

PFAS – Is It The New Asbestos?

Transcript

Speaker	Dialogue
Isabelle Laborde	<p>Hello everyone and welcome to this afternoon’s instalment of our BCLP Environmental Bulletin Series. I’m Isabelle Laborde from BCLP Environmental Team and I’ll be asking the questions today, with answers coming from my colleagues Aidan Thomson and Sam Levy. If anyone has any questions throughout the session, please do ask them in writing using the Q&A function at the bottom of your screen. We will reply in writing after the session. So let’s get started.</p> <p>We’re here today to talk about PFAS, in the context of real estate transactions. They’re a large family of thousands of synthetic chemicals. They all contain carbon fluorine bonds, which are one of the strongest chemical bonds in organic chemistry. Aidan what are these for?</p>
Aidan Thomson	<p>Well Isabelle, PFAS has been used widely as they have unique desirable properties. For instance, they’re stable under very intense heat, and many of them also act as water or grease repellents. And for these reasons, PFAS has been used to make products for aerospace and defence, automotive, aviation, textiles, leather goods, construction, household products, electronics, firefighting, food processing, medical; it’s a very, very long list.</p>
Isabelle Laborde	<p>So what are the problems with it?</p>
Aidan Thomson	<p>Well, in essence, the stability that makes them so useful also means that they resist degradation if they escape into the environment.</p>
Isabelle Laborde	<p>So, they will be around for hundreds of years?</p>
Aidan Thomson	<p>Oh yeah, easily, or more.</p>
Isabelle Laborde	<p>And how would they escape into the environment?</p>
Aidan Thomson	<p>Well that’s gonna happen from a combination of direct and indirect sources. For example, directly from professional and industrial facilities that make or use the PFASs. And also indirectly, during the wear-and-tear or the disposal of consumer products like waterproof clothing, cosmetics and food contact materials.</p>
Isabelle Laborde	<p>But what are the risks when PFAS is in groundwater, surface water or our soil?</p>
Aidan Thomson	<p>Well, unlike a lot of chemicals which degrade over time, the problem with PFAS is that they just accumulate and accumulate eventually ending up everywhere. And even if all new releases of PFAS cease tomorrow, what’s already in the environment would continue to be present for a very, very long time indeed.</p>

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Isabelle Thomson	Now that sounds like bad news.
Aidan Thomson	Yes, well humans could be exposed to them every day from the foods they eat, the water they drink, and the places that they live and visit. And the exposure will just accumulate and accumulate and certain PFASs are known to accumulate in the bodies of living things and cause toxic effects. Other PFASs are toxic for reproduction and can harm development of fetuses. Several PFAS's have been demonstrated to cause cancer and some PFAS are also suspected of interfering with human hormonal systems. But testing in that area is ongoing.
Isabelle Laborde	Well that sounds mildly alarming.
Aidan Thomson	Well, you can't be too alarmed yet. Lots of things have been a concern in the past, but have been investigated and evaluated and found not to be the concern once thought, or alternatively, they've been controlled without too much bother.
Isabelle Laborde	But, on the other side of the coin, we know this is already widespread in the environment and there have been substances like asbestos, lead in petrol, CSCs and so on.
Aidan Thomson	Right, yes that's correct. It's too early to say really how this will progress, but there are possibilities.
Isabelle Laborde	So Sam, what should be done about PFAS?
Sam Levy	Well, we start by making sure that new PFAS isn't created or used in products. And that cuts off any new prime resources. Then, it's a question of removing secondary sources from circulation by either products into which PFAS has been used. And then finally we try and remove the PFAS that has already escaped into the environment. For example, in soils and water.
Isabelle Laborde	Okay, so let's take that step-by-step. First of all, what are we doing to control the primary sources?
Sam Levy	Well, to put simply, you can ban or control its manufacture and/or its use.
Isabelle Laborde	Are we well on with that?
Sam Levy	Well, since 2009, one PFAS, called confusingly, "PFOS", has been included in the International Stockholm Convention to eliminate use. In connection with the Stockholm Convention, PFOS has already been restricted in the EEU for more than 10 years under the EEU's Persistent Organic Pollutions Regulation, that's the "POPs" regulation for short. And that directly applies in all the EU member states which have, and we've also retained that regulation post-BREXIT.

