

TRANSCRIPT

ENVIRONMENT, NATURAL RESOURCES AND REGIONAL DEVELOPMENT COMMITTEE

Inquiry into the CFA training college at Fiskville

Melbourne — 25 May 2015

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Staff

Executive officer: Dr Greg Gardiner

Research officer: Dr Kelly Butler

Witness

Mr Darryl Strudwick, auditor, AECOM Australia.

**Necessary corrections to be notified to
executive officer of committee**

The CHAIR — On behalf of the committee, Mr Strudwick, thank you for coming in today to talk to us and give evidence. You will probably be aware of this, but all evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and the provisions of the Parliamentary Committees 2003 and is protected from judicial review. Any comments made outside the precincts of the hearings are not protected by parliamentary privilege.

All evidence given by you today is being recorded, and you will be provided with a proof version of the transcript. Following the presentation that you give us today, committee members will ask you questions, so please begin. Thank you.

Mr STRUDWICK — Thank you, committee. My name is Darryl Strudwick. My address is care of AECOM Australia Pty Ltd, Level 9, 8 Exhibition Street, Melbourne. The capacity I am appearing in today is as an independent environmental auditor employed by AECOM and engaged to undertake environmental audits relating to the Fiskville training college.

By way of background, in January 2013, EPA issued a couple of clean-up notices to CFA relating to the Fiskville training college. The notices required CFA to engage the services of an EPA-appointed environmental auditor to do a number of things: to submit a scope for a section 53V environmental audit; to submit a completed environmental audit report under section 53V of the Environment Protection Act; and to submit a clean-up plan verified by an EPA environmental auditor to undertake a section 53X environmental audit.

I was engaged as an employee of AECOM as an environmental auditor in January 2013 to undertake those works. I was engaged by CFA. While AECOM was engaged by CFA, it is me in my personal capacity as an EPA-appointed environmental auditor that I have undertaken these works. I have had no prior involvement with CFA or the Fiskville site prior to undertaking these works.

To date, I have submitted a scope for a 53V audit to EPA for their approval, I have completed a section 53V environmental audit report, dated 11 April 2014, and I have verified a clean-up plan for the site and prepared a clean-up plan assessment report dated 29 May 2014.

I remain engaged by CFA as the environmental auditor to fulfil the ongoing requirements of the clean-up notices. Since the finalisation of the clean-up plan report, I have been periodically briefed by CFA in relation to progress of the implementation of some of the audit recommendations and the clean-up plan actions. I have reviewed and commented on a number of scopes of works for proposed investigations and met with both CFA and EPA.

My engagement relates to fulfilling the requirements of the clean-up notices issued by EPA. I or AECOM are not engaged by CFA to prepare the submission to this inquiry or to appear at the inquiry. I have undertaken that independently.

Just a bit of background on what environment auditors do; I am not quite sure if you are aware of environmental auditors. They are individuals who have been appointed by EPA to undertake environmental audits in accordance with part 9D of the Environment Protection Act and to undertake them in accordance with guidelines that are issued for that purpose by EPA. They can also verify clean-up plans and prepare reports on the progress of clean-ups undertaken as required in clean-up notices.

There are three different types of environmental auditors, or three different categories: contaminated land, industrial facilities and natural resources. I am an appointed contaminated land auditor, and I have been so since 2003.

What do auditors do? Overall they review documentation that is put forward to them. They verify and determine an independent opinion, or come to independent conclusions, regarding the environmental quality of a site and the risk associated with an activity regarding a 53V-type audit or suitability for use regarding a 53X-type audit.

Section 53V audits again relate to risks posed to beneficial uses of the environment posed by an activity. EPA guidelines of publication 952 apply to 53V-type audits, and you end up making independent conclusions and recommendations.

With 53X-type audits, to which one of the clean-up notices for the Fiskville site applies, they relate to the condition of the site and its suitability for use. The EPA guidelines are publication 759, and the result is a certificate or statement of environmental audit. The 53V audit has been completed, as I said before; the 53X audit is pending.

