemed safe by the US EPA.

EnHealth’s drinking water guidelines – 0.5 micrograms per litre for PFOS and 5 mcg/l for PFOA – are way above the 0.07 mcg/l guidelines adopted by the US.

EnHealth says its higher drinking water limits apply only to residents on contaminated land and are not intended as a guide for water utilities. That distinction produced widespread anger in the farming town of Oakey and semi-rural community of Williamtown, where families have relied on bore water for cooking, bathing, watering crops and livestock, and, sometimes, drinking.

Now health authorities warn residents not to use bore water for drinking or cooking and to guard against “incidental swallowing” of groundwater by children while showering and swimming. Some households are forced to depend on defence-supplied bottled water while waiting for town-water connections.

Water utilities follow drinking water guidelines issued by the National Health and Medical Research Council. These make no reference to PFOS and PFOA and it is unclear how and when these chemicals will be included.

NHMRC protocols state that in the absence of Australian guidelines for a particular chemical, standards from New Zealand, Canada and the US should be followed in that order.

The supplier for Newcastle and the lower Hunter region, Hunter Water, shut three of its pumping stations rather than risk contamination from Williamtown RAAF base entering the supply.

Hunter Water’s chief customer service officer, Jeremy Bath, says it will not draw from bores that exceed US EPA limits, even if they are declared safe under enHealth guidelines.

“We will continue to test for PFOS and PFOA using US EPA guidelines until we are advised by our statutory regulator, NSW Health, of an applicable national guideline,” he says. “I expect every major Australian water utility would use the US guidelines.”

Food Standards review

Release of enHealth’s new drinking water standards produced an outcry in the final week of the election campaign, forcing the Turnbull government to promise an independent review. At the beginning of this month, it appointed University of Queensland Adjunct Professor Andrew Bartholomaeus, formerly of Food Standards Australia New Zealand and the Therapeutic Goods Administration, to review enHealth’s guidelines.

Bartholomaeus also does contract work for federal government agencies including the health department through his private company, BartCrofts Scientific Services. But even if he endorses enHealth new standards on PFOS and PFOA, they are not necessarily the final word: enHealth said its “interim” guidelines would apply until Food Standards Australia New Zealand could review them.

FSANZ’s manager for product safety standards, Dr Leigh Henderson, said it would come up with its own recommended acceptable intake levels for PFOS and PFOA in “four to five months” and send them back to enHealth for “peer review”.

Meanwhile, Mariann Lloyd-Smith says the Williamstown residents she advises are “understandably disgusted” that Australia has raised allowable pollution limits when the rest of the world is lowering theirs. “It’s a shocking and extremely disappointing step backwards for our environmental health standards.”

TAGS:

perfluorooctane sulfonate PFOS perfluorooctanoic acid PFOA enHealth Golder Associates CRC Care Defence Department ToxConsult Williamstown RAAF Army Aviation Centre Oakey Philippe Grandjean Harvard School of Public Health Mariann Lloyd-Smith National Toxics Network Environmental Protection Agency EPA Lee Rhiannon Joshua Aylward Shine Lawyers Ravi Naidu Roger Drew NHMRC FSANZ Leigh Henderson

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