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	<p>In addition, the Stockholm Convention also regulates the global elimination of another PFAS, again confusingly called "PFOA." And PFOA has been banned under the POPs regulation since the 4th of July last year.</p> <p>Other P-factors are being considered for inclusion in the Stockholm Convention and consequent global elimination. The EU is starting to move faster than the international level moves. But with plenty fresh restrictions now being proposed under the EU's Chemicals Regulation, which is "REACH" and that would tell further types of PFAS.</p> <p>The clear message is that a lot of PFASs which as I said encompasses many different types are not really understood. Some parts have been singled out, but the exact dangers of the majority remains very much a mystery. So, expect more bans, more controls creeping in as we go forward.</p>
Isabelle Laborde	And what about the second thing you mentioned – removing secondary sources from circulation? Is there any move for example, to take precautions regarding things like waterproof fabrics?
Sam Levy	Not yet, but that is possible as we move forward. As we've seen with things like the measures to control the risk from asbestos in buildings.
Isabelle Laborde	Okay and finally, what about the prior thing, cleaning of the PFAS that has escaped into the environment? Are we doing anything about that?
Sam Levy	Not in the UK, in a sort of sustained or comprehensive way, not yet anyway.
Isabelle Laborde	Well, I'll just say that's probably because we don't really know about PFAS yet, and the danger posed by the various types to justify remediation?
Sam Levy	Yes, that's right, although for certain types there is information available. And if it looks as though danger levels exposure were being reached, remediation could be justified. But in general terms, much more information and understanding is required before any remediation can sensibly be proposed.
Isabelle Laborde	And I believe there's been a recent environment agency report on this?
Sam Levy	<p>Yes, yes, the EA has reported on the current science on PFAS in the UK and that report was issued near the end of August. It repeats basically what I've just said about us being very light on knowledge at the moment. About where PFAS is currently being used in manufacturing, where it's been used and where it's present in the environment at the moment. It says that the lack of knowledge is a barrier to effective risk management, but it does hint that work is now being done in earnest to close these information gaps. And it makes clear that there's no doubt that PFAS is present in our environment.</p> <p>There is now a multiphase project to enhance knowledge of source sites as well. So as the old fire stations, waste water treatments and landfills are the focus at the moment, along</p>

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	with manufacturing of textiles, leather, carpets, paper and metal plating. And there's an ongoing program of associated water and other environmental monitoring on top of them.
Isabelle Laborde	Is that to collect data to try and figure out what the risk to human and the environment might be and what sort of remediation [inaudible] laws might be sensible?
Sam Levy	Yes, ultimately that's what it boils down to, that's right.
Isabelle Laborde	Okay, so Aidan if you had to remediate soil or water that was contaminated with PFAS, how would you do it?
Aidan Thomson	Well, it can be done, but a lot of the remediation techniques that are commonly used aren't really available owing to the sheer unreactivity of these substances – they don't naturally degrade. And there's a very good 2019 technical bulletin by an organization called "CLEAR" [SP?] which sets out the issues here really well.
Isabelle Laborde	Okay, now a lot of people will be listening to this wondering if PFAS could be an issue for them?
Aidan Thomson	<p>Well yes, I'm sure there are, but it's not so much the people who currently manufacture or import PFAS or who use it in their products that might be taking note here. These people I'm sure will for the large part, already be well aware of the restrictions on how and where PFAS can be used - if at all. And I think they're probably already well on top of that.</p> <p>I think the people who need to start thinking about this now are the people who own property or who want to own property where PFAS is being manufactured or used in the past or where PFAS products have been disposed of. For example, property encompassing or near airfields, fire stations, landfills, certain forms of manufacturing, and so on.</p>
Isabelle Laborde	Okay, just breaking that down, if you own a higher risk property like this, for example, part of an old airfield. Wouldn't you know if your property was contaminated with PFAS?
Aidan Thomson	Well, if you tested for PFAS before you purchased, you would know one way or the other. But if you didn't test, then you wouldn't necessarily have a clue. But even if you did some environmental testing, don't assume that PFAS would have been tested for. Because it's not really, or it hasn't really been part of the standard suite of testing that gets done. So it might be that it's there, but it just wasn't looked for and you know, any ignorance of the presence of PFAS, any remediation that you did, might not have dealt with the PFAS. Because you've got to remember it's highly soluble in water and too stable to be dealt with by the traditional methods. So it might still be able to escape.
Isabelle Laborde	So, if you did now find that you have a PFAS problem at your property and the EA came to call, which is not impossible under existing water pollution and Part 2A legislation as it currently stands, can you point the finger at someone else, like the historic polluter, or the person that sold the property to you?
Aidan Thomson	Well that's all going to depend on the terms on which you bought the property. You might have accepted all liability from the past owner by way of contract when you bought it, even for substances that haven't been detected at that point. And also by actively redeveloping