With regard to the 53V audit methodology, the first point is to agree on an audit scope with EPA, as the audit was required by a notice that EPA has issued. EPA requires that an audit scope is submitted to EPA and they agree on the scope. We assess the risk to beneficial uses of the environment posed by an activity — in this case, the use of the site as a live training facility. The scope can focus on areas that are most important, or most significant, so the most significant potential risks rather than the 53X audit, which is a suitability-type audit, and that covers off on all issues. You can conclude with respect to risk and make recommendations. The idea of those audits is that they can be completed within a relatively short period of time, they can focus on the key issues and you can recommend with respect to those key issues. So it may be that you do not have sufficient information to conclude; you can recommend how to move forward from there.

The 53V audit that was completed for the Fiskville training college — what it is about? It relates to contamination caused by the use of the site as a live fire training facility, including storage of chemicals used in training; fire water capture, treatment, storage and disposal; and use of bury drums and landfills. It is about contamination of environmental media, including soil, surface water and sediments and groundwater, on and off-site, resulting from the use of the site as a live fire training facility. The risk relates to exposure — the risk that was assessed in the audit relates to the exposure — to contaminated soil, surface water sediments and groundwater. So that is what the audit report is about.

What it is not about is risk of harm to human health associated with persons undertaking live fire training activities, either historical or current, in an occupational setting. This includes exposure to fuels, foams and other potentially harmful substances used during fire training activities. It also includes exposure to smoke and spray drift on and off-site during live fire training. That is an important distinction.

So in terms of the process, what was done during the audit? We undertook an independent review of historic and recent site investigations relating to site contamination. They included historic investigations and recent investigations undertaken by Cardno Lane Piper that were primarily undertaken as a result of following up on recommendations from the IFI report.

The recent investigations were targeted at key areas of concern and were not intended to fully characterise the nature and extent of contamination at the site. That comes later. They were mostly scoped and completed prior to my involvement and in many cases as a response to the IFI recommendations.

We assessed the adequacy of those investigations and commented on the draft reports to CFA and Cardno Lane Piper, and ensured that our comments were taken up in the final reports. We reviewed CFA documents relating to mitigation of risks posed by contamination of the site. For example, they included induction-type documents when new people come onto the site and identifying potential hazards associated with the site and not to make access to certain areas, and so forth.

We inspected the site on two occasions, in February 2013 and in October 2013, and that is detailed in section 7 of the report. The historic and recent reports that we reviewed are detailed in the report, in sections 2 and 5, and one of the appendices, appendix D, as well, of the report. We collected verification samples of surface water at the site. The purpose of that was really to verify that what was being reported to us was an accurate indication of the surface water quality at the site.

We undertook an independent assessment of risk posed by the contamination, including measures taken to mitigate the risk. In undertaking that, we utilised some special support. As an auditor, I am required to maintain a team of people with expertise in areas where I may not be expert, and we accessed a particular person in relation to human health and ecological risk and analytical chemistry. Preparing the report was the final part.

That is the method. What did we find? We found, in terms of soils, that the highest concentration of contamination were identified in areas in and around the PAD, related to bulk storage and use of fuels, fire water management and fire training. We found that perfluorinated compounds were widely identified in the soils on-site and off-site. Off-site the concentrations were less than the adopted soil quality criteria but decreased with distance away from the site. But they were detected up to a kilometre away from the site. The highest

concentrations off-site were identified where Beremboke Creek was known to flow through the property occasionally.

In terms of buried drums, the assessment that was undertaken identified that none were identified within the buried drum area. A small number of buried drums were identified within one of the landfills — landfill 2 — but that was not consistent with some of the reported dumping and burial of drums. There is an acknowledgement that in future works at the site, buried drums may be identified. However, reasonable measures were undertaken to identify the location of buried drums, and very few were identified.

Within the landfills there is exposed inert waste at the surface of landfill 1. There were no odours or landfill gas identified, and no evidence of putrescible waste was identified during the intrusive investigations. Some evidence of compounds associated with live fire training were identified within waste within landfill 2. Overall it was concluded that the landfills represent a relatively low risk if contained and managed, and the capping that is proposed for the landfill is deemed to be an acceptable management for that part of the site.

In terms of sediment and surface water, a number of contaminants were identified in surface water and sediments in dams 1 to 4, including PFCs, metals, petroleum hydrocarbons and polycyclic aromatic hydrocarbons. Petroleum hydrocarbons and polycyclic aromatic hydrocarbons were highest in dams 1 and 2, and decreased in concentrations away from there. PFCs, or perfluorinated compounds, were relatively consistent through dams 1 to 4. Concentrations were lower in Lake Fiskville, possibly due to dilution from Beremboke Creek.

We concluded that discharge from dam 4 to Lake Fiskville is the source of contamination of waters and sediments downstream. One particular perfluorinated compound, PFOS, was detected in surface water and sediments up to 18.5 kilometres downstream. PFOS exceeds the ecological criterion in surface water up to and at 1.25 kilometres downstream of the site. PFOA exceeded the human health criterion up to and at 1.5 kilometres downstream of the site, and PFOS exceeds the human health criterion up to and including 18.5 kilometres downstream of the site.

In terms of groundwater, the investigations that were undertaken were limited by the absence of groundwater in sufficient quantities to enable sampling. That is because in undertaking the assessments they were having trouble finding groundwater so they drilled to quite a significant depth and they were not actually identifying a lot of groundwater. No wells in the region of the watertable have been able to be used to assess groundwater contamination in the vicinity of the PAD and other areas. Perched water was identified in the vicinity of dams 1 and 2, and that contained concentrations of compounds consistent with the water quality in dams 1 and 2. The extent of the perched water and the potential for discharge of perched water to the surface was unknown and required further assessment.

In terms of fire water treatment and management, it was found that the fire water system is and historically has been the source of contamination to water and sediments in Lake Fiskville and downstream, and that the treatment system that was in place — the triple interceptor and aerators — was insufficient to treat the fire water or some of the contaminants in the fire water.

Part of our audit scope was to look at the storage and management of chemicals. We identified that underground storage tanks are no longer used at the site. Bulk liquids are stored in above-ground storage tanks, on sealed and appropriately bunded areas. Some storage of drums and props was identified in unsealed areas, but overall the current storage and management of chemicals represents a relatively small risk.

That was really the outcome of the assessment of the site investigation works that were undertaken that were subject to the 53V audit that we undertook. In terms of conclusions with respect to risk to beneficial uses, we undertook an initial screening assessment of risk, which is the comparison of soil, surface water, sediment, quality against nominated criteria, and identified potential risks to a number of beneficial uses including human health on the site, maintenance of ecosystems on and off-site, and fish crustacean and molluscs for human consumption, so on that basis they were subject to more detailed risk assessment. Normally you step through the process of undertaking a screening risk assessment and if you identify the potential for risk, you assess that in further detail.

In terms of human health on the site — and this is the methodologies; we reviewed the work that was done by others — we undertook some independent work associated with it and we concluded the risk to human health

posed by exposure to PFCs in soil and environmental media on the site, so residual contamination, was deemed to be low and acceptable based on the review of the work that was undertaken by Cardno Lane Piper. We undertook a verification of their conclusions by undertaking a quantitative intake assessment, which is attached as appendix i to the audit report, and had an independent third-party review our work, so someone on my expert support team. In coming to that conclusion we are assuming that water from Lake Fiskville is not consumed as drinking water, or that conclusion assumes that that is the case.

In terms of human health off-site, the risks posed to human health by PFCs in environmental media are low and acceptable. The basis for that was the exposures off-site were anticipated to be less than the exposures on-site, where we have already concluded that the risk is low and acceptable. That conclusion assumes that water from Beremboke Creek and Eclipse Creek is not consumed by people for drinking.