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	the site, you might have excluded all past owners from liability. That's always a risk of development under Part 2A.
Isabelle Laborde	So in other words, someone else might have put the PFAS there, you had no knowledge of it, but you might be left holding the baby?
Aidan Thomson	In certain circumstances yes, that's right, but it's important not to get too far ahead of ourselves here. Because until there are clear thresholds established across the board, for water pollution and for human exposure, it's going to be difficult for a regulator to routinely make a clear-cut case for remediation.
Isabelle Laborde	But that is what the EA is trying to do isn't it? Establish a technical basis for what those thresholds might be?
Aidan Thomson	Yes that's right, and things are starting to happen. Benchmarks are starting to be put in place for example, for drinking water, and they're very low. So if a PFAS at your site is contaminating drinking water, for example, above the threshold, well things could get interesting.
Isabelle Thomson	And what about buyers? What should they watch out for?
Aidan Thomson	Well, buyers always need to be careful with the contamination risk they're taking on. And they need to be sure that they've understood the PFAS risks if there's any suggestion that the site has been used for anything that raises the risk of PFAS presence. For example, as we've already mentioned, things like airfields, fire stations, landfills and certain forms of manufacturing.
Isabelle Thomson	And, would insurance cover the remediation of property contaminated by PFAS?
Aidan Thomson	Well, that always depends on the policy terms. It would be very unusual in the UK for an older environmental policy to specifically exclude PFAS contamination. But as we move forward, insurers just like everybody else, they're keeping an eye on the developments in this space and they will need more information before they get comfortable with including PFAS within the cover of the sorts of higher risk type sites that I mentioned before.
Isabelle Thomson	Okay, Sam, am I right in thinking that over in the U.S. people are more aware of PFAS and its risks than we are here in the UK and Europe?
Sam Levy	Well, it's certainly the case that there's now quite a heightened awareness of PFAS in the U.S. They have increased media attention and there was a whole film about PFAS, <i>Dark Waters</i> in 2019. The regulation is very quickly developing at both the state and federal level in the U.S.
Isabelle Laborde	So, from a regulatory perspective it sounds like the U.S. are ahead of us?
Sam Levy	I'd say so yes. Near the beginning of 2019, the U.S. Environmental Protection Agency, the "EPA" released a PFAS action plan. And that proposed a systematic approach to developing

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	regulations to certain PFAS in drinking water, soil and groundwater. And some states are developing their own standards. So there's a bit of a patchwork regulatory landscape.
Isabelle Laborde	Okay, and aside from regulation, what about U.S. claims?
Sam Levy	Well, there are U.S. PFAS-related lawsuits, for instance, against companies which manufacture PFAS, or use them. Where the risk is pretty serious with settlements reaching as high as 850 million dollars. Unlike asbestos however, there is still no generally agreed upon link between PFAS exposure and any particular diseases. So personal injury cases are still testing different theories. If that causal link is identified, then the litigation risk will look very similar to historic asbestos cases.
Isabelle Laborde	How about due diligence for U.S. property then?
Sam Levy	Well until recently, not much attention was paid to PFAS contamination during transactional DD. But with recent state and federal regulations indicating that PFAS will be the subject of investigation and remedial actions in the future, there is a growing awareness at this area in U.S. real estate and corporate transactions.
Isabelle Laborde	What are the defences if you're stuck with PFAS?
Sam Levy	At the moment businesses aren't required to look for historic PFAS impacts in order to qualify for innocent purchaser defences. But that will likely change in the coming months when certain PFAS chemicals are listed as hazardous substances under the U.S. Federal Regulation.
Isabelle Laborde	Well presumably we shall take all of this with a pinch of salt, given that this is a different jurisdiction.
Sam Levy	Yes, yes, agreed, but it could be that the environment agency's recent report which we mentioned before, it could be that means we are starting to catch up with the U.S. That's a little bit of speculation, but it certainly something for us all to be aware of.
Isabelle Laborde	Now, just coming back to Aidan, Sam has just mentioned civil lawsuits in the U.S. for damages. How is it the potential for clean up being demanded by regulators? Is there any chance of this happening here in the UK?
Aidan Thomson	<p>Well, civil claims are always possible and we've had civil claims by water companies in the UK before, for polluting groundwater, not just against the original polluters, but also against subsequent owners and operators of the property in question. And one thing we do know, is that PFAS is very good at polluting groundwater. And technically, just as we've seen with people who've inhaled asbestos and got sick, people who have consumed polluted groundwater might have a claim too.</p> <p>But there are lots of good reasons why claims like these are very hard to get off the ground. Mirroring the situation in the U.S., breach of duty, causation, foreseeability, these are all major hurdles for a claimant to overcome. Especially in light of the current lack of knowledge. Not to mention getting adequate funding to bring the claim. So claims are</p>

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	unlikely, but if the right circumstances present themselves with a fair following wind, these sorts of claims are not, it's not possible to completely discount them.
Isabelle Laborde	Okay well, on that note, I think it's time to list things here. PFAS is definitely something for property owners to keep an eye on, even if the site has been remediated. PFAS could have slipped through the net and this could need to be addressed in due course, possibly not immediately, unless there is great danger. But later depending on the risk to water resource and what the EA uncovers in its research. So, thank you everyone for attending. Please join us in our next session on: The Pitfalls of the Waste Management and Liability Regime on the 10 th of November.