In terms of impacts on livestock, we concluded that surface water in Lake Fiskville and downstream is unlikely to be impacting on livestock health. That was based on some information documented by Dr Roger Drew about the most sensitive indicators of impact being decreased neonatal survival and decreased weight gain and evidence that the livestock who were exposed to the contamination were not observing any impacts.

In terms of ecological risk, we concluded that there is potential risk posed by perfluorinated compounds in surface water and sediments in Lake Fiskville and downstream. However, the potential risk for ecological receptors off-site is unlikely as Beremboke Creek is ephemeral and highly modified, so the aquatic habitat is largely absent. There are variable concentrations of PFCs off-site, some of which are less than the ecological criteria, so some are above and some are below, and there is a low likelihood that Beremboke Creek supports ecological communities large enough to act as the main food source for higher order organisms, so predatory birds and so forth would not solely be taking their food from those small areas of the ephemeral Beremboke Creek. There were concentrations of PFCs identified in rabbits on the site, and it was concluded that they are unlikely to result in ecological effects to higher order predators; for example, snakes and birds of prey.

Part of the 53V audit report also documented measures undertaken to mitigate identified risks associated with contamination at the site, and some of those include to cease using foams containing PFOS and PFOA in 2007; cease using water from the dams in live fire training in 2012; there was evidence of communication of potential hazards associated with contact with sediments and surface waters in dams 1–4 and Lake Fiskville. At the time the audit was completed measures had been commenced to contain the fire water on site and divert Beremboke Creek. Storage of bulk fuels was in sealed and banded areas and there were plans in place to cap former landfills.

In terms of audit recommendations, the highest priority recommendations related to those associated with identified potential ecological risk, which included ceasing water discharging from Lake Fiskville to downstream waters, meeting water quality objectives in downstream waters and remediating the waters and sediments in dams 1–4 and Lake Fiskville. There are a number of recommendations in the audit report, and they are grouped according to various aspects of the audit report such as fire water management, landfills, buried drums, groundwater and data gaps that were identified during the course of the audit, and recommendations for those to be further investigated.

In addition to the 53V audit report, I previously indicated that we had undertaken assessment and verification of the clean-up plan in accordance with the clean-up notice. In undertaking that work we referenced some interim advice to auditors provided by EPA on the endorsement of clean-up plans. Part of our work was to assess that the plan incorporated the requirements of the clean-up notice and also the recommendations of the 53V environmental audit and stated the proposed actions that were to be undertaken and also timelines. Overall I considered the plan appropriate and endorsed the plan according to our clean-up plan assessment report based on the information that was provided at the time. It is worth noting that the clean-up plan that was endorsed was relatively high level. Some of the outcomes were pending future investigations. Pilot trials were still necessary to be undertaken to assess the effectiveness of the various proposed technologies.

The CHAIR — Excuse me, Mr Strudwick, are you able to finish so we can ask you some questions?

Mr STRUDWICK — Yes; I have three dot points. The quality of water and sediments that were required to be treated was yet to be determined; generation and treatment of waste streams was an important consideration that needed to be considered; and water and sediment treatment technology is likely to require the approval of EPA.

I have attempted in my brief presentation to provide an overview of the works that have been undertaken. There is much detail in both of the reports, as you will be aware. Where detailed responses to questions are necessary I may choose to take them on notice and get back to you in writing. Thanks for the opportunity.

The CHAIR — If there is something you do not know and you need to go back and find out about it, that is fine. We can certainly allow that. Before I get to my main question I need to understand something. You said that your company or you provided recommendations and oversaw or verified the clean-up plan, and it went to contaminated soil and sediment in dams and the lake and so on. Evidence we got at the last hearing from the Lloyds was that there were piles of contaminated soil just banked up on the edge of their property, on the boundary of the property, within Fiskville, with just a sign saying, ‘Contaminated soil’. It was not covered and not in any way enclosed, and therefore when it rained or there was wind it blew the soil around, it got into the soil and it then seeped into their property. Is that a proper way to remediate a site?

Mr STRUDWICK — Are you saying that that has actually occurred?

The CHAIR — That is what happened, yes. Are you aware of that? Is that what should happen?

Mr STRUDWICK — I am not aware of that.

The CHAIR — Is that the type of thing you should do? Would you recommend that?

Mr STRUDWICK — Well, not if it has potential to cause impact to an adjacent premises, no.

The CHAIR — Okay. You talked about the risk to humans being low and acceptable. As I understand it when it comes to, I think, PFOS, which is part of the PFC family of contaminants or chemicals, that is based on the fact that there is no standard in Australia. But there is mounting evidence overseas as to this particular chemical and its effect on people. There seems to be a bit of a disparity between overseas research and commentary compared to the Australian situation or what is believed here.

Mr STRUDWICK — We based our assessment on the information available to us at the time. We used overseas-based criteria.

The CHAIR — Research? What do you mean ‘criteria’?

Mr STRUDWICK — Guideline numbers. So for concentrations of PFOS in the soil and water and sediments.

The CHAIR — As to whether it had an effect on humans and livestock?

Mr STRUDWICK — No. Those guidelines were adopted for the purposes of undertaking the screening risk assessment. There are numbers stated in the report for various environmental media above which there is the potential for harm, detriment or risk to beneficial uses. Those were further assessed in more detail via the risk assessment documents.

The CHAIR — So, for example, that was where livestock were not underweight or dying as babies rather than any research overseas?

Mr STRUDWICK — Yes.

Mr McCURDY — Darryl, still on PFOS, is there an international standard? We understand on the committee that there is no Australian standard. Is there an international standard or a safe level, so to speak, of PFOS? Take us through the PFOS issues.

Mr STRUDWICK — There are very few guidelines associated with PFOS. It is considered to be an emerging compound of concern, so I would assume that information is becoming available as more of these sorts of investigations are undertaken. But there are very few guidelines available.

Mr McCURDY — Do you think we should have a standard in Australia for acceptable levels of PFOS?

Mr STRUDWICK — I think it would be very helpful.

Mr RICHARDSON — Thanks, Darryl, for your presentation. Just a couple of questions. Just to clarify it, your assessment is based on environmental impacts to site and surrounds: how much does it delve into health impacts, direct impacts, on livestock, on humans? What does the assessment go to at that level?

Mr STRUDWICK — The assessment considers risk to health and environment associated with exposure to contaminated soil, groundwater, surface water and sediments.

Mr RICHARDSON — The reason for my question is the interaction that we have with environmental agencies and health agencies and where we come to a point with, say, the EPA where it falls down with the health impacts, so we know we are assessing risk of exposure but then the output of what that exposure actually entails. Your assessment did not touch on what the actual end product is when you are exposed to these chemicals?

Mr STRUDWICK — Sorry. Can you — —

Mr RICHARDSON — In terms of assessing the exposure, does it actually assess then what the impacts are if someone is exposed for a great deal of time to those chemicals?

Mr STRUDWICK — You conclude whether there is an unacceptable risk or not.

Mr RICHARDSON — But we have a situation where we do not know exactly what that outcome might be.

Mr STRUDWICK — We certainly concluded with respect to exposure to contamination that the risk is low and acceptable.

Mr RICHARDSON — Okay. The second point is on the site assessment. Our understanding is that there has not been a full site assessment undertaken by the EPA at Fiskville. In your professional capacity, not on behalf of AECOM but as an expert in the field, do you think a full site assessment should have been undertaken to this point rather than the individual notices?

Mr STRUDWICK — I cannot really comment on EPA. That is the EPA's business, if that is what you are asking.

Mr RICHARDSON — As a professional in the industry whether there should have been a full site assessment sooner?

Mr STRUDWICK — I do not really know.

Mr RAMSAY — Thanks, Darryl. You might have to talk a bit closer to the microphone because we are having trouble picking you up.

Mr STRUDWICK — Sorry.

Mr RAMSAY — Thank you. I have a couple of questions. What is your assessment of the feasibility of remediating the Fiskville site, apart from the fact that it has been closed, and what kinds of actions will be necessary to address the risks associated with the site? I refer also to the 53X audit which I understand is still being done; there is not an outcome in relation to that audit. I am trying to understand the ongoing, it seems positive, contamination results from fairly recent testing in relation to the hangar and other parts of Fiskville. Why has your audit not picked up this ongoing contamination in different areas of the site as distinct from the original audit process? Again, do you think there is any opportunity for remediation to satisfy what we now know in relation to contamination on site to allow Fiskville to reopen?

Mr STRUDWICK — I suppose the decision for Fiskville to reopen is obviously up to others. In terms of remediating the contamination that has been identified on the site, we have certainly made recommendations in relation to that, in the audit report. Do I think it is possible to remediate the site; is that the question?

Mr RAMSAY — There has been a chain of events post your report being made available. I suppose I am asking for a personal opinion now. In relation to what you know now, do you think there is any opportunity for Fiskville to remediate itself to a point where it can be used as a training facility in the future?

Mr STRUDWICK — There is certainly opportunity for it to be remediated, but in relation to it being reopened as a training facility, that is for others to answer. I would probably prefer not to be drawn into that.

Mr RAMSAY — Can you tell me, then, what is happening to the audit in relation to 53X; is that continuing?

Mr STRUDWICK — Yes. That is in accordance with the clean-up notice for the site. That is due in June 2017, and that will happen following remediation.

Mr RAMSAY — In relation to the new contamination that has been found in different parts, what do you put that down to? Is there an expectation that PFOS will be around all sorts of parts of the Fiskville facility and in its waterways? Does that pose a sort of immediate health impact? Given what we know about the standards that are not available in Australia but there are some quasi-international standards, how do you actually measure what is a health risk and what is not in relation to PFOS?

Mr STRUDWICK — You compare against the known criteria, and if it exceeds the criteria, you enter a detailed risk assessment process, which has happened as part of these reports. But if you want a detailed response in relation to that, I am happy to provide it in writing.

Mr RAMSAY — Is that what is happening with the current sampling that has been done?

Mr STRUDWICK — Sorry. As part of the 53X audit, yes, there is an assessment of risk to beneficial uses — as part of that audit, to get to its suitability for use. You make conclusions with respect to the environmental condition of the site and which and what sorts of uses the site is suitable for. But you have to go through that assessment of risk to get there.

Mr RAMSAY — That has been done, has it, in relation to the new sampling?

Mr STRUDWICK — No, but it will be.

Mr RAMSAY — A decision has already been made on that basis prior to that work being done?

Mr STRUDWICK — Sorry?

Mr RAMSAY — The risks posed — the decisions made on that basis have already been done — or that risk assessment?

Mr STRUDWICK — As part of the 53X audit that will be completed following remediation. Based on the environmental condition of the site at the time following remediation, there will be an assessment of risk posed by the known contamination at that point.

Mr RAMSAY — And that is not until 2017, did you say?

Mr STRUDWICK — Yes.

Ms WARD — My question is regarding the soil testing and soil pollution and has two parts. The first part is: we heard an earlier witness talk about waste from the pits being removed by tractor and then furrowed — ploughed into the ground. Were you aware that practice, and did you test that area?

Mr STRUDWICK — I was not aware of it being furrowed into the ground. I was aware, from some of the documents that were reviewed, of soil from the former PAD area being excavated and taken to the composting area and windrowed.

Ms WARD — You were not aware that there was waste taken from the pits that was then lifted up, carried over to another section of land and then ploughed into the ground?

Mr STRUDWICK — No.

Ms WARD — So you did not test that area?

Mr STRUDWICK — No.

Ms WARD — The second part is: you spoke about the current testing at the moment showing that the soil is of low risk. The PSEs have not been used since 2007. Would you regard that in 2007 the risk of pollution in that soil around the PAD and around those areas you tested would have been much higher?

Mr STRUDWICK — The concentrations in the fire water dams may have been higher.

Ms WARD — Not in the soil and not around the PAD?

Mr STRUDWICK — Potentially.

The CHAIR — Just in terms of the testing of properties around the training centre, you were talking about having done some testing downstream, I think. Has there been testing of all properties around the area or just that one area?

Mr STRUDWICK — Sorry; can I just clarify with respect to testing? We have reviewed documents undertaken by people who have tested it.

The CHAIR — So you have not done the testing; you have reviewed the results?

Mr STRUDWICK — We have done some verification sampling of surface waters. Sorry; what was the question?

The CHAIR — Did you receive information about testing that was done in adjoining properties surrounding the training centre or just the test results of that one property, where there is the downstream?

Mr STRUDWICK — Just the one.

The CHAIR — In your opinion, if you were the one responsible for testing areas, would you have done it this way, just in selected areas, or would you have been a bit broader in the testing that would have been done to determine the extent of the contamination?

Mr STRUDWICK — Within the scope of the 53X audit, that 53 V audit, I have indicated that the scopes of work that were undertaken were not necessarily intended to fully characterise or delineate contamination. They were aimed at the most pressing issues.

The CHAIR — In whose opinion?

Mr STRUDWICK — I think they were undertaken in response to the recommendations in the IFI report.

The CHAIR — The Joy report. Do you think this system is satisfactory, that recommendations or decisions that have been commissioned by a particular party that has an interest in this, that is then what the Environment Protection Authority and its auditors rely on, in terms of providing the best possible protection for all of us?

Mr STRUDWICK — I think that, on the basis that there is a 53X audit pending, in certain cases that is reasonable. Within a relatively short period of time you have to target the most likely areas.

The CHAIR — You have just said the most likely area; according to who? It is not an objective thing, is it, necessarily?

Mr STRUDWICK — I suppose in terms of the IFI report recommendations, probably those sorts of questions should be directed towards the author of the IFI report.

The CHAIR — I suppose you are getting the full extent of our questioning; sorry. We are speaking to Professor Joy later this afternoon.

Mr RICHARDSON — Just to follow up on a submission we had last week about PFOS in livestock and individuals that was well over 1000 per cent of what is deemed acceptable. What are your thoughts in terms of that audit? Did that come up, and does that satisfy the criteria of low risk?

Mr STRUDWICK — Was that considered in the audit? I am aware there was some testing done of livestock on adjacent properties, and I believe that was actually considered in the assessment of risk to off-site users — to off-site people, the human element.

Mr RICHARDSON — If that is very low risk, why is the standard at a particular level that it can be 10 times greater than what is then in humans and livestock? What we heard last week was basically an order against livestock being made that was then subsequently revoked. That seems to lend itself to uncertainty in that space. How can it be that the acceptable standard is 10 times greater yet that is deemed low risk? How does that come about?

Mr STRUDWICK — Some investigation levels, and I am going to go back to soils, water and so forth, are based on nominal exposure scenarios. Sometimes they are quite conservative, so when you assess them against what the actual exposure scenario is, you may determine that the risk is low and acceptable. Does that make sense?

Mr RICHARDSON — To an extent. The point I am getting to is that we had evidence last week that people were advised that in their bodies there was PFOS well beyond what was said to be deemed acceptable — up to 10 times beyond. The point I am making is: how can that be deemed low risk or acceptable when there is a standard that says that that is well beyond what would be deemed acceptable — 10 times beyond — and what then is the impact? Given there was an order made against livestock that was then revoked, there seems to be a great deal of uncertainty in this space about this area. How can that be? How can it come about that that low risk can be issued when there are adverse livestock notices issued on the adjoining properties?

Mr STRUDWICK — I do not know the grounds on which they were stopped from selling livestock or the grounds on which they were revoked. I have only looked at the information available to me to come to my conclusions.

Mr RICHARDSON — Just for your information, that is an adjoining property right next to Fiskville.

The CHAIR — Thank you. I know that you have provided a submission to us and accepted our invitation to come in. Thank you for coming and explaining to us the audit.

Witness withdrew.